



Study on the implementation of the open internet provisions of the Telecoms Single Market Regulation

FINAL REPORT

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Table of Contents

Table of Contents	3
Preface	7
Abstract	8
Résumé	9
Executive summary	10
Introduction	10
Conclusions.....	11
Article 3.....	11
Article 4.....	13
Article 5.....	13
Article 6.....	14
Recommendations.....	14
Country and NRA abbreviations	17
Glossary	18
List of Abbreviations	24
List of Figures and Tables	26
1. Introduction	28
1.1. Background of the Study.....	28
1.2. Objectives of the Study	30
1.3. Activities undertaken	31
1.3.1 Data Collection.....	31
1.3.2 Surveys.....	32
1.3.3 Interviews	33
1.4. Safeguarding independence and quality of the Study.....	34
1.5. Reading guide	35
2. Assessment of the implementation per Member State	36
2.1. Introduction to Part II – Country Chapters	36
2.1.1 Implementation.....	36
2.1.2 Monitoring, supervision and enforcement.....	36
2.1.3 Self-regulation and/or co-regulation.....	37
2.1.4 Compliance with transparency obligations.....	37
2.1.5 Overview of relevant net neutrality themes.....	37
2.1.6 Summary of key topics and noteworthy findings.....	38
2.2. General observations on the basis of the findings in Part II	39
2.2.1 Differences in national legislation in the Member States+	39
2.2.2 Predominant net neutrality themes in the Member States+	40
2.2.3 Resources with individual NRAs allocated to net neutrality	42
2.3. Final observations	43

3.	Assessment of the implementation of Article 3	45
3.1.	Article 3(1) – End-users' rights	45
3.1.1	Introduction	45
3.1.2	Regulation and BEREC Guidelines	45
3.1.3	Fact finding – overview of reported restrictions based on survey results	46
3.1.4	Analysis of the Application of Article 3(1).....	47
3.1.5	Network Termination Point.....	51
3.1.6	Conclusion	52
3.2.	Article 3(2) – Contractual conditions and commercial practices; zero-rating ...	53
3.2.1	Introduction	53
3.2.2	Regulation and BEREC Guidelines	53
3.2.3	Fact finding – characteristics, scale and effects of zero-rating offers...	56
3.2.4	Analysis of the application of Article 3(2) in relation to zero-rating.....	58
3.2.5	Analysis of the application of Article 3(2) not related to zero-rating ...	65
3.2.6	Conclusion	66
3.3.	Article 3(3) – Traffic management.....	68
3.3.1	Introduction	68
3.3.2	Regulation and BEREC Guidelines	68
3.3.3	Fact finding – traffic management measures	69
3.3.4	Analysis	72
3.3.5	Conclusion	79
3.4.	Article 3(4) – Limitation on processing of personal data	80
3.4.1	Introduction	80
3.4.2	Regulation and BEREC Guidelines	80
3.4.3	Fact finding related to Article 3(4)	81
3.4.4	Analysis of the application of Article 3(4).....	81
3.4.5	Conclusion	82
3.5.	Article 3(5) – Specialised services	83
3.5.1	Introduction	83
3.5.2	Regulation and BEREC Guidelines	83
3.5.3	Fact finding – stakeholder views in relation to specialised services.....	84
3.5.4	Analysis	85
3.5.5	Conclusion	88
4.	Assessment of the implementation of Article 4	90
4.1.	Article 4(1) – Information for end-users.....	90
4.1.1	Introduction	90
4.1.2	Regulation and BEREC Guidelines	90
4.1.3	Fact finding relating to supervision, enforcement and compliance	94
4.1.4	Analyses.....	98
4.1.5	Conclusion	103

4.2. Article 4(2) – End-users' complaints procedure	104
4.2.1 Introduction	104
4.2.2 Regulation and BEREC Guidelines	104
4.2.3 Fact finding relating to Article 4(2)	105
4.2.4 Analyses.....	106
4.2.5 Conclusion	106
4.3. Article 4(3) – Additional requirements in legislation by Member States	107
4.3.1 Introduction	107
4.3.2 Regulation and BEREC Guidelines	107
4.3.3 Fact finding – additional requirements by Member States	108
4.3.4 Analyses.....	108
4.3.5 Conclusion	111
4.4. Article 4(4) – Non-conformity of performance and certified monitoring mechanisms.....	111
4.4.1 Introduction	111
4.4.2 Regulation and BEREC Guidelines	111
4.4.3 Fact finding – monitoring mechanisms and specifications of significant discrepancies	113
4.4.4 Analyses.....	115
4.4.5 Conclusion	117
5. Assessment of the implementation of Article 5	118
5.1. Article 5(1) – Monitoring, Supervision, Enforcement and Reporting by NRAs.	118
5.1.1 Introduction	118
5.1.2 Regulation and BEREC Guidelines	118
5.1.3 Fact finding - application of Article 5(1) by NRAs	119
5.1.4 Analyses.....	125
5.1.5 Conclusion	127
5.2. Article 5(2) – Obligation to provide requested information for ISPs.....	128
5.2.1 Introduction	128
5.2.2 Fact finding – application of Article 5(2) by NRAs.....	129
5.2.3 Analyses.....	131
5.2.4 Conclusion	131
5.3. Article 5(3) – BEREC Guidelines	132
5.3.1 Introduction: the obligation for BEREC to adopt guidelines.....	132
5.3.2 Fact finding – Views of Stakeholders whether the BEREC Guidelines contribute to a harmonised application in line with the objectives of the Regulation	132
5.3.3 Analyses.....	133
5.3.4 Conclusion	138
6. Assessment of the implementation of Article 6	139
6.1. Article 6 – Penalties.....	139

6.1.1	Introduction	139
6.1.2	Fact finding related to rules on penalties in Member States+	139
6.1.3	Analyses and conclusion	141
7.	Conclusions.....	143
7.1.	Introduction	143
7.2.	Article-by-Article analyses	143
7.2.1	Article 3 – Rights of end-user’s to open internet access	143
7.2.2	Article 4 – Transparency measures for ensuring open internet access.....	151
7.2.3	Article 5 – Supervision and enforcement.....	154
7.2.4	Article 6 – Penalties	157
7.3.	Final observations and recommendations	158
	References	161
	Project organisation.....	162
	Part II – Country Chapters.....	163
	Part III – Annexes.....	426

Preface

Bird & Bird LLP and Ecorys Nederland B.V. have been commissioned by the European Commission to provide a Study on the implementation of the net neutrality provisions in Regulation 2015/2120. These net neutrality provisions apply since 30 April 2016 and are to be reviewed by the European Commission for the first time by 30 April 2019. The results presented in this Study will be used by the Commission as one of the inputs for its obligation under Article 9 of the Regulation to report to the European Parliament and to the Council on the net neutrality provisions of the Regulation.

This Study is the result of a truly joint effort across all Member States and Norway. We are most grateful to the NRAs for their contributions to the contents of the Country Chapters included in Part II of this Study which enabled us to perform the Article-by-Article analyses in Part I of this Study. We would also like to thank all those stakeholders who have provided information in response to our surveys and during the interviews.

The core team was supported throughout the project by renowned experts in regulation and net neutrality, J. Scott Marcus, Professor Andrea Renda and Professor Chris Marsden. Furthermore, we engaged Dr. Bert van Roosebeke of the Centre for European Policy (CEP) for the purposes of independent quality control, performing a quality review of the contents of the Study and in particular of the appropriateness of the methodology used and the consistency of the analysis. We would like to thank these independent experts for the constructive discussions and their highly valued contributions, although the contents of the Study remain our responsibility.

The Bird & Bird project team responsible for the legal/regulatory analyses was led by Marjolein Geus, partner, and Marianne Minneché, project manager. The other core team members of Bird & Bird are partners Sven Erik Heun, Hein Hobbelen and Pauline Kuipers, senior associates Cathal Flynn, Jochem Apon and Piet-Hein Eijssen and associates Tialda Beetstra, Raoul Grifoni Waterman, Pauline Van Sande and Candice Méric. The Bird & Bird project team was supported by local teams from other Bird & Bird offices in the EU as well as other law firms in EU Member States.

The Ecorys team responsible for methodology of the Study and the surveys was led by partner Patrick de Bas with the support of associates Olga Batura and Anastasiya Yagafarova.

Last but not least we would like to thank the project team at DG CONNECT for their continuous support, excellent guidance and advice throughout the entire period of this Study.

The Hague, 14 December 2018

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Abstract

The net neutrality provisions in Regulation 2015/2120 aim to protect end-users and guarantee the continued functioning of the internet ecosystem as an engine for innovation. This study provides a facts-based overview and analysis regarding the implementation and effectiveness of the Regulation in all Member States and Norway.

The study finds that the Regulation has significantly contributed to a more consistent approach to the establishment, implementation and enforcement of the net neutrality rules. Additionally, the study presents specific recommendations:

1. Investigate the impact of a possibly diverging interpretation of the term Network Termination Point on the effectiveness of the Regulation.
2. Clarify the interpretation of traffic management measures and specialised services in light of the objectives of the Regulation.
3. Clarify the relevance of individual orders by Civil Courts or public authorities referred to in Article 3(3)(a) for other market parties not addressed by the order.
4. Consider distinguishing between consumers and business users when evaluating the effectiveness, efficiency and proportionality of the Regulation.
5. Consider how greater transparency and accessibility of national measures and court rulings could be achieved.

Résumé

Les dispositions relatives à la neutralité du net du Règlement 2015/2120 visent à protéger les utilisateurs finals et à garantir la continuité du fonctionnement de l'écosystème de l'internet en tant que moteur de l'innovation. Cette Etude donne un aperçu factuel et une analyse de la mise en œuvre et de l'efficacité du Règlement dans l'ensemble des Etats Membres et en Norvège.

L'Etude conclut que le Règlement a contribué de façon considérable à une approche plus cohérente pour l'établissement, la mise en œuvre et l'application des règles relatives à la neutralité du net. En outre, l'étude comporte les recommandations suivantes:

1. Examen de l'impact d'une potentielle divergence d'interprétation du terme Point de Terminaison du Réseau sur l'efficacité du Règlement.
2. Clarification de l'interprétation des mesures de gestion du trafic et des services spécialisés à la lumière des objectifs du Règlement.
3. Clarification de la pertinence des décisions individuelles des juridictions civiles ou des autorités publiques auxquelles il est fait référence à l'Article 3(3)(a) pour d'autres acteurs du marché non visés par la décision en question.
4. Projet d'établir une distinction entre les consommateurs et les utilisateurs professionnels lors de l'évaluation de l'efficacité, de l'efficience et de la proportionnalité du Règlement.
5. Examen des moyens qui permettraient d'obtenir une plus grande transparence et l'accessibilité aux décisions et jugements nationales.

Executive summary

Introduction

On 25 November 2015, Regulation (EU) 2015/2120 ("**the Regulation**") was adopted, introducing uniform rules on net neutrality for the European Union.¹ The Regulation is applicable since 30 April 2016. The subject matter and the scope of the Regulation are set out in Article 1, paragraph 1:

This Regulation establishes common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights.

The Regulation aims to protect end-users and simultaneously guarantee the continued functioning of the internet ecosystem as an engine of innovation.²

Guidance on the Regulation is provided by the Body of European Regulators for Electronic Communications ("**BEREC**"). On 30 August 2016, after a six month period of consultation, first within BEREC and then with all external stakeholders, including almost 500 000 individual comments,³ BEREC issued guidelines on the basis of Article 5(3) of the Regulation ("**BEREC Guidelines**") to contribute to a harmonised interpretation and implementation of the obligations by the National Regulatory Authorities ("**NRAs**").⁴

The Regulation contains a provision calling for evaluation of its implementation. Article 9 stipulates that by 30 April 2019, the European Commission ("**Commission**") shall review the implementation of Articles 3, 4, 5 and 6 (the net neutrality provisions) and shall submit a report of the review to the European Parliament and the Council. This Study supports the required assessment by providing the Commission with a facts-based overview of the implementation and effectiveness of the different rights and obligations introduced by Articles 3, 4, 5 and 6 of the Regulation. The Commission intends to use the findings of this Study in its report to the European Parliament and the Council.

For a proper evaluation, the effects of the Regulation should, in our view, be measured against the pre-existing situation where Member States and Norway⁵ (hereinafter referred to as "**Member States+**") were treating net neutrality very differently.⁶ However, a particular challenge in the identification of the impact of the Regulation has been that the interpretation and implementation of the Regulation is to some extent work in progress

¹ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union (hereafter: Regulation).

² Regulation, Recitals 1-3.

³ BEREC (2016), Report on the Outcome of the Public Consultation on Draft BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules, BoR (16) 128.

⁴ BEREC (2016), Guidelines on the Implementation by National Regulators of European Net Neutrality Rules, BoR (16) 127 (hereafter: BEREC Guidelines (2016)).

⁵ A selection within EEA countries was made based on the quality and quantity of data that could realistically be collected, mindful of time constraints. We selected Norway, since the country plays a leading role in net neutrality policy discussions (in particular its NRA Nkom holds the Co-Chair of the BEREC Net Neutrality Expert Working Group).

⁶ Scott Marcus, Network neutrality Revisited: Challenges and Responses in the EU and in the US, Study for the IMCO Committee, December 2014, para 6.1.

due to the relatively limited time elapsed since its adoption and since the adoption of the BEREC Guidelines.

In our effectiveness analysis, we have *inter alia* assessed whether the BEREC Guidelines did and could (further) contribute to the objectives of the Regulation. However, a full-fledged evaluation of the BEREC Guidelines as such is outside the scope of this Study.

It must also be recalled, at the outset, that the aforementioned Articles of the Regulation cannot be analysed in isolation. The effectiveness of the Regulation is influenced both by existing EU legislation and by forthcoming EU legislation such as the Proposal for a European Electronic Communications Code ("**Code**").⁷ Where we have come across such (potential) influences during our research, we have pointed them out in this Study.

In order to achieve a comprehensive evaluation across the European Union, we followed a two-step approach in our analysis. First, we analysed the implementation and the application of the net neutrality provisions in each of the Member States+. Subsequently, we used the country-specific findings, which can be found in Part II – to analyse each of the Articles and carried out some additional research (the Article-by-Article analyses).

In this Executive Summary, we limit ourselves to the main conclusions. Our overall findings regarding the net neutrality provisions are set out in Chapter 7 of this Report.

Conclusions

Our main conclusion is that the Regulation, in combination with the BEREC Guidelines, has significantly contributed to a more harmonised approach to the establishment, implementation and enforcement of net neutrality rules within the EU and Norway.

On balance, all stakeholders appreciate the benefits of the Regulation and the harmonised framework that it has created regarding the provision of and access to internet services within the single market. The Regulation is generally considered to be effectively principles-based, balanced and future-proof. During our research no stakeholder has indicated that the Regulation should be abolished or even (significantly) amended.

Our conclusions with respect to the effectiveness of Articles 3 – 6 of the Regulation are the following.

Article 3

Article 3 has clearly contributed to safeguard open internet access.

On the basis of Article 3(1), greater consistency was achieved regarding the free choice of terminal equipment. An important aspect is whether routers and modems are qualified as terminal equipment or belonging to the Network Termination Point. This depends on the definition of Network Termination Point which is not included in the Regulation.

The assessment of zero-rating (or sponsored data) offers – both on the basis of Article 3(2) and Article 3(3) – has become significantly more coherent and effective. Courts in

⁷ Final text of the proposal for a Directive establishing the European Electronic Communications Code (EECC) as adopted by the European Parliament on 14th November 2018; [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=IMMC:P8_TA\(2018\)0453](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=IMMC:P8_TA(2018)0453).

Slovenia and the **Netherlands**⁸ have ruled that Article 3 of the Regulation does not contain a total prohibition of price differentiation by way of zero-rating offers.⁹

NRAs are assessing zero-rating as a commercial offer on the basis of Article 3(2) and/or as a traffic management measure on the basis of Article 3(3) with possibly different outcomes. However, the Regulation does not prescribe priorities in enforcement by the NRAs.¹⁰

Article 3(2) requires a comprehensive assessment of the commercial terms. So far zero-rating offers have not been prohibited by NRAs on the basis of such a comprehensive assessment. In **the Netherlands** the NRA-decision not to enforce on the basis of Article 3(2) is challenged in appeal by the complainant.¹¹ Enforcement decisions that have been taken in the Member States+ on the basis of Article 3(3) (traffic management measures) relate to unequal treatment beyond the data cap and throttling of zero-rated components. The appeal against such a decision in **Sweden**¹² was rejected. Appeals against enforcement decisions on the basis of Article 3(3) are still pending in **Austria, Germany,**¹³ **Hungary** and **Slovenia.**¹⁴

With respect to the assessment of traffic management measures other than zero-rating; we have come across a few divergent approaches by NRAs in relation to the assessment whether the blocking of specific ports is allowed or not pursuant to Article 3(3). Furthermore, the question was raised by various groups of stakeholders (ISPs and some CAPs) as to whether Article 3(3) leaves enough room for traffic management measures to the extent that these would be necessary for the development and offering of new/specialised services.

Article 3(4) regarding privacy and the protection of data is rarely applied in view of the applicability of the General Data Protection Regulation ("**GDPR**")¹⁵ and the ePrivacy Directive,¹⁶ and has not given rise to interpretation issues.

There is concern amongst certain groups of stakeholders (Internet Service Providers ("**ISPs**") and some Content, Applications and Services Providers ("**CAPs**")) that Article 3(5) regarding specialised services may hamper 5G roll out and the development of new services whilst other stakeholders (Consumer Organisations ("**COs**"), Civil Society Organisations ("**CSOs**") and other CAPs) take the view that 5G should not affect net neutrality. Furthermore, concerns have been raised by ISPs stating that they need more flexibility and certainty for their future investment. Although there are no commercial 5G services available yet and hence no practical application, there is uncertainty amongst stakeholders about the future interpretation of Article 3(5) by NRAs. The BEREC Guidelines are providing less guidance than for instance in relation to zero-rating offers. Appeal

⁸ Lawyers of the Consortium are representing the mobile operator in the zero-rating cases in the Netherlands.

⁹ Part II, Chapters 21 and 27.

¹⁰ Reference is made to our findings in relation to Article 5.

¹¹ Part II, Chapter 21.

¹² Part II, Chapter 29; Stockholm Administrative Court 28 September 2018, case no. 4207-17.

¹³ The Administrative Court of Cologne rejected in a preliminary procedure the motion of Deutsche Telekom for temporary relief on 20 November 2018. This decision in the preliminary procedure is open for appeal. Besides that a final decision on the case is still expected.

¹⁴ Part II, Chapters 2, 12, 14 and 27.

¹⁵ Regulation (EU) 2016/679 of the European Parliament and the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC, (hereafter: General Data Protection Regulation or "GDPR").

¹⁶ Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector, OJ L201/37, (hereafter: ePrivacy Directive, , 2002/58/EC).

proceedings are pending in **Austria** in relation to the interpretation of Article 3(5) with respect to a Video-on-Demand service. This legal proceeding has not yet been concluded and may result in a referral to the European Court of Justice.

Article 4

Article 4 has improved transparency of internet access services offerings.

NRAs have generally focused on supervision and enforcement of this Article. Especially in relation to additional transparency requirements by Member States+ pursuant to Article 4(3) and additional requirements by NRAs pursuant to Article 5(1), we still find a certain divergence. However, there is greater consistency compared to the situation prior to the adoption of the Regulation. Moreover, additional harmonisation of transparency requirements will be achieved once the Code enters into force.

The handling of complaints is nationally driven on the basis of Article 4(2) and on the basis of pre-existing national complaint handling procedures. However, no concerns amongst stakeholders have been raised because of this.

Article 4(4) regarding certified monitoring tools in order to demonstrate significant discrepancies is not yet effective on a broad basis as – strictly speaking – it only serves a purpose in countries where there actually is a certified monitoring mechanism to detect significant discrepancies (and such discrepancies are specified). This is currently only the case in five Member States+. However, Article 4(4) may become more effective over time, also in view of the development of a monitoring tool by BEREC.

Article 5

Article 5 relating to supervision and enforcement has enhanced coherence to some extent, but there are still significant differences in priorities and approaches by NRAs (apart from some remaining differences in the interpretation of individual provisions). However, in our view, Article 5 did not aim to fully harmonise priorities and approaches.

Moreover, there is a lack in consistency and transparency regarding the publication of decisions and court rulings including translations thereof while this is crucial to enhance a coherent interpretation and application of the Regulation across the Member States+.

With respect to Article 5(3), which obliges BEREC to issue guidelines in order to contribute to consistent application, all stakeholders had reservations, but of a varying nature (some considered them too strict whereas others considered them to be too liberal). Nevertheless, the BEREC Guidelines have undoubtedly contributed to a more harmonised application of parts of the Regulation, such as zero-rating and the prohibition of tethering.

In our view, the balance that has been found between the principle-based approach of the Regulation and the BEREC Guidelines to ensure consistent application in the Member States+ is right. However, there is currently legal uncertainty in particular in the application of Articles 3(3) and 3(5). We consider it important that more clarity is provided by the Commission (in conjunction with BEREC) in relation to the interpretation of these Articles. This is particularly important when it comes to obligations, which are debated in the technical community and which may impact the key objectives of the Digital Single Market strategy such as the roll-out of 5G networks and the introduction of new/innovative services via such networks.

Article 6

Penalty provisions in the Member States+ are very different, e.g. in some Member States+ penalties are linked to the turnover of an entity and in others it is a fixed maximum amount or a combination of the two. For similar violations of for instance Article 3 the fixed maximum amounts range from approximately €15 000 to €3 million and turnover related fines range from 0.5% to 10%. Also the type of penalties (fines and/or periodic penalty payments with or without the possibility to impose other sanctions such as suspension of activities) differ amongst Member States+. The penalty provisions are not (fully) implemented (yet) in three Member States.

To date only very few penalties have been issued and all of them were well below the maximum. Apparently the NRAs did not consider it necessary to impose maximum penalties to prevent or terminate violations of the Regulation. The reason might be that there is almost always a further measure that can be taken in case of violation (higher or repeated fines in the event of repeated offences and/or additional threatening sanctions such as suspension of activities in the event the violation is continued). Based on our findings to date we consider it too early to draw conclusions whether the penalty provisions in the Member States+ are effective, dissuasive and proportionate.

Recommendations

In view of the above and, on balance, our conclusion is that the Regulation has led to a significantly more coherent and effective approach of the net neutrality rules in the Member States+. At the same time, we find that there are some issues that the Commission could consider when evaluating the Regulation.

1. The definition of Network Termination Point creates uncertainty, especially in relation to routers and cable modems. The interpretation within the European Union is not coherent.

Although a definition of Network Termination Point is not included in the Regulation, the effectiveness of the Regulation may be influenced by whether, for example, routers and cable modems are considered as either part of the network or, in the alternative, as terminal equipment. We therefore recommend that the impact of a diverging interpretation of the term Network Termination Point be further investigated, e.g. in the context of the transposition of the Code and the development of BEREC guidelines in this respect as foreseen in the BEREC Work Programme 2019,¹⁷ in particular in relation to the following provisions:

- the scope of the right of free choice of terminal equipment as laid down in Article 3(1);
- the extent to which commercial agreements relating to equipment are covered by Article 3(2) of the Regulation;
- the scope and interpretation of the rules relating to traffic management measures in Article 3(3);
- the applicability of the transparency rules on equipment and the effects on quality/speed parameters referred to in Article 4(1);
- the impact on the development and the results of monitoring tools referred to in Article 4(4) and whether measurements should include routers/modems or not; and

¹⁷ According to the BEREC Work Programme 2019, BEREC will prepare guidelines on the identification of the network termination point, BoR (18) 240, paragraph 1.3.

- the applicability of enforcement measures and penalties pursuant to Articles 5 and 6.
2. The objectives of the Regulation are: (i) to protect end-users; and (ii) simultaneously to guarantee the continued functioning of the internet ecosystem as an engine of innovation. Given the ambitions in relation to the roll out of *inter alia* 5G networks and the development of new/innovative services, which are core to the Digital Single Market initiatives and the Code, it is important that the provisions of the Regulation are interpreted in accordance with both objectives.

However, the BEREC Guidelines are providing less guidance to support the case-by-case approach with respect to the second objective and the introduction of new networks and services.¹⁸ The pending Court case in **Austria** is adding to the legal uncertainty.¹⁹ According to the BEREC Work Programme 2019, BEREC will commence an assessment on the impact of 5G on regulation and how regulation could influence the pace at which innovative services are brought to market in parallel with the review of the BEREC Guidelines.²⁰

Further clarification might in particular be considered regarding the following parts of Articles 3(3) and 3(5):

- Article 3(3)(2nd) – the references to '*reasonable*' traffic management measures which should be '*proportionate*' and the phrase that '*such measures shall not monitor the specific content and shall not be maintained for longer than necessary*'; and
 - Article 3(5)(2nd) - the references to '*where the optimisation is necessary*', '*if the network capacity is sufficient*' and '*to the detriment of the availability of general quality of internet access services*'.
3. With respect to the exception in Article 3(3)(a), the question has come up whether a civil court ruling by which an ISP is ordered to block a certain website (for instance at the request of a right owner), can be invoked by other ISPs as well given the fact that such other ISPs will normally not intervene in the proceedings and the civil court ruling does not have *erga omnes* effect. If this were disallowed, the alternative would be that each time a range of similar legal proceedings would have to be conducted against individual ISPs regarding the same content or the same website. A possible interpretation might be that blocking on the basis of a legal precedent could be covered by the exception referred to in Article 3(3)(a), although this would be an option and not an obligation for other ISPs which have not participated in the court proceedings as a party. We assume that in such a case the usual safeguards regarding procedural justice will continue to apply.
 4. It could be considered to make a distinction between consumers and business users when evaluating the effectiveness, efficiency and proportionality of the Regulation in particular in relation to the transparency rules.
 5. Consistency in the interpretation of the Regulation and in the approach to supervision and enforcement would be enhanced by additional transparency of

¹⁸ The BEREC Guidelines only refer to the second objective in paragraphs 43 and 46 in relation to the comprehensive assessment on the basis of Article 3(2).

¹⁹ TKK Decision of 18 December 2017 discussed in para 3.5.4 and in Part II, Chapter 2.

²⁰ According to the BEREC Work Programme 2019, BEREC will prepare a report on the impact of 5G on regulation and the role of regulation in enabling the 5G ecosystem, BoR (18) 240, paragraph 3.1. Footnote 8: "*Concerning the net neutrality aspect of this project, coordination is foreseen in 2019 between the BEREC Open Internet Expert Working Group and the BEREC Planning and Future Trends Expert Working Group.*"

adopted measures and court rulings in that field. Although this topic is not limited to the supervision and enforcement of the Regulation, we recommend considering how greater transparency could be achieved. e.g. by publication of (summaries of) national enforcement decisions/national court rulings and by providing English translations of annual net neutrality reports by all NRAs.²¹

We believe that it would be useful for the Commission to take these topics into account in its evaluation of the Regulation and of the current coordination with BEREC.

Finally in light of the ongoing debates amongst technical experts in relation to some of the key topics referred to above, it is in our view important to ensure that not only policy making but also application and amendment of the BEREC Guidelines is evidence based. Moreover, in view of the ongoing developments on the market there will be a need for continued evaluation.

²¹ Consideration 74 of the Code explains that a mechanism should be set up for collecting information on appeals and decisions to suspend decisions taken by the competent authorities in all MSs and for the reporting of that information to the Commission and BEREC. This mechanism should ensure that the Commission or BEREC can retrieve from Member States the text of the decisions and judgements with a view to developing a data-base.

Country and NRA abbreviations

Country	Code	Full name NRA	NRAs
Austria	AT	Regulatory Authority for Broadcasting and Telecommunications	RTR
Belgium	BE	Institute for Postal Services and Telecommunications	BIPT
Bulgaria	BG	Communications Regulation Commission	CRC
Croatia	HR	Regulatory Authority for Network Industries	HAKOM
Cyprus	CY	Office of Electronic Communications & Postal Regulations	OCECPR
Czech Republic	CZ	Czech Telecommunication Office	CTU
Denmark	DK	Danish Energy Agency	DEA
Estonia	EE	Estonian Technical Regulatory Authority	ETRA
Finland	FI	Finnish Communications Regulatory Authority	FICORA
France	FR	Authority for Electronic Communications and Post	ARCEP
Germany	DE	Federal Network Agency	BNetzA
Greece	EL	Telecommunications & Post Commission	EETT
Hungary	HU	National Media and Infocommunications Authority	NMHH
Ireland	IE	Commission for Communications Regulation	ComReg
Italy	IT	Authority Communication Guarantees	AGCOM
Latvia	LV	Public Utilities Commission	SPRK
Lithuania	LT	Communications Regulatory Authority	RRT
Luxembourg	LU	Luxembourg Regulatory Institute	ILR
Malta	MT	Malta Communications Authority	MCA
Netherlands	NL	Authority for Consumers and Markets	ACM
Norway	NO	Norwegian Communications Authority	Nkom
Poland	PL	Office of Electronic Communications	UKE
Portugal	PT	Regulatory Authority for the communications sector	ANACOM
Romania	RO	National Authority for Management and Regulation in Communications	ANCOM
Slovakia	SK	Regulatory Authority for Electronic Communications and Postal Services	RÚ
Slovenia	SI	Agency for Communication Networks and Services	AKOS
Spain	ES	The Ministry of Economy and Business	Ministry
Sweden	SE	Post and Telecom Authority	PTS
United Kingdom	UK	Office of Communications UK	Ofcom

Glossary

Terms used in the Report

Term	Explanation
Add-on zero-rating offers	For an additional fee, the customer is given the option of zero-rating certain applications ²²
Application Programming Interfaces (APIs)	An application programming interface is a set of subroutine definitions, communication protocols and tools for building software
Bandwidth	The capacity of a network or other communication channel for transferring data, measured in bps
BEREC	BEREC and the BEREC Office were created by Regulation 1211/2009 of the European Parliament and of the Council of 25 November 2009 to assist the Commission and the National Regulatory Authorities (NRAs) in the implementation of the EU regulatory framework for electronic communications, to give advice on request and on its own initiative to the European institutions and to complement at European level the regulatory tasks performed at national level by the regulatory authorities, all in the aim of creating an internal market for electronic communications
(BEREC) Guidelines	The BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules of August 2016 drafted in accordance with Article 5(2) of the Regulation
Blocking	Blocking can take the form of either making it difficult to access or outright restricting certain services or websites on the internet
Bundled zero-rating	The -rated services are included in a specific subscription
Consortium	Bird & Bird and Ecorys
Consumer	Any natural person who uses or requests a publicly available electronic communications service for purposes which are outside his or her trade, business or profession
Content, applications and services provider (CAP)	A company that makes content (e.g. webpages, blogs and video) and/or applications (e.g. search engines, VoIP applications) and/or services available on the internet. CAP's may also be providers of specialised services ²³
Data Cap	The amount of data included in a specific IAS subscription
Data Compression Technologies	Techniques to reduce the size of a data file without any modification of the content ²⁴
Deep package inspection (DPI)	DPI is a data filtering mechanism that allows for analysing the data contained in data packets, instead of only the header of such packets
Distributed Denial of Service	Any attack which causes a service to become unavailable for legitimate clients. A distributed Denial of Service (DDoS) attack

²² See types of zero-rating in DotEcon e.a. (2017), Zero-rating practices in broadband markets.

²³ BEREC Guidelines (2016), para 2.

²⁴ Regulation (EU) 2015/2120, Recital 11.

(DDoS) attacks	is one in which a multitude of compromised systems attack a single target, thereby causing denial of service for users of the targeted system. The flood of incoming messages to the target system essentially forces it to shut down, thereby denying service to the system to legitimate users
End-User	According to the Framework Directive, ²⁵ 'end-user' means a user not providing public communications networks or publicly available electronic communications services. In turn, 'user' means a legal entity or natural person using or requesting a publicly available electronic communications service. On this basis, BEREC understands 'end-user' to encompass individuals and businesses, including consumers as well as CAPs ²⁶
End-Users' Rights	The right to access and distribute information and content, use and provide applications and services and use terminal equipment of their choice, irrespective of the end-user's or provider's location or the location, origin or destination of the information, content, application or service, via their internet access service ²⁷
Equal treatment of traffic	If any treatment of traffic is done without discrimination, restriction or interference, independently of its sender or receiver, content, application or service or terminal equipment ²⁸
Internet Access Service (IAS)	A publicly available electronic communications service that provides access to the internet and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used ²⁹
Internet Addressing Scheme	With an addressing scheme, packets are forwarded from one location to another
Internet Protocol (IP)	A protocol used for communicating data across a packet-switched internetwork using the Internet Protocol Suite (TCP/IP)
Internet Protocol Television (IPTV)	IPTV delivers digital TV over a broadband connection. Instead of a bouquet of broadcast services for direct viewing via aTV tuner, IPTV allows viewers to request a specific service from the server. The service is then streamed for viewing via the internet protocol and other technologies known as Digital Subscriber Line (DSL)
Internet Service Provider (ISP)	Providers of internet access services (IAS). ISPs may also be providers of specialised services
Jitter	The difference in packet delay
Latency	The amount of delay (or time) it takes to send information from one point to the next
Long Term Evolution (LTE)	High performance communication system for cellular mobile phones. Step towards 4th generation, but commonly called 4G
Malware	A commonly used abbreviation for malicious software. It is typically used as a catch-all term to refer to any software designed to cause damage to a single computer, server or computer network, whether it's a virus, spyware, etc.

²⁵ Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (hereafter: Framework Directive, 2002/21/EC), Article 2(n) and (h).

²⁶ BEREC Guidelines (2016), para 4.

²⁷ Regulation (EU) 2015/2120, Article 3(1).

²⁸ Regulation (EU) 2015/2120, Recital 8.

²⁹ Regulation (EU) 2015/2120, Article 2(2).

Member State	A Member State of the European Union
Member States+	The Member States of the European Union and Norway
National Regulatory Authority	The body or bodies charged by a Member State with any of the regulatory tasks assigned in the Regulatory framework for telecommunications
Network-Slicing	Network-slicing is a form of virtual network architecture, which allows multiple virtual networks to be created on top of a common shared physical infrastructure
Network Termination Point	The physical point at which a subscriber is provided with access to a public communications network; in case of networks involving switching or routing, the NTP is identified by means of a specific network address, which may be linked to a subscriber number or name ³⁰
Non-Discrimination	In relation to interconnection and/or access, an obligation of non-discrimination ensures that an operator applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services and provides services and information to others under the same conditions and of the same quality as it provides for its own services or those of its subsidiaries or partners
Over-the-Top (OTT)-player	A party that delivers its services/content directly over the internet rather than solely over a network of a(n internet) service provider
Packet loss	Occurs when one or more packets of data travelling across a computer network fail to reach their destination
Parental controls	Automated tools to help parents protect their children and set restrictions for using devices and services. These controls may include: alerting a parent when their child's device leaves school, limiting their car speed to a certain maximum speed, controlling the content which the child views on a device connected to the internet or limiting the amount of time they can use their device
Peer to Peer Network (P2P network)	In a peer to peer (or P2P) computer network participants are connected with each other, using cumulative bandwidth of network. A pure P2P network does not have the notion of clients or servers but only equal peer nodes that simultaneously function as both "clients" and "servers". Such networks are widely used for sharing content files such as software, audio, video, data or anything in digital format. Real-time data, such as telephony traffic or IPTV, is also passed using P2P technology. The technology itself is legal and applied increasingly in various business models
Proxy server	A proxy server is an intermediate program or computer between a user's computer and the Internet. Proxy servers can be used to channel connections between a user's computer and destination servers on the internet. While doing so, it may apply rules to block or modify certain information, although proxy servers are also used to transparently forward connections to and from servers on the internet
Quality Of Service (QoS)	Generally latency, jitter and packet loss
Report	The report consisting of this Part I, Part II and Part III – Annexes

³⁰ Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (hereafter: Universal Service Directive, 2002/22/EC), Article 2(e).

Roaming	Refers in wireless telecommunications to the extending of connectivity service in a location that is different from the home location where the service was registered
Specialised services	Services other than internet access services which are optimized for specific content, applications or services or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality
Sponsored zero-rating	Where CAPs contract with and pay an ISP to offer a range of information or services to users at no cost to them
Study	The study on the Implementation of the Net Neutrality Provisions of the TSM Regulation (SMART 2017/0011) conducted by the Consortium resulting in this Report
Sub-internet Service	A service which would restrict access to services or applications (e.g. banning the use of VoIP or video streaming) or which would enable access to only a pre-defined part of the internet (e.g. access only to particular websites) ³¹
Terminal Equipment	Equipment directly or indirectly connected to the interface of a public telecommunications network to send, process or receive information; in either case (direct or indirect), the connection may be made by wire, optical fibre or electromagnetically; a connection is indirect if equipment is placed between the terminal and the interface of the network ³²
Tethering	Tethering allows an end-user to share the internet connection of a phone or tablet with other devices such as laptops ³³
Throttling of Traffic	Throttling is a technique employed to manage traffic and minimize congestion, may be used to degrade (e.g. slow down) certain type of traffic and so affect the quality of content
Throughput Rate	The rate of successful message delivery over a communication channel. The data these messages belong to may be delivered over a physical or logical link or it can pass through a certain network node. Throughput is usually measured in bits per second (bps) and sometimes in data packets per second or data packets per time slot
Traffic Management	Traffic management includes: (1) nodal traffic control functions such as traffic conditioning, queue management, scheduling and (2) other functions that regulate traffic flow through the network or that arbitrate access to network resources between different packets or between different traffic streams ³⁴
Traffic Shaping	Traffic shaping is a bandwidth management technique used on computer networks which delays some or all datagrams to bring them into compliance with a desired traffic profile. Traffic shaping is used to optimize or guarantee performance, improve latency or increase usable bandwidth for some kinds of packets by delaying other kinds
Voice over Internet Protocol (VoIP)	A technology used for transmitting standard telephone calls over the internet using packet-linked routes, from any device, including mobile and fixed line phones

³¹ BEREC Guidelines (2016), para 17.

³² Commission Directive 2008/63/EC of 20 June 2008 on competition in the markets in telecommunications terminal equipment OJ L 162/20.

³³ BEREC Guidelines (2016), para 25 (footnote 9).

³⁴ BEREC (2011), A framework for Quality of Service in the scope of Net Neutrality, BoR (11) 53 (hereafter: BEREC Framework for QoS (2011)), p. 18.

Voice over LTE (VoLTE)	A type of VoIP, using 4G networks
Zero-rating	When an ISP applies a price of zero to the data traffic associated with a particular application or class of applications (and the data does not count towards any data cap in place on the internet access service) ³⁵

Common short forms of EU legislation

Short form	Full reference
Consumer Rights Directive	Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council, OJ L304/64
Data Protection Directive	Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, OJ L281/31
European Electronic Communications Code	Final text of the proposal for a Directive establishing the European Electronic Communications Code, as adopted by the European Parliament on 14 November 2018.
ePrivacy Directive	Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector, OJ L201/37
ePrivacy Regulation	Proposal for a Regulation of the European Parliament and of the Council concerning the respect for private life and the protection of personal data in electronic communications and repealing Directive 2002/58/EC, COM/2017/010
Framework Directive	Directive 2001/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services as amended by Regulation (EC) No 717/2007 of the European Parliament and of the Council of 27 June 2007 on roaming on public mobile telephone networks within the Community and Regulation (EC) No 544/2009 of the European Parliament and of the Council of 18 June 2009 amending Regulation (EC) No 717/2007 and Directive 2002/21/EC and Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC, 2002/19/EC and 2002/20/EC
GDPR	Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation), OJ L119/1
Regulation	Regulation (EU) 2015/2120 of the European Parliament and

³⁵ BEREC Guidelines (2016), para 37 and 40.

	the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal services and users' rights relating to electronic communications networks and services and Regulation (EU) 531/2012 on roaming on public mobile communications networks within the Union, OJ L 310/2
Unfair Commercial Practices Directive	Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council , OJ L149/22
Universal Services Directive	Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services, OJ L108/51

List of Abbreviations

Abbreviation	Definition
APIs	Application Programming Interfaces
B2B	Business to Business
BEREC	Body of European Regulators for Electronic Communications.
CA	Consumer Protection Authority
CAP	Content, applications and services provider
CPE	Customer Premises Equipment
CO	Consumer Organisation
Code	Final text of the proposal for a Directive establishing the European Electronic Communications Code (EECC) as adopted by the European Parliament on 14th November 2018.
CSO	Civil Society Organisation
C(S)O	Consumer organisation and/or civil society organisation
DDoS	Distributed Denial of Service
DNS	Domain Name Server
DPA	Data Protection Authority
DPI	Deep Packet Inspection
ECJ	Court of Justice of the European Union
ENISA	The European Union Agency for Network and Information Security
EU	European Union
FTE	Fulltime-equivalent
GDPR	General Data Protection Regulation
IAS	Internet access service
IoT	Internet of Things
IP	Internet Protocol
IPv	Internet Protocol version
IPTV	Internet Protocol Television
ISP	Internet access service provider
LAN	Local Area Network
MS	Member State
NAT	Network Address Translation
NN-report 2017	Annual Net Neutrality Report covering the period between 1 May 2016 – 30 April 2017
NN-report 2018	Annual Net Neutrality Report covering the period between 1 May 2017 – 30 April 2018
NRA	National Regulatory Authority
NTP	Network Termination Point
OS	Operating system
P2P	Peer-to-peer
PECPs	Providers of electronic communications to the public
QoS	Quality of Service
SMTp	Simple Mail Transfer Protocol
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
URL	Uniform Resource Locator

VoD	Video-on-demand
VoIP	Voice over Internet Protocol
VoLTE	Voice over Long-Term Evolution
VPN	Virtual Private Network
WAN	Wide Area Network

List of Figures and Tables

Figure #	Name	Paragraph
Figure 1	Aggregate amount of NRA policy rules and publications, NRA decisions and court cases	2.2.2
Figure 2	Average FTEs per NRA involved in net neutrality issues in 2017	2.2.3
Figure 3	What restrictions are imposed by the ISPs?	3.1.3
Figure 4	Do you block any following ports? [multiple answers possible].	3.3.3
Figure 5	NRAs - What are the reasons to allow internet access providers blocking of certain ports?	3.3.4
Figure 6	The combined results of the ISP contracts scan	4.1.3
Figure 7	In what way do you provide the information required by the Regulation to end-users?	4.1.3
Figure 8	The information required by the Regulation can be found in one location (contract, terms and conditions or website).	4.1.3
Figure 9	The information required by the Regulation is easily understandable for consumers.	4.1.3
Figure 10	Number of pages in the NRAs' Annual NN-reports 2016-2017 and 2017-2018	5.1.3
Figure 11	Have you been requested by the NRA to provide information concerning one of the following issues?	5.2.2
Figure 12	Did the internet access providers provide with the requested information within the time-limits and level of detail you require?	5.2.2
Figure 13	Overview of enforcement decisions and pending/ongoing court cases	5.3.3
Figure 14	Overview of maximum fines (turnover-related and monetary)	6.1.2

Table #	Name	Paragraph
Table 1	Overview of survey distribution and participation	1.3.2
Table 2	List of interviewees for this Study	1.3.3
Table 3	Categories of net neutrality themes	2.1.5
Table 4	Example of key topics table	2.1.6
Table 5	Pre-existing net neutrality legislation and self- and co-regulation across Member States+	2.2.1
Table 6	Pre-existing open internet access and transparency legislation in Member States+	2.2.1
Table 7	Implementation measures across Member States+	2.2.1
Table 8	Predominant net neutrality themes in Member States+	2.2.2
Table 9	Enforcement actions by Member States+ in relation to Article 3(1)	3.1.4
Table 10	Results comprehensive assessments pursuant to Article 3(2)	3.2.4
Table 11	Investigations and enforcement in the various Member States+	3.2.4
Table 12	ISPs - Do you block any of the following?	3.3.3
Table 13	Traffic management measures and investigations into those measures	3.3.4
Table 14	Types of legislation requiring blocking of traffic	3.3.4
Table 15	Monitoring and supervisions measures regarding port-blocking	3.3.4
Table 16	Overview of recommendations/guidance and requirements ensure compliance with Article 4(1)	4.1.4
Table 17	Overview of enforcement actions to ensure compliance with Article 4(1)	4.1.4
Table 18	Combined results of supervision and enforcement relating to Article 4(1)	4.1.4
Table 19	Categories of additional requirements based on Article 4(3) per	4.3.3

	Member State	
Table 20	Monitoring mechanisms in all Member States+	4.4.3
Table 21	Summarised results (certified) monitoring system and interpretation of significant discrepancies	4.4.4
Table 22	Requirements significant discrepancy	4.4.4
Table 23	Net neutrality themes in each of the Member States+	5.1.3
Table 24	Categories of monitoring activities for each of the Member States+	5.1.3
Table 25	Enforcement decisions and court cases per Member State+	5.1.3
Table 26	Overview of NRAs' competences to settle complaints	5.1.3
Table 27	Overview of complaints received and settled by the NRA	5.1.3
Table 28	The available enforcement measures are effective / proportionate / dissuasive to achieve conformity with the Regulation	5.1.4
Table 29	Examples - state of harmonisation in application by NRAs	5.3.3
Table 30	Overview of penalty types for each of the Member States+	6.1.2
Table 31	Penalties imposed per Member State+	6.1.2

1. Introduction

1.1. Background of the Study

On 25 November 2015, Regulation (EU) 2015/2120 ("**the Regulation**") was adopted, introducing uniform rules on net neutrality for the European Union ("**EU**"). The net neutrality rules laid down in Articles 3, 4, 5 and 6 seek to ensure a high level of 'openness' of the internet.

The Regulation entered into force on 29 November 2015 and is applicable from 30 April 2016. The subject matter and the scope of the Regulation are set out in Article 1(1):

This Regulation establishes common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights.

The Regulation aims to protect end-users and simultaneously guarantee the continued functioning of the internet ecosystem as an engine of innovation.³⁶

The Regulation sets out the rights and obligations for the various stakeholders in the Member States, notably ISPs and end-users (consumers and CAPs). The Regulation also includes obligations for NRAs and clarifies to what extent Member States may still adopt or maintain additional legislation or regulations. BEREC was bound to issue guidelines for the implementation of the obligations of NRAs pursuant to Article 5(3) which were published on 30 August 2016.³⁷

Box 1: The net neutrality provisions of the Regulation

Article 3 safeguards open internet access and specifies the rights and obligations for stakeholders, notably ISPs and end-users (consumers and CAPs) in relation thereto.

- Article 3(1) ensures the freedom of choice for end-users including in relation to terminal equipment.
- Article 3(2) prohibits agreements and commercial practices that limit the right to open internet access for end-users.
- Article 3(3) provides rules related to traffic management and describes when traffic management measures are considered reasonable and any justifications for limitations or differentiation going beyond such measures pursuant to national legislation or court orders, integrity/security and congestion (3(3)(3rd) under a) – c)).
- Article 3(4) relates to the protection of personal data and sets out exceptional circumstances in which the processing of data is allowed while respecting the existing rules on data protection.
- Article 3(5) aims to ensure that the right to open internet access does not prevent the offering and development of specialised services which require a specific level of quality.

Article 4 envisages safeguarding transparency measures for ensuring open internet

³⁶ Regulation (EU) 2015/2120, Recitals 1-3.

³⁷ BEREC Guidelines (2016).

access.

- Article 4(1) prescribes the information in relation to the quality of internet access services ("**IASs**") that should be specified in IAS contracts with end-users. ISPs are obliged to publish this information in order to enable end-users to make informed choices.
- Article 4(2) obliges ISPs to put in place transparent, simple and efficient complaint procedures to address complaints of end-users.
- According to Article 4(3) Member States are not prevented from maintaining or introducing additional requirements in relation to monitoring, information and transparency requirements.
- Article 4(4) establishes a procedural rule and specifies in generic terms under which circumstances non-conformity of performance of the IAS triggers the remedies available to the consumer in accordance with national law. Moreover, this provision stipulates that facts established by a monitoring mechanism certified by the NRA are binding.

Article 5 relates to supervision and enforcement.

- Article 5(1) obliges NRAs to monitor and ensure compliance with Articles 3 and 4 and to promote the continued availability of state of the art non-discriminatory IASs and to publish annual reports regarding their monitoring and findings. Article 5(1) also states that NRAs may impose requirements relating to technical characteristics and Quality of Service (also: "**QoS**") on one or more providers of electronic communications to the public including ISPs. However, according to Article 5(4) Article 5 is without prejudice to the tasks assigned by Member States to NRAs or other competent authorities in compliance with Union law.
- Article 5(2) is addressed to providers of electronic communications to the public including ISPs. These market players are obliged to provide information requested by NRAs relevant to the obligations of Articles 3 and 4 in accordance with the time-limits and the level of detail required by NRAs.
- Article 5(3) stipulates that BEREC shall issue guidelines for the implementation of the obligations of NRAs in order to contribute to the consistent application of the Regulation.

Article 6 is addressed to Member States and stipulates that Member States shall lay down effective, proportionate and dissuasive rules on penalties which shall be notified to the European Commission ("**Commission**") by 30 April 2016.

Article 9 stipulates that by 30 April 2019 the Commission shall review Articles 3, 4, 5 and 6 and shall submit a report of the review to the European Parliament and to the Council. The Commission intends to use the findings of this Study in its report.

The Articles of the Regulation cannot be properly analysed in isolation. The effectiveness of the Regulation is and will be influenced by existing EU legislation, such as the

Framework Directive,³⁸ the Universal Service Directive,³⁹ and new EU legislation, such as the European Electronic Communications Code.⁴⁰

The net neutrality provisions have been the result of a lively debate, in which many different stakeholders have engaged and very different claims have been made regarding their impact. At the time the Regulation was adopted, the EU was the first significant region to embrace common rules on net neutrality. Against the backdrop of these rules – which have been considered ground-breaking and which were heavily debated – it is considered highly desirable to come to an objective, fact based assessment of the effectiveness and efficiency of the rules. Such an assessment should significantly contribute to a transparent process in which stakeholders are actively involved, which will eventually result in a regulation that is fit for purpose and future proof.

1.2. Objectives of the Study

This Study on the implementation of the net neutrality provisions pursues two objectives:

1. To collect the necessary factual evidence about the actual implementation of the net neutrality provisions by NRAs.
2. To provide the Commission with an objective quantitative and qualitative analysis of the national implementation of the Regulation.

On the basis of extensive research as set out in paragraph 1.3 we will analyse in the following chapters for each Article referred to in Article 9 whether the interpretation and application of the provision was coherent and whether the objectives of the provision are met (effectiveness).

As this is the first evaluation of the provisions since the Regulation was adopted we will also focus our analysis on effectiveness compared to the situation prior to the adoption of the Regulation. In our analysis we will discuss comments and suggestions that have been provided by the various groups of stakeholders. The focus of this Study is a fact-based legal/regulatory analysis. We will not take position in debates relating to policy aspects.

Combined, the results aim to provide the Commission with a clear overview of the implementation and effectiveness of the different rights and obligations introduced by Articles 3, 4, 5 and 6.

In relation to the use of the term '*implementation*' in this Report, we note that the Regulation – by nature – applies directly and is binding in all Member States+.⁴¹ Implementation in this Report is therefore not used in the sense of transposition into the domestic legal systems of Member States+, but relates to the application and administration of the Regulation by the Member States+.⁴²

³⁸ Framework Directive, 2002/21/EC.

³⁹ Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services, OJ L108/51, (hereafter: Universal Service Directive, 2002/22/EC).

⁴⁰ Final text of the proposal for a directive establishing the European Electronic Communications Code (EECC) as adopted by the European Parliament on 14th November 2018 (hereafter: Code); [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=IMMC:P8_TA\(2018\)0453](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=IMMC:P8_TA(2018)0453).

⁴¹ Note that the Regulation does not have direct effect in Norway, because Norway is not part of the EU. The regulation has indirect effect in Norway due to the EEA Agreement.

⁴² A selection within European Economic Area Member States+ was made, based on the quality and quantity of data that could possibly be collected within the project, given the time

1.3. Activities undertaken

For this Study we, Bird & Bird LLP and Ecorys:

- Collected public documents;
- Organised a survey among seven stakeholder groups;
- Conducted interviews with a balanced selection of stakeholders; and
- Asked all NRAs to review the contents for their own country (see further Chapter 2 and Part II, Chapter 1). All NRAs have extensively contributed.

Below we briefly elaborate on these activities.

1.3.1 Data Collection

We collected data on two levels:

- National data collection – collecting the available public data on the actual implementation of the Regulation in all Member States+ through desk research; the publicly available data were collected from NRAs and other authorities, stakeholders, academics, publishers; and
- EU-wide data collection – collecting data exceeding Member State boundaries; from BEREC, the Commission, international studies, reports, etc.

National data collection was conducted by experts/native speakers or experts with a very good command of the national language. The EU-wide data collection was conducted by the core analytical team.

In order to keep the amount of documents manageable and to ensure that the data collection is focused on the information relevant for the Study's objectives, we left the following data outside the scope of the Study:

- documents originating from a date prior to publication of the Regulation (unless still in force or still relevant) or after 31 August 2018;⁴³
- documents that do not contribute to the legal assessment of the Regulation;
- consultation documents and responses; and
- stakeholder opinions repeatedly addressing similar topics in relation to net neutrality provisions in the Regulation (e.g. if stakeholders publish the same statements repeatedly, we did not collect or analyse all those statements).

The local teams used templates to collect the relevant documents. These templates are attached as **Annex A**, Data Collection Methodology.

The data collection is solely based on publicly available information. As a consequence no confidential information was collected during this stage of the Study.

constraints. Norway was selected because it plays a leading role on this subject (in particular the Co-Chair of the BEREC Expert Working Group on net neutrality belongs to the NRA of Norway, Nkom).

⁴³ The cut-off date for the data collection at national level was 31 August 2018. In some cases relevant information brought forward by the NRAs from after this date was collected and included in the Study. Publicly available information at EU level and regarding court rulings from after the cut-off date was collected and included in the Study as well.

1.3.2 Surveys

The surveys aimed to supplement the information from the data collection by gathering opinions and facts from the various groups of stakeholders. The methodology of the surveys is attached as **Annex B**, Survey Methodology. We prepared seven individual questionnaires for seven different stakeholder groups:

1. National Regulatory Authority for Electronic Communications ("**NRA**");
2. Data Protection Authority ("**DPA**");
3. Provider of Internet Access Services, also referred to as Internet Service Provider ("**ISP**");
4. Content, Applications and Services Provider ("**CAP**");
5. Consumer Protection Authority ("**CA**");
6. Consumer Organisation ("**CO**"); and
7. Civil Society Organisations ("**CSO**").

The questionnaires have been tailored for each individual stakeholder group, meaning that the questionnaires differed between the groups, although some questions (e.g. background questions and general questions on the Regulation) are identical. All questionnaires have been prepared only in the English language. The questionnaires are attached as **Annex C**, Survey Questionnaire. All surveys were distributed via two channels:

8. 'Closed' invitations sent directly to respondents by email and
9. 'Open' invitations which anyone (with the appropriate web link) could access (distributed by the Commission to NRAs and to CAs, via the European Consumer Organisation ("**BEUC**") to the COs, via European Digital Rights ("**EDRI**") to CSOs and to ISPs, also by umbrella organisations).

The surveys were accessible during the months of June and July 2018 and were extended for the COs with one extra week until 3 August 2018. The table below shows the number of available responses for analysis after cleaning.

Table 1: Overview of survey distribution and participation

Survey	Approached via email	Total before cleaning	Removed due to cleaning*	Total responses after cleaning (excl. written responses)	Completed	Partially completed	Written contributions	Total contributions
CA	0*	9	4	5	2	3	0	5
IAS	151*	34	13	21	18	3	1	22
CO	28*	12	6	6	4	2	0	6
CAP	30	13	3	10	2	8	0	10
DPA	27	5	0	5	5	0	0	5
NRA	23	32	8	24	23	1	4	28
CSO	0*	6	0	6	2	0	0	2

* Open invitation sent via umbrella organisations.

** Reasons for removal due to cleaning:

- CA: Screened out + no response provided after selecting the type of organisation
- IAS: Screened out + no response provided after selecting the type of organisation (q1) or specifying the country (q2)
- CO: Screened out + no response provided after selecting the type of organisation (q1) or specifying the country (q2)
- CAP: Screened out
- NRA: Screened out + responses that were provided via a web link were provided via an invite

The data was further cleansed, meaning that some of the answers were removed (see table above), to the extent necessary to avoid the data were flawed owing to:

- complete lack of responses in the survey (i.e. the respondent simply clicked through, skipping all questions); or
- only a few (2-3) questions were answered; or
- wrong target group (i.e. if by mistake a respondent answered to a questionnaire that was intended for a different stakeholder group, it would be cut out after the first question, but the response is registered); or
- duplication of responses (e.g. the respondent answered twice because it was approached via email and via web).

The results of the surveys are attached to the Report as **Annex D**, Survey Results. The degree of the feedback to the surveys was found to be acceptable. Where inconsistencies were found with information from other sources (e.g. NRA review), the factual information was double-checked and the final outcome prevailed over these particular survey results. The information in Part II is leading.

1.3.3 Interviews

In addition to the surveys, interviews were conducted to further supplement the information from the data collection.

Interviews were conducted with the following organisations ensuring as much as possible a balanced representation of the various stakeholders including NRAs, ISPs (including fixed and mobile telecom operators), CAPs (including Over-the-Top/OTT-players), COs and CSOs:

Table 2: List of interviewees for this Study

No	Category	Name organisation	Date of the interview
1.	NRA	Dutch Authority Consumers and Markets (" ACM ")	21 June 2018
2.	NRA	French Authority for Electronic Communications and Post (" ARCEP ")	18 July 2018
3.	NRA	Austrian Regulatory Authority for Broadcasting and Telecommunications (" RTR ")	17 July 2018
4.	NRA	Slovenian Agency for Communication Networks and Services (" AKOS ")	31 July 2018
5.	NRA	Norwegian Communications Authority (" NKOM ")	8 August 2018
6.	ISP	Cable Europe	26 June 2018
7.	ISP	European Telecommunications Network Operators' Association (" ETNO ")	11 July 2018
8.	ISP	VodafoneZiggo	2 August 2018
9.	ISP/CAP	European Competitive Telecommunications Association (" ECTA ")	19 July 2018
10.	CAP	Computer and Communications Industry Association (" CCIA ")	28 June 2018
11.	CAP	European Broadcasting Union (" EBU ")	28 June 2018
12.	CAP	European Utilities Telecom Council (" EUTC ")	10 July 2018
13.	CAP	Digital Europe	19 July 2018

14.	CAP	Facebook	24 July 2018
15.	CAP	News Media Europe (" NME ")	23 August 2018
16.	CO	Federation of German Consumer Organisations (" vzbv ")	29 June 2018
17.	CO	The European Consumer Organisation (" BEUC ")	19 July 2018
18.	CSO	European Digital Rights (" EDRI ")	9 July 2018
19.	CSO	epicenter.works	30 July 2018

1.4. Safeguarding independence and quality of the Study

As stated in paragraph 1.1, there are many different (and contradicting) opinions on net neutrality, originating from a wide range of stakeholders. While Bird & Bird and Ecorys (hereafter: "**Consortium**") are not part of this group of stakeholders, they are experts in the field of legislation and regulation of the technology, media and telecom sectors and policy research and advice in these sectors. Both have supported/advised or are still supporting/advising one or more of these stakeholder groups and/or individual stakeholders. However, the presence of these relationships has not influenced the objectivity, the integrity or the quality of the Study in any way. Rather, a number of measures were already in place or have been taken to ensure the independence of this Study and the quality and objectivity of the analysis. These include:

- (i) The Report of the Study is fact-based, as it reports on public information, non-anonymous information that interviewees have shared with us for inclusion in the Report and results from the surveys. The Report of the Study is also fully transparent, as it presents all findings from the data sources. All data from the data collection phase, including minutes of the interviews reviewed by the interviewees and the results of the surveys, have been made available to the Commission to validate the objectivity of the research.
- (ii) NRAs in all Member States+ have checked whether the facts, reported cases and case law in Part II are correct and complete.⁴⁴
- (iii) Interviews have been held with representatives of all stakeholder groups, in particular umbrella organisations, reflecting as much as possible the various views and interests within these groups. The surveys were made available to all stakeholder groups, offering a balanced view of the stakeholder opinions.
- (iv) The (development of the) draft Report and the Conclusions & Recommendations have been observed and reviewed by a Quality Reviewer and three External Experts.

In addition, the Consortium works under the existing professional and highest ethical standards:

- (v) Lawyers/advisors from the Bird & Bird/Ecorys project team are not involved in any proceedings in relation to net neutrality disputes and will continue not to be involved in such proceedings until a year after submission of the final Report. All information and data in relation to the Study is kept in a secured file and can only be accessed by the project team of lawyers/advisors from the Consortium that has been working on the Report.

⁴⁴ Apart from the paragraphs in the Country Chapters with the overview of desk research on compliance with transparency obligations.

- (vi) The Report is transparent about any reported cases in which other lawyers/advisors of the Bird & Bird/Ecorys Consortium have been or are involved.
- (vii) The Bird & Bird lawyers are bound by – and comply with – the professional rules on integrity, independence and client confidentiality applicable in the Member States+ in which we practise and are regulated by the bar (or equivalent) in those Member States+. In addition Bird & Bird complies with the Code of Conduct for European Lawyers.⁴⁵ Ecorys is bound to quality standards specified in its quality handbook, which is monitored as part of its ISO 9001 certification.

With the measures taken as described above, we are confident the Study has been conducted in line with the highest quality and integrity standards, resulting in an objective, transparent, independent and fact-based study on the net neutrality rules.

1.5. Reading guide

In order to perform the objective quantitative and qualitative analysis of the national implementation of the Regulation we have analysed the implementation on two levels.

- We have assessed and analysed the implementation of the Regulation in the individual Member States and Norway. Our findings relating to the individual Member States+ are set out in the Country-by-Country analyses in Part II. In Chapter 2 of this Report some general observations from the Country Chapters are presented.
- Subsequently and building on our findings and analyses in the Country-by-Country analyses, we have assessed and analysed the differences and similarities in the implementation of the Articles of the Regulation in the EU. Our findings and quantitative and qualitative analyses relating to the individual Articles are set out in Chapters 3 – 6 (the Article-by-Article analyses).

In Chapter 7 we present our Conclusions and Recommendations on the basis of the combined Country-by-Country and Article-by-Article analyses.

Terms and definitions which are used throughout this Report have been specified in the Glossary included in the beginning of the Report. We have followed the definitions which are used in the European Directives, the Regulation and the BEREC Guidelines.

⁴⁵ CCBE (2013), Charter of Core Principles of the European Legal Profession and Code of Conduct for European Lawyers.

2. Assessment of the implementation per Member State

2.1. Introduction to Part II – Country Chapters

Part II of this Report contains the assessment of the implementation and application of the Regulation per Member State+. The information reflects the collection of factual evidence about the implementation and application of the net neutrality provisions as laid down in the Regulation by the Member States+ and the NRAs. Part II consists of 29 Country Chapters. The Country Chapters provide the basis for the quantitative and qualitative analysis in the Article-by-Article Chapters.

Differences in implementation and application of the Regulation in the Member States+ could have different reasons such as differences in (pre-existing) national legislation and powers of NRAs, number of resources within NRAs dedicated to net neutrality, differences in market situations and offerings on the market, differences in culture in contacts between NRAs and market players and amongst market players and possible differences in interpretation and implementation of the provisions of the Regulation.

The context and characteristics of the implementation and enforcement for each Member State+ is set out on the basis of the following subparagraphs (as further described in Part II, Chapter 1):

2.1.1 Implementation

The subparagraph 'Implementation' discusses the differences with respect to the (pre-existing) legal and regulatory framework.

For each Member State+ the following topics are discussed:

- Pre-existing net neutrality legislation
- Competent authority; powers of enforcement and penalties
- Additional legislation and regulations

2.1.2 Monitoring, supervision and enforcement

This subparagraph of the Country Chapters discusses the monitoring, supervision and enforcement activities undertaken by NRAs. For each of the Member States+ the following topics are discussed:

- General information and reports
- Complaints
- Monitoring and supervision measures
- Decisions and court cases

2.1.3 Self-regulation and/or co-regulation

Some Member States+ had a system of self-regulation and/or co-regulation in place prior to when the Regulation entered into force, which may have been continued under the Regulation. Sometimes such self-regulation takes the form of co-regulation under the active leadership of the NRA.⁴⁶

2.1.4 Compliance with transparency obligations

We have reviewed the information in relation to IASs on the websites of various fixed and mobile ISPs in the Member States. This desk research was performed in Q2 2018.⁴⁷ The results provide an indication how the obligations pursuant to Articles 4(1) and 4(2) are implemented by the ISPs in the various Member States+. The results have not been reviewed or approved neither by the NRAs nor by the providers of the IASs.

2.1.5 Overview of relevant net neutrality themes

NRAs have different focus areas when it comes to the supervision and enforcement of the net neutrality provisions. The chart under this heading summarises the monitoring, supervision and enforcement activities undertaken by the individual NRAs in relation to the various obligations and net neutrality themes pursuant to the provisions in the Regulation. In order to make this subparagraph as fact-based and transparent as possible the graphs refer to categories of published documents (NRA policy rules and publications, NRA decisions and Court cases). In the text below the graphs in Part II an explanation is given which documents are included in the counting.

In the graphs the following categories of net neutrality themes are recognised:

Table 3: Categories of net neutrality themes.

Net neutrality theme	Provision in Regulation
Freedom of choice end-user	Article 3(1)
End-users' rights and choices –terminal equipment, tethering	Article 3(1)
Zero-rating	Articles 3(1), 3(2) and 3(3)
Other commercial agreements and practices restricting open internet access	Article 3(2)
Equal treatment of traffic (Traffic discrimination)	Article 3(3)
Traffic management measures (Reasonable traffic management)	Article 3(3)
Blocking and throttling (of content, ports and/or websites; Internet Protocol version (" IPv ")4/IPv6)	Article 3(3)
Exception traffic management – required by law	Article 3(3)(a)
Exception traffic management – integrity and security of the network	Article 3(3)(b)
Exception traffic management – network congestion	Article 3(3)(c)
Data protection	Article 3(4)

⁴⁶ These initiatives have to comply with competition law but this analysis is beyond the scope of this Study.

⁴⁷ This review was not done for Finland and Norway. At the time of the review, the NRA of Finland was negotiating the contract terms with the ISPs and therefore these were not available on the ISPs' websites. Norway was added to the scope of the Study at a later moment in time.

Specialised services	Article 3(5)
Transparency (contract information)	Article 4(1)
Internet speeds	Article 4(1)
Complaints procedures (for end-users)	Article 4(2)
Additional requirements (monitoring, information and transparency)	Article 4(3)
Monitoring mechanism (to test non-conformity of performance)	Article 4(4)

2.1.6 Summary of key topics and noteworthy findings

Under this heading we have described the findings in the Country Chapters which in our view are noteworthy. This description is concluded with a table and a summary of our findings relating to the key topics under the Regulation in the following format:

Table 4: Example of key topics table

Key topic	Result [Country]
Pre-existing legislation	[xxx]
Maximum fine	[xxx]
Imposed fines	[xxx]
Additional legislation	[xxx]
Additional requirements imposed by the Member State pursuant to Article 4(3) (on monitoring, information and transparency)	[xxx]
Requirements imposed by the NRA pursuant to Article 5(1) (technical characteristics, minimum QoS, other appropriate and necessary measures)	[xxx]
Number of Fulltime-equivalent ("FTEs") in NRA involved in net neutrality	[xxx]
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	[xxx]
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	[xxx]
Number/percentage of complaints that were settled by NRA	[xxx]
Number of NRA decisions	[xxx]
Number of court cases	[xxx]
Main net neutrality themes	[xxx]
Monitoring mechanism (certified yes/no)	[xxx]
Self-regulation and/or co-regulation	[xxx]

2.2. General observations on the basis of the findings in Part II

The findings in the Country Chapters that relate to specific provisions of the Regulation will be discussed and analysed in more detail in the next chapters relating to the Articles 3, 4, 5 and 6.

However, there are elements in the Country Chapters that cannot be specifically linked to these provisions as such:

- differences in national legislation in the Member States+ relating to net neutrality and the enforcement of the Regulation;
- priorities in the selection of most important net neutrality themes in the Member States+; and
- resources of NRAs dedicated to monitoring, supervision and enforcement of the net neutrality rules in the Member States+.

Our observations in relation to these topics which are not linked to specific provisions of the Regulation will be discussed in the next subparagraphs.

2.2.1 Differences in national legislation in the Member States+

There are differences in pre-existing legislation, self-regulation and/or co-regulation in the Member States+. In the majority of the Member States+ legislation relating to net neutrality had been adopted before the Regulation entered into force. Self-regulation and/or co-regulation were applicable in six Member States.

Table 5: Pre-existing net neutrality legislation and pre-existing self- and co-regulation applicable in the Member States+

Implementation	Yes	No
Pre-existing legislation	AT, BE, HR, DK, FI, FR, DE, HU, IT, LV, MT, NL, PT, RO, SK, SI, ES, SE	BG, CY, CZ, EE, EL, IE, LT, LU, NO, PL, UK
Pre-existing self-regulation and/or co-regulation	DK, NL, NO, PL, SI, UK	AT, BE, BG, HR, CY, CZ, EE, FI, FR, DE, EL, HU, IE, IT, LV, LT, LU, MT, PT, RO, SK, ES, SE

The pre-existing legislation mostly related to transparency requirements referred to in Article 4, but in several Member States+ national legislation had been adopted in relation to open internet access and blocking/throttling covered by Article 3. As a result there were Member States+ with strict pre-existing net neutrality legislation applicable to open and non-discriminatory access to the internet as well as to transparency and Member States+ where there was no *ex ante* regulation apart from the transparency provisions that followed from the implementation of the Universal Service Directive.⁴⁸ For instance prior to the Regulation, there was a broad range of approaches to zero-rating offers ranging from a complete ban in national legislation (**Slovenia** and **the Netherlands**) or co-regulation (**Norway**) to no specific restrictions. *A fortiori* the rules on enforcement and penalties were purely national.

⁴⁸ Universal Service Directive, 2002/22/EC.

Table 6: Pre-existing open internet access and transparency legislation in the Member States+

	Open internet access	Transparency
Pre-existing legislation	HR, DK, FI, DE, NL, SK, SI	AT, BE, HR, FR, HU, IT, LV, MT, PT, RO, SK, ES, SE
Pre-existing self-regulation and/or co-regulation	DK, NO	NL, PL, SI, UK

In most Member States+ the Regulation led to fundamental changes in pre-existing national legislation. Although there are still differences in national legislation, the Regulation clearly meant a significant step in the harmonisation of the legal and regulatory framework across the EU.

Table 7: Implementation measures across the Member States+

Implementation	Yes	No
Politically independent NRA	AT, BE, BR, HR, CY, CZ, EE, FI, FR, DE, EL, HU, IE, IT, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK	DK, ES
National legislation – Article 3(3)(a)	BG, PL, SK, UK	AT, BE, HR, CY, CZ, DK, EE, FI, FR, DE, HU, IE, IT, LV, LT, LU, MT, NL, NO, PT, RO, SI, ES, SE
Additional national legislation – Article 4(3)	AT, BE, HR, DK, FR, DE, HU, LU, PT, SI, SE	BG, CY, CZ, EE, FI, EL, IE, IT, LV, LT, MT, NL, NO, PL, RO, SK, ES, UK
Rules on penalties – Article 6	AT, BE, BG, HR, CY, CZ, DK, EE, FI, FR, DE, EL, HU, IT, LV, LT, LU, MT, NL, NO, PL, RO, SK, SI, ES, SE, UK	IE, PT

The differences resulting from national legislation in relation to the individual Articles of the Regulation will be set out in further detail in the next chapters with respect to Articles 3(3)(a), 4(3), 5(1) and 6.

2.2.2 Predominant net neutrality themes in the Member States+

We have identified the three predominant net neutrality themes in the various Member States+. For this we used the listed main net neutrality themes in the table at the end of each Country Chapter (see the sample in paragraph 2.1.6 of this Report). The table below shows the cumulative results of the Member States+.

Table 8: Predominant net neutrality themes in the Member States+

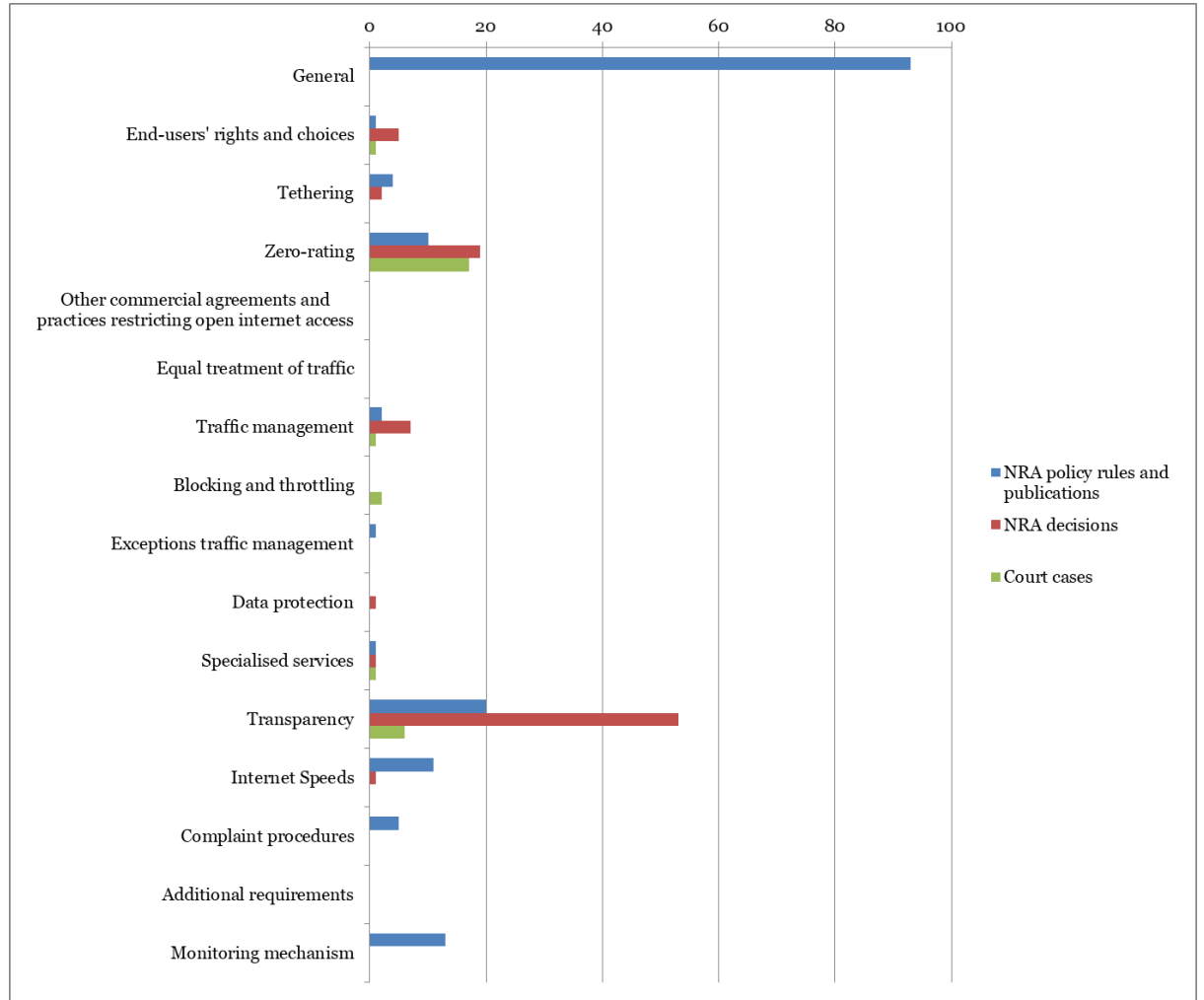
Net neutrality theme	Predominant in the following Member States+
End-users' rights and choices	AT
Terminal equipment, tethering	CY, CZ, DK, FR, IT
Zero-rating	BE, BG, HR, CZ, EE, DE, HU, IT, LT, MT, NL, NO, PL, PT, RO, SI, SE, UK
Other commercial agreements and practices restricting open internet access	

Equal treatment of traffic	FI
Traffic management	BE, BG, CZ, FR, DE, EL, LT, NL, PL, PT, SK, ES, SE, UK
Blocking and throttling	FI, LV, SI
Exception traffic management	SI
Data protection	
Specialised services	AT, DK, EE, MT, PL
Transparency	AT, BE, BG, HR, CY, CZ, EE, FI, FR, DE, EL, IE, LV, LT, LU, MT, NL, NO, PT, RO, SK, SI, ES, SE, UK
Internet speeds	HR, CY, DK, HU, IT, LV, LT, MT, NO, SK
Complaints procedures	CY
Additional requirements	
Monitoring mechanism	HR, HU, EL, IE, IT, LV, NO, RO

The picture is mixed. There is not a common predominant theme in the various Member States+, although zero-rating, reasonable traffic management and transparency are qualified more often than other themes as predominant by individual Member States+.

These observations are in line with the cumulative results of the graphs reflecting i) NRA policy rules and publications, ii) NRA decisions and iii) court cases in the various Member States+ referred to in paragraph 2.1.5. The figure below is based on the aggregate numbers in the EU reflecting the combined data for individual Member States+ in the Country Chapters.

Figure 1: Aggregate amount of NRA policy rules and publications, NRA decisions and court cases

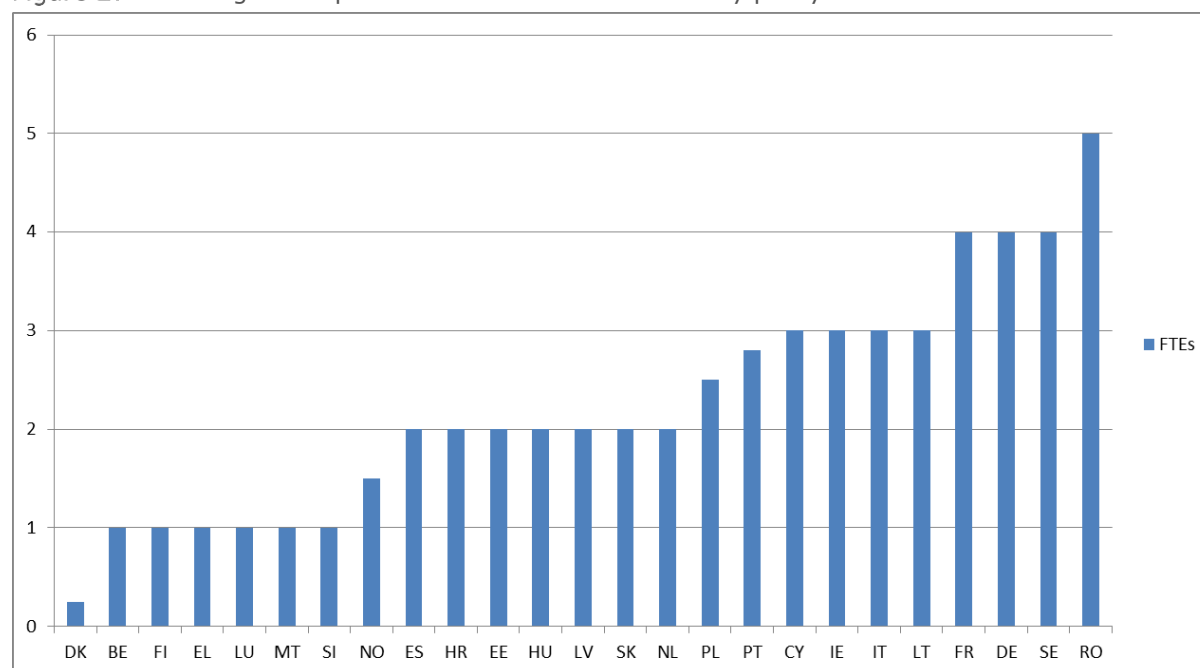


2.2.3 Resources with individual NRAs allocated to net neutrality

We asked NRAs to provide an estimate of the number of FTEs involved in net neutrality.

None of the NRAs have appointed employees purely dedicated to net neutrality topics. However, in several Member States+ there are dedicated teams working on net neutrality topics for instance in combination with interconnectivity.

Figure 2: Average FTEs per NRA involved in net neutrality policy in 2017



The number of FTEs per NRA which on average are involved in net neutrality policy ranges from an average number of 0.25 – 6 on an average annual basis.⁴⁹

During the interviews with NRAs of **Austria, France, Netherlands, Norway** and **Slovenia**, the question was asked whether NRAs had to spend more resources as a result of the implementation of the net neutrality provisions and for what reason. Based on the interviews we conclude that in most Member States+ the Regulation did not lead to an increase of FTEs working on net neutrality topics in the NRAs. It should be noted that in all of these Member States+ there was already pre-existing net neutrality legislation in place which required resources. We did not receive any signals during the interviews that the number of resources working on net neutrality with NRAs increased substantially as a result of the Regulation.

2.3. Final observations

On the basis of the combined information in the Country Chapters the following general observations can be made:

- a. More NRAs in the Member States+ have given priority to supervision and enforcement of the net neutrality provisions relating to transparency, followed by zero-rating, traffic Management and monitoring mechanisms. Relatively limited attention in supervision and enforcement was dedicated by the NRAs to commercial arrangements other than zero-rating, the exceptions referred to in Article 3(3), data protection and specialised services.
- b. Enforcement decisions in relation to zero-rating are almost always challenged in appeal proceedings while relatively few enforcement decisions relating to transparency are being challenged in appeal proceedings.

⁴⁹ The number of FTEs per NRA was not reported to us for AT, BG, CZ and UK.

- c. The average number of FTEs involved in net neutrality with the NRAs ranges from 0.25 to 5 FTE.

The findings in the individual Country Chapters are reflected and analysed in the Article-by-Article Chapters hereafter.

The overall conclusion that can be drawn from the Country Chapters is that the situation in the individual Member States+ is very different in relation to i) priorities for supervision and enforcement; ii) whether or not formal enforcement decisions are taken; and (consequently) iii) the number of appeal proceedings and the nature thereof. This will be discussed in further detail in Chapters 5 and 6 of this Report.

3. Assessment of the implementation of Article 3

3.1. Article 3(1) – End-users' rights

3.1.1 Introduction

Article 3(1) provides the basic rule of open internet access for end-users, one of the core provisions of the Regulation. In monitoring, supervision and enforcement at the Member State level, Article 3(1) is often dealt with in combination with other paragraphs of that Article. This paragraph focuses on aspects that are at the core of Article 3(1) such as the right of end-users to use terminal equipment of their choice. Although the provisions contained in Article 3(1) may also be relevant for agreements, commercial practices (including zero-rating) and traffic management, these aspects will be discussed in paragraphs 3.2 and 3.3 relating to Articles 3(2) and 3(3).

3.1.2 Regulation and BEREC Guidelines

Article 3(1) confers the following rights to end-users:

End-users shall have the right to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice, irrespective of the end-user's or provider's location or the location, origin or destination of the information, content, application or service, via their internet access service.

This paragraph is without prejudice to Union law, or national law that complies with Union law, related to the lawfulness of the content, applications or services.

An ISP must provide connectivity to virtually all end-points of the internet and not restrict connectivity to any accessible end-point.⁵⁰ Pursuant to Article 3(1) end-users should *inter alia* be free to choose terminal equipment as defined in Commission Directive 2008/63/EC.⁵¹ An important element in determining the scope of the Regulation is therefore the distinction between terminal equipment and Network Termination Point ("**NTP**") as defined in Article 2(da) of the Framework Directive:⁵²

[T]he physical point at which a subscriber is provided with access to a public communications network; in the case of networks involving switching or routing, the NTP is identified by means of a specific network address, which may be linked to a subscriber number or name;⁵³

Further guidance in relation to the interpretation of Article 3(1) is provided in paragraphs 22 – 29 of the BEREC Guidelines.

⁵⁰ Regulation (EU) 2015/2120, Recital 4.

⁵¹ Regulation (EU) 2015/2120, Recital 5. Commission Directive 2008/63/EC of 20 June 2008 on competition in the markets in telecommunications terminal equipment.

⁵² Framework Directive, 2001/21/EC.

⁵³ Article 2(9) of the Code includes the same definition, except for the term "subscriber" which is replaced by the term "end-user" See also BEREC Guidelines (2016), para 25.

According to these Guidelines, NRAs should examine whether an ISP provides equipment for its subscribers and restricts the end-user's ability to replace this equipment with its own, i.e. whether it provides '*obligatory equipment*'.⁵⁴ Moreover, NRAs should consider whether an objective technological necessity exists for such obligatory equipment to be considered as part of the ISP network.⁵⁵ If such a necessity does not exist and the choice of terminal equipment is limited, the practice would fall foul of the provisions in the Regulation.⁵⁶

According to the BEREC Guidelines, the 'provision of interconnection' is a service which is separated from the provision of IAS.⁵⁷ However, when interconnection policies and practices are used as a way to circumvent the Regulation and/or when they have the effect of limiting the exercise of end-users' rights within the meaning of Article 3(1), NRAs may take these policies and practices into account in its assessment of a possible infringement of that Article.⁵⁸

Referring to Recital 5 of the Regulation, the BEREC Guidelines mention the practice of restricting 'tethering' as an example of a prohibited restriction on terminal equipment choice.⁵⁹ Tethering relates to the ability to share an internet connection of one device with other devices, for example by using a mobile phone as a hotspot for other devices.

3.1.3 Fact finding – overview of reported restrictions based on survey results

Generally speaking, NRAs and other stakeholders that were interviewed consider Article 3(1) sufficiently clear. However, some aspects for further analysis were mentioned.

The survey asked NRAs about restrictions of open internet access and the use of terminal equipment (without necessarily qualifying this as an infringement), figure 3 below contains the results.

In total around ten NRAs indicated that restrictions exist. In five Member States+, this concerns end-users being restricted to prescribed equipment of the ISP. In three Member States+ (one duplication with the previous group) only certified equipment is allowed, while in one country, other technical restrictions – not further specified – exist. Four NRAs referred to tethering: restrictions on tethering (2x), a ban on tethering (1x) or extra payments in order to tether (1x).

⁵⁴ BEREC Guidelines (2016), para 26.

⁵⁵ BEREC Guidelines (2016), para 27.

⁵⁶ BEREC Guidelines (2016), para 27.

⁵⁷ BEREC Guidelines (2016), para 5.

⁵⁸ Regulation (EU) 2015/2120, Recital 7. BEREC Guidelines (2016), para 6.

⁵⁹ BEREC Guidelines (2016), para 27 with reference to Regulation (EU) 2015/2120, Recital 5.

Figure 3: What restrictions are imposed by the ISPs? (multiple answers possible)

Response	Total
End-users can use only ISP equipment (technical restrictions)	5
End-users can use only certified equipment (technical restrictions)	3
Other technical restrictions	1
Other	11
There are no restrictions imposed	11
Total respondents: 26	

Source: NRA Survey, Q11.

One of the CSOs participating in the survey considered the use of terminal equipment/tethering to be amongst the most pressing issues in its Member State.⁶⁰

Out of the 21 ISPs responding to the survey, one indicated that end-users could only use certified equipment. Seven ISPs indicated various other restrictions, mainly related to cable modem restrictions (3x) and restrictions for Voice over Internet Protocol ("VoIP") and static Internet Protocol ("IP").⁶¹ The issue of cable modem restrictions flagged under 'Other' also related to the distinction between terminal equipment and equipment as part of the electronic communications network. ISP-respondents point out that they consider cable modems as part of the network (the NTP).

3.1.4 Analysis of the Application of Article 3(1)

On the basis of the surveys and the interviews, the following areas for further analysis have been identified:

- (i) restrictions regarding the type of equipment/certification;
- (ii) restrictions regarding the use of terminal equipment/tethering;
- (iii) restrictions on the use of public IPv4 addresses;
- (iv) other issues relating to Article 3(1); and
- (v) type of remedies/sanctions imposed for infringing Article 3(1).

The aspect of cable modems and/or routers in connection with the definition of NTP was mentioned multiple times in the surveys and in the interviews. This topic is linked to restrictions regarding the type of equipment/certification. As the definition of NTP is not part of the Regulation, this will topic will also be discussed separately in subparagraph 3.1.5.

(i) [Restrictions regarding the type of equipment/certification](#)

The majority of Member States+ did not flag the obligatory use of equipment as an issue.

⁶⁰ CSO Survey in the context of this Study, Q8.

⁶¹ ISP Survey in the context of this Study, Q14.

Some Member States accept restrictions relating to the type of equipment. In **Belgium** a special system of certification of modems applies.⁶² Therefore limitations of choice in terminal equipment related to the technical requirements of certification are deemed justified. The NRA is of the opinion that prior certification may be necessary for some technologies to connect to a modem. Not all technology is sufficiently mature to connect to terminal equipment without any problems and the impact of possible network failures differs depending on the technology used. Another example is **Cyprus** where fixed ISPs oblige subscribers to use the terminal equipment provided by them in order to ensure: (i) the configuration enabling them to provide bundled services; (ii) adequate security of terminal equipment and customer network access; and (iii) remote access support services.⁶³ The NRA considers these to be reasonable justifications for the provision of obligatory equipment.

Other Member States, such as **Czech Republic, Finland, France** and **Italy**, do consider obligations to use terminal equipment provided by ISPs or other restrictions regarding the type of equipment that may be used a violation of Article 3(1).⁶⁴ In **Finland** and **France**, issues have been solved by either a change of applicable contractual provisions following informal discussions or an investigation which did not result in an actual enforcement decision. In a decision published on 2 August 2018, the NRA of **Italy** decided that modems/routers must be considered as terminal equipment and not the NTP. Appeal proceedings against the Italian decision are pending.⁶⁵ In the **Czech Republic** enforcement decisions were taken as well. The Czech NRA, CTU started 15 administrative proceedings in order to investigate potential infringements of Article 3(1).⁶⁶ CTU issued six formal decisions in which it ordered the ISP to amend its contracts and practices. In two cases the infringement was ceased during the investigation. The other proceedings are still ongoing. The investigations related to the following topics: (i) obligations to use the terminal equipment offered by the ISP; (ii) terms of the connection between the service and the terminal equipment were unclear and incomprehensible; and (iii) the used terminal equipment needed prior ISP approval.

(ii) [Restrictions regarding the use of terminal equipment/tethering](#)

The enforcement approach regarding tethering and/or restrictions in the use of for instance SIM cards is consistent.

All Member States which initiated investigations considered a prohibition or restriction of tethering a violation of Article 3(1). ISPs have amended their contractual terms or practice following either an investigation by the NRA or (informal) discussions with the NRA. This was the case in **BE, FI, FR, IT, NL, SE** and **UK**.⁶⁷ The NRA in **Denmark** adopted a decision and issued an injunction relating to a limitation of tethering.⁶⁸ The ISP complied with the decision.

Italy furthermore adopted a formal decision regarding restrictions of tethering in the form of extra payments. The Italian NRA initiated an enforcement action against an offer by an ISP pursuant to which users were obliged to pay an extra daily internet connection fee for the use of tethering. The ISP complied with the decision of the NRA and it did not appeal the decision.

⁶² Part II, Chapter 3.

⁶³ Part II, Chapter 6.

⁶⁴ Part II, Chapters 7, 10, 11 and 16.

⁶⁵ Part II, Chapter 16, Several appeals are pending. Lawyers of the Consortium are representing one of the providers in these appeal proceedings.

⁶⁶ Part II, Chapter 7.

⁶⁷ Part II, Chapters 3, 10, 11, 16, 21, 29 and 30.

⁶⁸ Part II, Chapter 8.

(iii) [Restrictions on the use of public IPv4 addresses](#)

In most Member States+ access to IPv4 addresses was not flagged as an issue under the Regulation as part of our research. In general it is noted that ISPs are not required to offer connectivity with both internet addressing schemes IPv4 and IPv6.⁶⁹ We found two examples of issues relating to IPv4 addresses, as detailed below.

In **Austria** the NRA qualified restrictions regarding the use of public IPv4 addresses as an infringement of Article 3(1).⁷⁰ According to the Austrian NRA, end-users have the right to receive a dynamic public IP address to provide their own applications and services.⁷¹ However, since public IPv4 addresses are limited, they will only be provided upon request. Austria Telekom charged end-users for a public IPv4 address. The NRA considered this practice an infringement of the Regulation and issued a cease and desist order. An appeal is still pending.⁷²

In **Germany**, the NRA is dealing with an increasing number of complaints regarding the scarcity of IPv4 addresses and the alternatives which ISPs use to deal with this scarcity.⁷³ Some ISPs use the Network Address Translation technique to utilise one IPv4 address for multiple users, but this prevents the users from creating direct connection over the internet between two IPv4 addresses. The NRA of Germany mentions that IPv4 addresses are generally scarce, but also stresses that end-users have the right to use their IAS without restrictions. The NRA also notes that providers have to be transparent regarding the use of Network Address Translation and how this could limit the IAS.

(iv) [Other issues relating to Article 3\(1\)](#)

Some other enforcement actions specifically relating to Article 3(1) were mentioned during our research.

In **Germany**, the NRA requested a reseller who acted as an ISP to cease the prohibition of the use of VoIP and Peer-to-Peer in its contracts, since – according to the NRA – such a prohibition constitutes a violation of Article 3(1). The ISP amended its contract.

In **Austria**, some operators automatically disconnected an IP address every 24 hours, which the NRA considered to be an infringement of the Regulation because it is not technically necessary and hinders the provision of services by end-users.⁷⁴ The Austrian NRA sent a cease and desist order (as mentioned above). The decision is challenged in appeal proceedings which are still pending.

(v) [Type of remedies/sanctions imposed for infringing Article 3\(1\)](#)

Although most issues referred to in the previous subparagraphs were informally settled, a few decisions have been adopted and two appeals are pending. The table below provides an overview of enforcement actions by the NRAs in relation to Article 3(1):

⁶⁹ BEREC Guidelines (2016), para 16.

⁷⁰ Part II, Chapter 2.

⁷¹ Interview with RTR in the context of this Study.

⁷² This decision was combined with another decision on the basis of Article 3(5) of Regulation (EU) 2015/2120. See below in paragraph 3.5.

⁷³ Part II, Chapter 12.

⁷⁴ Interview with RTR in the context of this Study.

Table 9: Enforcement actions by Member States in relation to Article 3(1)

MS	Practice	Relevant Article	Action	Sanction/ Remedy	Result/current status
AT	Charging end-users for a public IPv4 address / Automatic disconnection of IP address every 24h	Article 3(1) Article 3(2)	Decision	Cease and desist order	Decision appealed (case pending)
BE	Prohibition of tethering	Article 3(1)	Information request	-	Prohibition lifted
CZ	Free choice of terminal equipment	Article 3(1)	15 investigations	6x order to amend contracts and practices	2x infringement was ceased during investigation Other cases are pending
DK	Restriction on tethering	Article 3(1)	Decision	Injunction to cease the practice	ISP complied
FI	Pre-approved cable modems	Article 3(1)	Informal discussion	-	Issue resolved by amending the contract
FI	Restriction on tethering	Article 3(1)	Informal discussion	-	Contract conditions amended by ISP
FR	Restrictions on tethering and use of IASs on certain types of devices	Article 3(1)	Investigation	-	Clauses had to be removed from the concerned ISPs' contracts
DE	Prohibition on the use of VoIP and Peer-to-Peer	Article 3(1)	Request to cease the violation	-	ISP amended the contract
IT	Fee for tethering	Article 3(1); Article 3(2)	Decision	Order to correctly apply the Regulation	Decision was not appealed
IT	Open internet access and tethering	Article 3(1)	Investigations	-	Issues resolved
IT	Free choice of terminal equipment	Article 3(1)	Decision	ISPs cannot require end-users to rely exclusively on the provided routers	Decision is appealed by ISPs
NL	Prohibition on tethering	Article 3(1)	Discussion	Request to amend terms and conditions	ISP amended terms and conditions
NL	Restrictions on tethering	Article 3(1)	Discussion	Request to amend terms	ISP amended terms and

				and conditions	conditions
SE	Restriction on use of VoIP and tethering	Article 3(1); Article 3(2)	Investigations	-	Clause removed from terms and conditions / Cases dismissed
UK	Restriction on tethering	Article 3(1)	Formal investigation	-	Practice amended by ISP / Investigation closed

With respect to the prohibition or restriction on tethering, there do not seem to be any ongoing issues and Article 3(1) is applied in a consistent way. With respect to restrictions for end-users to use equipment of choice, the situation is less coherent as specified in the table above. This seems to be due to differences in interpretation of the NTP (see below).

Apart from the discussions relating to the interpretation of the NTP which are outside the scope of the Regulation, Article 3(1) of the Regulation in conjunction with the BEREC Guidelines has led to more coherent decisions and informal interventions with respect to tethering and terminal equipment in relation to IASs compared to the pre-existing situation. We have not been made aware of similar decisions and interventions relating to restrictions on tethering and the use of terminal equipment prior to the adoption of the Regulation.

3.1.5 Network Termination Point

The NTP is not defined in the Regulation but in the Framework Directive and the Code. The distinction between NTP, which is part of the network, and terminal equipment, which is not, is of relevance for the evaluation of the efficiency of the Regulation. Based on the qualification routers and modems are covered by the rules on free choice of terminal equipment or by the provisions of the Regulation ensuring open internet access.

As mentioned above the aspect of cable modems and/or routers in connection with the definition of NTP was mentioned in the surveys and in the interviews. Some **ISP** representatives consider the modem (and router/decoder) as part of the intelligence that belongs to the network and anything beyond this point is terminal equipment. The NTP (in this case the modem) is an integral part of the network and allows ISPs to manage and monitor network security and to guarantee quality of service. These interviewees also flagged a deviant approach between NRAs in relation to terminal equipment and the NTP.

Furthermore (potential) limitations in the choice of equipment that seemed related to the definition of NTP came up in several Member States+ during our research. This was the case in **Belgium** and **Cyprus** where certain restrictions in the choice or the use of equipment are considered allowed (see above). In the aforementioned decision published on 2 August 2018, the NRA of **Italy** holds that modems/routers must be considered as terminal equipment and not as part of the NTP. In its decision the NRA provides an indication for the location of the NTP. Appeal proceedings against the Italian decision are pending.⁷⁵

In other Member States+, legislation or policy rules are being prepared to clarify the NTP and the definition of NTP. The NRA of **Slovenia** is preparing secondary legislation for the

⁷⁵ See also Part II, Chapter 16; lawyers of the Consortium are representing one of the providers in these appeal proceedings.

purpose of clarifying what the end-users' termination point is.⁷⁶ The Ministry of Economic Affairs in the **Netherlands** is preparing a policy rule which has been publicly consulted.⁷⁷ According to this draft, the proposed definition of NTP has as a consequence *inter alia* that modems, combinations of modems/routers and television decoders are not part of the public electronic communications network. They qualify as terminal equipment if the criteria of the draft policy rule are met. In principle, devices with an exclusive identification, authentication or security function specifically related to the public electronic communications network are part of this network. The draft policy rule is not yet published in final form. The Dutch NRA argues that if a modem also enables other services, such as VoIP and television, it could be understood that a specific (prescribed) modem is required.⁷⁸ However, if end-users wish to choose their own modem, it should be possible.⁷⁹

The definition of NTP is of relevance outside the scope of the Regulation as well. Pursuant to the Code **BEREC** will have to adopt guidelines on how to identify the NTP in various concrete circumstances not only from the perspective of the Regulation.⁸⁰ On 4 October 2018 BEREC published a report setting out the (differences in) definition of NTP in various Member States which is also of relevance for the scope of the Regulation.⁸¹ BEREC concluded that so far there was only the need to define the NTP location in some Member States. According to the report the location of a fixed NTP was defined or planned to be defined in five Member States (**Cyprus, Germany, Italy, Latvia, Netherlands**). The location of a mobile NTP was defined or planned to be defined in three Member States (**Italy, Latvia, Netherlands**). In 13 other Member States, NRAs have the legal power to define the NTP, but did not use it. Furthermore, it follows from the report that in particular the definitions of the fixed NTP can be different. For example, the location of the fixed NTP in **Germany** and **Italy** is between the modem and the subscriber access line and the modem and the router are part of the domain of the customer, whereas in **Latvia** the location of the fixed NTP depends on the ownership of equipment and cables, which means that the modem and the router could still be part of the public network.

Although the definition of NTP is not part of the Regulation and therefore out of the scope of this Study, this definition is relevant for the scope of the Regulation and for the effects of the various provisions of the Regulation. This not only in relation to the free choice of terminal equipment, but also in relation to for instance traffic management, transparency, enforcement and monitoring mechanisms. Diverging interpretations of the NTP in the Member States+ therefore create legal uncertainty.

3.1.6 Conclusion

With respect to the free use of terminal equipment, Article 3(1) has clearly contributed to coherence across Member States+ compared to the situation prior to the Regulation. There is consensus among NRAs that ISPs cannot prohibit or restrict tethering. Eight NRAs reported that such infringements of this provision have been addressed by them, and ISPs have amended their practices as a result.⁸²

In relation to the choice of terminal equipment there is less coherence. Sometimes the use of certain equipment is prescribed by the ISP which is considered justified by the

⁷⁶ Interview with AKOS in the context of this Study. The proposed content was not reported to us in full.

⁷⁷ See also Part II, Chapter 21.

⁷⁸ Interview with ACM in the context of this Study.

⁷⁹ Interview with ACM in the context of this Study.

⁸⁰ Recital 19 and Article 61(7) of the Code.

⁸¹ BEREC (2018), Report on the location of the network termination point, BoR (18) 150.

⁸² Belgium, Denmark, Finland, France, Italy, Netherlands, Sweden, United Kingdom.

NRA (**Cyprus**) or the use of certified modems is mandatory such as in **Belgium**. In other cases such practices are considered to be an infringement of Article 3(1). This difference in approach seems at least to some extent caused by a discussion relating to the definition of NTP pursuant to the Framework Directive and the Code.

Although the choice of terminal equipment is an issue in some of the Member States+, this seems a matter of supervision and enforcement and (probably) a clear interpretation of Network Termination Point, which is not covered by the Regulation. Article 3(1) as such may be considered to be effective in achieving its objective. Also, the text of Article 3(1) did not lead to any criticism amongst stakeholders and no suggestions for amendment were made.

With respect to especially modems and routers/decoders the question had come up whether these have to be considered as terminal equipment or as part of the NTP and therefore part of the network. This question is relevant for the scope and the working of the Regulation but the definition of the NTP is not part of the Regulation. We recommend that the impact of a diverging interpretation of the term Network Termination Point, which is outside the scope of this Study, be further investigated also in view of the provisions of the Regulation and taken into account in the discussions on the basis of the Code for instance in relation to the development of BEREC guidelines as foreseen in the BEREC Work Programme 2019.⁸³

3.2. Article 3(2) – Contractual conditions and commercial practices; zero-rating

3.2.1 Introduction

Article 3(2) relates to contractual conditions and commercial practices applied with respect to IASs. Article 3(2) requires that such contractual conditions and commercial practices do not limit the end-users' rights set out in Article 3(1).

Discussions in relation to the interpretation and enforcement of Article 3(2) are dominated by the assessment of zero-rating offers. These offers are often also assessed on the basis of Article 3(3). Therefore, subparagraph 3.2.4 of this Report will focus on the examination of zero-rating offers on the basis of both Articles.

The application of Article 3(2) to agreements and commercial practices other than zero-rating are discussed separately in subparagraph 3.2.5.

3.2.2 Regulation and BEREC Guidelines

Agreements and commercial practices of ISPs have to comply with Article 3(2):

Agreements between providers of internet access services and end-users on commercial and technical conditions and the characteristics of internet access services such as price, data volumes or speed, and any commercial practices conducted by providers of internet access services, shall not limit the exercise of the rights of end-users laid down in paragraph 1.

⁸³ According to the BEREC Work Programme 2019, BEREC will prepare guidelines on the identification of the network termination point, BoR (18) 240, paragraph 1.3.

According to Article 3(2) agreements and commercial practices may not limit the rights set out in Article 3(1). When using their enforcement powers, NRAs should take into account the market positions of the ISPs and CAPs and should intervene when agreements or commercial practices would result in the undermining of the essence of the end-users' rights.⁸⁴

Further guidance in relation to Article 3(2) is provided in paragraphs 30–48 of the BEREC Guidelines.

The term 'zero-rating' is not used in the Regulation. The Guidelines describe zero-rating as follows:⁸⁵

This is where an ISP applies a price of zero to the data traffic associated with a particular application or category of applications (and the data does not count towards any data cap in place on the IAS). There are different types of zero-rating practices which could have different effects on end-users and the open internet, and hence on the end-user rights protected under the Regulation.

The traffic associated with the zero-rating offer may be unlimited or subject to a specific cap and is often provided at no cost to the user.

Zero-rating also has to comply with Article 3(3) to the extent that such offers appear to technically limit and/or exclude the way in which end-users access certain content or applications.

According to the Guidelines Article 3(2) requires a comprehensive assessment by individual NRAs of individual zero-rating offers. This has resulted in a range of factors which according to paragraph 46 of the Guidelines need to be taken into account and appreciated in the context of the specific market situation in the various Member States+.⁸⁶

⁸⁴ Regulation (EU) 2015/2120, Recital 7.

⁸⁵ BEREC Guidelines (2016), para 40.

⁸⁶ BEREC Guidelines (2016), para 43-48.

BEREC Guidelines paragraph 46

In light of the aforementioned considerations, BEREC considers that a comprehensive assessment of such commercial and technical conditions may be required, taking into account in particular:

- *the goals of the Regulation and whether the relevant agreements and/or commercial practices circumvent these general aims;⁸⁷*
- *the market positions of the ISPs and CAPs involved - a limitation of the exercise of end-user rights is more likely to arise where an ISP or a CAP has a 'strong' market position (all else being equal) compared to a situation where the ISP or CAP has a 'weak' market position. The market positions should be analysed in line with competition law principles;*
- *the effects on consumer and business customer end-user rights, which encompasses an assessment of inter alia:*
 - *whether there is an effect on the range and diversity of content and applications which consumer end-users may use and, if so, whether the range and diversity of applications which end-users can choose from is reduced in practice;*
 - *whether the end-user is incentivised to use, for example, certain applications;*
 - *whether the IAS subscription contains characteristics which materially reduce end-user choice (see in more detail in paragraph 48);*
- *the effects on CAP end-user rights, which encompasses an assessment of, inter alia:*
 - *whether there is an effect on the range and diversity of content and applications which CAPs provide, and to what extent the range and diversity of applications may not be effectively accessed;*
 - *whether CAPs are materially discouraged from entering the market or forced to leave the market, or whether there are other material harms to competition in the market concerned (see in more detail in the fourth bullet of paragraph 48 with regard to offers);*
 - *whether the continued functioning of the internet ecosystem as an engine of innovation is impacted, for example, whether it is the ISP that picks winners and losers, and on the administrative and/or technical barriers for CAPs to enter into agreements with ISPs;*
- *the scale of the practice and the presence of alternatives - a practice is more likely to limit the exercise of end-user rights in a situation where, for example, many end-users are concerned and/or there are few alternative offers and/or competing ISPs for the end-users to choose from.*

A lower/zero price for certain applications instead of an entire category of applications, which does not count towards the data cap, is not a technical but an economic incentive to use those applications. According to the BEREC Guidelines such types of zero-rating offers are not by definition prohibited under the Regulation.⁸⁸

On the basis of Article 3(3), ISPs are under the obligation to treat all internet traffic equally when providing IAS without discrimination, restriction or interference. The BEREC Guidelines consider a zero-rating offer where all applications are blocked (or slowed

⁸⁷ The general goals of Regulation (EU) 2015/2120 are included in Recital 1: 'This Regulation aims to establish common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights. It aims to protect end-users and simultaneously to guarantee the continued functioning of the internet ecosystem as an engine of innovation. Reforms in the field of roaming should give end-users the confidence to stay connected when they travel within the Union and should, over time, become a driver of convergent pricing and other conditions in the Union.'

⁸⁸ BEREC Guidelines (2016), para 42.

down) once the data cap is reached, except for the zero-rated application(s) to infringe Articles 3(3)(1st) and 3(3)(3rd).⁸⁹

The BEREC report on tools and methods used to identify commercial and technical practices for the implementation of Article 3 includes a list of commercial and technical practices that could fall under Article 3.⁹⁰

Further guidance in relation to Article 3(3) is provided in paragraphs 49 - 93 of the BEREC Guidelines.

The obligations on the basis of Article 3(3) will only be discussed in relation to the assessment of zero-rating offers in this chapter. Other topics in relation to traffic management pursuant to Article 3(3) are discussed in Paragraph 3.3 of this Report.

3.2.3 Fact finding – characteristics, scale and effects of zero-rating offers

As set out in the preamble of the Regulation, NRAs should take into account the market positions of the ISPs and CAPs and should intervene when agreements or commercial practices would result in the undermining of the essence of the end-users' rights. The BEREC Guidelines refer to the comprehensive assessment set out above.

This subparagraph summarises our factual findings in relation to the characteristics of the zero-rating offers that exist on the market, the scale of these offers and the effects of the zero-rating offers on consumer behaviour in the Member States+.

(i) Characteristics of zero-rating offers

In nearly all Member States+ except two, NRAs indicated that ISPs provide zero-rating offers.⁹¹

According to **NRAs**, the most important zero-rating services are audio streaming, video streaming, social media and communication (text). This finding is confirmed by the survey results amongst ISPs.⁹² Zero-rating is mostly bundled with mobile tariffs and sometimes offered as an add-on service.⁹³ None of the ISPs offer zero-rating relating to fixed IASs.⁹⁴

Some **ISPs** provide the same zero-rated offer in multiple Member States+, but most ISPs have different zero-rating offers in different Member States+.⁹⁵ Only one ISP explained this in response to the survey by stating that the differences are due to local market circumstances.⁹⁶

There are technical differences. There are ISPs that continue the transmission of data for zero-rated apps or services once a user exceeds its general data allowance without any

⁸⁹ BEREC Guidelines (2016), para 55.

⁹⁰ BEREC (2017), Report on tools and methods used to identify commercial and technical practices for the implementation of Article 3 of Regulation 2015/2120, BoR (17) 241 (hereafter: BEREC Report on tools and methods (2017)).

⁹¹ NRA Survey completed in the context of this Study, Q24.

⁹² NRA Survey completed in the context of this Study, Q25. ISP Survey completed in the context of this Study, Q18 and Q19.

⁹³ ISP Survey completed in the context of this Study, Q32.

⁹⁴ ISP Survey completed in the context of this Study, Q33.

⁹⁵ ISP Survey completed in the context of this Study, Q29.

⁹⁶ ISP Survey completed in the context of this Study, Q31.

change.⁹⁷ In other cases, ISPs slow down data for all apps and/or services beyond the data cap or the zero-rated content is charged at a higher price if the data cap is exceeded.⁹⁸

Another difference is that data caps may vary substantially between the various zero-rated offers and from country to country. Also the treatment of (categories of) zero-rated content may differ (see below).

(ii) The scope of zero-rating offers on the market

On the basis of the surveys, the interviews and Part II, we conclude that the market situation in the Member States+ regarding zero-rating offers is very different, which is illustrated by the differences in the joint market shares of companies that have a zero-rating offer ranging from 20 % to 100 % reported by NRAs in the survey.⁹⁹

This finding is supported by the analysis of the comprehensive assessments of the zero-rating offers set out below in subparagraph 3.2.4(ii).

Furthermore, responses to the surveys show that ISPs and CAPs have different approaches regarding zero-rating. Half of the **CAPs** responding to the survey indicated that they did engage in negotiations with ISPs regarding zero-rating.¹⁰⁰ Of the 18 **ISPs** providing information on negotiations, seven indicated they engaged in negotiations with CAPs regarding zero-rating.¹⁰¹ One CAP with negotiations in multiple Member States+ managed to reach an agreement in 20 Member States+ offering the same zero-rated content.¹⁰² Two of the ISPs each concluded one commercial agreement regarding zero-rating and one concluded 25 agreements.¹⁰³ The ISP, which concluded 25 agreements, also reported it did not reach an agreement in seven instances for various reasons either because negotiations were never started or no agreement on the commercial terms was reached.¹⁰⁴ The ISPs indicated that all these agreements are non-exclusive.¹⁰⁵ One CAP active in multiple Member States+ reached an exclusive agreement in one Member State.

(iii) Impact of zero-rating offers on consumer behavior

Stakeholders have different views regarding the estimated effect of zero-rating offers on end-users.¹⁰⁶

Two (2) **NRAs** out of 24 observed that zero-rating was leading to a general increased use of data by consumers; two other NRAs observed an increase in the use of zero-rated services. Thirteen (13) NRAs did not observe any effect of zero-rating on consumer behaviour. The remaining seven NRAs did not have information on consumer behaviour in relation to zero-rating.

⁹⁷ According to paragraph 55 of the BEREC Guidelines (2016) this is prohibited if the data not included in the zero-rated offer is throttled or blocked.

⁹⁸ ISP Survey completed in the context of this Study, Q20.

⁹⁹ NRA Survey completed in the context of this Study, Q24.

¹⁰⁰ CAP Survey completed in the context of this Study, Q15, Q44, Q45 and Q48.

¹⁰¹ ISP Survey completed in the context of this Study, Q24.

¹⁰² ISP Survey completed in the context of this Study, Q48.

¹⁰³ ISP Survey completed in the context of this Study, Q25.

¹⁰⁴ ISP Survey completed in the context of this Study, Q27 and Q28.

¹⁰⁵ ISP Survey completed in the context of this Study, Q26.

¹⁰⁶ ISP Survey completed in the context of this Study, Q35. NRA Survey completed in the context of this Study, Q26. CAP Survey completed in the context of this Study, Q52.

One **CAP** active in multiple Member States+ observed consumers switching to non-zero-rated services while the other CAP does not have insight into the effect of zero-rating.¹⁰⁷

One **CSO** objected to the questions in the survey, as it considered the question to disguise the real problem of competitive advantages of zero-rated services.¹⁰⁸ Two CSOs mentioned zero-rating as one of the most pressing issues.¹⁰⁹

3.2.4 Analysis of the application of Article 3(2) in relation to zero-rating

Below, firstly, the situation before the Regulation entered into force is described. Subsequently, we will analyse the assessment of zero-rating offers on the basis of the Regulation.

(i) Pre-existing legislation

Prior to the Regulation, there were clear differences in legislation relating to zero-rating amongst the Member States+.

Most Member States+ had not adopted legislation restricting such offers. On the other hand several Member States had rules on net neutrality which prohibited or restricted commercial offers and zero-rating. Examples are the **Netherlands** and **Slovenia**:

- Article 7.4a of the Telecommunications Act in the **Netherlands** contained, *inter alia*, a prohibition to hinder or slow down applications or services unless justified and a prohibition on zero-rating (i.e. price discrimination based on the services and applications that were offered was prohibited).¹¹⁰
- The pre-existing Article 203 Electronic Communications Act in **Slovenia** contained a prohibition of zero-rating.¹¹¹

In **Norway**, zero-rating offers were not offered prior to the Regulation pursuant to the pre-existing co-regulation.¹¹²

Finally, in some Member States new legislation related to commercial offers and zero-rating was being prepared or could be adopted such as in **Belgium** and **Germany**.¹¹³

In our view the divergence between the Member States+ could not have been solved without binding regulatory measures on EU level. Following the entry into force of the Regulation amendments to national law or to the interpretation thereof have been made. In **Slovenia** the court ruled that the NRA had to apply the principle of legality and should take the Regulation into consideration (which entered into force during the court proceedings). According to the court equal treatment of internet traffic under national law does not include an obligation of equal billing.¹¹⁴ Furthermore the court in **the Netherlands** decided that a categorical prohibition in the national legislation on rate differentiation in zero-rating offers was incompatible with the Regulation.¹¹⁵

¹⁰⁷ CAP Survey completed in the context of this Study, Q52.

¹⁰⁸ CSO Survey completed in the context of this Study, Q14.

¹⁰⁹ CSO Survey completed in the context of this Study, Q8.

¹¹⁰ Part II, Chapter 21.

¹¹¹ Part II, Chapter 27.

¹¹² Part II, Chapter 22.

¹¹³ Part II, Chapters 3 and 12.

¹¹⁴ Part II, Chapter 27.

¹¹⁵ Part II, Chapter 21 and 27.

(ii) [Assessment of zero-rating offers on the basis of the Regulation](#)

Pursuant to the Regulation, zero-rating offers have been assessed in a number of Member States+. The approaches of the Member States+ are different.

- Most Member States+ have started their analysis on the basis of Article 3(3) relating to traffic management measures and have assessed whether the zero-rating offers violate this obligation by blocking or throttling certain traffic. If the NRA did not find an infringement of Article 3(3), several NRAs followed-up with a comprehensive assessment of the commercial offer under Article 3(2).
- Other Member States+ started with the assessment on the basis of Article 3(2), but also performed an assessment on the basis of Article 3(3), in the cases that the zero-rating offer was considered allowed under Article 3(2).

More countries have performed an assessment of zero-rating offers on the basis of Article 3(3)¹¹⁶ than on the basis of Article 3(2)¹¹⁷. National courts in **Sweden** have ruled that in the event of an infringement of Article 3(3), there is no need to perform a comprehensive assessment referred to in Article 3(2).¹¹⁸ This interpretation has been confirmed in second-instance decisions in **Hungary** and in a preliminary court ruling in **Germany**, however further appeals against these decisions on the topic are still pending.¹¹⁹ As set out below the criteria for examination pursuant to Article 3(2) and 3(3) are different with possibly different outcomes.

a. [Case-by-case assessment of zero-rating offers on the basis of Article 3\(2\)](#)

The fact-finding above shows that there are significant differences in market conditions between Member States+ in particular relating to the characteristics of the zero-rating offers that exist and the scale on which they are offered. As a result, the comprehensive assessment needs to be tailor-made and performed on a case-by-case basis. The case-by-case approach was discussed during the interviews.

The **ISPs** mentioned that on the one hand the differences between national markets are acknowledged and therefore a case-by-case approach works best. On the other hand, there are ISPs which are active in several Member States+ noting that the different approaches by NRAs in those Member States+ require national amendments of the offer. The **CAPs** were generally in favour of a more consistent approach but have also expressed concerns regarding a simple tick-the-box approach given the differences in market situations and/or the interests of consumers. The **COs** and **CSOs** were opposed against the case-by-case assessment and are in favour of a stricter approach of zero-rating offers, either a complete ban or the prohibition of application specific forms of zero-rating. The COs and CSOs also expressed concerns because they perceived a lack of consistent implementation in the EU and have observed violations of net neutrality via zero-rating offers that are not properly addressed. **NRAs** were less concerned about the case-by-case assessment required pursuant to Article 3(2). NRAs noted differences amongst themselves but were either of the opinion that the approach will become more consistent over time or that differences should be solved through closer cooperation in BEREC.

¹¹⁶ In total 19 Member States+.

¹¹⁷ In total five Member States + on the basis of a comprehensive assessment.

¹¹⁸ Part II, Chapter 29.

¹¹⁹ Part II, Chapters 12 and 14.

Our research has not revealed any decision, in which the NRA concluded that a zero-rating offer violated Article 3(2). However, in some cases recommendations by NRAs to change the offer were followed by the ISP. This will be discussed in more detail below.

In **Bulgaria, Cyprus and Malta** the number of subscribers using zero-rated products or the scale and scope of the offers were considered too low and therefore NRAs considered that there was no immediate impact on end-users' rights.¹²⁰ In **Belgium** and the **United Kingdom** certain zero-rated products were considered compliant because of their temporary nature.¹²¹ **Belgium** and **Portugal** assessed the zero-rated offerings of customer service apps and considered them compliant with the Regulation.¹²²

In **BE, NL**¹²³, **NO, PT** and **UK** zero-rated products were assessed on the basis of a comprehensive assessment referred to in paragraph 46 of the Guidelines.¹²⁴ The decisions/guidelines were published on 30 January 2017 (Belgium),¹²⁵ 29 June 2017 (Norway),¹²⁶ 26 September 2017 (the Netherlands),¹²⁷ 9 July 2018 (Portugal)¹²⁸ and on 2 and 27 August 2018 (UK).¹²⁹ Therefore, not all of these decisions were known at the date of the interviews.

The table below summarises the assessment of NRAs pursuant to the comprehensive assessment criteria introduced in the Guidelines for the assessment of zero-rating offers under Article 3(2).

Table 10: Results comprehensive assessments pursuant to Article 3(2)

	Belgium	Netherlands	UK	Norway	Portugal
ISPs	Proximus	T-Mobile	Three; Vodafone (2x)	Telenor; Telia	MEO, NOS, NOWO, Vodafone
Circumventing goals of the Regulation	Choice of apps coherent with customer interests				No strong evidence
Market position ISPs	Referral to EU and BE competition analyses		Considered	Together 90 % of all mobile subscriptions	None of the individual offers are considered disruptive, because they were all introduced at the same time
Market position	Referral to EU and BE competition				No significant impact of the inclusion of

¹²⁰ Part II, Chapters 4, 6 and 20.

¹²¹ BEREC Guidelines (2016), para 36. Part II, Chapters 3 and 30.

¹²² BEREC Guidelines (2016), para 35. Part II, Chapters 3 and 23.

¹²³ Lawyers of the Consortium are representing the mobile operator in the zero-rating cases in the Netherlands, see Chapter 1, para. 1.4.

¹²⁴ Part II, Chapters 3, 21, 22, 24 and 30.

¹²⁵ Part II, Chapter 3.

¹²⁶ Part II, Chapter 22.

¹²⁷ Part II, Chapter 21.

¹²⁸ Part II, Chapter 24.

¹²⁹ Part II, Chapter 30.

CAPs	analyses				ISPs own content in the offer
Effects on end-users	Data volume that remained available for other content	Wide range of music streaming services in the zero-rated offer		Relatively small general data allowance compared to other Nordic Member States	Offers do not prevent end-users to exercise their rights of choice and freedom Small general data allowance compared to large specific data allowance is a concern
Effect on CAP end-users' rights	Policy of allowing other CAPs to join the offer	Same access conditions and procedure for all CAPs offering music streaming services	"open" platforms that allowed other CAPs to request applications/s ervices to be included in the zero-rated offer	Limited number of CAPs included in the offer	End-users and CAPs can request inclusion in the offer. ISPs should publish conditions and procedures for inclusion
Alternative offers	Availability other (zero-rated) mobile IAS offers		A number of zero-rating offers on the market with different providers, each including a range of different CAPS		All ISPs have zero-rating offers
Scale of the practice	number of customers			Limited of scale of the practice in the market	
Condition / recommendation	Ongoing monitoring	No conditions	Ongoing monitoring	Ongoing monitoring Recommendation: open access for other CAPs	Ongoing monitoring Transparency on access conditions for CAPs Recommendation to increase general data caps

There are common denominators in the assessments pursuant to Article 3(2). Open access for CAPs is considered relevant by all NRAs. Also the fact that end-users should be able to choose between different offers and should not be limited by a small generic data allowance is mentioned by several NRAs and was for instance recommended in Portugal. There are also differences. The NRA of **Norway** considers the fact that zero-rating is not offered on a large scale to be an important factor while the NRA of **Portugal** considers the fact that all ISPs are offering zero-rating products to be an important factor.¹³⁰

Sometimes the assessment on the basis of Article 3(2) is almost implicit because only certain elements of the offer are prohibited on the basis of Article 3(3), but the zero-rated offer as such is considered to be allowed under the Regulation. For instance **Germany** considered a throttling element of the *StreamOn* offer a violation of Article 3(3). The zero-rated offer itself was implicitly considered to be compliant because CAPs had access to the zero-rated offer on a non-discriminatory basis.¹³¹ In **Croatia**, the NRA also had problems with throttling within the *StreamOn* offer, but the NRA applauded the open access for CAPs to participate in the offer.¹³² Another example is **Austria** where the NRA considered that zero-rating practices are not generally prohibited if CAPs have access to such agreements without discrimination.¹³³ Only if this type of practice reaches a level where the freedom of choice of the end-users is materially limited such agreements would be deemed unlawful according to Article 3(2). In the **United Kingdom** the NRA did not open formal investigations following the comprehensive assessment because of high data caps or the fact that significant impact on end-users' rights was unlikely. This seems consistent with the aforementioned approaches.¹³⁴

Given the above examples, we conclude that the case-by-case approach is not leading to inconsistent results. There are clear differences in market situations and offerings. Nevertheless, NRAs that have applied the comprehensive approach seem to follow a similar line of reasoning. In our view the most interesting finding is that only 5 of 29 NRAs have actually performed a comprehensive assessment which has been published. Maybe this is what the concerns expressed by the stakeholders relate to. However, it may only be a matter of time before other NRAs conduct comprehensive assessments and that until now some NRAs have taken the lead, partly due to national circumstances.

[b. Assessment of zero-rating offers on the basis of Article 3\(3\)](#)

The assessment of zero-rating offers on the basis of Article 3(3) is more straightforward than the comprehensive assessment on the basis of Article 3(2). The topics that have been addressed most frequently by NRAs are whether zero-rated content is still available if the data cap is reached and whether the zero-rated content may be throttled or optimised.

A number of NRAs have decided that differences in treatment of zero-rated content once the data cap is reached violate Article 3(3). In particular if the end-user could continue to use zero-rated content after the data cap was reached, while other services were blocked or throttled. This practice has led to enforcement actions in **BE, HR, CZ, DK, HU, IT, LT, PT, SE** and **SI**.¹³⁵ **EE, EL** and **PL** have also voiced this opinion.¹³⁶ Appeals

¹³⁰ Part II, Chapters 22 and 24.

¹³¹ Part II, Chapter 12.

¹³² Part II, Chapter 5.

¹³³ Part II, Chapter 2.

¹³⁴ Part II, Chapter 30.

¹³⁵ Part II, Chapters 3, 5, 7, 8, 14, 16, 18, 24, 27 and 29.

¹³⁶ Part II, Chapters 9, 13, 23.

against such decisions are pending in **Slovenia** and **Hungary**.¹³⁷ In **Sweden** the judgment in the appeal proceedings was rendered on 28 September 2018. The court upheld the decision of the NRA that the blocking of all services and apps except for the zero-rated content is a violation of Article 3(3). Furthermore, the court decided that a comprehensive assessment is not required on the basis of Article 3(3).¹³⁸

In addition, a number of NRA's have decided or expressed the view that restrictions of the maximum download rate for zero-rated content or throttling of zero-rated content infringes Article 3(3). Decisions to that extent were taken in **AT, HR, CZ, DE, HU, PL, PT, RO** and **UK**.¹³⁹ Appeal proceedings are pending in **Austria**,¹⁴⁰ **Germany**,¹⁴¹ **Hungary**¹⁴² and **Romania**.¹⁴³

Lastly, **Bulgaria** chose an entirely different approach by considering that the terms of the zero-rating offer violated the transparency provisions of Article 4.¹⁴⁴ Nevertheless, the NRA also considered that the zero-rating offer did not limit the choice of end-users.

[c. Overview of sanctions and remedies](#)

The table below provides an overview of the investigations and enforcement in the various Member States+.¹⁴⁵

Table 11: Investigations and enforcement in the various Member States+

Country	Legal basis	Violation? On which grounds	Comprehensive assessment?
AT	3(1), 3(3), 3(2)	Yes (traffic shaping)	Light touch
BE	3(1), 3(2) – BEREC Guidelines par. 36	No (temporary nature)	No
BE	3(2), 3(3) – BEREC Guidelines par. 46	No (similar treatment beyond the data cap and no violation of 3(2))	Yes, comprehensive assessment
BE	3(2), 3(3) – BEREC Guidelines par. 46, Roaming Regulation – sponsored zero-rating	No (similar treatment beyond the data cap; 3(2) assessment not completed)	Not completed
BE	3(2), 3(3) – BEREC Guidelines par. 35 – customer service apps	No (other functions within customer service app not available after exceeding data cap)	No
BE	3(3)	Yes (technical discrimination beyond the data cap)	No

¹³⁷ Part II, Chapters 14 and 27.

¹³⁸ Part II, Chapter 29.

¹³⁹ Part II, Chapters 2, 7, 12, 5, 24, 23, 25 and 30.

¹⁴⁰ Part II, Chapter 2.

¹⁴¹ Part II, Chapter 12. On 20th November 2018 the Administrative Court of Cologne has rejected the motion of Deutsche Telekom for temporary relief from the BNetzA decision in the case of “Stream On”. This decision in the preliminary procedure is open for appeal and the main proceedings are still pending.

¹⁴² Part II, Chapter 14. One of the appeals was rejected but the ruling of the Court is not published.

¹⁴³ Part II, Chapter 25.

¹⁴⁴ Part II, Chapter 4.

¹⁴⁵ For more information on the background of the cases see the relevant chapters of Part II

BG	4(1) 3	Yes (lack of transparency)	Light touch, limited offer and continuously decreasing number of subscribers
HR	3(3)	Yes (throttling (2x) and unequal treatment beyond the data cap)	No
CY	3(2), 3(3)	No (small scale)	Light touch, small scale
CZ	3(3)	No (similar treatment beyond the data cap)	No
CZ	3(1), 3(2), 3(3)	Yes (unequal treatment beyond the data cap)	No
CZ	3(3)	Yes (2x throttling)	No
DK	3(3)	Yes (unequal treatment beyond the data cap)	No
EE	3(2), 3(3)	No (similar treatment beyond the data cap; differences in pricing are allowed)	No
FI	No zero-rating offers	N/A	N/A
FR	--	--	--
DE	3(3), Roaming Regulation	Yes (throttle, roam like at home)	No
DE	3(2), 3(3)	Yes (throttling and lack of transparent/open participation for CAPs without discrimination)	No
EL	Ongoing	(focus on throttling, ISPs own content, exclusivity CAPs)	--
HU	3(3)	Yes (3x unequal treatment beyond the data cap and unequal treatment of data)	No
IE	--	--	--
IT	3(3)	Yes (2x unequal treatment beyond the data cap)	No
LV	--	--	--
LT	3(3)	Yes (2x unequal treatment beyond the data cap)	No
LU	--	--	--
MT	3(2) and 3(3)	No (small scale)	No
MT	Ongoing		
NL	3(1), 3(2), 3(3)	No	Yes, comprehensive assessment
NO	3(2) and 3(3)	No	Yes, comprehensive assessment
PL	Ongoing	--	--

PT	3(2), 3(3); Roaming Regulation	Yes (unequal treatment beyond the data cap)	Yes, effect on end-users' rights
RO	3(3)	Yes (throttling)	No
RO	Ongoing	--	--
SK	--	--	--
SI¹⁴⁶	3(3)	Yes (unequal treatment beyond the data cap)	No
ES	3(2)	No	No
SE	3(3)	Yes (2x unequal treatment beyond the data cap)	No
SE	3(2)	Ongoing	Not completed
UK	3(2), 3(3)	No	Yes, comprehensive assessment

Based on this table only four NRAs did not report any decisions or investigations relating to zero-rating offers during our research. However, the legal basis that is used by the NRAs differs.¹⁴⁷ NRAs base their investigations on Article 3(2) and/or Article 3(3).

The examination of zero-rating on the basis of Article 3(2) focusses on a comprehensive assessment of the commercial terms that are being agreed or offered by ISPs while the examination on the basis of Article 3(3) focusses on whether traffic management measures that are taken pursuant to zero-rating are reasonable e.g. transparent, non-discriminatory and proportionate and not based on commercial considerations. The fact that the assessment of zero-rating is subject to more than one provision (Article 3(2) and/or Article 3(3)) with possibly different outcomes could potentially be an element of concern. However, the Regulation does not prescribe the priorities in enforcement of Article 3(2), Article 3(3) or other provisions of the Regulation by the NRAs.¹⁴⁸

3.2.5 Analysis of the application of Article 3(2) not related to zero-rating

Compared to zero-rating, other enforcement topics in relation to Article 3(2) have been limited and such cases are mostly not solely related to Article 3(2). Very few enforcement decisions on the basis of Article 3(2) have been taken other than in relation to zero-rating.

Austria found an infringement of *inter alia* Article 3(2) in a case that did not involve zero-rating in relation to the prioritisation of a Video-on-demand ("**VoD**") service. The NRA of Austria found the service to be in breach of Articles 3(1), 3(2), 3(3) and 3(5). The product was considered to infringe Articles 3(1) and 3(2) because it automatically disconnected ongoing transmissions after 24 hours. Furthermore, by offering dynamic IPv4 addresses only against additional remuneration A1 was found by the NRA to be in breach of not only Article 3(1) but also Article 3(2) because it hindered the service provision to end-users.¹⁴⁹

¹⁴⁶ Zero-rating offers withdrawn after enforcement actions by NRA.

¹⁴⁷ This finding is confirmed in the NRA Survey completed in the context of this Study, Q22. Eleven NRAs responded that they used both Article 3(2) and 3(3), three NRAs used Article 3(2), one NRA used Article 3(3) and 15 NRAs did not respond to the question.

¹⁴⁸ Reference is made to our findings in relation to Article 5.

¹⁴⁹ See also paragraph 3.1 and Part II, Chapter 2.

Further, in **Belgium, Italy** and **Sweden** tethering is not only considered to be a violation of Article 3(1) but also of Article 3(2) if the practice is prohibited on the basis of an agreement between the ISP and the end-user.¹⁵⁰

In **Finland** contractual banning of certain peer-to-peer ("**P2P**") applications was considered to be an infringement of Article 3(2). ISPs stopped these practices following the start of the investigation and no formal decision was taken.¹⁵¹ In **Sweden**, the NRA started an investigation regarding the contractual banning of VoIP.¹⁵² In **Sweden**, the NRA also initiated an investigation pursuant to Article 3(2) because an ISP charged an additional fee for certain data transfers to function on BlackBerry mobiles.¹⁵³

3.2.6 Conclusion

Comparison of zero-rating offers with situation prior to adoption of the Regulation

On the basis of our research, we conclude that Article 3(2) has led to a more coherent approach by Member States+ towards zero-rating compared to the situation prior to the Regulation.

As a result of the Regulation there is more room for zero-rating offers in some Member States+ (the **Netherlands, Norway** and **Slovenia**).¹⁵⁴ In most other Member States+ the regime became stricter. However, compared to the situation prior to the Regulation with very different approaches between the Member States+ the approach of zero-rated offers has clearly become more coherent.

Application of Article 3(2) to zero-rating offers

On the basis of the Regulation, the case-by-case approach pursuant to Article 3(2) has moved in a more coherent direction across different Member States+. Although the decisions of NRAs that performed a comprehensive approach were not "tick-the-box" and had to take into account the specific market circumstances, there are also clear common denominators which have been harmonised such as enough choice for end-users, non-discriminatory and transparent access for CAPs and no restrictions through limited generic data caps.

We have observed that differences between Member States+ relate to the fact that NRAs have not (yet) performed a comprehensive assessment and that NRAs may decide to act on the basis of Article 3(2) and/or Article 3(3), which potentially could lead to different outcomes.

A proper assessment on the basis of Article 3(2) is relatively time consuming but can hardly be avoided given the differences in market circumstances. Currently the approach seems to be that some NRAs take the lead and others will follow later. Also a number of cases pursuant to Article 3(2) have been remedied prior to actual enforcement decisions having been taken through policy rules and position papers.

Until 31 August 2018 all five NRAs that have performed a comprehensive assessment have considered the zero-rating offers compliant with Article 3(2) (in four cases subject to monitoring).

¹⁵⁰ Part II, Chapters 3, 16 and 29.

¹⁵¹ Part II, Chapter 10.

¹⁵² Part II, Chapter 29.

¹⁵³ Part II, Chapter 29.

¹⁵⁴ Part II, Chapters 21, 22 and 26.

Application of Article 3(3) to zero-rating offers

Article 3(3) has equally led to a more coherent approach of zero-rating offers across Member States+ compared to the situation prior to the adoption of the Regulation, but there are still appeals pending.

Differences in treatment of zero-rated content beyond the data cap are considered a breach of Article 3(3). Appeals are pending in **Hungary** and **Slovenia**.¹⁵⁵ In **Sweden** the judgment in the appeal proceedings was rendered on 28 September 2018. The court upheld the decision of the NRA that the blocking of all services and apps except for the zero-rated content is a violation of Article 3(3) and that a comprehensive assessment is not required. This decision of the court was not appealed.¹⁵⁶

Restrictions of the maximum download rate for zero-rated content or throttling of zero-rated content are generally considered to infringe Article 3(3). Decisions by the NRAs have been confirmed in appeal in **Hungary**¹⁵⁷ and in preliminary proceedings in **Germany**.¹⁵⁸ Appeals in the main proceedings are still pending in **Austria, Germany, Hungary** and **Romania**.¹⁵⁹

In addition, a number of NRA's have decided or expressed the view that restrictions of the maximum download rate for zero-rated content or throttling of zero-rated content infringes Article 3(3). Decisions to that extent were taken in **AT, HR, CZ, DE, HU, PL, PT, RO** and **UK**.¹⁶⁰ Appeal proceedings are pending in **Austria**,¹⁶¹ **Germany, Hungary**¹⁶² and **Romania**.¹⁶³

Final remarks

The fact that the assessment of zero-rating is subject to more than one provision (Article 3(2) and/or Article 3(3)) with different outcomes could potentially be an element of concern. However, the Regulation does not prescribe priorities in enforcement by the NRAs.¹⁶⁴

Besides zero-rating other issues related to Article 3(2), such as contractual restrictions of tethering, seem to be limited and in any event have not led to differences in interpretation or enforcement in the Member States+.

Finally, on the basis of the interviews we conclude that none of the stakeholders are in favour of a change of the Regulation. Even if the Guidelines according to some of the interviewees deviate from the Regulation this is according to these stakeholders not a reason to change the Regulation but to change the Guidelines.

¹⁵⁵ Part II, Chapters 14 and 27.

¹⁵⁶ Part II, Chapter 29.

¹⁵⁷ Part II, Chapter 14.

¹⁵⁸ Part II, Chapter 12. Preliminary court ruling of 20 November 2018 by the Administrative Court of Cologne, ECLI:DE:VGK:2018:1120.1L251.18.00.

¹⁵⁹ Part II, Chapter 3, 12 and 25.

¹⁶⁰ Part II, Chapters 2, 7, 12, 5, 24, 23, 25 and 30.

¹⁶¹ Part II, Chapter 2.

¹⁶² Part II, Chapter 14. One of the appeals was rejected but the ruling of the Court is not published.

¹⁶³ Part II, Chapter 25.

¹⁶⁴ Reference is made to our findings in relation to Article 5.

3.3. Article 3(3) – Traffic management

3.3.1 Introduction

Article 3(3) addresses traffic management practices by ISPs. During our research we came across a variety of traffic management measures including traffic management linked to zero-rating offers, port-blocking, blocking of content and websites and other types of traffic management.

Zero-rating offers have been assessed not only on the basis of Article 3(2) but also on the basis of Article 3(3) and often in combination. This chapter will not replicate our observations in relation to zero-rating in the previous chapter. However, traffic management measures related to zero-rating will be briefly discussed in this Chapter from the perspective of traffic management.

3.3.2 Regulation and BEREC Guidelines

Article 3(3) provides for the following rights and obligations:

Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.

The first subparagraph shall not prevent providers of internet access services from implementing reasonable traffic management measures. In order to be deemed to be reasonable, such measures shall be transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic. Such measures shall not monitor the specific content and shall not be maintained for longer than necessary.

Providers of internet access services shall not engage in traffic management measures going beyond those set out in the second subparagraph, and in particular shall not block, slow down, alter, restrict, interfere with, degrade or discriminate between specific content, applications or services, or specific categories thereof, except as necessary, and only for as long as necessary, in order to:

- (a) comply with Union legislative acts, or national legislation that complies with Union law, to which the provider of internet access services is subject, or with measures that comply with Union law giving effect to such Union legislative acts or national legislation, including with orders by courts or public authorities vested with relevant powers;*
- (b) preserve the integrity and security of the network, of services provided via that network, and of the terminal equipment of end-users;*
- (c) prevent impending network congestion and mitigate the effects of exceptional or temporary network congestion, provided that equivalent categories of traffic are treated equally.*

According to Article 3(3)(1st), ISPs should treat all data traffic equally without discrimination, restriction or interference. Blocking or interference depending on senders, receivers or restrictions of access to content, applications or services is prohibited.¹⁶⁵ Guidance is provided in paragraphs 49-56 of the BEREC Guidelines.

¹⁶⁵ Regulation (EU) 2015/2120, Recital 8.

Article 3(3)(2nd) allows measures which prima facie, appear to infringe the principle of equal treatment referred to in Article 3(3)(1st) if such measures qualify as reasonable traffic management measures which are applied in a transparent, non-discriminatory and proportionate way to contribute to an efficient use of network resources and to an optimisation of overall transmission quality.¹⁶⁶ Further guidance is given in the BEREC Guidelines.¹⁶⁷

Article 3(3)(3rd) contains i) a prohibition for ISPs to apply traffic management measures that go beyond reasonable traffic management measures, as set out in the 2nd subparagraph and ii) provides for three exceptions in which traffic management measures that go beyond such reasonable traffic management are nevertheless permissible. Guidance is given in the BEREC Guidelines.¹⁶⁸ In contrast to network-internal blocking put in place by the ISP, the Guidelines explain that terminal equipment-based restrictions put in place by the end-user are not targeted by the Regulation.¹⁶⁹ Reference is made to the comments relating to terminal equipment and the NTP referred to in relation to Article 3(1). In addition the Guidelines clarify that the prohibition of monitoring specific content does not apply to traffic management which is captured by one of the exceptions (but still has to be carried out in line with Directive 95/46/EC and Directive 2002/58/EC in accordance with Article 3(4)).¹⁷⁰

To summarise, the three exceptions relate to (a) national legislation or court orders, (b) the protection of the integrity and security of the network and (c) the prevention of (impending) network congestion. Recurrent and more long-lasting network congestion which is neither exceptional nor temporary should not benefit from that exception but should rather be tackled through expansion of network capacity.¹⁷¹ The BEREC Guidelines provide guidance in relation to the exceptions.¹⁷²

3.3.3 Fact finding – traffic management measures

According to the ISPs that responded to the survey, blocking of traffic happens, due to legal obligations, for reasons of traffic management or in order to preserve the integrity and security of the network or of services provided via that network. Content, specific websites and apps are mostly blocked due to legal requirements, while ports could also be blocked for other reasons.¹⁷³

Table 12: ISPs - Do you block any of the following?

	Number of responses	Yes, it is legally required	Yes, it is not legally required	No
Content	15	5	1	9
Specific websites	16	12	1	4
Apps	15	2	1	12
Ports	16	5	5	6
Other	10	2	1	7

¹⁶⁶ Regulation (EU) 2015/2120, Recitals 9 and 10.

¹⁶⁷ BEREC Guidelines (2016), para 57 - 75.

¹⁶⁸ BEREC Guidelines (2016), para 76 - 80.

¹⁶⁹ BEREC Guidelines (2016), para 78.

¹⁷⁰ BEREC Guidelines (2016), para 80.

¹⁷¹ Regulation (EU) 2015/2120, Recital 15.

¹⁷² BEREC Guidelines (2016), para 81 - 93.

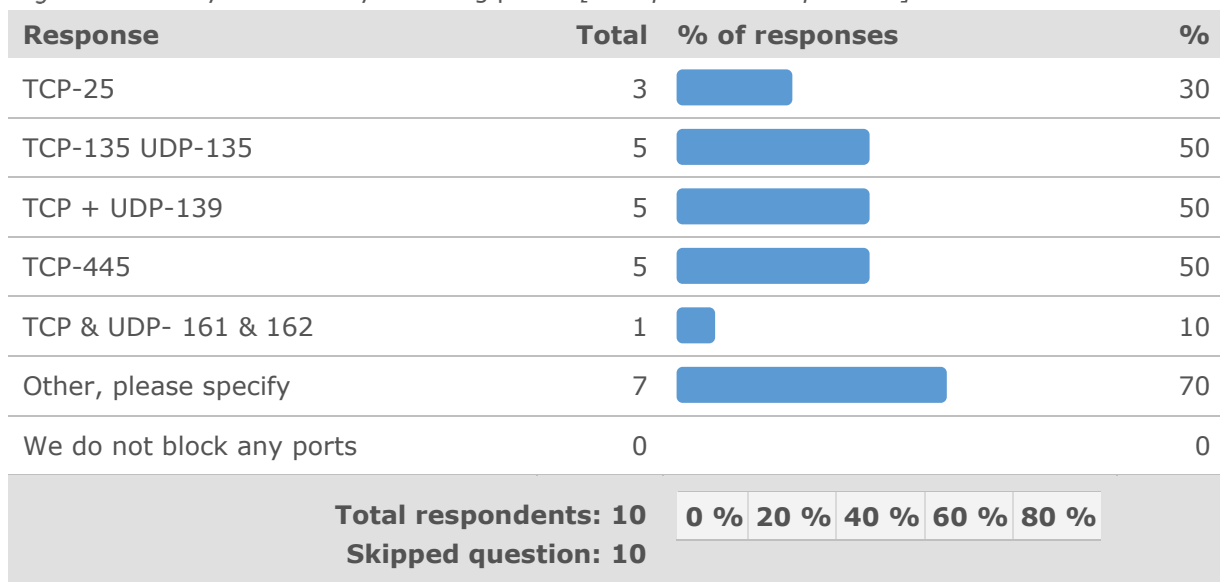
¹⁷³ ISP Survey completed for the purpose of this Study, Q36, Q37 & Q39.

Source: ISP Survey, Q36. Note: for specific websites, one respondent indicated both a legal requirement and no legal requirement.

Port-blocking concerns the blocking of access to a certain port, most commonly by an ISP, but also in some instances by a company or customer equipment. Ports, more specifically source and destination ports, are – together with source and destination IP addresses and a transport protocol (most often TCP or UDP¹⁷⁴) – necessary for applications to be able to communicate with each other.¹⁷⁵ A blocked port will thus prevent the use of an application that makes use of such port. Blocking access to one or more ports can be an effective method to prevent for example Distributed Denial of Service ("DDoS") attacks and unwanted e-mails (SPAM).

There are several ports that are commonly blocked by ISPs, most often TCP-25, TCP/UDP-135, TCP/UDP-139, TCP-445, TCP/UDP-161/162.¹⁷⁶ Perhaps the most well-known blocked port – as also specifically referred to by BEREC¹⁷⁷ – is port 25, as its widespread use by email (SMTP) software resulted in it becoming a popular target for being used to send SPAM and subsequent blocking practices by ISPs.¹⁷⁸ The ISPs that engage in port-blocking have provided additional information about the ports that are actually blocked in the survey.

Figure 4: Do you block any following ports? [multiple answers possible].



Source: ISP Survey, Q38.

The reasons given for port-blocking are the protection of consumers from unwanted content and the protection of the integrity of the internet infrastructure or of email handling.¹⁷⁹ Ports, port-blocking, the motivations for and concerns relating to port-

¹⁷⁴ TCP stands for Transmission Control Protocol and UDP stand for User Datagram Protocol.
¹⁷⁵ See for more information on the definition of ports, Broadband Internet Technical Advisory Group (BITAG), Port Blocking - A Broadband Internet Technical Advisory Group Technical Working Group Report, August 2013, section 2.2.
¹⁷⁶ Also see BITAG, Port Blocking Report, section 3.1. specifically sections 3.1.1-3.1.4 which contains a description of port blocking practices concerning these specific ports.
¹⁷⁷ BEREC, A view of traffic management and other practices resulting in restrictions to the open Internet in Europe - Findings from BEREC's and the European Commission's joint investigation BoR (12) 30, 29 May 2012, p. 9.
¹⁷⁸ As further discussed in the paragraph on the exception of Article 3(3)(b) (network security and integrity). This exception is often invoked to justify such port blocking.
¹⁷⁹ ISP Survey completed for the purpose of this Study, Q39.

blocking are discussed in more detail in the 2013 BITAG report on port-blocking.¹⁸⁰ BEREC also published several reports in which those topics are discussed, also more generally relating to blocking of access to applications (by port-blocking or other means).¹⁸¹

Other traffic management measures such as throttling are applied by ISPs in order to avoid congestion, enhance network efficiency, secure the integrity and security of the network, services and terminal equipment, comply with court orders or because customers have the option of setting controls around adult services or in accordance with blacklists of sites for reasons of consumer protection. Another reason mentioned is to limit the throughput once the agreed data cap is reached.¹⁸²

The representatives of the **ISPs** that were interviewed during our research are generally of the opinion that Article 3(3) follows the right principles. They consider traffic management as one of the most important topics for the future, which is also closely related to specialised services. According to the ISPs, the BEREC Guidelines contain a too restrictive interpretation of the Regulation with respect to for instance the duration of traffic management measures and with respect to what traffic management measures are allowed under exception (b). Several ISPs consider the assumption made in the Regulation and Guidelines that traffic management is only applied by ISPs to be incorrect, as CAPs nowadays also apply (some form of) traffic management measures.

According to the **CAPs** that were interviewed, the Regulation and the BEREC Guidelines are sufficiently clear. One umbrella organisation of CAPs recognises that in some instances traffic management is necessary. Transparency of throttling was raised as a concern. According to the CAPs, a BEREC network monitoring mechanism could give an EU-wide view on what is being throttled and a monitoring mechanism such as this should be part of the basic exercise of an NRA.

In general, the **COs** and **CSOs** equally did not raise concerns with the text of Article 3(3) and are of the opinion that it is generally sufficiently clear what traffic management measures are allowed. However, one CO and one CSO consider the wording of Article 3(3)(c) to be unclear. For instance according to one of the interviewees 'impending' congestion is not yet actual congestion; only in case of the latter traffic management measures should be allowed. The COs and CSOs also have concerns related to transparency and differences in the application of Article 3(3) in Member States+ for instance with respect to the prohibition on the blocking of content.

NRAs that were interviewed did not raise specific issues in relation to Article 3(3). One NRA referred to the fact that the monitoring and investigation of traffic management practices requires independent expertise which is not always available.

¹⁸⁰ See footnote 196.

¹⁸¹ See eg. the following BEREC-reports: Report on the implementation of Regulation (EU) 2015/2120 and BEREC Net Neutrality Guidelines (BoR (17) 240), 7 December 2017, eg. p. 14; Net neutrality measurement tool specification (BoR (17) 179), 5 October 2017, eg. p. 11; Net Neutrality Regulatory Assessment Methodology (BoR (17) 178), 5 October 2017, eg. p. 11; A view of traffic management and other practices resulting in restrictions to the open Internet in Europe - Findings from BEREC's and the European Commission's joint investigation (BoR (12) 30), 29 May 2012, eg. p. 9; Guidelines on Transparency in the scope of Net Neutrality: Best practices and recommended approaches (BoR (11) 67), December 2011; and A framework for Quality of Service in the scope of Net Neutrality (BoR (11) 53), 8 December 2011, eg. par 4.3.2.3.

¹⁸² ISP Survey completed for the purpose of this Study, Q40.

3.3.4 Analysis

The analysis of the application and interpretation of Article 3(3) covers different topics.

The application of Article 3(3) in relation to zero-rating offers has been discussed in the previous chapter. By adhering to the BEREC Guidelines, NRAs adopted a coherent approach in the assessment of traffic management measures related to these offers on some recurring topics, although there are still pending Court cases. The continued availability of zero-rated content after the data cap is reached is considered in violation with Article 3(3), if the other data traffic is blocked or throttled.¹⁸³ NRAs also adopted a coherent approach in relation to restrictions of the maximum download rate for zero-rated content or throttling of zero-rated content. This is considered to infringe Article 3(3).¹⁸⁴

Hereinafter we will discuss the application of Article 3(3) to traffic management which is not covered in the previous chapter.

(i) *The application and interpretation of Article 3(3)(1st) and 3(3)(2nd)*

During our research we have come across several traffic management measures which have been investigated pursuant to Article 3(3). The objections that were raised outside the context of zero-rating and specialised services are relatively limited and diverse.¹⁸⁵

Table 13: Traffic management measures and investigations into those measures

Member State	Traffic management measure	Status / Result
AT	Disconnection of ongoing transmissions after 24 hours and offering dynamic IPv4 IP addresses only against additional remuneration.	Enforcement decision. Appeal pending
BE	Investigation into the use of Deep Packet Inspection (" DPI ") on the basis of Article 3(3).	Investigation ongoing
CY	Throttling traffic of heavy users	Investigation ongoing
CZ	Reduction of transmission speed for some categories of traffic after specified volume of data was exceeded	Enforcement decisions
FI	Prioritisation of internet traffic; adding advertisements to web content by modification of HTTP messages.	Informal intervention
DE	Blocking of incoming IP traffic if not generated by the respective end-user; preventing end-users from possible attacks and "bill shocks".	Investigation ongoing
DE	Restrictions of the use of public IPv4 addresses	Investigation ongoing
LT	Traffic management	3 enforcement decisions. The decisions are not publicly

¹⁸³ BEREC Guidelines (2016), para 55.

¹⁸⁴ For a detailed overview of the supervision and enforcement of Article 3(3) in relation to zero-rating see paragraph 3(2).

¹⁸⁵ There are a few further references in the annual reports without any explanations. These are not mentioned in the table.

		available.
PL	Traffic prioritisation practices	Investigation ongoing

Various stakeholders have raised the subject of Deep Packet Inspections ("DPI").

DPI is a data filtering mechanism that allows ISPs to thoroughly examine data as it passes through their network.¹⁸⁶ Internet data is generally broken down into small packets of data. These packets are labelled with a header that contains information to process the data throughout the network, such as the source and destination address of the data.¹⁸⁷ The remaining data is stored in another part of the packet: the data field or payload. DPI is a technique that allows ISPs, as well as other parties that control parts of the network infrastructure, to analyse the data contained in these packets, instead of only the header. It has been long acknowledged that DPI can have useful purposes; it can for example enable advanced and effective traffic management, enhanced user services and security functions such as blocking or spam.¹⁸⁸ But it can also obviously raise privacy concerns and more generally reduce the openness of the internet.

COs voiced this concern. They noted that DPI might be used by ISPs in the EU, without adequate safeguards and without adequate monitoring and supervision by NRAs. One CSO stated that the Regulation and BEREC Guidelines are clear in prohibiting DPI. It can indeed be noted that Recital 10 of the Regulation states that "*Reasonable traffic management does not require techniques which monitor the specific content of data traffic transmitted via the internet access service.*" and that Article 3(3)(2nd) states "*Such [traffic management] measures shall not monitor the specific content [...].*" Moreover, the prohibition of monitoring specific content does not apply to traffic management which is captured by one of the exceptions of Article 3(3), if and insofar carried out in line with Directive 95/46/EC and Directive 2002/58/EC in accordance with Article 3(4).¹⁸⁹

On the other hand, one umbrella organisation of ISPs and one umbrella organisation of CAPs are afraid that the Regulation and the BEREC Guidelines might be too prescriptive regarding DPI. The way in which data packets are shaped in different layers is changing and the interpretation in the Guidelines is not future-proof. DPI may become necessary in the future to disentangle specific services from normal traffic.

In **Belgium**, a questionnaire sent out by the Belgian NRA showed that ISPs use DPI in Belgium but only in case of an incident or a user's complaint.¹⁹⁰ The NRA sent out this questionnaire for monitoring purposes and to carry out a more profound examination in accordance with the above-mentioned criteria of Article 3(3). In its report, the Belgium NRA notes that the purpose of DPI (presumably in the context of the report) is not to establish the content of the packet and points out that establishing the content of the packet would be in breach of privacy legislation and is allowed only on the basis of specific statutory exceptions. This use of DPI is still the subject of further research and legal analysis by the NRA.

¹⁸⁶ Williams and Burbridge, (2008), Net neutrality and the impact of deep packet inspection technology.

¹⁸⁷ M. Chris Riley and Ben Scott, Deep Packet Inspection: The End of the Internet as we know it? March 2009 (https://www.freepress.net/sites/default/files/legacy-policy/Deep_Packet_Inspection_The_End_of_the_Internet_As_We_Know_It.pdf, accessed 23 August 2018), p. 3.

¹⁸⁸ Ofcom (2010), Traffic Management and 'net neutrality'.

¹⁸⁹ BEREC Guidelines (2016), para 80.

¹⁹⁰ BIPT, Annual Net Neutrality Report 2017-2018, http://www.bipt.be/public/files/nl/22531/Netneutraliteit_Jaarverslag_2017-2018.pdf, accessed 11 September 2018, p. 10-12.

Apart from DPI our findings support the views of some of the stakeholders that Article 3(3) does not lead to a lot of debate. On the basis of our research we conclude that traffic management measures rarely lead to enforcement actions by NRAs. Specific issues in relation to specialised services will be discussed in paragraph 3.5.

Apart from supervision and monitoring activities by NRAs relating to traffic management measures, there are examples in some Member States+ which were reported to us where specific websites or content are blocked by ISPs for all users for reasons of child protection or at the choice of the end-user.

- In **Bulgaria**, ISPs are blocking websites containing child pornography voluntarily. The CRC considers the blocking of websites containing child pornography to be in compliance with Article 3(1) since accessing this type of content is a crime.
- In the **Netherlands**, the government expressed the opinion in 2012 that ISPs may offer filtering at the explicit request of the end-user (for example for the protection of minors, ideological grounds or religious beliefs) and the net neutrality rules through for instance proxy services which is considered outside the scope of the IAS.¹⁹¹ This statement was repeated after the Regulation entered into force.¹⁹² Certain conditions have to be met, such as the fact that the end-user chooses whether or not to use the proxy-service and the IAS tariff is not affected by this choice.
- The **United Kingdom** considers the blocking of content by the ISP for reasons of e.g. child protection allowed. In the UK, Section 104 of the Digital Economy Act 2017 (c.30) authorises ISPs to block access to content or services for child protection or other purposes, if this is in accordance with the terms of the contract with the end-user. This provision entered into force on 31 July 2017.

To our knowledge the above examples have not led to enforcement actions.¹⁹³

As discussed below in paragraph 3.5, it is expected that new/innovative services will be introduced on the basis of 5G networks with possibly various internet access services with different characteristics and/or specialised services for business customers and consumers. As a result, questions in relation to the monitoring of content in the context of traffic management for these different services may become more important. Also, traffic management measures may become necessary on a permanent basis to provide specialised services in accordance with Article 3(5) which may lead to questions relating to the interpretation of the phrase in Article 3(3) that traffic management measures shall not be maintained longer than necessary. These topics are still debated in the technical community and require further technical assessment. Nevertheless the outcome of the debate will be relevant for the application of Article 3(3) also bearing in mind that this Article has to be interpreted in accordance with both aims of the Regulation: on the one hand protecting end-users and on the other hand to guarantee the continued functioning of the internet ecosystem as an engine of innovation.¹⁹⁴

BEREC will focus on these developments as well and has announced in its draft Work Programme 2019 to commence an assessment on the impact of 5G on regulation and how regulation could influence the pace at which innovative services are brought to market in parallel with the review of the BEREC Guidelines.¹⁹⁵ Further clarification might

¹⁹¹ Letter of 11th May 2012 from the Minister of Economic Affairs to the First Chamber of the Parliament; Eerste Kamer, vergaderjaar 2011-2012, 32549, L.

¹⁹² Tweede Kamer, vergaderjaar 2015-2016, 34379, nr. 6, page 13. The Minister of Economic Affairs acknowledged that the Regulation is enforced by ACM.

¹⁹³ There may be examples in other Member States+ that have not been reported to us.

¹⁹⁴ Regulation, recital 1.

¹⁹⁵ According to the BEREC Work Programme 2019, BEREC will prepare a report on the impact of 5G on regulation and the role of regulation in enabling the 5G ecosystem, BoR (18) 240,

in particular be considered regarding the references to 'reasonable' traffic management measures which should be 'proportionate' and the phrase that 'such measures shall not monitor the specific content and shall not be maintained for longer than necessary' referred to in Article 3(3)(2nd).

(ii) *The application and interpretation of the 3rd paragraph: Article 3(3)(a)-(c)*

Traffic management measures, which do not qualify as 'reasonable' on the basis of Article 3(3)(2nd), can still be compliant if these measures are justified on the basis of one of the exceptions referred to in Article 3(3)(a)-(c).

National legislation and court orders (Article 3(3)(a))

According to the survey responses by NRAs, typical traffic which ISPs have to block because of national legislation or court orders consists of:¹⁹⁶ (child) pornography, support of terrorism, unauthorized online gambling and intellectual property violations/copyright infringements. Moreover, one NRA referred to the obligatory blocking of port number 25. These findings are supported by the results of the data collection.

There are differences between the Member States+ regarding the type of legislation that require blocking of traffic. This is illustrated by the examples in the table below.¹⁹⁷

Table 14: Types of legislation requiring blocking of traffic

Member State	National legislation
BG	Pursuant to the Bulgarian Gambling Act the Gambling Commission is entitled to adopt a decision determining websites that do not possess the necessary gambling licence and may subsequently request a court order requiring ISPs that serve IAS to end-users in Bulgaria to block access to these websites. The Gambling Commission used this power in the past.
EL	Law 4002/2011 obliges ISPs to block all gambling websites blacklisted by the Hellenic Gaming Commission (" HGC "). ¹⁹⁸
PL	Pursuant to Article 15f(5) of the Act of 19 November 2009 on Gambling, ISPs are required to block access to websites using internet domain names registered in the 'Register of domains' that are used to offer online gambling services in violation of Polish gambling laws. The Gambling Act itself entered into force on 1 April 2017 and this specific provision entered into force on 1 July 2017. ¹⁹⁹
SK	The Slovak Gambling Act provides a restriction on access to unauthorized (unlicensed) gambling websites based on a court order, which continued to apply after the Regulation entered into force. Furthermore, according to Section

paragraph 3.1. Footnote 8: "Concerning the net neutrality aspect of this project, coordination is foreseen in 2019 between the BEREC Open Internet Expert Working Group and the BEREC Planning and Future Trends Expert Working Group."

¹⁹⁶ NRA Survey completed for the purpose of this Study, Q31 - 33.

¹⁹⁷ The list of examples is by no means exhaustive. There are many examples which for reasons of i.e. State Security are kept confidential.

¹⁹⁸ Άρθρο 51, παρ. 5 του Νόμου υπ' αριθμ. 4002 (ΦΕΚ Α 180 22.8.2011) "Τροποποίηση της συνταξιοδοτικής νομοθεσίας του Δημοσίου - Ρυθμίσεις για την ανάπτυξη και τη δημοσιονομική εξυγίανση - Θέματα αρμοδιότητας Υπουργείων Οικονομικών, Πολιτισμού και Τουρισμού και Εργασίας και Κοινωνικής Ασφάλισης" = Article 51, para 5 of Law 4002/2011 ("the gambling law"). The list of illegal sites is available at https://www.gamingcommission.gov.gr/images/epopteia-kai-elegxos/blacklist/blacklist_en.xlsx (accessed 24 September 2018).

¹⁹⁹ Article 15f(5) of the Act of 19 November 2009 on gambling, <http://dziennikustaw.gov.pl/du/2017/88> (last consulted 8 August 2018).

	369 of the Slovak Criminal Code ISPs are obliged to block pages with dangerous content such as child pornography. ²⁰⁰ This provision was also continued after the Regulation became applicable.
UK	In the UK Section 104 of the Digital Economy Act 2017 (c.30) authorises ISPs to block access to content or services for child protection or other purposes, if this is in accordance with the terms of the contract with the end-user. This provision entered into force on 31 July 2017. Ofcom does not require ISPs to block traffic but ISPs may be required to comply with Court Orders. The Court Orders will specify whether specific content, websites, apps or ports are to be blocked. There is some debate whether this legislation can be qualified as national legislation in the sense of Article 3(3)(a).

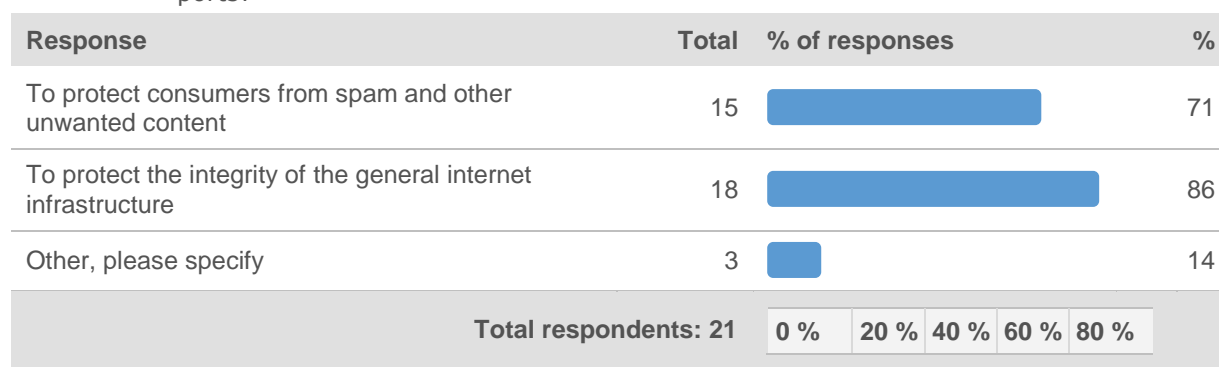
Based on our research, we conclude that specific national legislation in the sense of Article 3(3)(a) containing a generic requirement to block certain categories of websites differs from country to country but is not widespread.

According to Article 3(3)(a), traffic management measures are also allowed in order to comply with Court orders. In **Germany**, the NRA has made its own assessment next to the court ruling whether the website-blocking was justified pursuant to Article 3(3)(a). In the **Netherlands**, the discussion came up whether Article 3(3)(a) requires a court order against the individual ISPs. This interpretation would mean that for instance right owners who are seeking a court order to block a certain website would have to start multiple legal proceedings against every individual ISP given the fact that such other ISPs will normally not intervene in the proceedings and the civil court ruling does not have *erga omnes* effect. In the Netherlands, this might be solved via some sort of self- or co-regulation.²⁰¹ We expect that this issue will come up in other Member States+ as well.

Integrity and security of the network (Article 3(3)(b))

Port-blocking (unless falling under exception (a)) is the most prominent example in this category. Twenty-one (21) out of 27 NRAs allow ISPs to block certain ports (without being obliged to do so).²⁰²

Figure 5: NRAs - What are the reasons to allow internet access providers blocking of certain ports?



Source: NRA Survey, Q35. Note: Multiple answers possible.

In **Finland**, Ficora has published a recommendation setting out which ports may be blocked for what reason (in particular prevention of and protection against DoS

²⁰⁰ SK Criminal Code No. 300/2005 Coll.

²⁰¹ Part II, Chapter 21.

²⁰² NRA Survey completed for the purpose of this Study, Q34.

attacks).²⁰³ Similar transparency of port-blocking measures is not applied in other Member States+.

Examples of monitoring and supervision regarding port-blocking in the various Member States+ are provided in the table below.

Table 15: Monitoring and supervisions measures regarding port-blocking

Member State	Securing network integrity and security – Port-blocking
BE	In 2017 the NRA sent a questionnaire to ISPs in order to get more information on port-blocking policies.
BG	The NRA considers the blocking of ports to be justified if a port is commonly used for the distribution of viruses, SPAM and/or different types of malware. In Bulgaria there was a complaint on the blocking of port 25. CRC accepted that this practice could be applied in order to maintain the integrity and security of the network. Nevertheless, the provider involved stated to be willing to remove the blocking of port 25 at the request of its end-users.
FI	The NRA found that some port-blockings applied by ISPs were detrimental to subscribers, as they prevented maintenance of internet servers and usage of VoIP. The NRA communicated to the ISPs that they needed to change their practices in this area and issued a market-wide recommendation on the topic of port-blocking. In this document the NRA also recommends ISPs to block port 25 for security reasons.
DE	ISPs block ports UDP 67/DHCP; UDP 69/TFTP; UDP/TCP 135-139 and TCP 445 in order to preserve the security of the network and of terminal equipment of end-users. BNetzA considers the described port-blocking to be compatible with Article 3(3)(b). However, the NRA requested (no formal decision) the ISP to clearly communicate their practice in their general terms and conditions and amend them accordingly in order to comply with the transparency obligations pursuant to Article 4(1). The NRA has investigated several other ISPs that blocked certain ports permanently, i.e. for longer than one month. According to BNetzA's statements, port-blockings can prevent the use of some applications via the respective IAS because these applications use the respective (blocked) ports. The NRA, however, notes that the practice of port-blocking can be justified if the blocking is needed to preserve the integrity and security of the network, of services provided via that network and of the terminal equipment of end-users pursuant to Article 3(3)(b). According to the NRA, the ports blocked were ports that are regularly used for attacks on end-devices since known vulnerabilities can be exploited through them. In addition, these ports are mainly used by applications only within LANs, not over the internet, so there are no major restrictions for the end-users.
LT	The NRA investigated a complaint regarding the blocking of SMTP email services using port 25. The ISP claimed that blocking port 25 was necessary to preserve the integrity and security of the network. However, the NRA considered that this ISP could not provide sufficient evidence to substantiate its claim. As a result, the exception for port-blocking traffic management practices of Article 3(3)(b) did not apply. The NRA concluded that blocking port 25 infringed end-users' rights pursuant to Article 3(1). The NRA ordered the ISP to unblock port 25.
LV	The NRA conducted a survey amongst ISPs. This survey showed that 19 % of all ISPs utilize some form of data flow management. The primary management tool utilized for data flow management was port-blocking. 54 % of ISPs block Ports

²⁰³ Part II, Finland, chapter 10.

	135 - 139, 12 % of ISPs block Port 445 and 10 % of ISPs block Port 25. 24 % of all other imposed port-blocking measures concern the blocking of other ports.
SI	In relation to port-blocking, the results of the NRA show that ISPs often block the following ports: 25, 53, 123, 135, 137, 139 and 445. Alternative measures consist for example of the use of an internal SMTP server, IPS on external WAN connections, filtering devices, raising awareness and educating end-users. Some of these options are not used due to high prices and complexity. ISPs measure the efficiency of the implemented measures with, for example, network analytics, number of end-users' complaints, the amount of blocked traffic, number of addresses on SMTP spam lists and the stability of the network. According to ISPs, they follow the relevant established best practices and guidelines. Before the actual implementation of the measures, ISPs conduct an internal check and follow international standards (e.g. ISO 27001). ISPs also closely cooperate with SI-CERT.

On the basis of this overview it must be concluded that the *port-blocking* approach differs from country to country which may be related to specific national circumstances, especially in relation to port 25. The differences have not been highlighted by stakeholders as an area of concern apart from the general comment relating to a lack of transparency. The Regulation has reportedly increased awareness of this issue.

Preventing (impending) network congestion 3(3)(c)

Very few examples in Member States+ refer to the exception referred to in Article 3(3)(c).

The NRA in **Bulgaria** prepared a draft position on the implementation of Articles 3 and 4.²⁰⁴ This draft position *inter alia* provides guidance on the interpretation of 'impending network congestion' and 'exceptional or temporary network congestion' within the meaning of Article 3(3)(c).²⁰⁵

In **Germany** the Court of Cologne ruled in a preliminary procedure on 20 November 2018 relating to zero-rating that Article 3(3)(3)(c) is not meant to justify repeated and lasting network congestion which according to this Court should be addressed by extension of the network capacity.²⁰⁶ The case is subject to further appeal proceedings.

Furthermore, in **Austria** the NRA has taken an enforcement decision on the basis of a violation of Article 3(3) in relation to traffic management measures which were taken by the ISP in order to enable the prioritisation of a VoD service which was qualified as a specialised service by the NRA. The case is pending in appeal proceedings with the court and will be discussed in further detail in relation to Article 3(5).

The Austrian case shows again the link between Articles 3(3) and 3(5). The prioritisation of specialised services may lead to structural traffic management of other traffic. The question whether this is allowed on the basis of Article 3(3)(2nd) will depend on the interpretation of these provisions which should be in line with both objectives of the Regulation: the protection of end-users and the aim that innovation should be enhanced and guaranteed.

²⁰⁴ CRC, Позиция на крс относно изпълнение на изискванията на чл. 3 и чл. 4 на регламент (ec) 2015/2120.

от страна на доставчиците, предоставящи достъп до интернет за крайни потребители = Draft Position of the Bulgarian Communications Regulatory Commission regarding implementation of the requirements of Articles 3 and 4 of Regulation 2015/2120 by the ISPs.

²⁰⁵ See further Part II, Bulgaria, chapter 4.

²⁰⁶ Part II, Chapter 12.

3.3.5 Conclusion

In the course of our research, we have come across a variety of traffic management measures other than zero-rating, such as port-blocking, blocking of content and websites and other types of traffic management.

- Port-blocking relates to security and integrity and is a focal point in at least seven Member States+. However, port-blocking is treated differently amongst Member States+ also from a transparency perspective. An example is the fact that the blocking of port 25 is recommended for all ISPs in one Member State and considered not allowed in another Member State. These differences are not the result of the Regulation but of national circumstances. The Regulation has increased awareness. We understand that BEREC is considering whether a more harmonised approach would be appropriate.
- There are differences in national legislation prescribing the blocking of content. Topics covered by national legislation include the blocking of online gambling sites and measures aimed at achieving child protection. Several countries (e.g. **the UK**) have introduced or changed national legislation following the entry into force of the Regulation.
- There are no other issues that have been reported to us in relation to the supervision and enforcement of Article 3(3) apart from an enforcement decision in Austria in relation to the prioritization of a VoD service which was considered not justified on the basis of Article 3(5) and therefore breached Article 3(3)(3rd) due to unequal treatment and discrimination of other data traffic (see below).

We conclude that Article 3(3) is effective. The number of enforcement actions – apart from zero-rating – has been limited and stakeholders consider the wording of Article 3(3) sufficiently clear.

Questions in relation to reasonableness and proportionality of traffic management measures, monitoring of content in the context of traffic management measures and permanent traffic management measures may become more important in the future following the introduction of next generation networks and new services.

However, in our view such questions can be addressed on the basis of Article 3(3) bearing in mind that this Article has to be interpreted in accordance with both aims of the Regulation (protecting end-users and guaranteeing the continued functioning of the internet ecosystem as an engine of innovation).²⁰⁷ This is in line with the announcement of BEREC in its draft Work Programme 2019 to commence an assessment on the impact of 5G on regulation and how regulation could influence the pace at which innovative services are brought to market in parallel with the review of the BEREC Guidelines.

In relation to the exception referred to in Article 3(3) under a) regarding blocking of content or specific websites the question is whether a civil court ruling by which an ISP is ordered to block a certain website (for instance at the request of a right owner) can be invoked by or for other ISPs as well given the fact that such other ISPs will normally not intervene in the proceedings and the civil court ruling does not have *erga omnes* effect. If this were disallowed the alternative would be that rights owners have to start legal proceedings against all individual ISPs regarding the same content or the same website. A possible interpretation might be that blocking on the basis of a legal precedent could be covered by the exception referred to in Article 3(3)(a), although this would be an option and not an obligation for other ISPs which have not participated in the court proceedings as a party. We assume that in such cases the usual safeguards regarding procedural justice should continue to apply.

²⁰⁷ See below second Recommendation.

3.4. Article 3(4) – Limitation on processing of personal data

3.4.1 Introduction

Article 3(4) provides for limitations relating to the protection of personal data and ePrivacy.

3.4.2 Regulation and BEREC Guidelines

According to Article 3(4), traffic management measures may only entail processing of personal data if it is necessary and proportionate to achieve the objectives set out in paragraph 3 and if such processing of personal data is in accordance with the Data Protection Directive. Also, the ePrivacy Directive should be complied with. See Article 3(4):

Any traffic management measure may entail processing of personal data only if such processing is necessary and proportionate to achieve the objectives set out in paragraph 3. Such processing shall be carried out in accordance with Directive 95/46/EC of the European Parliament and of the Council. (...) Traffic management measures shall also comply with Directive 2002/58/EC of the European Parliament and of the Council. (...)

Recital 33 of the Regulation specifies that the Regulation respects fundamental rights such as the protection of personal data.

Article 3(4) references Directive 95/46/EC (Data Protection Directive) and Directive 2002/58/EC (ePrivacy Directive).

Since the adoption of the Regulation the Data Protection Directive has been repealed and replaced by Regulation (EU) 2016/679 (General Data Protection Regulation or GDPR). The GDPR sets rules concerning the processing of personal data.

The ePrivacy Directive is to be repealed and replaced by a new regulation, as proposed by the Commission in 2017 ("**ePrivacy Regulation**").²⁰⁸ The ePrivacy Directive and the proposed ePrivacy Regulation address (*inter alia*) the processing of so-called traffic data²⁰⁹ as well as the protection of the content of electronic communications. *Inter alia*, it restricts the processing of traffic data to certain specific purposes and prohibits listening, tapping, storage or other kinds of interception or surveillance of (the content of) communications and the related traffic data by persons other than users, without the consent of the users concerned.

Further guidance on Article 3(4) of the Regulation is provided in paragraphs 94 – 98 of the BEREC Guidelines.

²⁰⁸ Proposal for a Regulation of The European Parliament and of the Council concerning the respect for private life and the protection of personal data in electronic communications and repealing Directive 2002/58/EC, COM(2017) 10 final (hereafter: ePrivacy Regulation).

²⁰⁹ Article 2(b) of the ePrivacy Directive, 2002/58/EC, defines "traffic data" as "any data processed for the purpose of the conveyance of a communication on an electronic communications network or for the billing thereof".

Article 3(4) applies to both types of traffic management referred to in Article 3(3) i.e. reasonable traffic management measures and traffic management measures going beyond reasonable traffic management measures.

BEREC points out that with regard to reasonable traffic management measures, these requirements are further specified by Article 3(3)(2nd) which states that '*such measures shall not monitor the specific content*'.²¹⁰ According to paragraphs 69 and 70 of the BEREC Guidelines this means that reasonable traffic management measures may not monitor the transport layer protocol payload.

The competent national authority should assess whether the processing of personal data complies with Union law on data protection and whether the processing of personal data undertaken by ISPs is necessary and proportionate to achieve the objectives set out in Article 3(3), according to BEREC.

3.4.3 Fact finding related to Article 3(4)

In the DPA survey, the DPAs were asked about possible complaints concerning privacy and data protection in relation to net neutrality. Furthermore, the DPAs were asked what the underlying issues of the complaints were. The DPAs could choose from the following categories:

- a. deep packet inspection (DPI);
- b. government surveillance of communications;
- c. surveillance of communications by internet access providers;
- d. decreased confidentiality of communications; and
- e. other possible issues.

However, none of the DPAs have received any complaints and therefore none of the aforementioned issues were mentioned in the survey.

Moreover, in our desk research and during the interviews very few difficulties specifically related to the processing of personal data were mentioned. Only in **Sweden** an issue came up in relation to the analysis of data traffic by the ISP, as part of a zero-rating offer, to distinguish different streams of traffic without the consent of the users. However, this case was not handled on the basis of Article 3(4).

3.4.4 Analysis of the application of Article 3(4)

a. Deep Packet Inspection

DPI has been discussed in paragraph 3.3. Various stakeholders have raised the subject of Deep Packet Inspections (DPI), also in the context of the processing of personal data and e-privacy.

An investigation in **Belgium** is ongoing. So far, in its current report, the NRA of Belgium places the use of DPI in the context of Article 3(3) and does not mention Article 3(4). However, in view of the fact that BEREC, as indicated earlier in this paragraph, links Article 3(4) to Article 3(3)(2nd), where it is stated that "*such measures shall not monitor the specific content*" and the Belgian NRA's reference to the relevance of privacy

²¹⁰ BEREC Guidelines (2016), para 95.

legislation in case of identification of content, this case touches upon the interests protected by Article 3(4) as well.

b. URLs as personal data

A CSO pointed to the practice that ISPs allow CAPs to identify the traffic of their services through URLs and Server Name Identification in order for the ISP to zero-rate that traffic. URLs can contain personal data and if ISPs identify zero-rated traffic based on URLs, the CSO argues that they should ask the end-users for consent for processing this personal data. Furthermore, this CSO finds it problematic that if third-party users connect to the end-user with a zero-rating offer, these third-party users will not have consented to the processing of personal data.

However, this discussion relates to the qualification of URLs as personal data which is outside the scope of the Regulation.

c. Enforcement by NRAs related to Article 3(4)

There was a case in **Sweden**, in which the NRA found a breach of data protection and ePrivacy legislation by Tre in relation to its zero-rated offer, 3Musiksurf. In order to provide the offer, Tre analysed and processed traffic data in order to distinguish traffic for streaming music so that it will not be counted towards the data allowance pursuant to the subscription. The NRA found that Tre's processing of traffic data required consent from the users according to Article 17 of Chapter 6 of the Swedish Electronic Communications Act. Since Tre had not retrieved consent from the users of the offer, the NRA notified Tre that it had to seek their consents to process such data traffic by 1 July 2018.²¹¹

This case was not handled on the basis of Article 3(4). Nevertheless although no reference was made to the Regulation in this decision, it can be regarded as a case related to the Regulation since there is a zero-rating offer involved and it relates to the application of Swedish data protection and e-privacy legislation implementing the EU Directives referred to in Article 3(4).

Apart from this single case which was not handled on the basis of Article 3(4) we did not come across other supervision or enforcement of Article 3(4).

3.4.5 Conclusion

We conclude that Article 3(4) has not given rise to interpretation issues.

There is overlap in supervision and enforcement with the European rules on data protection and ePrivacy. This has become apparent in the case in **Sweden** related to a zero-rating offer which was handled not on the basis of Article 3(4) but on the basis of Swedish national legislation.

A coherent approach may be influenced in the future by the fact that in Member States+ different bodies are entrusted with the supervision and enforcement of data protection rules in relation to net neutrality. For instance in those Member States+ where NRAs are not entrusted with the supervision and enforcement of the GDPR and e-Privacy Regulation, the fact that NRAs are entrusted with the supervision and enforcement of Article 3(4) could mean that NRAs may have at least in theory joint responsibility in

²¹¹ Part II, Chapter 29.

supervising and enforcing the data protection and ePrivacy rules in relation to net neutrality.

This being said, we have no indication that the compliance with data protection and ePrivacy rules is not effectively secured and the allocation of enforcement powers by Member States+ is not prescribed by the Regulation.

The fact that NRAs are leaving the initiative for supervision and enforcement to the data protection authorities is probably proportional. However, duplication in regulation and enforcement powers might be less efficient.

3.5. Article 3(5) – Specialised services

3.5.1 Introduction

The focus of Article 3(5) is on specialised services, i.e. services other than IASs which are optimised for specific content, applications or services or a combination thereof, where the optimisation is necessary in order to meet requirements of the content and applications or services for a specific level of quality.

The status and the implications of the Regulation for specialised services, including the impact of the Regulation for the next generation of mobile technology (5G), are much debated amongst stakeholders and policymakers. However, there is not much information or case law in relation to the supervision and enforcement of Article 3(5).

3.5.2 Regulation and BEREC Guidelines

Article 3(5) provides for the following rights and obligations:

Providers of electronic communications to the public, including providers of internet access services, and providers of content, applications and services shall be free to offer services other than internet access services which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality.

Providers of electronic communications to the public, including providers of internet access services, may offer or facilitate such services only if the network capacity is sufficient to provide them in addition to any internet access services provided. Such services shall not be usable or offered as a replacement for internet access services, and shall not be to the detriment of the availability or general quality of internet access services for end-users.

With respect to Article 3(5)(1st), guidance is provided in the BEREC Guidelines, paragraphs 99 - 115. Guidance relating to Article 3(5)(2nd) is provide in paragraphs 116 – 127 of the BEREC Guidelines.

Article 3(5) 1st subparagraph

Article 3(5) relates to electronic communication services other than IASs for which specific levels of quality are necessary. Such specific levels of quality may, for instance, be required by certain services responding to a public interest or by certain new

machine-to-machine communications services. NRAs should verify whether and to what extent optimisation, which cannot be provided by IASs, is objectively necessary to ensure one or more specific and key features of the content, applications or services and to enable a corresponding quality assurance to be given to end-users, rather than simply granting general priority over comparable content, applications or services available via the IAS.²¹²

Specialised services can be offered by providers of electronic communications to the public, including ISPs and CAPs.²¹³ According to the BEREC Guidelines, network-slicing in 5G networks may be used to deliver specialised services.²¹⁴ Article 3(5) intends to provide the safeguards for the provisioning of specialised services, which are characterised by the following features referred to in Article 3(5)(1st):²¹⁵

- they are services other than IAS services;
- they are optimised for specific content, applications or services or a combination thereof; and
- the optimisation is objectively necessary in order to meet requirements for a specific level of quality.

Article 3(5) 2nd subparagraph

The provision of specialised services is subject to the conditions of Article 3(5)(2nd):

- The network capacity should be sufficient to provide the specialised service in addition to any IAS provided.
- Specialised services are not usable or offered as a replacement for IAS.
- Specialised services are not to the detriment of the availability or general quality of the IAS for end-users.

3.5.3 Fact finding – stakeholder views in relation to specialised services

In this subparagraph, the potential issues in relation to Article 3(5) on the basis of the surveys, the interviews and our data collection are summarised.

According to the **NRA** Survey results, specialised services are currently offered by a wide range of ISPs from large (with more than 50% market share) to small (with less than 1% market share).²¹⁶ Based on the **ISP** survey results 18 of the 19 ISP respondents do offer specialised services to end-users, most commonly VoIP, VoLTE and IPTV.²¹⁷ Three of the ISPs specified the vertical sector to which the specialised services are offered: transport, automotive or mobility.²¹⁸ The majority of the **CAPs** participating in the survey indicated they do not offer specialised services to end-users.²¹⁹ Asking why the optimisation of specialised services that are provided on their network is required, **ISPs** refer to the need for ISPs to maintain sufficient quality of service levels for VoIP, VoLTE

²¹² Regulation (EU) 2015/2120, Recital 16.

²¹³ BEREC Guidelines (2016), para 100.

²¹⁴ BEREC Guidelines (2016), para 101.

²¹⁵ BEREC Guidelines (2016), para 101.

²¹⁶ NRA survey, question 54.

²¹⁷ ISP Survey in the context of this Study, Q42.

²¹⁸ IAS Survey in the context of this Study, Q43.

²¹⁹ CAP Survey in the context of this Study, Q54.

and IPTV services.²²⁰ According to the ISPs, the services could not be provided from a technical point of view without optimisation.²²¹

The interviewed representatives of the **ISPs** indicated that the further development of specialised services (both mobile/5G and fixed) is one of the major topics for the future. These interviewees indicated that in their view Article 3(5) provides the flexibility to ensure these services can be developed. However, they have concerns related to the lack of certainty whether ISPs will be allowed to provide the required quality of service. The ISPs consider the BEREC Guidelines to be too prescriptive and too restrictive. Also the pending appeal case in Austria relating to Article 3(5) (see below) is causing legal uncertainty. Another issue raised by the ISPs related to the question whether B2B services qualify as specialised services within the scope of the Regulation. The BEREC Guidelines specify that private networks are outside the scope of the Regulation, but do not specify whether B2B services and publically available services such as public VPNs are outside the scope or not.

The views of the interviewed **CAPs** were mixed depending on the specialised services that they would use or provide. One organisation of CAPs voiced concerns relating to the development of specialised services and in particular if IASs would have priority over utilities in case of low capacity. The fact that DPI is not allowed to distinguish between specialised services and IASs is considered to be an extra complication. Other CAPs were less concerned and stated that potential issues could be solved through more transparency and clear guidelines.

The **COs** and **CSOs** consider the existing net neutrality rules capable of dealing with the development of new technologies such as 5G. In their view, new applications should not be qualified as specialised services too easily and new technologies should be developed in a way that enhances and strengthens the objectives of the Regulation.

The interviewed **NRAs** did not express concerns relating to the question whether there will be enough room for the development of specialised services under the current net neutrality rules. They expect that specialised services will become a topic when 5G is launched. Several NRAs have noticed that there is uncertainty amongst market players and they appreciate that the BEREC Guidelines may need to be amended. They have not published their position yet.

In **Poland**, the NRA noticed that there are doubts among market participants as to how to assess compliance with the Regulation if the specialised service is solely offered to businesses and characterized by higher QoS than if the same services would be offered to consumers.²²² According to the NRA, such differentiation between services offered to businesses and to consumers may not be allowed under the Regulation.

3.5.4 Analysis

Article 3(5) is referring to certain principles, which leave room for interpretation:

- 'services which are optimised for specific content, applications or services or a combination thereof';
- 'the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality';

²²⁰ IAS Survey in the context of this Study, Q44. NRA Survey in the context of this Study, Q55.

²²¹ The underlying reason is VoIP, VoLTE and related services are being supplied through platforms based on LTE and IMS standard defined by ETSI/3GPP.

²²² Part II, Chapter 23.

- 'network capacity is sufficient to provide them in addition to any internet access services provided'; and
- 'such services shall not be usable or offered as a replacement for internet access services.'
- Specialised services are not to the detriment of the availability or general quality of the IAS for end-users.

Apart from Article 3(5), Article 3(3) will be relevant because the prioritisation of specialised services will often involve traffic management measures relating to other traffic in the sense of Article 3(3). Therefore, principles referred to in Article 3(3)(2nd) may need to be interpreted as well:

- 'the measures shall not monitor the specific content'; and
- 'the measures shall not be maintained for longer than necessary'.

The coherent interpretation of these criteria is subject to a case-by-case approach by the NRAs taking into account the BEREC Guidelines.

However, there is currently only limited reported experience in relation to the interpretation, supervision and enforcement of Article 3(5) by the NRAs.

The only case that was decided on the basis of Article 3(5) was about a Video-on-Demand service in **Austria** which is still pending in appeal.²²³ The Austrian NRA has determined that this specialised service within the meaning of Article 3(5) should not be prioritised because the service could also have been offered via normal IAS. The enforcement decision refers to paragraph 112 of the BEREC Guidelines stating that the Regulation does not aim at protecting inefficient or outdated technologies. See for a description of the Austrian case Box 2.

Box 2: Decision of TTK of 18 December 2017

By decision of 18 December 2017, the NRA of **Austria** ("**TKK**") decided that A1 Telekom Austria AG ("**A1**") may no longer prioritise the video on-demand service provided in its product 'A1 TV'. A1 was granted a period of three years for this technical conversion.

A1 offers an A1 TV product bundle in combination with fixed network IAS, which essentially consists of two individual services. A linear live IP TV service (multicast) and a video on-demand service (Catch Up TV Service and video portal). The product bundle does in itself not fall under the definition of an IAS in the sense of Article 2(2) and does not provide any IASs itself. An information procedure initiated by the NRA of Austria revealed that the TV and video on-demand service offered via the bandwidth of the IAS are being prioritised. If active, A1 reserves a certain bandwidth for these services, which is then no longer available for the IAS. In the view of TTK it was therefore necessary to assess whether the individual services of 'A1 TV' can be considered as a special service in the sense of Article 3(5) and whether prioritisation is therefore permissible. In particular the question of the necessity for optimisation (in the sense of prioritisation) had to be answered.

With respect to the video on-demand service, the NRA of Austria established a violation of Articles 3(5) and 3(3)(3rd).

Mainly based on a technical and commercial expert opinion, the TTK came to the conclusion that there was no objective need for prioritising the service. The quality level

²²³ Decision of 18th December 2017 reported in Part II, Austria, chapter 2.

needed for the VoD service within 'A1 TV' could also be achieved with the standard IAS. TKK stated that A1, instead of prioritising its video on-demand service, could also use other means of efficient data transmission, such as adaptive video streaming. In that regard, TKK also referred to other providers in the Austrian market which offer VoD services without a reserved bandwidth in the networks, and without any technical or commercial problems. TKK also stressed that according to paragraph 112 of the BEREC Guidelines, the Regulation does not aim to protect inefficient or outdated technologies. Special services within the meaning of Article 3(5) may evolve over time. A special service that is deemed to be a (justified) special service today, may not necessarily qualify as special service in the future.

Additionally, TKK clarified that contrary to one of A1's main arguments it is not necessary to assess the product bundle 'A1 TV' as a whole. TKK argued that a number of alternative services can be found on the internet offering only VoD.

According to TKK, A1 also violated Article 3(3)(3rd) as a result of the fact that by prioritising/optimising its video on-demand service it simultaneously discriminated, restricted, and interfered at the disadvantage of all other services, content and/or applications.

Appeal proceedings against the TKK decision are currently pending with the Court of First Instance. The judgment of the court may lead to a further appeal before the Austrian Administrative High Court and preliminary rulings may be asked to the European Court of Justice.

Therefore, it may still take several years before these proceedings will result in a final ruling. Moreover, the Austrian case seems to relate to a specific kind of specialised service (a legacy service) and the question is whether this case will be considered as a precedent for future specialised services. During our research concerns were raised by ISPs that this may have a negative impact on network investments and the introduction of new services.

On 13 April 2018, a report was published by TNO titled "*5G and Net Neutrality: a functional analysis to feed the policy discussion*" ("**TNO-report**").²²⁴ TNO has determined three use cases:

- Virtual Reality in media and entertainment;
- Critical communications in Public Safety; and
- Automated Driving.

On the basis of these use cases, TNO has determined nine topics/characteristics of specialised services to be analysed on the basis of the net neutrality rules.²²⁵ The TNO-report concludes that in particular the impact of specialised services on IASs²²⁶ and the objective need for optimisation in specialised services²²⁷ are expected to have the highest complexity. The QoS differentiation within IASs²²⁸ is ranged to have medium to

²²⁴ TNO (2018), 5G and Net Neutrality: a functional analysis to feed the policy discussion. TNO 2018 R10394. The TNO study was sponsored by the Dutch Ministry of Economic and Climate Affairs, KPN, T-Mobile, FME (on behalf of Ericsson, Nokia, Huawei).

²²⁵ 1) Multiple IASs with different traffic management settings, 2) QoS differentiation within IAS, 3) Local access to the Internet, 4) Local access to the Internet, 5) Objective need for optimisation in SpS, 6) Impact of SpS on IASs, 7) SpS and connections to the Internet, 8) Connectivity to limited number of Internet end points and 9) Access control.

²²⁶ Topic no. 6

²²⁷ Topic no. 5

²²⁸ Topic no. 2

high complexity. The use cases show that the services, which might have to be examined on the basis of Article 3(5), are very different: services can be of high/low public interest, can be offered to consumers/businesses, can include IoT functionality or not, can be offered on national level or on a European scale, may have very different possible impact on IASs and the characteristics of the service including the capacity/technology that is required will be different.

To our knowledge, BEREC and the NRAs have not yet formulated a common position in relation to the topics identified in the TNO-report.

The BEREC Guidelines are currently providing limited guidance to support the case-by-case approach pursuant to Article 3(5) with respect to especially the application of the innovation objective²²⁹ and the introduction of new networks and services.²³⁰ However, according to the BEREC Work Programme 2019, BEREC will commence an assessment on the impact of 5G on regulation and how regulation could influence the pace at which innovative services are brought to market in parallel with the review of the BEREC Guidelines.²³¹ We assume that this assessment will cover the application of the aforementioned principles laid down in Articles 3(3) and 3(5).

3.5.5 Conclusion

Although Article 3(5) as such is considered balanced and future proof by the different stakeholder groups the (future) interpretation of this provision of the Regulation is leading to uncertainty. There is currently no clear coherence in the interpretation and application of Article 3(5) in the Member States+.

The BEREC Guidelines provide limited guidance relating to the interpretation of Article 3(5) in view of the introduction of new networks and services.²³² Also the BEREC Guidelines – in contrast with the guidelines in relation to Article 3(2) – do not elaborate on the interpretation of Article 3(5) in light of in particular the second aim of the Regulation i.e. guaranteeing the continued functioning of the internet ecosystem as an engine of innovation.²³³ The reason might be that the discussions in the technical community which are very relevant to the interpretation of Article 3(5) were and are still ongoing.

The effectiveness of Article 3(5) is difficult to assess at the moment because Article 3(5) has not been extensively applied in Member States+. Also the combination with the open norms in Article 3(3) for the treatment of the other non-specialised traffic has not yet been tested in relation to new services. Effectiveness might become an issue in the future given the unspecified terms in the Regulation, the different use cases and the fact that these will need to be implemented in all Member States+. This is especially relevant in view of the fact that the roll-out of 5G networks and the introduction of new

²²⁹ The objective to guarantee the continued functioning of the internet ecosystem as an engine of innovation referred to in Recital 1 of the Regulation next to the first objective to protect end-users.

²³⁰ The BEREC Guidelines only refer to the second objective relating to innovation in paragraphs 43 and 46 in relation to the comprehensive assessment on the basis of Article 3(2).

²³¹ According to the BEREC Work Programme 2019, BEREC will prepare a report on the impact of 5G on regulation and the role of regulation in enabling the 5G ecosystem, BoR (18) 240, paragraph 3.1. Footnote 8: "*Concerning the net neutrality aspect of this project, coordination is foreseen in 2019 between the BEREC Open Internet Expert Working Group and the BEREC Planning and Future Trends Expert Working Group.*"

²³² BEREC Guidelines, paragraphs 108-115 and 116-125. 5G is only mentioned once in footnote 26.

²³³ Paragraphs 43 and 46 refer to the innovation objective of the Regulation as part of the comprehensive assessment pursuant to Article 3(2). A reference to this objective is not included in the BEREC guidelines relating to Article 3(3) and 3(5).

services via such networks belong to the core of the Digital Single Market initiatives and the Code.

However, according to the BEREC Work Programme 2019, the current legal uncertainty will be addressed as BEREC will commence an assessment on the impact of 5G on regulation and will consider whether any change to the current BEREC Guidelines is required.²³⁴

²³⁴ According to the BEREC Work Programme 2019, BEREC will prepare a report on the impact of 5G on regulation and the role of regulation in enabling the 5G ecosystem, BoR (18) 240, paragraph 3.1. Footnote 8: *"Concerning the net neutrality aspect of this project, coordination is foreseen in 2019 between the BEREC Open Internet Expert Working Group and the BEREC Planning and Future Trends Expert Working Group."*

4. Assessment of the implementation of Article 4

4.1. Article 4(1) – Information for end-users

4.1.1 Introduction

Article 4(1) sets out the transparency obligations for ISPs in order to allow end-users (or in case of Article 4(1)(e) consumers) to make informed choices concerning IAS contracts.

4.1.2 Regulation and BEREC Guidelines

Article 4(1) provides for the following transparency rules:

Providers of internet access services shall ensure that any contract which includes internet access services specifies at least the following:

- (a) information on how traffic management measures applied by that provider could impact on the quality of the internet access services, on the privacy of end-users and on the protection of their personal data;*
- (b) a clear and comprehensible explanation as to how any volume limitation, speed and other quality of service parameters may in practice have an impact on internet access services, and in particular on the use of content, applications and services;*
- (c) a clear and comprehensible explanation of how any services referred to in Article 3(5) to which the end-user subscribes might in practice have an impact on the internet access services provided to that end-user;*
- (d) a clear and comprehensible explanation of the minimum, normally available, maximum and advertised download and upload speed of the internet access services in the case of fixed networks, or of the estimated maximum and advertised download and upload speed of the internet access services in the case of mobile networks, and how significant deviations from the respective advertised download and upload speeds could impact the exercise of the end-users' rights laid down in Article 3(1);*
- (e) a clear and comprehensible explanation of the remedies available to the consumer in accordance with national law in the event of any continuous or regularly recurring discrepancy between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated in accordance with points (a) to (d).*

Providers of internet access services shall publish the information referred to in the first subparagraph.

The provisions on safeguarding open internet access set out in Article 3 are complemented by these provisions which enable end-users to make informed choices

about IAS.²³⁵ The information that should be specified in the end-users' contracts and that should be made publicly available for instance on ISPs' websites, is specified in Article 4(1)(a)-(e). The provisions of Article 4(1) apply in addition to the applicable provisions of the Universal Service Directive.²³⁶ Moreover, ISPs are under an obligation to provide information to consumers before being bound by the contract pursuant to the Consumer Rights Directive,²³⁷ and the Unfair Commercial Practices Directive.²³⁸

In the future, the Code will also be relevant in the area of net neutrality, especially related to transparency and will replace e.g. the Universal Service Directive. The Code will introduce in Article 101 the principle of full harmonisation of the rules on end-user protection but Article 1, section 3 of the Code explicitly states that the Code is '*without prejudice to (...) Regulation (EU) 2015/2120*'. In other words, the transparency provisions in the Regulation, which are also aimed at end-user protection, take precedence over the provisions of the Code.

Nonetheless, the fact that the transparency provisions of the Code will become applicable has an impact on the effectiveness of the transparency provisions of the Regulation. This will be analysed in subparagraph 4.1.4 of this Report. Moreover, the transparency provisions of the Code are relevant to the application of additional transparency requirements pursuant to Article 4(3), which allows Member States+ to maintain or introduce additional monitoring, information and transparency requirements for ensuring open internet access. This will be discussed in paragraph 4.3 of this Report.

Further guidance on the application of Article 4(1) is provided in the BEREC Guidelines.²³⁹

According to the Guidelines ISPs should include relevant information referred to in Article 4(1)(a)-(e) in a clear, comprehensible and comprehensive manner. Therefore, NRAs should look to ensure that ISPs adhere to the following practices so the information:

- is easily accessible and identifiable for what it is;
- is accurate and up-to-date;
- is meaningful to end-users;
- does not create an incorrect perception of the service provided to the end-user; and
- is comparable, so that end-users are able to compare the offers and ISPs in such a way that the comparison can show differences and similarities.²⁴⁰

The Guidelines provide some additional non-binding guidance by referring to the BEREC Guidelines on transparency²⁴¹ and by stating that the information could be presented by the ISPs in two parts reflecting different levels of detail. The first part would provide high-level (general) information about speeds, popular applications and how such

²³⁵ Regulation (EU) 2015/2120, Recital 18.

²³⁶ Universal Service Directive, 2002/22/EC; in particular Chapter IV.

²³⁷ Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council.

²³⁸ Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts, "Contract terms that would inappropriately exclude or limit the exercise of the legal rights of the end-user vis-à-vis the ISP in the event of total or partial non-performance or inadequate performance by the ISP of any of the contractual obligations might be deemed unfair under national legislation, including the implementation of this Directive".

²³⁹ BEREC Guidelines (2016), para 128-158.

²⁴⁰ BEREC Guidelines (2016), para 130.

²⁴¹ BEREC Guidelines on Transparency (2011).

applications are influenced by limitations of the provided IAS. The second part would consist of more detailed technical and other information.²⁴²

(a) Information on traffic management measures

ISPs should inform end-users in a clear manner about how traffic management practices set up in accordance with Article 3(3) might have an impact on the quality of IASs, end-users' privacy and the protection of personal data. According to the Guidelines, the following information should be included:²⁴³

- how the measures might affect the end-users' experience in general and with regard to specific applications (e.g. where specific categories of traffic are treated differently in accordance with Article 3). Practical examples should be used for this purpose;
- the circumstances and manner under which traffic management measures possibly having an impact as foreseen in Article 4(1)(a) are applied;²⁴⁴ and
- any measures applied when managing traffic, which uses personal data, the types of personal data used and how ISPs ensure the privacy of end-users and protect their personal data when managing traffic.

The Guidelines note ISPs should not merely mention that traffic management measures could potentially impact the IAS. The information should at least include a description of the possible impacts of the traffic management practices employed by the ISP.²⁴⁵

(b) Volume limitation, speed and other QoS parameters

The BEREC Guidelines refer to delay, delay variation (jitter) and packet loss as the most important QoS parameters which should be described if they might, in practice, have an impact on the IAS and on the use of applications. End-users should be able to understand the implications of these parameters to the usage of (popular examples of) affected applications and whether certain applications (e.g. interactive speech/video or 4K video streaming) cannot in fact be used due to the long delay or slow speed of the IAS.²⁴⁶ Regarding volume limitations, BEREC provides the following guidance:²⁴⁷

Contracts should specify the 'size' of the cap (in quantitative terms, e.g. GB), what that means in practice and the consequences of exceeding it (e.g. additional charges, speed restrictions, blocking of all traffic etc.). If the speed will decrease after a data cap has been reached, that should be taken into account when specifying speeds in a contract and publishing the information. Information and examples could also be provided about what kind of data usage would lead to a situation where the data cap is reached (e.g. indicative amount of time using popular applications, such as SD video, HD video and music streaming).

²⁴² BEREC Guidelines (2016), para 130-132.

²⁴³ BEREC Guidelines (2016), para 135.

²⁴⁴ Universal Service Directive, 2002/22/EC, Article 20(1)(b) 2nd and 4th indents may also require such information to be specified in contracts. Article 20(1)(b) 2nd indent requires that contracts specify information on conditions limiting access to and/or use of services and applications, where such conditions are permitted under national law in accordance with Community law (see also BEREC Guidelines (2016), para 135).

²⁴⁵ BEREC Guidelines (2016), para 136.

²⁴⁶ BEREC Guidelines (2016), para 137.

²⁴⁷ BEREC Guidelines (2016), para 138.

(c) Impact on the IAS by the use of specialised services by the subscriber

According to the Guidelines, ISPs should include in the contract and publish clear and comprehensible information about how specialised services as referred to in Article 3(5) included in the end-users' subscription might impact the IAS.²⁴⁸

(d) Speed values

ISPs should inform end-users in the contract of the speed that they are realistically able to deliver.²⁴⁹ Speed values referred to in Article 4(1)(d) should be specified in the contract and published in such a way that they can be verified and used by end-users to determine any discrepancy between the actual performance and what has been agreed in contract. Upload and download speeds should be provided as single numerical values in bits/second (e.g. Kbit/s or Mbit/s). In addition, contracts should specify factors that may have an effect on the speed, both within and outside the ISP's control.²⁵⁰

According to Article 4(1)(d), the following download and upload speeds should be explained by the ISP:

- For **fixed** networks (minimum speed, normally available speed, maximum speed and – if applicable – advertised speed):
 - *The minimum speed* is the lowest speed that the ISP undertakes to deliver to the end-user according to the contract.²⁵¹
 - *The normally available speed* is the speed that an end-user could expect to receive most of the time when accessing the service.²⁵² According to the Guidelines the normally available speed has two dimensions: the numerical value of the speed and the availability (as a percentage) of the speed during a specified period, such as peak hours or the whole day.²⁵³
 - *The maximum speed* is the speed that an end-user could expect to receive at least some of the time (e.g. at least once a day). According to the Guidelines an ISP is not required to technically limit the speed to the maximum speed defined in the contract.²⁵⁴
 - *The advertised speed* is the speed an ISP uses in its commercial communications and in the promotion of IAS offers. There is no requirement to advertise speeds.²⁵⁵ However, if speeds are included in ISP's marketing materials, the advertised speed should be specified in the published information and in the contract.²⁵⁶

²⁴⁸ BEREC Guidelines (2016), para 139.

²⁴⁹ Regulation (EU) 2015/2120, Recital 18.

²⁵⁰ BEREC Guidelines (2016), para 140-141.

²⁵¹ BERED Guidelines, para 143.

²⁵² Regulation (EU) 2015/2120, Recital 18.

²⁵³ BEREC Guidelines (2016), para 147-148.

²⁵⁴ BEREC Guidelines (2016), para 145.

²⁵⁵ BEREC Guidelines (2016), para 142.

²⁵⁶ BEREC Guidelines (2016), para 150.

- For **mobile** networks (estimated maximum speed and advertised speed):
 - *Estimated maximum speed.* According to the Guidelines the end-user should be able to understand the realistically achievable maximum speed for their mobile IAS subscription in different locations in realistic usage conditions. The estimated maximum speed could be specified separately for different network technologies that affect the maximum speed available for an end-user. End-users should also be able to understand that they may not be able to reach the maximum speed if their mobile terminal does not support the speed.²⁵⁷
 - *The advertised speed for a mobile IAS offer.* According to the Guidelines the advertised speed should reflect the speed which the ISP is realistically able to deliver to end-users. Although the transparency requirements are less detailed for mobile IAS than for fixed IAS, the advertised speed should enable end-users to make informed choices. Significant factors that limit the speeds achieved by end-users should be specified.²⁵⁸

The Guidelines mention that NRAs could set requirements on the basis of Article 5(1)²⁵⁹ in relation to the various speeds referred to in Article 4(1)(d).

(e) Remedies in the event of continuous or regularly recurring discrepancies

This is the only part of Article 4(1) that is specifically applicable to contracts with consumers. According to the Guidelines NRAs should ensure that ISPs inform consumers of the remedies available in accordance with national law in the event of non-compliance of performance. The Guidelines refer by way of example to price reduction, early termination of the contract, damages, rectification of the non-conformity of performance or a combination of these.²⁶⁰

4.1.3 Fact finding relating to supervision, enforcement and compliance

On the basis of Part II we conclude that almost all NRAs have focused on supervision and enforcement of Article 4(1). However, NRAs are following different approaches:

- In 21 Member States (**AT, BE, HR, CY, DK, FR, DE, EL, HU, IT, LV, LU, MT, NL, PT, RO, SK, SI, ES, SE** and **UK**) there are generic guidelines or decrees/decisions relating to the transparency of information pursuant to Article 4(1).²⁶¹
- In six Member States (**AT, HU, LV, LU, PT** and **SE**)²⁶² it is specified in detail which information ISPs need to publish. Four NRAs (**DE, HU, LV** and **LU**)²⁶³ have issued standard product information sheets which have to be published by the ISPs.

²⁵⁷ BEREC Guidelines (2016), para 153.

²⁵⁸ BEREC Guidelines (2016), para 156.

²⁵⁹ Regulation (EU) 2015/2120, Article 5(1): “[...] For those purposes, national regulatory authorities may impose requirements concerning technical characteristics, minimum quality of service requirements and other appropriate and necessary measures on one or more providers of electronic communications to the public, including providers of internet access services.”

²⁶⁰ Regulation (EU) 2015/2120, Recital 18. BEREC Guidelines (2016), para 158.

²⁶¹ Part II, Chapters 2, 3, 5, 6, 8, 11, 12, 13, 14, 16, 17, 19, 20, 21, 24, 25, 26, 27, 28, 29 and 30.

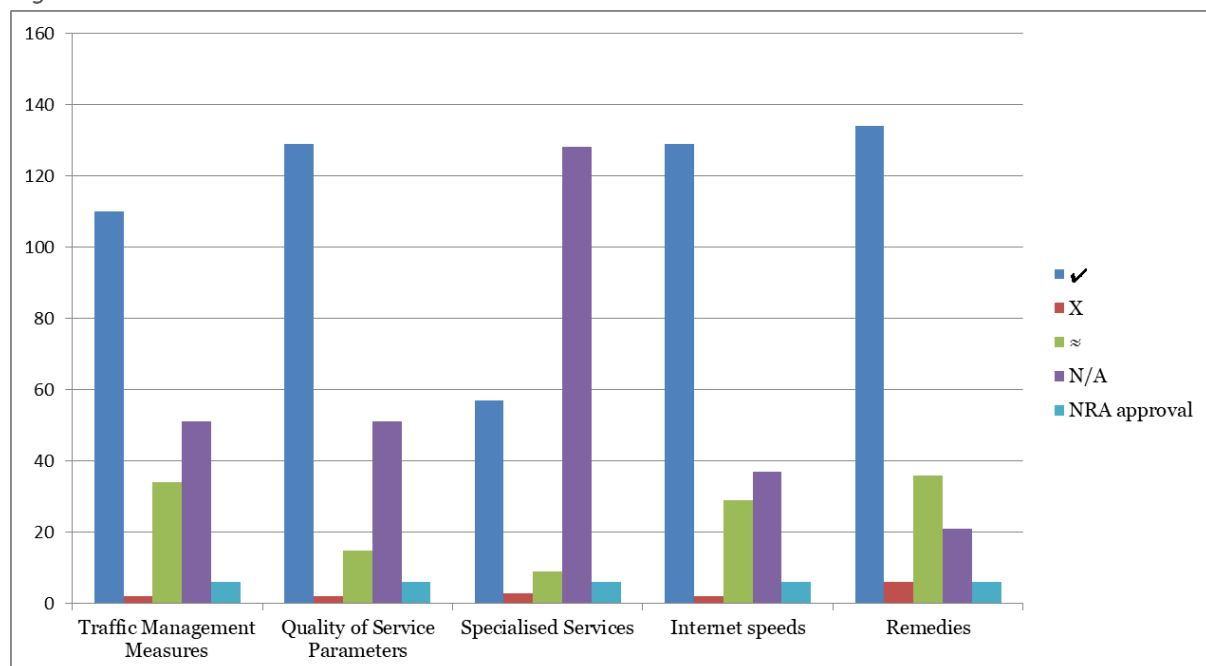
²⁶² Part II, Chapters 2, 14, 17, 19, 24 and 29.

²⁶³ Part II, Chapters 12, 14, 17 and 19.

- In nineteen Member States+ (**BG, HR, CY, CZ, DE, EL, IE, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI** and **ES**)²⁶⁴ NRAs have explicitly reported in Part II that they have monitored the compliance of ISPs with the transparency requirements of Article 4(1).²⁶⁵
- In three Member States (**Bulgaria, Czech Republic** and **Estonia**) NRAs initiated formal enforcement proceedings.²⁶⁶
- Eight Member States (**BE, IT, LT, MT, NL, PL, RO** and **ES**) relied on informal discussions or interventions.²⁶⁷
- Only in one Member State (**Finland**) no specific supervision or enforcement activities was reported.²⁶⁸

We have performed a scan of the categories of information, referred to in Article 4(1), published on websites by various fixed and mobile ISPs in Member States.²⁶⁹ The results of this scan in all Member States combined, is visible in the figure below. It should be noted that the scan is based on our own desk research on the basis of information that could be found on the websites relatively easy. i.e. the categories 'N/A' and '≈' do not necessarily mean that information was not published, but may also be an indication that the information was not easy to find (see also survey results referred to 0 below). The category '✓' means that an ISP in any country complies with the basic transparency rules of the Regulation.²⁷⁰

Figure 6: The combined results of the ISP contracts scan



²⁶⁴ Part II, Chapters 4, 5, 6, 7, 12, 13, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 28.

²⁶⁵ For other Member States+ such monitoring may have occurred as well, but in those cases this was not explicitly reported to us.

²⁶⁶ Part II, Chapters 4, 7 and 9.

²⁶⁷ Part II, Chapters 3, 16, 18, 20, 21, 23, 25 and 28.

²⁶⁸ Part II, Chapter 10.

²⁶⁹ The results per Country are reflected in Part II of this Report.

²⁷⁰ Not including the further details set out in the BEREC Guidelines (2016).

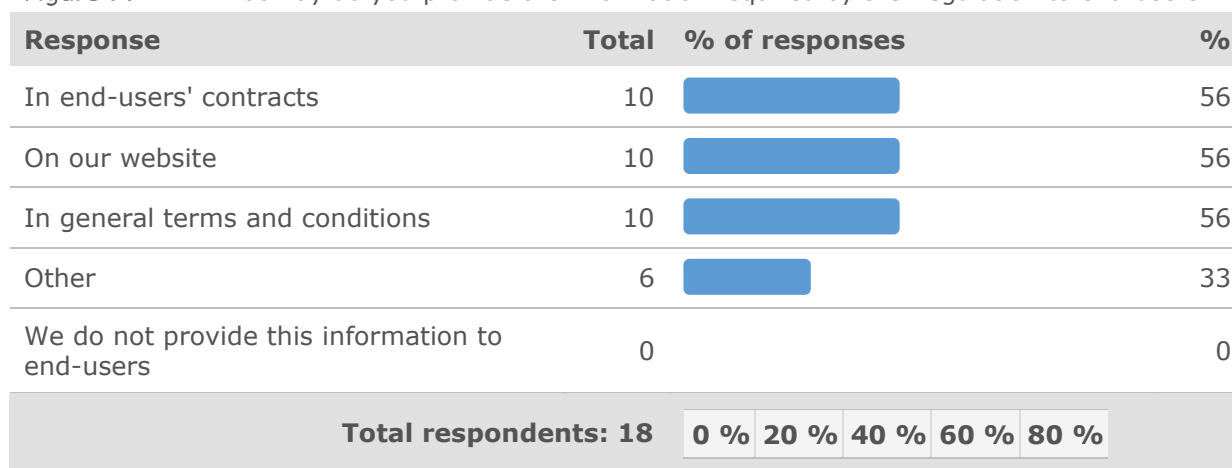
Legend of figure 6:

✓	The ISP is meeting the transparency obligations set out in Article 4(1) for that specific subject
X	The ISP has <u>not</u> met the transparency obligations set out in Article 4(1) for that specific subject, e.g. an ISP states that it is "entitled to impose traffic management measures", such a broad statement will not suffice
≈	The ISP could improve the contract to meet the transparency obligations set out in Article 4(1) for that specific subject, the local teams have indicated the reasons in the comments section in Part II – Country Chapters
N/A	The ISP does not mention any information regarding that specific subject or no public information is available regarding the ISPs contract with regard to that specific subject
NRA approval	The NRA has specified that the ISPs in your Member State meet the transparency obligations set out in Article 4(1) for that specific subject

The results of our desk research indicate that the vast majority of the ISPs publishes information referred to in Article 4(1)(a)-(e). The fact that most ISPs do not provide any information regarding specialised services might be explained by the fact that there were not that many ISPs providing specialised services.²⁷¹

In the survey ISPs were asked how they provide the information referred to in Article 4(1) to end-users. Information is provided in end-users' contracts, via general conditions and on websites. All ISPs, except for one, offer information through multiple channels.²⁷²

Figure 7: In what way do you provide the information required by the Regulation to end-users?



Source: IAS Survey, Q47. Note: 'Other' mostly contained statements on the available information

NRA's were asked in the survey whether they agreed with the statement that the information required by the Regulation could be found in one location, such as in the end-users' contract, in the general terms and conditions or on the ISPs website.²⁷³ While a majority of NRAs (12 out of 23) agree or strongly agree with the statement, a

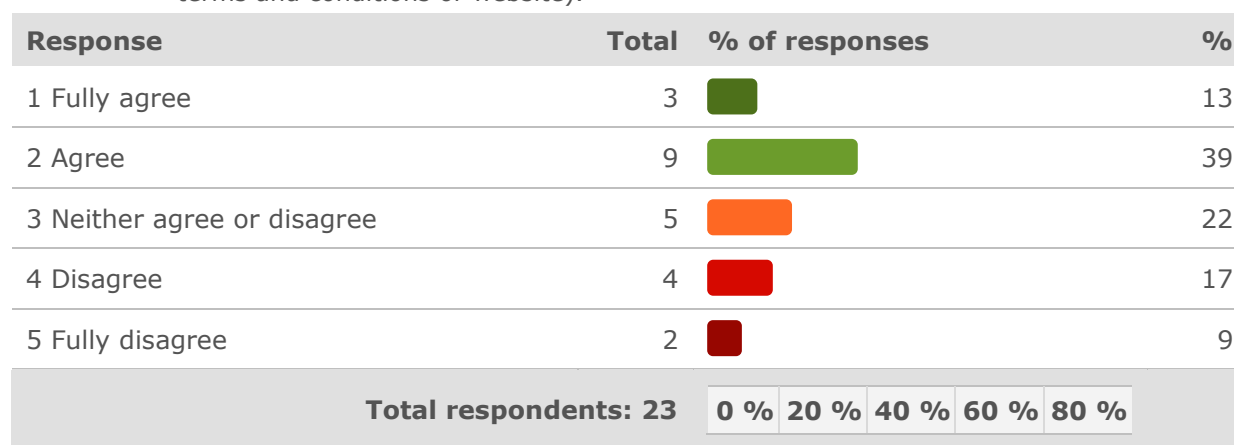
²⁷¹ See paragraph 3.5 of this Report.

²⁷² IAS Survey in the context of this Study, Q48.

²⁷³ NRA Survey in the context of this Study, Q65.

significant minority of NRAs (six out of 23) disagree, with two NRAs even strongly disagreeing. The remaining five NRAs neither agreed nor disagreed.

Figure 8: The information required by the Regulation can be found in one location (contract, terms and conditions or website).



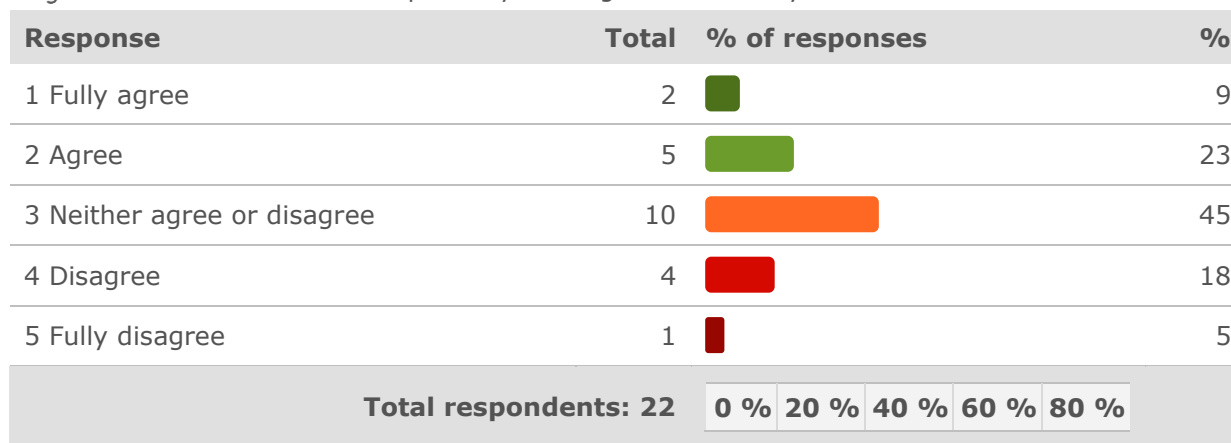
Source: NRA Survey, Q65.

Four NRAs disagree with the statement that the information required by the Regulation can be found in one location. One NRA, which is neither agreeing nor disagreeing, provided information on the number of ISPs that do not provide easy access to the required information in their country, ranging from one to eight ISPs. In one of the cases (with eight ISPs not offering complete information), the NRA clarified that the major providers comply with the Regulation, but that some small providers were still in the process of supplementing information to comply with the requirements of the Regulation.²⁷⁴ In two other Member States+, both with four ISPs not complying, it concerned larger ISPs that are still working on the publication of the required information. The NRA explained that information on data transmission speeds and on the impact of traffic management on the quality of service is, in general, not easy to find when consulting the pages where the commercial offers are described/announced. Although this type of information and further details are usually available on other pages of ISP's websites (namely in the terms and conditions governing offers or in a specific document and/or on the webpages containing contracts or in the FAQs), the location is not always directly clear to the end-user. In the remaining two situations, no additional information was provided.

NRAs were also asked whether they agreed with the statement that the information required by the Regulation is easily understandable for consumers. NRAs were mostly neutral with respect to this statement with ten out of 22 NRAs neither agreeing nor disagreeing, seven NRAs (fully) agreeing and five NRAs (fully) disagreeing.

²⁷⁴ NRA Survey in the context of this Study, Q67.

Figure 9: The information required by the Regulation is easily understandable for consumers.



Source NRA Survey, Q65.

During the conducted interviews, all stakeholders agreed that transparency is important. Views on the effectiveness of the transparency rules are mixed.

Although the importance of transparency to enhance consumer trust was acknowledged some **ISPs** question the added value of Article 4(1) compared to other legislation containing transparency requirements, such as consumer protection laws. Also one case was mentioned where apparently the NRA applied the transparency requirements of the Regulation to a B2B contract, because the service provided on the basis of that contract qualified as a specialised service within the scope of Article 3(5). The interviewee fears that if this approach would be adopted by other NRAs as well, all the existing contracts between CAPs and ISPs would have to be reviewed, even though most of the contracts go well beyond the requirements of the Regulation.

One of the **CAPs** expressed the concern that the Regulation did not lead to more transparency in the market in relation to for instance access problems and traffic management and that the enforcement should be intensified. The interviewee mentioned the need to provide the necessary mechanisms for monitoring.

The **COs** and **CSOs** would favour more guidance from NRAs, especially regarding internet speeds. They would also welcome templates with all the required information. The COs and CSOs mention that the mere publication of information on the website is not enough. Information should be more easy to find and understandable. Particular areas of concern for the COs and CSOs are transparency of traffic management measures (including port-blocking) and internet speeds. Monitoring mechanisms should allow consumers to measure the speeds they get on their mobile connections throughout the country and compare that against what is promised in their contracts and advertisements. Also for consumers it is not always clear where they can submit complaints.

4.1.4 Analyses

Below we will first analyse our findings in relation to the effects of Article 4(1) on transparency in the Member States+. Subsequently, we will analyse possible changes pursuant to the Code.

(i) [Analysis of supervision and enforcement of Article 4\(1\)](#)

On the basis of Part II we conclude that almost all NRAs have focused on supervision and enforcement of Article 4(1). However, NRAs are following different approaches.

Compared to the pre-existing situation Article 4(1) has increased awareness and focus on transparency.

A number of NRAs have issued or amended recommendations/guidance and generic requirements after the Regulation entered into force in order to enhance compliance with Article 4(1). The focus of these generic guidelines and requirements was on the one hand on ensuring compliance, for instance by prescribing a certain format, an obligation to notify contracts to the NRA or a requirement to notify a speed test to the NRA. On the other hand, additional requirements were imposed to ensure the effectiveness of the transparency obligations of Article 4(1). Our combined analysis is set out in the table below.²⁷⁵

Table 16: Overview of recommendations/guidance and requirements ensure compliance with Article 4(1)

Description	Pre-existing requirements/ recommendations continued after the Regulation entered into force	Requirements/ recommendations introduced or amended after the Regulation entered into force
Prescribed format or channel to present the information, to enable to consumers to easily find and compare information.	HU	AT, DE, LV, LU, PT, SE
Additional requirements to make information transparent related to the categories of Article 4(1) (a) to (e) and the use of terminal equipment.	DK, FR, BE, IT, ES	HR, CY, DE, EL, HU, IT, LV, MT, NL, PT, RO, SK, SI, SE, UK
A requirement to notify contracts to the NRA.	AT, BE, HR, ES	CY, DE
A requirement to notify a speed test to the NRA.	LV, ES	BE, HR, DE

In other Member States+ where no generic guidance or requirements were adopted, the emphasis was on an individualised approach either by informal interventions or by formal enforcement actions.²⁷⁶

In three Member States, NRAs have relied upon formal enforcement actions to ensure compliance with Article 4(1).²⁷⁷ These are summarised in the table below.

Table 17: Overview of enforcement actions to ensure compliance with Article 4(1)

Member State	Case information
BG	CRC has pursued seven cases related to the provisions laid down in Article 4(1)(b) and (d) and notified its findings to the respective providers. The sanctions imposed were €250 (BGN 500) each, the minimum for these violations as defined in Article 334d, section 2, of the Electronic Communications Act. Six notices were appealed by the ISPs and there are ten court cases (each penalty notice can be appealed at two instances). Five court decisions have been published. ²⁷⁸ The main conclusions are the following:

²⁷⁵ NRAs in three Member States are preparing further guidance or recommendations to ISPs (BG, EL and PT).

²⁷⁶ See Table 17:

²⁷⁷ Part II, Chapters 4, 7 and 9.

²⁷⁸ Part II, Chapter 4.

	<p>The Court decided that the General Terms and Conditions of Telenor detail how speed limitations could affect the use of content, applications and services and that the terms specify what the restrictions on access to and/or use of services may depend on. The terms specify the product or service chosen by the consumer as well as the terminal devices on which it will be used. Furthermore, the terms note that the internet speed will be restricted after a certain volume of traffic within the period of time agreed between parties and that may lead to difficulties in the use of certain services and applications. The Court considers the General Terms and Conditions to be an integral part of the contract concluded between an ISP and the consumer and considers that there is no violation of Article 4(1).</p> <p>The penalty notice against A1 Bulgaria (Mobitel) was upheld. Appendix 1 to the contract stated that once the 1000 MB data cap has been reached at maximum speed, the speed will be reduced to 64 Kbps. However, the Appendix did not specify that A1 Bulgaria may further restrict the speed limit and to what value it may limit it. Therefore, the Court concluded that A1 Bulgaria infringed Article 4(1)(b).</p>
CZ	<p>The CTU initiated 23 administrative proceedings; seven investigations are still ongoing and in 16 cases final decisions have been taken requesting the ISP to amend its contract terms to comply with Article 4(1). Two of these decisions have been appealed by the ISP, but no judgment has been rendered yet.</p>
EE	<p>ISPs were given a deadline until January 2018 to adapt their websites and end-users' contracts. Between January and April 2018 ETRA checked and confirmed that the contracts were in compliance with the rules.</p>

Our scan of published information on ISP-websites was performed in Q2 2018 and therefore we are not able to compare how the information on the websites has changed after the Regulation entered into force. However, based on the increased focus on transparency by NRAs and the results of our Q2 2018 scan, we believe that there are strong indications that Article 4(1) in combination with supervision and enforcement by NRAs is effective.

The table below summarises the combined results of supervision and enforcement on the basis of Part II – Country Chapters and reflects differences in type of supervision and enforcement.

- differences in enforcement: generic decisions/guidelines/product information sheets or individually focused activities including informal interventions and formal enforcements actions;
- the existence of legislation or requirements that contained similar obligations before the entry into force of the Regulation; and
- the regulatory obligation to notify IAS contracts to the NRA.

We have also summarised the results of the website scan for various mobile and fixed ISPs, with a focus on speeds (d) and remedies (e) because this check is relatively straightforward while speeds are incurring most consumer complaints across the Member States+.

Table 18: Combined results of supervision and enforcement relating to Article 4(1)

	Generic decision / guidelines	Pre-existing legislation / requirements	Additional transparency requirements	Prior notification to NRA	Individual interventions or enforcement	Compliance info on speeds ²⁷⁹	Compliance info on remedies
	Yes	Yes	Yes	Yes	No	+/-	++
	Yes	Yes	Yes	No	Yes	++	+/-
	No	No	No ²⁸⁰	No	Yes	++	++
	Yes	Yes	Yes	Yes	No	+/-	++
	Yes	No	Yes	Yes	No	+/-	++
	No	No	No	No	Yes	++	+/-
	Yes	Yes	Yes	No	No	+/-	++
	No	No	No	No	Yes	++	++
	No	No	No	No	No	N/A	N/A
	Yes	Yes	Yes	No	No	+/-	--
	Yes	No	No	No	No	++	+/-
	Yes	Yes	Yes	No	No	++	++
	No	No	No	No	No	+/-	--
	Yes	Yes	Yes	No	Yes	++	++
	Yes	Yes	Yes	No	No	++	++
	No	No	No	No	No	+/-	--
	Yes	Yes	Yes	No	Yes	++	++
	Yes	Yes	Yes	No	No	++	++
	No	No	No	No	Yes	++	++
	Yes	No	Yes	No	No	++	++
	Yes	No	Yes	No	Yes	++	++
	No	No	No	No	Yes	++	++
	No	No	No	No	Yes	++	++
	Yes	Yes	Yes	No	No	+/-	+/-
	Yes	Yes	Yes	No	Yes	+/-	+/-
	Yes	Yes	Yes	No	No	+/-	++
	Yes	No	Yes	No	No	+/-	+/-
	Yes	Yes	Yes	Yes	Yes	++	++
	Yes	Yes	Yes	No	No	+/-	++
	Yes	No	No	No	No	--	++

Explanation of Rating:

- ++ = 100 % positive score (majority ✓; no X or N/A)
 -- = 100 % negative score (majority X or N/A; no ✓)
 +/- = mixed picture

Prescribed formal
 Informal intervention/discussions

²⁷⁹ On the basis of the tables "Overview of desk research on transparency obligations" in the different chapters of Part II.

²⁸⁰ In preparation by CRC, see also Part II, Chapter 4.

²⁸¹ During the NRA review, OCECPR made a reservation regarding the number of ISPs, stating that there are 4 main providers in Cyprus, whereas the table contains 7 ISPs. As described in Annex A, Data Collection Methodology, a combination of fixed and mobile ISPs has been reviewed. This means that the table could contain more ISPs belonging to the same group of companies.

²⁸² Results desk research ISP websites not available, as the Finnish NRA was at the time still in negotiation with the ISPs on how to comply with the transparency obligations from the Regulation.

On the basis of these combined results we conclude that supervision and enforcement of Article 4(1) is leading to compliance in the vast majority of the Member States+ while several NRAs in other Member States+ have indicated that they will focus on compliance with Article 4(1) in the future.

The most compliant results seem to be achieved either by prescribing a clear format with the information that needs to be published or by way of individual formal or informal interventions.

A concern was raised during one of the interviews in relation to the application of the transparency requirements of the Regulation to a B2B contract. In our view a distinction should be made between a specialised service offered to a business user, which would only trigger the transparency obligation of Article 4(1)(c), and an IAS to a business user which would trigger the transparency obligations of Article 4(1)(a)–(d). We consider it a policy question whether it is efficient and proportionate to apply these transparency rules to business users and to what extent the interpretation should be similar for consumers and business users.

(ii) [Impact of the Code in relation to Article 4\(1\)](#)

Article 1, Section 3 of the Code explicitly states that the Code is '*without prejudice to (...) Regulation (EU) 2015/2120.*' The transparency obligations in Articles 102 - 104 of the Code and Annexes VIII, IX and X complement the obligations of Article 4(1) of the Regulation and are more prescriptive.

The evaluation of Article 4(1) would normally take into account to what extent potential issues are already addressed in the Code, assuming that additional provisions in the Code would not have to be replicated in the Regulation.

Article 102 of the Code lays down obligations regarding the content and the format of the information the provider should provide before the contract is concluded by referring to Directive 2011/83/EU. The Code adds an obligation in Article 102 for providers to provide consumers with a concise and easily readable contract summary template, which identifies the main elements of the information requirements. In addition, the information listed in Annex VIII should be provided. The providers will have to actively draw the end-users' attention to the availability of the information and the importance of downloading it for purposes of documentation, future reference and unchanged reproduction. The Code establishes minimum content requirements for this information which includes '*a summary of the information required pursuant to Article 4(1)(d) and (e) of Regulation (EU) 2015/2120.*'²⁸³ Furthermore, the Code sets out that the Commission shall, after consulting BEREC, adopt an implementing act specifying a contract summary template to be used by the providers.²⁸⁴

Article 103 of the Code complements Article 4(1) by harmonising the information that has to be made transparent. Annex IX summarises the information that has to be published pursuant to Article 103 of the Code:

- scope of the services offered and the main characteristics of each service provided, including any minimum service quality levels where offered and any restrictions imposed by the provider on the use of terminal equipment supplied;
- tariffs of the services offered, including information on communications volumes (such as restrictions of data usage, numbers of voice minutes, numbers of messages) of specific tariff plans and the applicable tariffs for additional

²⁸³ Article 102, para 3(1)(f), Code.

²⁸⁴ Article 102, para 3(2), Code.

communication units, numbers or services subject to particular pricing conditions, charges for access and maintenance, all types of usage charges, special and targeted tariff schemes and any additional charges, as well as costs with respect to terminal equipment;

- details of products and services, including any functions, practices, policies and procedures and alterations in the operation of the service, specifically designed for end-users with disabilities, in accordance with Union law harmonising accessibility requirements for products and services; and
- dispute settlement mechanisms, including those developed by the undertaking.

In addition, Article 103, Section 2, states that competent authorities should ensure that end-users have access free of charge to at least one independent comparison tool which enables them to compare and evaluate prices and quality of the different services.

Concerning quality of service requirements, Article 104 of the Code states that NRAs may require ISPs to publish comprehensive, comparable, reliable, user-friendly and up-to-date information for end-users on the quality of their services as specified in this provision. NRAs have to specify, while taking utmost account of the BEREC guidelines (to be drafted), the quality of service parameters to be measured and the applicable measurement methods and the content, form and manner of the information to be published, including possible quality certification mechanisms. Further details are given in Annex X.

We can conclude that the Code will complement and reinforce the transparency obligations of the Regulation. The additional transparency obligations that will become applicable pursuant to the Code are a material rule and no longer just an enforcement issue.

4.1.5 Conclusion

The Regulation introduced detailed specifications regarding information that needs to be provided in contracts and on the website of ISPs. In addition extensive guidance on this provision of the Regulation was provided by Member States+, BEREC and NRAs.

Although ISPs and some NRAs raised questions during the interviews concerning the added value of this Article compared to other consumer protections provisions, all stakeholders are of the view that transparency is important.

Compared to the situation before the Regulation entered into force, Article 4(1) has led to an increased focus on transparency by ISPs. Most NRAs have been active in supervising and enforcing Article 4(1). Only a few NRAs have not yet undertaken dedicated activities in relation thereto.

Based on our scan of ISP websites performed in Q2 2018 we conclude that especially in those Member States+ where compliance with Article 4(1) was actively pursued by the NRA the information published on the websites of ISPs is compliant with Article 4(1).

Although coherence of transparency measures improved as a result of the Regulation, there are differences in the interpretation and the application of Article 4(1) in the Member States+. 21 Member States+/NRAs have published guidance and/or additional requirements. The combination of basic rules in the Regulation, detailed BEREC Guidelines and additional guidance and requirements on a national level may not be considered very efficient and proportionate. It might lead to inconsistent implementation

of the transparency requirements. Moreover COs and CSOs have expressed the view that information should be easier to find and understandable.²⁸⁵

In view of these concerns, it must be recalled that the transparency rules of the Regulation will be complemented with the transparency rules in the Code, which provides to a large extent for full harmonisation and detailed rules on transparency in Articles 102 - 104 and the Annexes VIII, IX and X. Therefore, in our view the Regulation does not have to change to achieve more consistent transparency rules on a national level.

There are also clear differences in the way in which Article 4(1) is being supervised and enforced in Member States+. Some NRAs focus on issuing prescriptive and detailed requirements for all ISPs while other NRAs focus on interventions and enforcement actions towards individual ISPs. Our research shows that very different approaches can be effective and we do not consider such differences a priori inefficient or disproportionate as they may correspond to national circumstances.

Some ISPs have questioned whether the application of the generic transparency obligations envisaged in the Regulation is appropriate when it comes to the provision of internet access services to business users. Business users often conclude tailor made contracts with ISPs with quality of service parameters as specifically agreed. During our research, we have not come across published enforcement decisions in which NRAs have applied the provisions of the Regulation to the provision of IASs to businesses.

4.2. Article 4(2) – End-users' complaints procedure

4.2.1 Introduction

Article 4(2) relates to procedures which should be put in place by ISPs in relation to complaints of end-users concerning open internet access.

4.2.2 Regulation and BEREC Guidelines

According to Article 4(2), ISPs should arrange for transparent, simple and efficient procedures to handle complaints of end-users relating to Articles 3 and 4(1):

Providers of internet access services shall put in place transparent, simple and efficient procedures to address complaints of end-users relating to the rights and obligations laid down in Article 3 and paragraph 1 of this Article.

Guidance is provided in paragraph 159 of the BEREC Guidelines. NRAs should ensure that ISPs act in accordance with certain good practices regarding procedures for addressing complaints, such as:

- informing end-users in the contract as well as on their website, in a clear manner, about the procedures put in place, including the usual or maximum time it takes to handle a complaint;
- providing a description of how the complaint will be handled, including what steps the ISP will take to investigate the complaint and how the end-user will be notified of the progress or resolution of the complaint;

²⁸⁵ User tests have not been part of our research and therefore we cannot conclude whether users are actually engaged.

- enabling end-users to easily file a complaint using different means, at least online (e.g. a web-form or email) and at the point of sale, but possibly also using other means such as post or telephone;
- providing a single point of contact for all complaints related to the provisions set out in Articles 3 and 4(1), regardless of the topic of the complaint;
- enabling an end-user to be able to enquire about the status of their complaint in the same manner in which the complaint was raised;
- informing end-users of the result of the complaint in a relatively short time, taking into account the complexity of the issue; and
- informing the end-user of the means to settle unresolved disputes according to national law if the end-user believes a complaint has not been successfully handled by the ISP (depending upon the cause of the complaint, the competent authority or authorities under national law may be the NRA, a court or an alternative dispute resolution entity etc.).

An obligation to establish a complaint handling procedure in the event of unresolved disputes is already laid down in the Universal Service Directive.²⁸⁶ This complaint handling procedure in the Universal Service Directive refers to disputes with consumers and not with other end-users. Article 34 of the Universal Service Directive is maintained in revised form in Article 25 of the Code. According to Article 25 of the Code the alternative dispute resolution procedures may be extended to end-users other than consumers.²⁸⁷ According to Article 102 and Annex VIII of the Code, providers should inform end-users of the means of initiating procedures for the settlement of disputes. According to Article 103 and Annex IX of the Code, providers should publish information relating to dispute settlement mechanisms, including those developed by the undertaking.

4.2.3 Fact finding relating to Article 4(2)

The results of our data collection, the surveys and the interviews did not reveal specific concerns in relation to Article 4(2).

NRAs that were interviewed, did not flag issues in relation to Article 4(2). NRAs that commented on Article 4(2), indicated that the ISPs have complaint procedures in place and that these procedures are considered to be sufficient.

The interviewees amongst the **COs** and **CSOs** did also not raise issues in relation to Article 4(2). One CO mentioned that most complaint procedures did not change as a result of the Regulation.

From the part of the **ISPs**, also no comments were made apart from the fact that Article 4(2) is a duplication of existing requirements. From the part of the **CAPs**, one interviewee signalled that it is often unclear for consumers to whom they should complain.

Based on Part II there has been an issue in relation to Article 4(2) in **Slovakia**, where some ISPs did not indicate in the contract the information on procedures to address complaints of end-users.

²⁸⁶ Universal Service Directive, 2002/22/EC, Article 20(2)(g) and Article 34.

²⁸⁷ See also Directive 2013/11/EU of the European Parliament and of the Council of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC, to which Article 25 of the Code refers to.

4.2.4 Analyses

Article 4(2) is addressed to the ISPs and contains only basic rules, namely to put in place transparent, simple and efficient procedures to address complaints of end-users. Apart from these general principles, the complaint handling procedures by the ISPs are not harmonised.

A number of Member States+ apply certain measures to enhance the effectiveness of the handling of complaints by ISPs. An overview is given in the BEREC implementation report.²⁸⁸ Some examples show the variety of measures that have been put in place²⁸⁹:

- Mandatory complaint handling procedures apply in for instance **Greece, Portugal** and the **United Kingdom**.
- The NRA acts as an intermediary for the handling of complaints that have been submitted to the ISP in for instance **Cyprus** and **Greece**.
- The NRA may render support in assessing the facts in for instance **Latvia** and **Slovakia**.
- Self-regulation is promoted in for instance **Slovenia**.

Apart from these measures, there are monitoring mechanisms available in many Member States+ and guidance on the interpretation of significant discrepancies referred to in Article 4(4) in an increasing number of Member States+ (see below paragraph 4.4).

Moreover, the effectiveness of complaint handling by the ISPs will be influenced by the procedures that are in place in the event that the dispute between the end-user and the ISP is not resolved. Again, there are important differences in the handling of complaints in the various Member States+ including in relation to the role of NRAs (see below paragraph 5.1). However, the basic principles of Articles 20(g) and 34 of the Universal Service Directive apply e.g. that the complaint handling procedures should be transparent, simple and inexpensive and should enable disputes to be settled fairly and promptly which is in line with the basic criteria of Article 4(2) – complaint procedures should be transparent, simple and efficient.

4.2.5 Conclusion

Although the harmonisation of complaint handling by ISPs in the Regulation is limited to some basic principles, no concerns were raised during our research in relation thereto.

Our Study shows no issues in relation to the implementation of Article 4(2). Since a complaint handling procedure for consumers was already provided for in the Universal Service Directive, Article 4(2) did not lead to remarkable changes in the handling of complaints in the different Member States+ for consumers. The fact that the scope of Article 4(2) is broader – because this Article applies to complaints of all end-users and not only consumers – has equally not given rise to any issues.

In our view, Article 4(2) is effective. Although there is some overlap with the Universal Service Directive and the Code regarding unresolved disputes, the basic underlying principles of transparent, simple and efficient procedures are the same. Therefore, providers are able to avoid duplication by using the existing procedures for complaints of consumers.

²⁸⁸ BEREC Report on implementation (2017).

²⁸⁹ See Part II, Chapters 6, 13, 17, 24, 26, 27 and 30.

Although there are national differences, it would in our view not be proportionate and efficient to try to harmonise 29 'simple' complaint procedures to which consumers are accustomed. There is some overlap with the Universal Service Directive (to be succeeded by the Code), but providers are able to avoid duplication by using the existing procedures for complaints of consumers.

4.3. Article 4(3) – Additional requirements in legislation by Member States

4.3.1 Introduction

Article 4(3) relates to additional monitoring, information and transparency requirements going beyond Article 4(1) that may be imposed by Member States+.

4.3.2 Regulation and BEREC Guidelines

According to Article 4(3) Member States+ have the possibility to impose additional monitoring, information and transparency requirements including requirements with respect to the content that must be published and the form and the manner in which this information should be published:

The requirements laid down in paragraphs 1 and 2 are in addition to those provided for in Directive 2002/22/EC and shall not prevent Member States from maintaining or introducing additional monitoring, information and transparency requirements, including those concerning the content, form and manner of the information to be published. Those requirements shall comply with this Regulation and the relevant provisions of Directives 2002/21/EC and 2002/22/EC.

The provisions on safeguarding of open internet access should be complemented by effective end-user provisions which address issues particularly linked to IASs and enable end-users to make informed choices. Member States+ have the possibility on the basis of Article 4(3) to maintain or adopt more far-reaching measures than set out in Universal Service Directive²⁹⁰ and the Regulation. These additional measures should comply with the Regulation, the Framework Directive²⁹¹ and the Universal Service Directive.

The Guidelines do not provide guidance to NRAs regarding this provision, which is addressed to Member States+.²⁹²

The Framework Directive requires Member States+ under Article 3 to ensure that each of the tasks assigned to NRAs is undertaken by a competent body. Both Member States+ and NRAs have their tasks. Article 4(3) allows Member States+ to maintain or introduce additional requirements, whereas Article 5(1) allows NRAs to impose requirements concerning technical characteristics, minimum quality of service requirements and other appropriate and necessary measures on one or more providers of electronic communications to the public, including ISPs.

²⁹⁰ Universal Service Directive, 2002/22/EC.

²⁹¹ Framework Directive, 2002/21/EC.

²⁹² BEREC Guidelines (2016), para 160.

Pursuant to the Code, the Framework Directive and the Universal Service Directive referred to in Article 4(3) will be repealed and references to these Directives shall be construed as references to the Code.

The Code introduces in Article 101 the principle of full harmonisation of the rules on end-user protection not later than 3 years after the date of entry into force of the Code. Additional requirements imposed by Member States+ pursuant to Article 4(3) can be maintained as long as they do not relate to topics covered by the Code. This will be discussed in more detail below.

4.3.3 Fact finding – additional requirements by Member States

In this subparagraph we summarise our findings related to Article 4(3) in Part II – Country Chapters and potential issues in relation to Article 4(3) that were raised in the surveys and the interviews.

The information in Part II – Country Chapters related to Article 4(3) can be summarised as follows:

- In the majority of the Member States+ no additional requirements next to the transparency requirements of Article 4(1) have been adopted.
- Additional requirements were in place before the Regulation entered into force and were maintained in **Austria, Denmark, France** and **Hungary**.
- Additional requirements were in place before the Regulation, but were amended in **Belgium, Croatia** and **Sweden**.
- Additional requirements were introduced after the Regulation entered into force in **Germany, Luxembourg, Slovenia** and **Portugal**.

In paragraph 4.1 of this Report, we identified categories of additional requirements. In the following table Member States are listed that used Article 4(3) to maintain or introduce additional requirements per identified category.

Table 19: Categories of additional requirements based on Article 4(3) per Member State

Category of additional requirements based on Article 4(3)	Member States
Prescribed format or channel to present the information, to enable to consumers to easily find and compare information.	LU, PT, SE
Additional requirements to make information transparent related to the categories of Article 4(1)(a)-(e) and the use of terminal equipment.	HR, DK, FR, DE, HU, PT, SI, SE
A requirement to notify contracts to the NRA.	AT
A requirement to notify a speed test to the NRA.	BE, HR

When asked, none of the interviewees mentioned any concrete issues related to additional requirements based on Article 4(3). On another level, some umbrella organisations mentioned the Code and questioned whether this Article will be affected by the Code.

4.3.4 Analyses

Article 4(3) is effectively used by 10 Member States to maintain or introduce additional requirements. In three Member States these requirements were introduced after the

entry into force of the Regulation, whereas in seven Member States the existing additional requirements were maintained or amended due to the Regulation.

In three Member States (**Luxembourg, Portugal, Sweden**), the requirements relate to the prescribed format or channel to present the information, to enable consumers to easily find and compare information. In seven Member States (**Croatia, Denmark, France, Germany, Hungary, Portugal, Slovenia, Sweden**), Article 4(3) is (also) used to set additional requirements to make information transparent related to the categories of Article 4(1)(a)-(e) and the use of terminal equipment. In **Austria** there is an additional requirement based on Article 4(3) to notify contracts to the NRA. In **Belgium** and **Croatia** there is an additional requirement on the basis of Article 4(3) to notify a speed test to the NRA.

As discussed in paragraph 4.1 of this Report, the Code will introduce in Article 101 the principle of full harmonisation of the rules on end-user protection, but Article 1, Section 3 of the Code explicitly states that the Code is 'without prejudice to (...) Regulation (EU) 2015/2120.' Recital 257 of the Code clarifies that full harmonisation will only extend to the topics covered by the provisions on end-users' rights (Articles 102 to 115) in the Code which includes the transparency requirements provided in Articles 102 to 104 and in the Annexes VIII, IX and X of the Code.

This leaves the question what the impact of the Code is on Article 4(3), which allows Member States+ to maintain or introduce additional monitoring, information and transparency requirements for ensuring open internet access and any additional requirements by Member States+ pursuant to Article 4(3).

The Code does not affect national law with respect to those aspects of end-user protection, including some aspects of transparency measures, which are not covered by the aforementioned transparency provisions and Annexes of the Code. This means that additional requirements imposed by Member States+ pursuant to Article 4(3) can be maintained as long as they do not relate to topics covered by the transparency requirements of the Code. On the other hand, additional measures by Member States+ on the basis of Article 4(3) that are not in accordance with Articles 102 to 104 and the aforementioned Annexes could not be maintained. Article 101, paragraph 2, of the Code provides for a transitional period of 3 years after the date of entry into force of the Code during which Member States+ shall be able to continue to apply more stringent national consumer protection provisions.²⁹³

Article 102 of the Code lays down obligations regarding the content and the format of the information the provider should provide before the contract is concluded. As discussed in paragraph 4.1, the Code adds an obligation in Article 102 for providers to provide consumers with a concise and easily readable contract summary template.

Additional requirements in individual Member States+ prescribing a format that deviates from this harmonised format will have to be repealed after the transitional period.²⁹⁴

In addition, Article 103 of the Code complements Article 4(1) by harmonising which information must be made transparent. The prescribed information goes beyond the requirements of Article 4(1). According to Annex IX the information should include:

- contact details of the undertaking;

²⁹³ In addition, Article 102(6) and (7) of the Code refer to a limited possibility of Member States to maintain or introduce in their national law additional provisions related to the transparency requirements for contracts.

²⁹⁴ Article 102(3)(2nd) of the Code.

- description of the services offered including:

- (i) scope of the services offered and the main characteristics of each service provided, including any minimum service quality levels where offered and any restrictions imposed by the provider on the use of terminal equipment supplied;
- (ii) tariffs of the services offered, including information on communications volumes (such as restrictions of data usage, numbers of voice minutes, numbers of messages) of specific tariff plans and the applicable tariffs for additional communication units, numbers or services subject to particular pricing conditions, charges for access and maintenance, all types of usage charges, special and targeted tariff schemes and any additional charges, as well as costs with respect to terminal equipment;
- (iii) after-sales, maintenance and customer assistance services offered and their contact details;
- (iv) standard contract conditions, including contract duration, charges due on early termination of the contract, rights related to the termination of bundled offers or of elements thereof and procedures and direct charges related to the portability of numbers and other identifiers, if relevant;
- (v) if the undertaking is a provider of number-based interpersonal communications services, information on access to emergency services and caller location or any limitation on the latter. If the undertaking is a provider of number-independent interpersonal communications services, information on the degree to which access to emergency services may be supported or not;
- (vi) details of products and services, including any functions, practices, policies and procedures and alterations in the operation of the service, specifically designed for end-users with disabilities, in accordance with Union law harmonising accessibility requirements for products and services; and

- dispute settlement mechanisms, including those developed by the undertaking.

Furthermore, Article 103, Section 2, states that competent authorities should ensure end-users have access free of charge to at least one independent comparison mechanism which enables them to compare and evaluate prices and quality of the different services.

Additional requirements relating to obligations to publish information with respect to each of these topics will have to be repealed after the transitional period.

Concerning quality of service requirements, Article 104 of the Code states that NRAs may require ISPs to publish comprehensive, comparable, reliable, user-friendly and up-to-date information for end-users on the quality of their services. NRAs have to specify, while taking utmost account of the (future) BEREC guidelines, the quality of service parameters to be measured and the applicable measurement methods and the content, form and manner of the information to be published, including possible quality certification mechanisms. Further details are given in Annex X. The Code also continues to allow NRAs to require that ISPs provide the information to them in advance of its publication. This does not seem to contradict with the additional requirements currently adopted by Member States+ and NRAs, because it merely provides Member States+ and NRAs with the option to request the information in advance and does not prescribe rules regarding the content of the quality of service parameters and information.

There will be room for debate. A detailed assessment of the existing and upcoming additional requirements on the basis of Article 4(3) in view of the Code has not been undertaken in this Study. In any event not all additional requirements that are currently

provided for in national legislation can be maintained after the transitional period. However, this will not require an amendment of the Regulation.

4.3.5 Conclusion

The majority of the Member States+ have not used Article 4(3) to maintain or adopt additional transparency requirements. However, additional requirements on the basis of this Article have currently been adopted in 11 Member States+. In view of the fact that additional requirements have been maintained or introduced in a number of Member States+ after the Regulation was adopted and no concerns have been raised, we conclude that Article 4(3) as a basis to increase the transparency for end-users depending on national circumstances is effective.

Some stakeholders have raised the question whether Article 4(3) remains relevant next to the Code. This question is addressed in Recital 257 of the Code stating that '*measures relating to transparency obligations which are not covered by this Directive should be considered as compatible with the principle of full harmonisation whereas additional requirements regarding transparency issues covered by this Directive, such as publication of information, should be considered as incompatible.*'

No other concerns or questions in relation to the effectiveness, efficiency and proportionality of Article 4(3) have been raised by stakeholders.

4.4. Article 4(4) – Non-conformity of performance and certified monitoring mechanisms

4.4.1 Introduction

Article 4(4) contains a provision of contract law. Article 4(4) stipulates that significant actual discrepancies, continuous or regularly recurring, compared to parameters that have been communicated by the ISP qualify as non-conformity of performance. This however only applies if such discrepancies are established by a certified monitoring mechanism.

4.4.2 Regulation and BEREC Guidelines

On the basis of Article 4(1), end-users need to be informed in the IAS-contract of the speed the ISP is realistically able to deliver and the other parameters referred to in points (a) to (d) of this provision. According to Article 4(4), significant discrepancies, continuous or regularly recurring, between the actual performance of the IAS and the aforementioned indicated parameters are considered to be non-conformity of performance for consumers if established by a monitoring mechanism that is certified by the NRA:

Any significant discrepancy, continuous or regularly recurring, between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated by the provider of internet access services in accordance with points (a) to (d) of paragraph 1 shall, where the relevant facts are established by a monitoring mechanism certified by the national regulatory authority, be deemed to constitute non-conformity of

performance for the purposes of triggering the remedies available to the consumer in accordance with national law.

This paragraph shall apply only to contracts concluded or renewed from 29 November 2015.

Additional guidance is provided in the BEREC Guidelines.²⁹⁵

The Regulation does not require Member States+ or an NRA to establish or certify a monitoring mechanism. Moreover, the relevant facts proving a significant discrepancy may be established by any monitoring mechanism certified by the NRA, whether operated by the NRA or by a third party, while the Regulation does not define how the certification must be done. According to the BEREC Guidelines, a monitoring mechanism provided by the NRA and implemented for proving a significant discrepancy should be considered as a certified monitoring mechanism according to Article 4(4).²⁹⁶

The methodology of the certified monitoring system should be established in the BEREC Guidelines.²⁹⁷ The monitoring methodology referred to in the BEREC Guidelines is not binding and NRAs are able to (continue to) use their existing measurement mechanisms.²⁹⁸ The BEREC Guidelines provide the following non-binding guidance:²⁹⁹

Measurements should mitigate, to the extent possible, confounding factors which are internal to the end-users' environment such as existing cross-traffic and the wireless/wireline interface. When implementing measurement methodologies, NRAs should consider guidance on methodologies developed during BEREC's work on QoS in the context of net neutrality, especially those found in:

- the 2012 framework for Quality of Service in the scope of net neutrality;³⁰⁰
- the 2014 Monitoring quality of internet access services in the context of net neutrality BEREC report;³⁰¹
- the feasibility study of quality monitoring in the context of net neutrality;³⁰² and
- the planned BEREC 2016-17 workstream on the Regulatory Assessment of QoS in the context of net neutrality.³⁰³

According to the BEREC Guidelines, the speed is calculated by the amount of data divided by the time period. These speed measurements should be done in both download and upload directions. Furthermore, speed should be calculated based on IP packet payload, e.g. using TCP as transport layer protocol. Measurements should be performed beyond the ISP leg. The details of the measurement methodology should be made transparent.³⁰⁴

²⁹⁵ BEREC Guidelines (2016), para 161-168.

²⁹⁶ BEREC Guidelines (2016), para 161-162.

²⁹⁷ Regulation (EU) 2015/2120, Recital 18.

²⁹⁸ BEREC Guidelines (2016), para 163.

²⁹⁹ BEREC Guidelines (2016), para 164-166.

³⁰⁰ BEREC Framework for QoS (2011).

³⁰¹ BEREC (2014), Monitoring quality of Internet access services in the context of net neutrality: Update after public consultation, BoR (14) 117 (hereafter: BEREC Monitoring quality of IASs (2014)).

³⁰² BEREC (2015), Feasibility study of quality monitoring in the context of net neutrality, BoR (15) 207.

³⁰³ BEREC (2015), Work Programme 2016 BEREC Board of Regulators, BoR (15) 213, section 11.2.

³⁰⁴ BEREC Guidelines (2016), para 166.

4.4.3 Fact finding – monitoring mechanisms and specifications of significant discrepancies

Based on the information set out in Part II we found that NRAs established a monitoring mechanism in 21 out of 29 Member States+. The table below provides an overview of monitoring mechanisms for each of the Member States+.

Table 20: Monitoring mechanisms in Member States+

Member States+	Monitoring mechanism	Certified	Number of times used ³⁰⁵
AT	Yes	No	Not available
BE	Yes	No	Not available
BG	Not yet	-	-
HR	Yes	Yes	11 000 (between 1 May 2017 and 30 April 2018)
CY	Yes	Yes	5 266 (by 755 registered end users)
CZ	Yes	No	37 702
DK	Yes	No	Not available
EE	No	-	-
FI	No	-	-
FR	No	-	-
DE	Yes	Yes	2 800 successful measurements in May 2018
EL	Yes	No	+/- 15 000 from unique registered users' connections in 2017
HU	Yes	Yes	2 769 408
IE	No	-	-
IT	Yes	Yes	+/- 37 000 (users)
LV	Yes	No	2 213
LT	Yes	No	240 000
LU	Yes	No	> 40 000
MT	Yes	No	Not available
NL	Yes	No	Not available
NO	Yes	No	400 000
PL	Not yet	Not yet	-
PT	Yes	No	787 000
RO	Yes	Yes	Not available
SK	Yes	Yes	39 297 (between 1 May 2017 and 20 April 2018)
SI	Yes	Not yet	1 181 309 (includes use by NRA)
ES	No	-	-
SE	Yes	No	31 500 000 (24 months)

³⁰⁵ Reporting period between 1 May 2017 and mid 2018, unless noted otherwise.

			period 2016-2017)
UK	Yes	No	Not available

Sources: Part II, NRA Survey in the context of this Study, Q76 and further input NRAs.

When implementing or supporting a monitoring mechanism, of the 17 NRAs³⁰⁶ that stated in response to the survey that they provided a monitoring mechanism:³⁰⁷

- seven followed the BEREC documents in full;³⁰⁸
- five followed the documents partially; and
- five did not follow the documents.

In all these cases, the monitoring mechanism makes use of a speed measurement methodology.³⁰⁹

In the surveys, NRAs, CAPs and ISPs were asked whether a monitoring mechanism is necessary for consumers to test conformity of performance. NRAs in overwhelming majority agree with the statement, CAPs show a positive view on the statement, while ISPs are more neutral, with a majority neither agreeing nor disagreeing, some in favour, but also some opposed.³¹⁰

During the interviews, the COs and CSOs were also supportive of the monitoring mechanisms which are considered suitable and effective. One CSO stated that the monitoring mechanisms are an integral part of the Regulation and that these mechanisms lower the barriers for consumers to raise non-conformity of performance claims. One CO also considers the monitoring mechanisms to be a very important piece of the Regulation and welcomes the rule concerning non-performance that has been laid down in Article 4(4).

On the other hand some interviewees from the providers/equipment manufacturers and NRAs expressed concerns relating to the accuracy of the measurements and the fact that the end-user's environment influences the measurements.

The views of the ISPs on the need for full harmonisation are mixed.³¹¹ Four out of nine ISPs agree or fully agree, while three ISPs disagree, with the others remaining neutral. Those disagreeing indicated that there needs to be room for local considerations.³¹²

Most interviewees of the other groups of stakeholders (NRAs, CAPs and C(S)Os) were in favour of implementing a single monitoring mechanism in the EU.

³⁰⁶ NRA Survey in the context of this Study, Q71. There is a difference between the number mentioned in the surveys (17) and the number on the basis of Part II (21). In view of the fact that the Country Chapters have been checked (most recently) by NRAs, we consider the figure in the Country Chapter leading.

³⁰⁷ NRA Survey in the context of this Study, Q81.

³⁰⁸ BEREC Guidelines (2016). BEREC Assessment Methodology (2017). BEREC Monitoring quality of IASs (2014). BEREC Framework for QoS (2011).

³⁰⁹ Part II;. NRA Survey in the context of this Study, Q82.

³¹⁰ NRA Survey in the context of this Study, Q72. ISP Survey in the context of this Study, Q57. CAP Survey in the context of this Study, Q57.

³¹¹ ISP Survey in the context of this Study, Q65.

³¹² ISP Survey in the context of this Study, Q66.

4.4.4 Analyses

As set out above, the Regulation does not require Member States+ or NRAs to establish or certify a monitoring mechanism.

However, as set out in Article 4(4), a certified monitoring mechanisms is required to establish 'any significant discrepancy, continuous or regularly recurring, between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated by the provider of internet access services in accordance with points (a) to (d) of paragraph 1'.

Certified monitoring mechanisms have been established in seven Member States: **HR, CY, DE, HU, IT, RO** and **SK**.³¹³ In 15 Member States+ the monitoring system is not or not yet certified and in seven Member States there is no monitoring system established by NRAs. Moreover, the monitoring systems that are applied are not harmonised. Because of the lack of certification in those 15 Member States+, non-conformity of IAS performance cannot be established on the basis of Article 4(4).

In addition, the situation in relation to the interpretation of significant discrepancies in the Member States+ is very different. 21 Member States+ have not provided (binding) guidance in relation to this term. In eight Member States a specification of significant discrepancies is available, but this is different for every country.

In summary, as detailed in Table 2 below, the situation in relation to (certified) monitoring systems and the interpretation of significant discrepancies in the various Member States+ as reported to us is very different:

- there are seven Member States without a monitoring mechanism. In those Member States the term significant discrepancies is not defined and Article 4(4) is not effective;
- there are also 12 Member States+ with a monitoring mechanism which is not certified and where the term significant discrepancies is not defined. In these Member States+ Article 4(4) is also not effective but the monitoring mechanism may be used to settle end-users' complaints. Reference is made to for instance Part II for **Austria, Norway** and the **United Kingdom**.³¹⁴
- there are three Member States with a monitoring mechanism which is not certified where the term significant discrepancy is defined. In those Member States Article 4(4) is strictly speaking not effective, but the monitoring system will most likely be used to settle end-users' complaints; and
- furthermore, there are two Member States that reported that they had a certified monitoring system but where the term significant discrepancies is not defined; and
- finally, there are five Member States with a certified monitoring mechanism and where the term significant discrepancies is defined. In those Member States Article 4(4) is effective as such a certified monitoring mechanism is a prerequisite for establishing non-conformance of IAS performance on the basis of Article 4(4) and it is specified what should be measured.

These findings relating to the existence of monitoring mechanisms in the Member States+ have been summarised in the table below. Apart from the fact that there are differences between Member States+ with or without a (certified) monitoring mechanism, the monitoring measures are different.

³¹³ Part II, Chapters 5, 6, 12, 14, 16, 25 and 26.

³¹⁴ Part II, Chapters 2, 22 and 30.

Table 21: Summarised results (certified) monitoring system and interpretation of significant discrepancies on the basis of reported information

Member States+	Monitoring mechanism	Certified	Interpretation of significant discrepancies?	Number of Member States+
BG, EE, FI, FR, IE, PL, ES	No	-	No	7
AT, BE, DK, EL, LV, LT, LU, NL, NO, PT, SE, UK	Yes	No	No	12
CZ, MT, SI	Yes	No	Yes	3
HU, RO	Yes	Yes	No	2
HR, CY, DE, IT, SK	Yes	Yes	Yes	5

Also, the interpretation of significant discrepancies differs significantly between Member States+. The table below provides a summary of the different specifications in eight Member States; further details are given in Part II:

Table 22: Requirements significant discrepancy

Member States	Threshold for significant discrepancy	Measurement days
HR	< 70 % (of the advertised speed)	5
CY	< 80 % (of the minimum or normal speed)	3
CZ	< 50 % (of the normally available speed for fixed IAS) < 25 % (of the advertised download or upload speed for mobile IAS)	1
DE	< 90 % (of the maximum speed)	2
IT	< 100 % (of the minimum agreed speed)	2 (in 45 days)
MT	< 20 th percentile of speed at the access network level for fixed broadband products used	Not reported
SK	< 90 % (of the maximum speed, 90 % of the time) < 40 % (of the maximum speed)	1
SI	< 80 % (of the normally available speed)	1

Source: Part II.

When interpreting these results it should be noted that technical findings were not part of our research. The remarks made by several stakeholders during the interviews that the measurements by monitoring mechanisms may not be accurate are to be followed up with technical experts. Moreover, we are unable to assess to what extent the discussion about the NTP referred to in paragraph 3.1 has an impact on the measurements and the monitoring mechanism. Also we cannot exclude that such aspects may work out differently in different Countries depending on technical characteristics. Reference is made to the Country Chapter for **France** explaining **ARCEPs** position in relation to its work on installing certain Application Programming Interfaces in terminal equipment of ISPs to characterise the end-user environment. **ARCEP** considers the APIs to be a way to make measurements more reliable.

4.4.5 Conclusion

The implementation of a monitoring system in the sense of Article 4(4) is work in progress. The status reflects the differences that existed in the Member States+ prior to the Regulation. These differences were and are still significant:

- there are differences in monitoring systems and the status certified/non-certified of these systems;
- a harmonised monitoring system is being developed by BEREC but this will not be binding; and
- there are differences in interpretation of the term 'significant discrepancy, continuous or regularly recurring'.

For the time being, we find that the approach under Article 4(4) is not yet very coherent.

The current state of play is that Article 4(4) is not yet effective, as – strictly speaking – it only serves a purpose in Member States+ where there is a certified monitoring mechanism and where significant discrepancies are defined, and such a mechanism is only in place in five Member States. However, Article 4(4) will become more effective over time if a harmonised monitoring system will be introduced. As BEREC is currently in the process of developing such a monitoring mechanism, the goals of Article 4(4) might be met more easily in the future.

Technical findings were not part of our research. The remarks made by several stakeholders during the interviews, that the measurements by monitoring mechanisms may not be accurate, would need follow up by technical experts. Also the relationship with the definition of NTP would require further technical research.

5. Assessment of the implementation of Article 5

5.1. Article 5(1) – Monitoring, Supervision, Enforcement and Reporting by NRAs

5.1.1 Introduction

Article 5(1) relates to monitoring, supervision, enforcement and reporting by NRAs.

5.1.2 Regulation and BEREC Guidelines

Article 5(1) provides the following with respect to monitoring, supervision, enforcement and reporting by NRAs.

National regulatory authorities shall closely monitor and ensure compliance with Articles 3 and 4, and shall promote the continued availability of non-discriminatory internet access services at levels of quality that reflect advances in technology. For those purposes, national regulatory authorities may impose requirements concerning technical characteristics, minimum quality of service requirements and other appropriate and necessary measures on one or more providers of electronic communications to the public, including providers of internet access services.

National regulatory authorities shall publish reports on an annual basis regarding their monitoring and findings, and provide those reports to the Commission and to BEREC.

Guidance with respect to Article 5(1) relating to supervision, including monitoring, enforcement and reporting is provided in the BEREC Guidelines.³¹⁵ With respect to supervision, including monitoring³¹⁶ and enforcement³¹⁷ the BEREC Guidelines provide lists of examples of possible supervision and enforcement measures. According to the BEREC Guidelines requirements and measures may also, in exceptional cases, be imposed in general to all ISPs in the market.³¹⁸ In all cases, such requirements and measures should be based on effectiveness, necessity and proportionality.³¹⁹

Article 5(1) requires that annual reports are published by NRAs on a yearly basis, by 30 June for the periods starting from 1 May to 30 April. BEREC recommends that NRAs include at least the following sections in their annual reports:³²⁰

- overall description of the national situation regarding compliance with the Regulation;
- description of the monitoring activities carried out by the NRA;

³¹⁵ BEREC Guidelines (2016), para 167-183.

³¹⁶ BEREC Guidelines (2016), para 171-177.

³¹⁷ BEREC Guidelines (2016), para 178-179.

³¹⁸ BEREC Guidelines (2016), para 180.

³¹⁹ BEREC Guidelines (2016), para 181.

³²⁰ BEREC Guidelines (2016), para 182-183.

- the number and types of complaints and infringements related to the Regulation;
- main results of surveys conducted in relation to supervising and enforcing the Regulation;
- main results and values retrieved from technical measurements and evaluations conducted in relation to supervising and enforcing the Regulation;
- an assessment of the continued availability of non-discriminatory IAS at levels of quality that reflect advances in technology; and
- measures adopted/applied by NRAs pursuant to Article 5(1).

5.1.3 Fact finding - application of Article 5(1) by NRAs

In this subparagraph, the findings with respect to the application of Article 5(1) in Part II, the surveys and the interviews will be summarised in accordance with the following topics:

- Net neutrality themes;
- Monitoring activities by NRAs;
- Promotion of continued availability of non-discriminatory IASs;
- Enforcement powers of NRAs;
- Enforcement approach;
- Additional requirements imposed on all ISPs;
- Settlement of complaints; and
- Publication of policy and decisions.

i. Net neutrality themes

In Part II, the relevant net neutrality themes have been listed for each of the Member States+. The combined results have been summarised in paragraph 2.2 showing clear differences on focus areas. For instance, the emphasis of NRAs in the EU has been on zero-rating and transparency, with 18 Member States+ focussing on zero-rating and 25 Member States+ focussing on transparency. However, amongst individual Member States+ there are differences.

Table 23: Net neutrality themes per Country

Net neutrality theme	Member States+	Number of Member States+
Focus on zero-rating and transparency (contract information)	BE, BG, HR, CZ, EE, DE, LT, MT, NL, NO, PT, RO, SI, SE, UK	15
Focus on zero-rating; not on transparency (contract information)	HU, IT, PL	3
Focus on transparency (contract information); not on zero-rating	AT, CY, FI, FR, EL, IE, LV, LU, SK, ES	10
No focus on zero-rating nor on transparency (contract information)	DK	1

ii. Monitoring activities by NRAs

Different methods are used for monitoring. In the surveys³²¹ and in Part II, the following activities are mentioned:

- desk research: gathering information from public sources, without requesting to provide information;³²²
- research of complaints communicated to or received by NRAs (not during complaint handling proceedings);³²³
- technical measurements: measurement by (or commissioned by) NRAs to measure the performance of IASs;³²⁴
- surveys: a general questionnaire sent to a group of stakeholders;
- requests for information: a request directed specifically to a market party, regardless of whether Article 5(2) is used for this purpose;³²⁵ and
- other: monitoring activities that do not fit into one of the categories above such as the ex-ante assessment of terms and conditions, general consultations, discussions and workshops with the industry and location visits.

All NRAs apply desk research and investigate complaints that have been communicated to them either by the complainant or another body and send individual information requests to ISPs.

Moreover, almost all NRAs (all except five) apply some kind of technical measurements in particular of internet speeds using a monitoring mechanism. The majority of NRAs (18) have used surveys.

Other monitoring activities that we found include the ex-ante assessment of terms & conditions,³²⁶ public consultations,³²⁷ discussions and workshops with the industry³²⁸ and location visits.³²⁹

The results of the monitoring activities in the Member States+ are summarised in the table below.

Table 24: Categories of monitoring activities for each of the Member States+

	Desk research	Research of complaints	Technical measurements	Surveys	Request for Information	Other
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³²¹ NRAs were invited to explain how they monitor the compliance of ISPs with Article 3(3), in particular concerning the management of network capacity and traffic, 19 answers were provided (NRA Survey in the context of this Study, Q83). ISPs were asked what monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of Regulation (IAS Survey in the context of this Study, Q67), Annex D, Survey Results.

³²² This corresponds with "Market survey without requesting information from ISPs" in the BEREC Report on implementation (2017).

³²³ This corresponds with "Analysis of complaints and end-user reporting" in the BEREC Report on implementation (2017).

³²⁴ This corresponds with "Technical network monitoring" in the BEREC Report on implementation (2017).

³²⁵ This corresponds with "Information requests from ISPs" in the BEREC Report on implementation (2017).

³²⁶ AT, HR, CY, HU and ES. See Part II, Chapters 2, 6, 14 and 28 and also BEREC Report on implementation (2017).

³²⁷ For example in Bulgaria and Hungary. See Part II, Chapters 4 and 14.

³²⁸ For example in DK, EE, IE, NL, NO and ES. See Part II, Chapters 8, 9, 15, 21, 22 and 28.

³²⁹ For example in Greece. See Part II, Chapter 13.

AT	✓	✓	✓	✓	✓	✓
BE	✓	✓	✓	✓	✓	✓
BG	✓	✓	✓	✓	✓	✓
HR	✓	✓	✓	✓	✓	
CY	✓	✓	✓	✓	✓	✓
CZ	✓	✓	✓		✓	
DK	✓	✓		✓	✓	✓
EE	✓	✓			✓	✓
FI	✓	✓	✓	✓	✓	✓
FR	✓	✓	✓	✓	✓	✓
DE	✓	✓	✓		✓	✓
EL	✓	✓	✓	✓	✓	✓
HU	✓	✓	✓		✓	✓
IE	✓	✓	✓		✓	✓
IT	✓	✓	✓	✓	✓	✓
LV	✓	✓	✓	✓	✓	✓
LT	✓	✓	✓		✓	
LU	✓	✓	✓		✓	✓
MT	✓	✓		✓	✓	
NL	✓	✓			✓	✓
NO	✓	✓	✓		✓	
PL	✓	✓	✓	✓	✓	
PT	✓	✓	✓		✓	
RO	✓	✓	✓	✓	✓	✓
SK	✓	✓	✓	✓	✓	✓
SI	✓	✓	✓		✓	✓
ES	✓	✓		✓	✓	✓
SE	✓	✓	✓	✓	✓	✓
UK	✓	✓	✓	✓	✓	✓

iii. Promotion of continued availability of non-discriminatory IASs

The majority of NRAs undertake activities to promote the continued availability of non-discriminatory IASs at levels that reflect advances in technology, although there are also NRAs that reported no promotional activities.³³⁰ Many NRAs use their website to provide general information about net neutrality and the rights and obligations pursuant to the Regulation. A number of NRAs have proactively organised workshops and meetings with the industry and other stakeholders.³³¹ Some other examples are the publication of a monthly monitoring report³³² and the participation by a representative of the NRA in external seminars.³³³ We have not come across NRAs using advertisements.

iv. Enforcement powers of NRAs

There are differences in enforcement powers between NRAs.

³³⁰ See responses to ISP Survey in the context of this Study, Q69: What measures are taken by the NRA to promote the continued availability of non-discriminatory Internet access service at levels of quality that reflect advances in technology?

³³¹ These NRAs include BE, HR, CY, CZ, FI, FR, LV, LU, NL, NO, SK, SI and SE. See Part II, Chapters 3, 5-7, 10, 11, 17, 19, 21, 22, 26, 27, 29, , 14 and 28 and see BEREC Report on implementation (2017).

³³² For example, Czech Republic. See Part II, Chapter 7.

³³³ NRAs from Poland and Sweden. See Part II, Chapter 23 and BEREC Report on implementation (2017).

All NRAs have the power to start formal investigations and to issue enforcement orders, except for the NRA in **Ireland**.

Details relating to the authority of the NRAs to impose penalties (either periodic penalties or unconditional fines) are set out in Chapter 6 of this report and in the Country Chapters. In summary the situation is as follows.

The overwhelming majority of NRAs (23) have the power to impose fines in case of violation of the provisions of the Regulation.³³⁴ 16 NRAs also have the power to issue an order subject to periodic penalty penalties.³³⁵ In **Denmark** and **Finland** NRAs only have the power to impose periodic penalties without having the power to impose unconditional fines. In some Member States+ NRAs are not empowered to issue penalties directly, either because this decision is the exclusive competence of the Courts,³³⁶ or because penalties can only be imposed if the addressee does not comply with an enforcement order or an official warning.³³⁷ In **Belgium**, the NRA may issue conditional or unconditional fines but periodic penalties are the exclusive competence of the Courts. In **Germany**, periodic penalties may only be imposed by the NRA after non-compliance with an enforcement order, while fines may be imposed in relation to violations of Articles 4(1) and 3(3) but not Articles 3(1) and 3(2).

NRAs in nine Member States have the full range of enforcement powers including enforcement orders subject to periodic penalties, imposing conditional/unconditional fines and the prohibition of providing services or coercive administrative action.³³⁸ In 17 Member States+, NRAs are also authorised to settle complaints from consumers.³³⁹

v. Differences in enforcement approach

Several NRAs have explicitly stated that they prefer informal intervention over formal enforcement.³⁴⁰ In **Finland** the NRA relies mostly on informal discussions and on providing information and guidance to ISPs. The NRA of **Luxembourg** promotes the informal settling of disputes. It employs a mediation mechanism for disputes between consumers and operators. This is an optional and voluntary mechanism which is not limited to net neutrality topics. In the **Netherlands** the NRA prefers an informal approach, as it believes that providers have an incentive to avoid bad publicity in relation to net neutrality and are therefore willing to easily adjust their behaviour. The NRA of **France** mentioned in its NN-report 2018 that after the proactive dialogues in 2017, it has started several formal investigations. Differences in approach may also lead to different number of enforcement decisions and court cases (see the chart based on Part II).

³³⁴ AT, BE, BG, CY, CZ, EE, FR, DE, EL, HU, IT, LV, LT, LU, MT, NL, NO, PL, RO, SK, SI, ES and UK. See Part II, all chapters, with the exception of Chapters 5, 8, 10, 15, 24 and 29.

³³⁵ CY, DK, FI, DE, EL, FR, IT, LT, LU, MT, NL, NO, RO, ES, SE and UK. See Part II, Chapters 6, 8, 10, 11, 12, 13, 16, 18-22, 25, 28-30.

³³⁶ Croatia and Sweden. See Part II, Chapters 5 and 29.

³³⁷ Austria and France. See Part II, Chapters 1 and 11.

³³⁸ CY, DE, EL, FR, LT, LU, NL, RO and SE. See Part II, Chapters 6, 11, 12, 13, 18, 19, 21, 25 and 29.

³³⁹ AT, HR, CY, CZ, FI (except for Article 3(4)), FR, DE, IT, LV, LT, LU, MT, NO, RO, SI and ES. In SK, the NRA has the authority to settle complaints of consumers, but no remedies are available other than informing the ISP of shortcomings. See Part II, Chapters 2, 5-7, 10, 11, 12, 16-20, 22, 25, 27 and 28.

³⁴⁰ DK, FI, FR(at least in the first year after the Regulation went into force), LU, NL, NO and UK. See Part II, Chapters 8, 10, 11, 19, 22 and 30.

Table 25: Enforcement decisions and court cases per Member State

Country	NRA Decisions	Court cases ³⁴¹
AT	2	2
BG	8	6
CZ	17	<i>Not applicable</i>
DK	1	<i>Not applicable</i>
FR	<i>Not applicable</i>	2
DE	1	1
HU	3	3
IT ³⁴²	4	1
LT	4	<i>Not applicable</i>
NL	2	2
PT	1	<i>Not applicable</i>
RO	1	1
SK	36	0
SI	4	9
SE	3	1

vi. Differences in additional requirements imposed on all ISPs

NRAs may impose additional requirements concerning technical characteristics, minimum quality of service and other appropriate and necessary measures on all providers of electronic communications to the public, including ISPs in exceptional circumstances. 15 NRAs have imposed additional requirements on all ISPs.

As is specified in Part II, the requirements imposed by NRAs on the basis of Article 5(1) relate to:

- quality monitoring and quality requirements: **Austria, Finland, Hungary, Latvia**; and
- transparency obligations (including internet speeds): **Belgium, Bulgaria** (draft), **Cyprus, Czech Republic, Denmark, Greece** (draft), **Italy, Latvia, Malta, Netherlands, Romania, Slovakia, Slovenia, Sweden**.

The requirements which are imposed are not harmonised. Reference is made to the tables and examples in paragraphs 4.1, 4.4 and Part II.

vii. Settlement of complaints by NRAs

Settlement of complaints through contractual remedies is not mentioned in Article 5(1). However, in many Member States+ complaint handling by NRAs is an important element of supervision and enforcement of the Regulation.

The situation with respect to the settlement of complaints differs from country to country. In a number of Member States+ NRAs are assigned the role of settling complaints. In other Member States+ NRAs do not have this role.

Table 26: Overview of NRAs' competences to settle complaints

Authority to settle complaints	Member States+
From consumers, other end-users and competitors	HR, CY, CZ, FI (except for Article 3(4)), FR, DE, IT, LT, MT, RO, SI
From consumers (and other	AT, LV, LU, NO, SK (no remedies available other than

³⁴¹ A court case in several instances counts as one court case.

³⁴² Lawyers of the consortium are representing one of the providers in the appeal proceedings.

end-users) only	informing the ISP of shortcomings), ES
From competitors only	EE, EL, NL, PT
No authority to settle complaints	BE, BG, DK, HU, IE, PL, SE, UK

The number of complaints and whether they are solved is not available in most Member States+.

Table 27: Overview of complaints received and settled by the NRA

Country	# received	Settled?
AT	269	Not available
BG	108	Not applicable
HR	263	All
CY	30	All
EE	1	Not available
FR	367	Not available
EL	292	Not applicable
IT	30	All
LV	9	All
LT	42	The majority
LU	Very limited	None
MT	23	All
NL	2	Not applicable
PL	34	Not applicable
PT	≈ 5 000 (first reporting period)	Not applicable
RO	73 and a petition was submitted with respect to zero-rating practices	Not available
SK	6	None
SI	42	Not available
ES	282	Not available
SE	382 (+hundreds of complaints from the 'Save the internet' group)	Not available

viii. Policy and rules regarding publication of enforcement decisions

The policy and rules regarding publication of enforcement decisions in the Member States+ are different. Some examples:

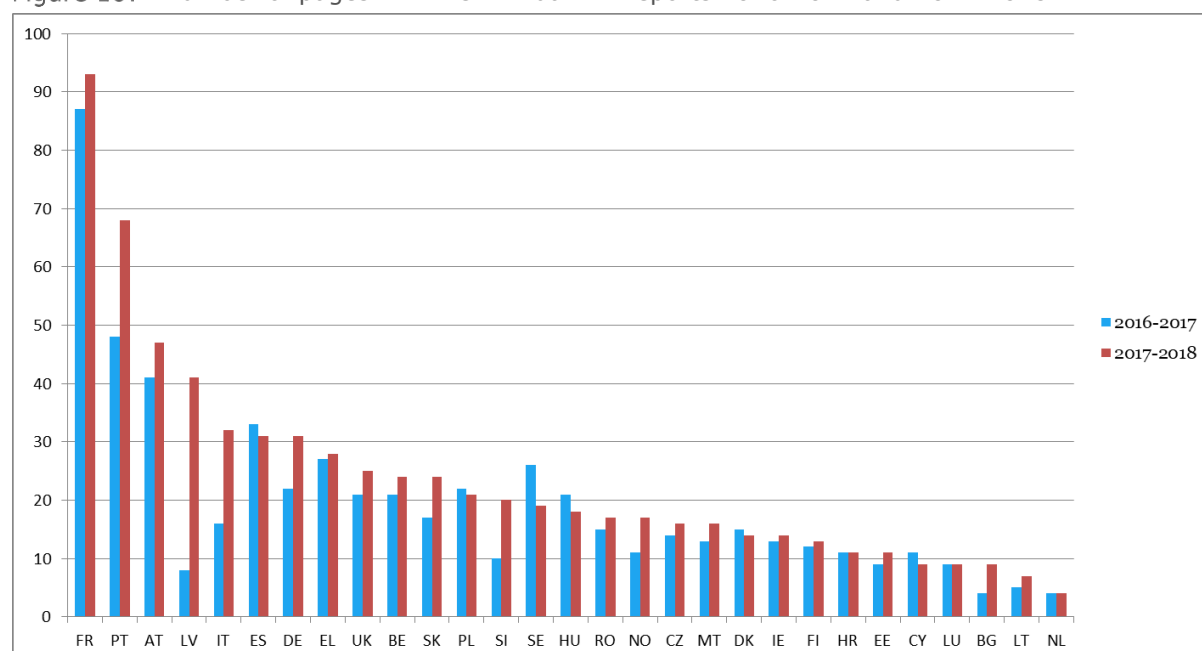
- in some Member States+ (e.g. **Luxembourg** and the **Netherlands**) the publication of enforcement decisions is mandatory. The associated punishment may sometimes also be qualified as part of the remedy or as punishment;
- in some Member States+ informal interventions are being published to provide guidance to market parties (e.g. **Belgium, Cyprus, Czech Republic, Norway, Portugal** and **Sweden**); and
- in some Member States+ enforcement decisions are not published (e.g. **Bulgaria, Czech Republic, Denmark, Germany, Lithuania, Romania** and **Slovakia**).

Part of the policy regarding publicly available information with respect to the interpretation and enforcement of the Regulation are the annual net neutrality reports. The annual net neutrality reports provide an overview of the monitoring and findings

relating to the Regulation. The absolute majority of NRAs (24 out of 29) follows the structure of an annual net neutrality monitoring report recommended by the BEREC Guidelines, but the level of detail of the published information differs.³⁴³

The number of pages of the 2016-2017 and 2017-2018 annual net neutrality reports differs from 4 to 93.

Figure 10: Number of pages in NRAs' Annual NN-reports 2016-2017 and 2017-2018



5.1.4 Analyses

In the previous subparagraph, we have set out the differences in supervision and enforcement in the various Member States+.

- a) There are differences between the Member States+ regarding the net neutrality themes that are being addressed by various NRAs. The differences have not increased after the Regulation and monitoring, supervision and enforcement seems to have become more coherent across Member States+ as a result of the Regulation. For instance, monitoring, supervision and – in some cases – enforcement of the transparency obligations has been undertaken in the vast majority of Member States+.
- b) Enforcement powers of NRAs differ from country to country. However, Article 5(1) led to a certain level of harmonisation compared to the situation prior to the Regulation. All NRAs, except for the NRA of **Ireland**, have the power to start formal investigations and to issue enforcement orders. In all Member States+ except for **Ireland** and **Portugal**, NRAs have at least some powers to enforce their orders, subject to periodic penalties or unconditional or conditional fines. The majority of NRAs (23) also have the power to impose fines in case of violation of the provisions of the Regulation.³⁴⁴ 16 NRAs have the power to issue an order subject to periodic penalty payments.³⁴⁵ In

³⁴³ NRA Survey in the context of this Study, Q85.

³⁴⁴ AT, BE, BG, CY, CZ, EE, FR, DE, EL, HU, IT, LV, LT, LU, MT, NL, NO, PL, RO, SK, SI, ES and UK. See Part II, all chapters, with the exception of Chapters 1, 5, 8, 10, 15 and 24 and 29.

³⁴⁵ CY, DK, FI, FR, DE, EL, IT, LT, LU, MT, NL, NO, RO, ES, SE and UK. See Part II, Chapters 6, 8, 10-13, 16, 18-22, 25, 28 and 30.

Denmark and **Finland** NRAs do not have the power to impose unconditional fines. In some Member States+ NRAs are not empowered to issue penalties directly, either because this decision is the exclusive discretion of the Court,³⁴⁶ or because penalties can only be imposed if the addressee does not comply with an enforcement order or an official warning.³⁴⁷ There are individual deviations such as in **Germany**, where periodic penalties may only be imposed by the NRA after non-compliance with an enforcement order, while fines may be imposed in relation to violations of Articles 4(1) and 3(3) but not Articles 3(1) and 3(2). However, these differences were not caused by the Regulation. Specific questions can be asked regarding the independence of NRAs in **Denmark** and **Spain**. The Regulation does not seem to provide for an obligation in this respect but the Framework Directive and the Code do.

- c) The complaint settlement procedures are not harmonised either. There are differences in competences to settle complaints. 11 NRAs have the authority to settle complaints from consumers, other end-users and competitors.³⁴⁸ Six NRAs are competent to settle complaints only from consumers (and other end-users).³⁴⁹ Four NRAs are empowered to settle complaints/disputes only from competitors.³⁵⁰ Eight NRAs are not the authority to settle any complaints.³⁵¹
- d) The enforcement approach is very different across Europe. Some Member States+ follow the formal route of enforcement addressed against a certain ISP while in other Member States+ an informal individual approach is followed or generic obligations for all ISPs are being imposed on the basis of Article 5(1).
- e) Finally there are differences regarding the publication of decisions. In some cases publication is ordered by way of remedy or punishment, in other cases enforcement decisions are not published.

The differences referred to above do not mean that Article 5(1) is not effective and in any event the differences are not caused by the Regulation.

Moreover, Article 5(1) is not causing concerns with the stakeholders. NRAs were asked about the effectiveness, proportionality and dissuasiveness of the available enforcement measures to achieve conformity with the Regulation.

Table 28: The available enforcement measures are effective / proportionate / dissuasive to achieve conformity with the Regulation

Answer	Effective	Proportionate	Dissuasive
1 Fully agree	5	5	2
2 Agree	11	11	8
3 Neither agree or disagree	3	4	6
4 Disagree	1		3
5 Fully disagree			
Don't know	1	1	1
Total	21	21	20

Source: NRA Survey Q90.1, Q90.2 and Q90.3.

³⁴⁶ Croatia and Sweden. See Part II, Chapters 5 and 29.

³⁴⁷ Austria and France. See Part II, Chapters 1 and 11.

³⁴⁸ HR, CY, CZ, FI (except for Article 3(4)), FR, DE, IT, LT, MT, RO and SI.

³⁴⁹ AT, LV, LU, NO, SK (no remedies available other than informing the ISP of shortcomings), ES.

³⁵⁰ EE, EL, NL, PT.

³⁵¹ BE, BG, DK, HU, IE, PL, SE, UK.

The majority of NRAs agree with the statement that the enforcement measures are effective (16 out of 21) and proportionate (16 out of 21) to achieve conformity with the Regulation. Half of the NRAs agree with the statement that the enforcement measures are dissuasive (10 out of 20) to achieve conformity. The remaining NRAs are mostly neutral, with only one NRA doubting the effectiveness of the enforcement measures and three NRAs doubting the dissuasive character of the Regulation.

This is in line with our findings in relation to Article 4(1). Very different enforcement approaches can have equally effective and efficient results.

5.1.5 Conclusion

There are differences in intensity and the type of monitoring, supervision and enforcement measures in Member States+. NRAs set their own priorities, there are cultural and procedural differences, the cases in various Member States+ can be different and there are differences in resources.

However, monitoring, supervision and enforcement have become more coherent across Member States+ as a result of the Regulation. For instance, monitoring, supervision and – in some cases – enforcement of the transparency obligations was undertaken in the vast majority of Member States+.

The fact that the approach in Member States+ might be different does not necessarily have an impact on the effectiveness of Article 5(1). Already the fact that NRAs have the powers set out in Article 5(1) has enhanced effective supervision and enforcement of the Regulation. Moreover, different approaches (formal/informal, individual/generic) may be equally efficient as our analysis of the effectiveness in paragraph 4.1 relating to Article 4(1) has shown.

The fact that it is left to the NRAs to determine priorities in enforcement and approach (formal or informal) seems unavoidable, as there are differences in culture, market conditions and resources in the Member States. Moreover, in our view supervision and enforcement of the obligations set out in the Regulation cannot be harmonised in isolation from the enforcement of other regulations, given the fact that this is only one of many tasks which the NRAs have to perform. The coordination within BEREC is an important factor to improve effectiveness and efficiency in supervision and enforcement to the extent possible over time.

We consider the obligation in Article 5(1) to publish annual net neutrality reports instrumental to work towards a coherent enforcement of the Regulation; even though we do observe differences regarding the level of detail and regarding the focus areas. The fact that these reports are all published and that BEREC uses the reports to publish an implementation report, contributes to the development of a more coherent enforcement of the Regulation and to the definition of best practices. Effectiveness would be further increased if all NRAs would provide an English translation of their annual report which is not yet the case.

Informal enforcement, which is not often published, may seem efficient and less time-consuming, but should not undermine transparency of policies and decisions which in turn is crucial to enhance a coherent application of the Regulation. If informal enforcement actions are not transparent, it makes it very difficult for BEREC or for the Commission to act against actions from NRAs that are not in line with the Regulation.

A consistent interpretation and approach would moreover be supported by more consistency and transparency in the publication of supervision and enforcement decisions

and court rulings including translations thereof. If enforcement actions and court rulings are not transparently reported, it becomes more difficult for BEREC and for the European Commission to observe actions from NRAs and act against those decisions that are not in line with the Regulation and for stakeholders to participate in the debate.³⁵²

5.2. Article 5(2) – Obligation to provide requested information for ISPs

5.2.1 Introduction

Article 5(2) sets out the obligations for ISPs to provide information to NRAs.

At the request of the national regulatory authority, providers of electronic communications to the public, including providers of internet access services, shall make available to that national regulatory authority information relevant to the obligations set out in Articles 3 and 4, in particular information concerning the management of their network capacity and traffic, as well as justifications for any traffic management measures applied. Those providers shall provide the requested information in accordance with the time-limits and the level of detail required by the national regulatory authority.

Guidance to NRAs with respect to Article 5(2) is provided in the BEREC Guidelines.³⁵³

The BEREC Guidelines refer by way of example to the following categories of information which can be requested from ISPs:

- more details and clarifications about when, how and regarding which end-users a traffic management practice is applied;
- justifications of any traffic management practice applied, including whether such practices adhere to the exceptions of Article 3(3)(a)-(c). In particular,
 - regarding Article 3(3)(a), the exact legislative act, law or order on which it is based;
 - regarding Article 3(3)(b), an assessment of the risk to the security and integrity of the network;
 - regarding Article 3(3)(c), a justification of why congestion is characterised as impending, exceptional or temporary, along with past data regarding congestion that confirms this characterisation and why less intrusive and equally effective congestion management does not suffice;
- requirements for specific services or applications that are necessary in order to run an application with a specific level of quality;
- information allowing NRAs to verify whether and to what extent, optimisation of specialised services is objectively necessary;
- information about the capacity requirements of specialised services and other information that is necessary to determine whether or not sufficient capacity is

³⁵² Consideration 74 of the Code explains that a mechanism should be set up for collecting information on appeals and decisions to suspend decisions taken by the competent authorities in all MSs and for the reporting of that information to the Commission and BEREC. This mechanism should ensure that the Commission or BEREC can retrieve from Member States the text of the decisions and judgements with a view to developing a data-base.

³⁵³ BEREC Guidelines (2016), para 184.

available for specialised services in addition to any IAS provided and the steps taken by an ISP to ensure that;

- information demonstrating that the provision of one or all specialised services provided or facilitated by an ISP is not to the detriment of the availability or general quality of IAS for end-users;
- details about the methodology by which the speeds or other QoS parameters defined in contracts or published by the ISP are derived;
- details about any commercial agreements and practices that may limit the exercise of the rights of end-users according to Article 3(1), including details of commercial agreements between CAPs and ISPs;
- details about the processing of personal data by ISPs;
- details about the type of information provided to the end-users from ISPs in customer centres, helpdesks or websites regarding their IAS;
- the number and type of end-users' complaints received for a specific period; and
- details about the complaints received from a specific end-user and the steps taken to address them.

5.2.2 Fact finding – application of Article 5(2) by NRAs

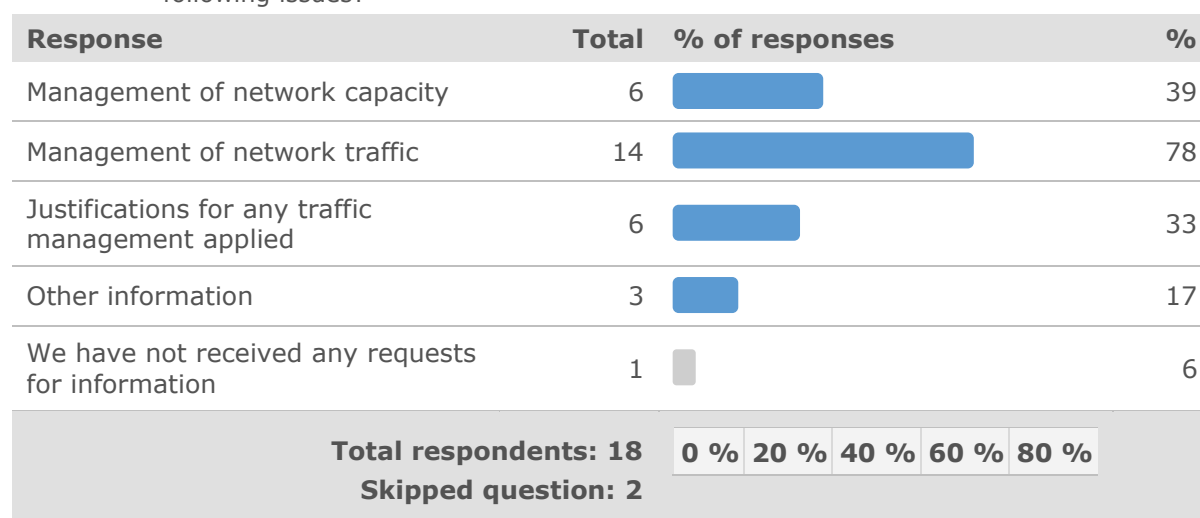
As set out in Part II many NRAs have sent requests for information to ISPs relating to supervision and enforcement of the provisions of the Regulation.

In some country chapters of Part II (**Cyprus**, **Romania** and **Slovakia**) it is explicitly mentioned that NRAs referred to obligations of ISPs pursuant to Article 5(2) to request information. The NRA of **Slovakia** imposed 36 fines for non-compliance with the obligation to provide information at the request of the NRA as laid down in Article 5(2).

Three NRAs mentioned during the interviews that they sent information requests to ISPs. Two NRAs already had general powers to request ISPs for information and did not have to rely on the obligations set out in Article 5(2) for that purpose. One NRA did not have (other) explicit powers to request ISPs for information and did therefore have to rely on the obligation of Article 5(2) as the legal basis to request information. One NRA mentioned during the interview that it found within BEREC Article 5(2) has made it indeed easier for NRAs (in other Member States+) to get answers from ISPs to their information requests.

The responses of the ISPs to the survey show that they have been asked to provide information to NRAs on a range of topics. In the table below 'other information' related to all other aspects of the Regulation including compliance with Articles 4 and 5. Only one ISP respondent out of 18 reported that it did not receive any requests for information.

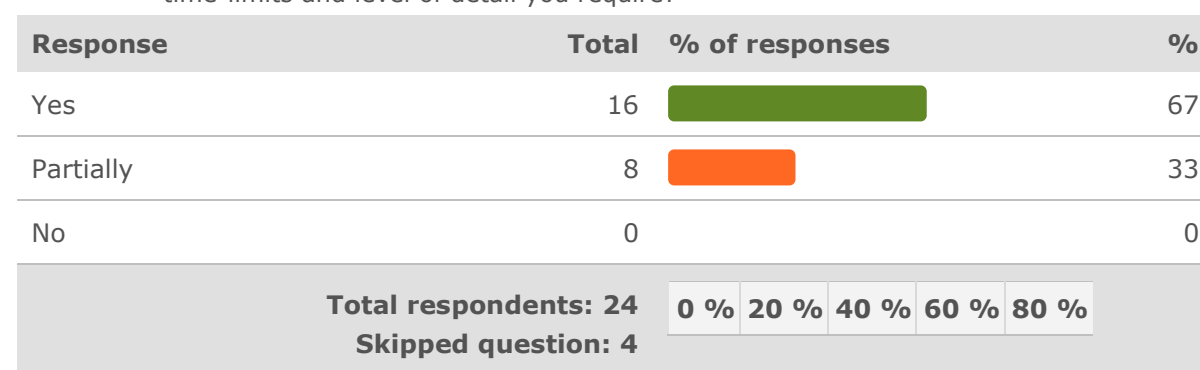
Figure 11: Have you been requested by the NRA to provide information concerning one of the following issues?



Source: ISP Survey Q75. Multiple answers possible.

In most cases, ISPs provided the full information requested within the set time-limits and at the necessary level of detail (reported by 16 out of 24 NRAs). In the remaining eight cases, ISPs responded in part to requests for information.

Figure 12: Did the Internet access providers provide with the requested information within the time-limits and level of detail you require?



Source: NRA Survey Q88.

In those cases where the requested information was not completely provided within the set time-limit and at the requested level of detail, a variety of reasons were given by NRAs:³⁵⁴

- two NRAs indicated that the ISP did not have the requested information;
- two NRAs explained that the ISP refused to provide the requested information;
- one NRA explained that a formal investigation was required to provide the necessary information;
- one NRA explained that the requested information needed to be processed in order to fit the required structure;
- one NRA explained that, since the information requests to ISPs addressed several subjects covered by the Regulation, it was considered quite extensive by most ISPs. Therefore, the information provided was mostly general, not sufficiently detailed; and

³⁵⁴ NRA Survey in the context of this Study, Q89.

- one NRA did not know why the information was only partially provided.

5.2.3 Analyses

NRAs have effectively requested ISPs for information while referring to the obligation of Article 5(2). ISPs have mostly complied with such requests.

Article 5(1) of the Framework Directive³⁵⁵ requires Member States to ensure that undertakings providing electronic communications networks and services provide all the information, including financial information, necessary for NRAs to ensure conformity with the provisions of or decisions made in accordance with, the Framework Directive and the Specific Directives. This provision will be replaced by Article 20 of the Code. However, the obligations in Articles 3 and 4 are to a large extent additional to the Framework Directive (and the Code) and are therefore not covered by Article 5(1) of the Framework Directive and the implementation in national legislation.

Therefore, there is no overlap between the Framework Directive and the Code on the one hand and Article 5(2) on the other hand.

The Code extends the obligation to provide information to other relevant undertakings active in the electronic communications or closely related sectors. A similar provision is not included in Article 5(2), which is only addressed at providers of electronic communications to the public, including ISPs. However, the scope of Article 5(2) was not flagged as an issue during our research by any of the stakeholders.

5.2.4 Conclusion

Although ISPs may have been obliged to comply with information requests from NRAs on the basis of pre-existing national legislation, this has not been the case in all Member States+. National legislation has in some cases (e.g. Slovakia and United Kingdom) been significantly strengthened to give teeth to this provision.

Therefore, Article 5(2) has led to more coherence in supervision and enforcement across the Member States+ compared to the situation prior to the Regulation.

Based on our research Article 5(2) is effective. ISPs are bound by Article 5(2) and generally comply with this provision.

The obligations for ISPs in the Regulation are to a large extent additional to the Framework Directive (and the Code) and therefore a separate obligation to provide information in Article 5(2) is efficient and proportionate.

During our research none of the stakeholders raised concerns or questions in relation to Article 5(2).

³⁵⁵ Framework Directive, 2001/21/EC.

5.3. Article 5(3) – BEREC Guidelines

5.3.1 Introduction: the obligation for BEREC to adopt guidelines

Pursuant to Article 5(3), BEREC must issue guidelines for the implementation of the obligations of NRAs under that Article. In full, it reads:

By 30 August 2016, in order to contribute to the consistent application of this Regulation, BEREC shall, after consulting stakeholders and in close cooperation with the Commission, issue guidelines for the implementation of the obligations of national regulatory authorities under this Article.

According to Article 3(3) of the BEREC Regulation,³⁵⁶ NRAs and the Commission shall take the utmost account of (*inter alia*) guidelines adopted by BEREC.

The BEREC Guidelines refer to Article 5(3) and state in the first paragraph:³⁵⁷

These BEREC Guidelines drafted in accordance with Article 5(3) of the Regulation are designed to provide guidance on the implementation of the obligations of NRAs. Specifically, this includes the obligations to closely monitor and ensure compliance with the rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users rights as laid down in Articles 3 and 4. These Guidelines constitute recommendations to NRAs, and NRAs should take utmost account of the Guidelines. The Guidelines should contribute to the consistent application of the Regulation, thereby contributing to regulatory certainty for stakeholders.

Moreover, pursuant to Recital 18, the BEREC Guidelines should contain the methodology to determine significant and continuous or regularly recurring differences between the actual performance of the IAS and the performance indicated in the contract. They must be reviewed and updated as necessary to reflect technology and infrastructure evolution.³⁵⁸ In a separate document of October 2017 BEREC published its net neutrality regulatory assessment methodology.³⁵⁹ This document provides guidance to NRAs regarding the implementation of net neutrality measurement mechanisms by them on an optional basis and aims to contribute to standardisation of net neutrality measurement methodology.

The BEREC Guidelines do not provide guidance to NRAs regarding the application of Articles 4(3) and 6, as these provisions are addressed to Member States+.

5.3.2 Fact finding – Views of Stakeholders whether the BEREC Guidelines contribute to a harmonised application in line with the objectives of the Regulation

Generally speaking, **NRAs** that were interviewed were positive about the BEREC Guidelines. During the interviews, they mentioned that not only the BEREC Guidelines, but also the cooperation within BEREC contributed to harmonisation. This is a fundamental asset of BEREC. The success of the Regulation very much relies on this

³⁵⁶ Regulation (EC) No 1211/2009 of the European Parliament and the Council of 25 November 2009 establishing the Body of European Regulators of Electronic Communications (BEREC) and the Office.

³⁵⁷ BEREC Guidelines (2016), para 1.

³⁵⁸ Regulation (EU) 2015/2120, Recital 18.

³⁵⁹ BEREC Assessment Methodology (2017).

cooperation in the long run. According to NRAs, the more cases that are being handled in different Member States+ the more harmonised the approach will become.

The **ISPs** were less convinced about the level of harmonisation achieved by the BEREC Guidelines. ISPs commented during the interviews that the approach adopted by individual NRAs may differ. Some ISPs added that: (i) there is a lack of predictability; (ii) the Guidelines are too detailed and too prescriptive; and (iii) the relationship between the Regulation and the Guidelines continues to create a certain amount of legal uncertainty. In their view, rules should allow for flexibility to adapt to different markets and to analyse the impact of decisions on consumers pursuant to the Regulation.

During the interviews, some of the **CAPs** also observed divergent approaches by NRAs. In their view, the challenge is the enforcement and assessment in States. The Regulation requires NRAs to carry out a lot of case-by-case assessments. It was noticed that some NRAs adhere to the Guidelines more strictly and are more active in enforcing them than others. The CAPs were generally in favour of more coordination between NRAs. Some of the CAPs were of the opinion that the BEREC Guidelines and the way in which NRAs currently enforce the rules, are or might become somewhat too strict. Others were in favour of the closer involvement of competition authorities.

The **CSOs** that were interviewed were generally supportive of the BEREC Guidelines, but less positive about the application in Member States+. The Guidelines are very clear in certain aspects in their view, but the Regulation is said not to have been implemented in a consistent way. The CSOs also commented that supervision and enforcement are not carried out properly, at least not in all Member States+. CSOs mentioned zero-rating as a subject, which in their view is not sufficiently addressed in the Guidelines. They consider the decisions adopted by NRAs on that subject not entirely in line with what the Guidelines or the Regulation state.

COs found the BEREC Guidelines helpful. In their view, the BEREC Guidelines are a compromise within the NRA community and BEREC did a very thorough job. According to the COs, the Guidelines rightly are putting the interests of end-users first.

5.3.3 Analyses

The objective of this Study is not to evaluate the BEREC Guidelines. Nevertheless, in order to assess the effectiveness, efficiency and proportionality of Article 5(3), it is relevant to analyse whether the Guidelines contribute to the objectives of the Regulation and whether the Guidelines lead to a harmonised supervision and enforcement of the Regulation by NRAs.

Assessment of contribution to coherent application and interpretation

Based on our analysis in the previous chapters, we conclude that the Regulation and the BEREC Guidelines have led to more coherence compared to the situation prior to the Regulation. There are however significant differences between NRAs regarding: i) themes that are addressed under the Regulation; ii) approaches to enforcement; and iii) interpretation:

- i) The BEREC Guidelines provide guidance regarding the interpretation of the provisions of the Regulation. However, the BEREC Guidelines do not set priorities for supervision and enforcement. As a consequence the themes that are addressed by NRAs under the Regulation may have a different emphasis as set out in paragraph 5.1 of this Report. A further illustration is the difference in approach between NRAs regarding the legal basis used for the assessment of zero-rating (Article 3(2) and/or Article 3(3) of the Regulation). As such this is not

in violation with Article 5(3). Article 5(3) does in our view not provide the legal basis for setting priorities for NRAs.

- ii) There are differences in approaches to supervision and enforcement between NRAs. In part, these differences are caused by national legislation regarding enforcement powers, handling of complaints and additional national requirements which are in line with the Regulation. There are also differences between sector-wide/individual and informal interventions/formal enforcement actions amongst NRAs, depending on market situation, history, culture, priorities and resources. However, the approach to supervision and enforcement is not harmonised in Article 5(3) and the BEREC Guidelines apart from what is regulated in Article 5(3).
- iii) Finally, there are differences in the interpretation of the provisions of the Regulation and the BEREC Guidelines by NRAs despite the extensive nature of the Guidelines. The table below provides an overview of topics that have come up in various Member States+ regarding the question as to whether the BEREC Guidelines have led to more coherent interpretation, supervision and enforcement. On the basis of the previous subparagraphs we have identified:
- topics where the BEREC Guidelines have contributed to a more consistent approach (2nd column);
 - topics where further decisions or court rulings are expected and where it is too early to draw conclusions relating to consistency (3rd column); and
 - topics where NRAs reached different outcomes in spite of the Guidelines (4th column).

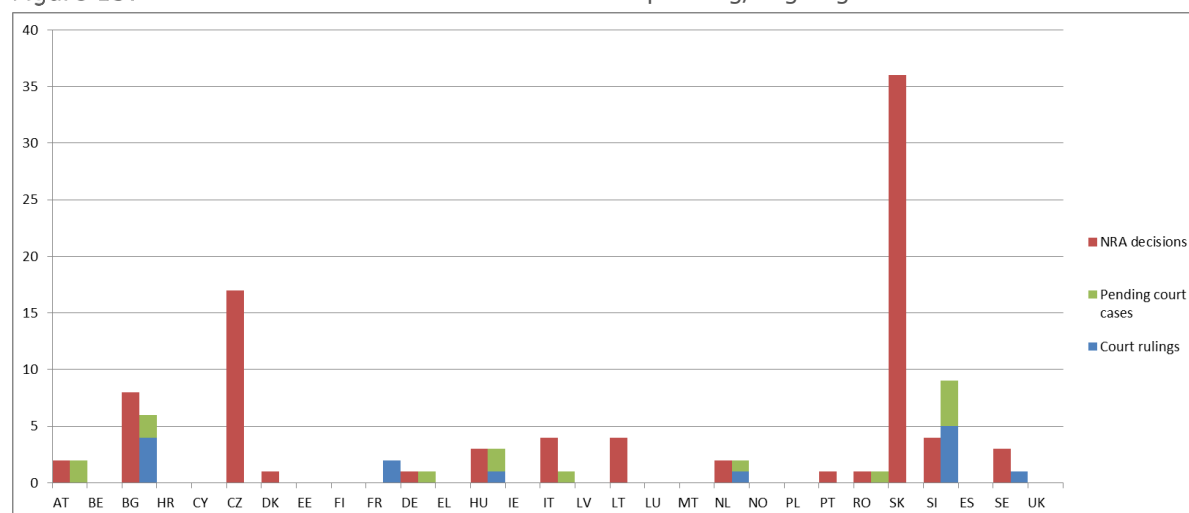
Table 29: Examples - state of harmonisation in application by NRAs

Provision in Regulation / Guidelines	Topics - developments towards more consistency	Topics - further developments to be expected	Topics - differences in interpretation between NRAs
Article 3(1) – end-users' equipment and tethering	Tethering / use of SIM cards – BEREC Guidelines are followed	Modems and/or routers part of the Network Termination Point or not? Pending appeal proceedings in Italy	Differences in requirements relating to the type of equipment
Article 3(2) – zero-rating - comprehensive assessments	Increasing number of NRAs perform comprehensive assessment along the lines set out in the BEREC Guidelines	Number of NRAs have not yet performed comprehensive assessment Pending appeal proceedings in the Netherlands	Differences in approach between NRAs - decisions on the basis of Article 3(2) and/or 3(3)
Article 3(3) – zero-rating - Traffic Management	BEREC Guidelines followed: - Difference in treatment of zero-rated content in excess of the data-cap is considered a violation of Article 3(1) - Restrictions of maximum download rate for zero-rated	Pending Appeal proceedings in Austria, Germany, Hungary, Romania and Slovenia	--

	<p>content or throttling of zero-rated content infringes Article 3(3)</p> <ul style="list-style-type: none"> - Access to ISPs customer services when data cap is reached in order to purchase additional data 		
<p>Article 3(3) – traffic management measures and exceptions</p>	--	<p>BEREC's position in relation to port-blocking not published</p> <p>Possible impact of regulatory restrictions related to traffic management on specialised services not determined (court case in Austria, no case-by-case assessments by NRAs undertaken)</p> <p>Open questions relating to the interpretation and impact of the requirement/guideline that traffic management measures shall not be maintained longer than necessary</p>	<p>Different approaches port-blocking</p>
<p>Article 3(4)</p>	--	<p>No decisions or court rulings</p>	<p>Different grounds for investigations of DPI</p>
<p>Article 3(5)</p>	<p>Detailed BEREC Guidelines subject of debate</p>	<p>Pending court case in Austria</p> <p>NRAs have not undertaken case-by-case assessments relating to new specialised services/5G</p> <p>Application of Article 3(5) to B2B services unclear</p> <p>Limited guidance relating to case-by-case assessment in BEREC Guidelines</p>	<p>No harmonised position NRAs</p>

Article 4(1)	Detailed BEREC Guidelines; focus area for most NRAs	Pending court cases in Bulgaria and Czech Republic	Differences in interpretation, application and additional requirements imposed by NRAs / Member States+
Article 4(2)	--	--	--
Article 4(3)	Outside scope BEREC Guidelines		
Article 4(4)	--	Development monitoring systems work in progress; initiatives by BEREC but continued country-by-country approaches	Differences in monitoring system Differences in certified status of mechanisms Differences in interpretation of significant discrepancies
Article 5(1)	More coordination in BEREC	Work in progress in all Member States+	Different priorities in supervision and enforcement and different enforcement approaches
Article 5(2)	Increased coherence in application of powers to request information	--	Different approaches in enforcement reflected in information requests pursuant to Article 5(2)
Article 6	Outside scope BEREC Guidelines		

With respect to these findings related to the interpretation of the provisions of the Regulation it is important to note that the supervision and enforcement of the Regulation and the BEREC Guidelines is (and will continue to be) work in progress: investigations by individual NRAs into certain topics have not yet started or are still ongoing and decisions that have been taken are still subject to appeal proceedings, which may even be referred to the European Court of Justice. The decisions that have been taken by NRAs and the court rulings that have been rendered and that are still expected are set out in the figure below.

Figure 13: Overview of enforcement decisions and pending/ongoing court cases³⁶⁰

Assessment of impact on objectives of the Regulation

The BEREC Guidelines are relatively detailed and prescriptive and the Guidelines assume that NRAs will have to assess intended business and investment decisions by providers. Examples are:

- paragraph 73 of the BEREC Guidelines states that traffic management measures that are applied on a permanent or recurring basis – which may for instance be the case in relation to specialised services – might be questionable and NRAs should consider whether such traffic management measures can still be qualified as reasonable;
- paragraphs 116 - 118 of the BEREC Guidelines state that both in the short and in the long term specialised services shall not lead to a deterioration of the general IAS quality for end-users. NRAs should assess whether ISPs have ensured sufficient network capacity for both any IAS offers provided over the infrastructure and for specialised services; and
- paragraph 111, which expects NRAs to verify to what extent optimised delivery is objectively necessary.

Decisions of NRAs in these areas may have an impact on the effects of the Regulation and will be dealt with on a case-by-case basis. However, the level and type of guidance provided in the BEREC Guidelines to support the case-by-case approach by the NRAs differs between for instance the guidance provided in relation to on the one hand Article 3(2) setting out the criteria for a comprehensive assessment on the basis of the aims of the Regulation including innovation and on the other hand in relation to Articles 3(3) and 3(5) where similar guidance is not provided.³⁶¹

³⁶⁰ Please note that, for clarity's sake, we have only counted the different appeals in procedures as one pending case or ruling. I.e., if there was a court ruling followed by a further appeal that is still pending, the case will only be marked as pending.

³⁶¹ See paragraphs 43 and 46 in relation to the relevance of the innovation objective for the performance of the comprehensive assessment pursuant to Article 3(2). Similar guidance is not provided in relation to Articles 3(3) and 3(5).

5.3.4 Conclusion

The BEREC Guidelines have undoubtedly contributed to a more harmonised application of the relevant parts of the Regulation. This is particularly the case where the BEREC Guidelines are focussing on specific topics, such as zero-rating and the prohibition of tethering.

Significant differences amongst the NRAs are evident in (i) priorities for supervision and enforcement and (ii) approaches to supervision and enforcement. Yet the current scope of Article 5(3) and the Guidelines do not provide a legal basis to tackle such perceived differences in full. Moreover, it has never been the intention of the Regulation and the BEREC Guidelines to provide for a full harmonisation of supervision and enforcement. It is clear that without the BEREC Guidelines, it would be even more challenging to work towards an increasingly harmonised approach in supervision and enforcement of the Regulation.

In the course of our research we have come across topics where the principles-based approach of the Regulation is supported by stakeholders but the interpretation of these principles in the BEREC Guidelines is being criticized. For instance the BEREC Guidelines relating to transparency and specialised services/traffic management are considered too restrictive by ISPs and some CAPs³⁶² and the guidelines in relation to zero-rating and transparency are considered too liberal by consumer organisations and digital rights organisations.³⁶³

Also the level and type of guidance provided in the BEREC Guidelines to support the case-by-case approach by the NRAs differs between for instance the guidance provided in relation to on the one hand Article 3(2) setting out the criteria for a comprehensive assessment on the basis of the aims of the Regulation relating to end-user protection and innovation and on the other hand in relation to Articles 3(3) and 3(5) where similar guidance is not provided in relation to in particular the innovation objective.

Therefore, although in our view the balance that has been found between the principle-based approach of the Regulation and the BEREC Guidelines to ensure consistent application in the Member States+ is right, there is currently legal uncertainty in particular in the application of Article 3(3) and 3(5). However, this seems already to be foreseen by BEREC as the question how regulation could influence the pace at which innovative services are brought to market will be assessed in parallel with the review of the BEREC Guidelines.³⁶⁴

³⁶² Paragraphs 3.5.3 and 4.1.3 of this Report.

³⁶³ Paragraphs 3.2.3 and 4.1.3 of this Report.

³⁶⁴ Reference is made to the BEREC Work Programme 2019, BoR (18) 240, paragraph 3.1.

6. Assessment of the implementation of Article 6

6.1. Article 6 – Penalties

6.1.1 Introduction

Article 6 is directed to Member States+ to ensure that NRAs have the power to impose penalties.

Article 6 provides basic rules for penalties that Member States+ should be able to impose for infringement of Articles 3, 4 and 5.

Member States shall lay down the rules on penalties applicable to infringements of Articles 3, 4 and 5 and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify the Commission of those rules and measures by 30 April 2016 and shall notify the Commission without delay of any subsequent amendment affecting them.

The term 'penalties' is not defined in the Regulation. In order to make a meaningful comparison and presentation, when analysing the various national arrangements, we have followed the definitions of penalties (which includes both fines and periodic penalty payments) in Chapter VI of Council Regulation (EC) No 1/2003.³⁶⁵

6.1.2 Fact finding related to rules on penalties in Member States+

The penalties applicable on the basis of national legislation differ significantly absent detailed harmonisation.

There are two Member States (**Ireland** and **Portugal**) in which Article 6 has not (yet) been implemented because no one is competent to impose penalties for infringements of the Regulation.

In 15 out of 27 Member States+ NRAs or courts have the power to impose fines and periodic penalty payments.

In 10 Member States only fines may be imposed and in two Member States only periodic penalty payments may be imposed.

These findings are reflected in the table below. Further details are given in Part II.

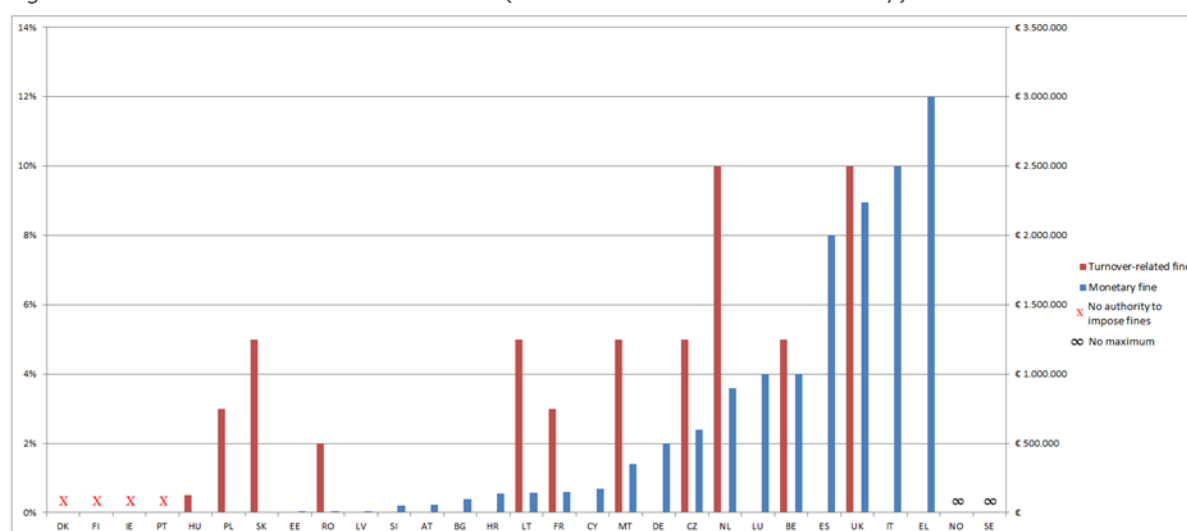
³⁶⁵ Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty.

Table 30: Overview of penalty types for each of the Member States+

Penalty / measure	Country	Total number
Fines and periodic penalty payments	BE ³⁶⁶ , CY, FR ³⁶⁷ , DE, EL, IT, LT, LU, MT, NL, NO, RO, ES, SE ³⁶⁸ and UK	15
Only Fines	AT ³⁶⁹ , BG, HR ³⁷⁰ , CZ, EE, HU, LV, PL, SK and SI	10
Only periodic penalty payments	DK, FI	2
No power to impose fines or periodic penalty payments for infringements of the Regulation	IE, PT ³⁷¹	2

In those Member States+ where the NRA or the court has the power to impose fines, the differences are substantial both from the perspective of maximum fines in absolute terms and from the perspective of turnover-related fines. This is illustrated by the graph below. This graph is based on first time infringements (fines for repeated offenses are often higher, see Part II).³⁷²

Figure 14: Overview of maximum fines (turn-over related and monetary)



Based on the information in Part II, the following penalty decisions resulting in fines were imposed in Member States+.

³⁶⁶ Periodic penalty payment is imposed by the court, not the NRA.

³⁶⁷ Only after formal request to cease the infringement is ignored.

³⁶⁸ Fine is imposed by the court, not the NRA.

³⁶⁹ Only if infringement decision of an ordinance is not complied with.

³⁷⁰ Fine is imposed by the court, not the NRA.

³⁷¹ ANACOM may impose a fine in case of a serious infringement of the national transparency rules, but does not have powers to impose fines in case of an infringement of the Regulation.

³⁷² For a complete overview of the differences between the maximum fines in the Member States+, this graph should be read in conjunction with the detailed information in Part II. For example, the graph does not show that a Country may have different maximum monetary fines per Article (e.g. DE), whether a monetary fine or a turnover-related fine is imposed may depend on the specific Article breached (e.g. UK) and a monetary fine may only be imposed if a turnover-related fine cannot be accurately determined (e.g. LT).

Table 31: Penalties imposed per Member State

Country	Article Regulation	Penalty	Status
BG	4(1)	Seven notices of administrative sanctions of €250 each (BGN 500)	One notice not appealed, three upheld (two final, one not available), two overturned (one final, one pending in appeal in 2nd instance) and one pending in 1st instance
IT	3(3)	Order to cease the offering or to object to the decision of 15 March 2017 to Wind Tre, followed by a fine of €20 258 for not complying in time (reduced sanction)	
SK	5(2)	SPRK imposed 36 fines (between €200 and €2 000) to ISP's for not providing information requested on compliance with Articles 4(1) and 4(2)	No appeals

Based on the information in Part II, the NRAs in the **Netherlands** and **Romania** imposed periodic penalty payments after the entry into force of the Regulation.

6.1.3 Analyses and conclusion

The rules on penalties referred to in Article 6 are different in each of the Member States+.

In the absence of the power to issue periodic penalties and fines, which is the case in **Ireland** and **Portugal**, the effectiveness of the Regulation may be hindered as Article 6 requires rules on effective and dissuasive (and proportionate) penalties. Apart from the fact that not all NRAs have the power to impose fines, there are major differences in the amount of the fines that NRAs can impose. In some Member States+ penalties are linked to the turnover of an entity and in others it is a fixed maximum amount or a combination of the two. For similar violations of for instance Article 3 the fixed maximum amounts range from approximately €15 000 to €3 million and turnover related fines range from 0.5% to 10%. Also the type of penalties (fines and/or periodic penalty payments with or without the possibility to impose other sanctions such as suspension of activities) differ amongst Member States+.

However, there are no indications that fines are more effective or dissuasive than periodic penalty payments or vice versa. The fact that NRAs are not able to immediately impose a fine or a periodical penalty does not seem to affect the effectiveness of the Regulation or make the penalty less dissuasive as long as NRAs have the power to reinforce the enforcement measures referred to in Article 5(1) with a penalty (either a fine or a periodical penalty) in case of non-compliance.

Only very few penalties have been issued and all of them were well below the maximum. Apparently the NRAs did not consider it necessary to impose maximum penalties to prevent or terminate violations of the Regulation. The reason might be that there is almost always a further measure that can be taken in case of violation (higher or repeated fines in the event of repeated offences and/or additional threatening sanctions such as suspension of activities in the event the violation is continued).

In view of the differences in rules on penalties across the Member States+ and the limited experience with these rules we consider it too early to draw final conclusions whether higher penalties are needed in the 27 Member States+ that have implemented Article 6 in order to ensure the effectiveness, dissuasiveness and proportionately of these penalties.

7. Conclusions

7.1. Introduction

In this Chapter we will set out our overall findings regarding the net neutrality provisions on the basis of the Article-by-Article analyses.

We have measured the provisions of the Regulation against the pre-existing situation where the Member States+ were treating net neutrality very differently. This is also relevant because the interpretation and implementation of the Regulation is to some extent a work in progress in view of the relatively limited time elapsed since the adoption of the Regulation and the BEREC Guidelines and the inevitable time lag for national courts to adjudicate on the decisions made in 2016-2018.

The evaluation of the BEREC Guidelines as such is outside the scope of this Study. Nevertheless we have analysed whether the BEREC Guidelines did and could (further) contribute to the objectives of the Regulation.

Moreover we have taken into account both existing EU legislation, and forthcoming EU legislation such as the Code.

The cut-off date for the data collection at national level was 31 August 2018. In some cases court rulings and relevant information brought forward by the NRAs from after this date was collected and included in the Study. Publicly available information at EU level and regarding court rulings from after the cut-off date was collected and included in the Study as well.

7.2. Article-by-Article analyses

7.2.1 Article 3 – Rights of end-user's to open internet access

Article 3 of the Regulation safeguards open internet access and specifies the rights and obligations for stakeholders, notably ISPs and end-users in relation thereto. Article 3(1) provides for the basic right to open internet access for end-users. The focus of Article 3(2) is on commercial restrictions. Article 3(3) relates to technical restrictions (traffic management measures). Article 3(4) specifies the rules concerning the protection of personal data without prejudice to the existing EU rules on data protection. Article 3(5) aims to ensure that the right to open internet access does not prevent the offering and development of specialised services which require a specific level of quality.

One of the important themes in the application of Article 3 of the Regulation is the examination of zero-rating (or sponsored data) offers, although the term zero-rating is not used in the Regulation.³⁷³ NRAs are investigating zero-rating offers on the basis of Article 3(2) and/or Article 3(3) of the Regulation. Therefore, zero-rating is discussed in this paragraph under a separate heading.

³⁷³ Zero-rating is defined in the BEREC Guidelines: 'when an ISP applies a price of zero to the data traffic associated with a particular application or class of applications (and the data does not count towards any data cap in place on the internet access service)' (BEREC Guidelines para 40).

Article 3(1) – Rights of end-users to open internet access

Article 3(1) provides for the basic right to open internet access for end-users. Article 3(1) is often dealt with in combination with other paragraphs of Article 3. Restrictions regarding terminal equipment and public IPv4 addresses are specifically examined on the basis of Article 3(1) of the Regulation.

Findings – Network Termination Point

Some NRAs and ISPs have expressed concerns in relation to the distinction between the NTP, which is part of the network, and terminal equipment, which is not. This question is relevant in relation to routers and modems, and relates to the extent to which this equipment is necessary to manage and monitor the security of the network. According to BEREC five Member States have defined or are planning to define the fixed NTP and three Member States have defined or are planning to define the mobile NTP.³⁷⁴ Court cases are pending in **Italy**.³⁷⁵

The question is of broader significance for the assessment of the effectiveness of the Regulation. For instance if routers and cable modems are qualified as terminal equipment, they are covered by the rules on free choice of equipment in Article 3(1). However, this also means that commercial arrangements relating to routers and modems are not covered by Article 3(2) and traffic management measures using routers and modems are outside the scope of Article 3(3). Also Quality of Service parameters which are determined by such equipment are outside the scope of Article 4(1) and monitoring tools regarding the performance of the IAS should exclude the impact of such equipment if this qualifies as terminal equipment. Moreover supervision and enforcement powers on the basis of Articles 5 and 6 may not be applicable to equipment that is qualified as terminal equipment and therefore outside the scope of the Regulation.

Findings - Free use / free choice of terminal equipment and other possible restrictions

Apart from the questions relating to the interpretation of NTP, Article 3(1) has clearly contributed to coherence across Member States+ regarding the free use of terminal equipment compared to the situation prior to the Regulation. There is consensus among the NRAs that ISPs cannot prohibit tethering. Eight NRAs reported that such infringements of this provision have been addressed by them, and ISPs have amended their practices as a result.³⁷⁶

In relation to the free selection of terminal equipment, there is less coherence. In some countries such as **Belgium** and **Cyprus**, the use of certified equipment or equipment prescribed by the ISP is accepted or even mandatory pursuant to national regulation. In various other countries,³⁷⁷ the NRA considers such practices to be an infringement of Article 3(1) of the Regulation. This difference may be caused *inter alia* by the lack of clarity in the definition of NTP (see above).

In some Member States+ other topics that were addressed on the basis of Article 3(1) were reported to us such as restrictions on the use of VoIP and Peer-to-Peer.³⁷⁸ In Austria charging for a public IPv4 address by an ISP was considered an infringement of the Regulation. The appeal against this decision is still pending.

³⁷⁴ BEREC 4 October 2018, Location of the Network Termination Point, BoR (18) 159.

³⁷⁵ Part II, Chapter 16.

³⁷⁶ BE, DK, FR, IT, NL, SE, UK. Part II, Chapters 3, 8, 11, 16, 21, 29 and 30.

³⁷⁷ Part II, Chapters 7, 10, 11, 16 and 30.

³⁷⁸ Germany and Sweden, Part II, Chapters 12 and 29.

Article 3(1) - Conclusion

Based on our findings, Article 3(1) is effective compared to the pre-existing situation. Differences in enforcement seem to be mainly related to differences in national implementation for instance in relation to the interpretation of NTP. Furthermore there is a pending court case in Austria relating to the charging of end-users for the use of IPv4 addresses but until now there are no inconsistent enforcement decisions or court rulings on the basis of Article 3(1).

The definition of NTP is not part of the Regulation but of the Framework Directive and the Code and therefore outside the scope of our study. We recommend, however, that this topic is investigated further, e.g. in the context of the transposition of the Code and the development of BEREC guidelines in this respect as foreseen in the BEREC Work Programme 2019³⁷⁹, because the definition of the NTP will have an effect on the interpretation and effectiveness of the Regulation.³⁸⁰

Article 3(2) / 3(3) – Assessment of zero-rating offers

Article 3(2) relates to contractual conditions and commercial practices applied with respect to IASs. Article 3(2) requires that such contractual conditions and commercial practices do not limit the end-user rights set out in Article 3(1).

Discussions in relation to the interpretation and enforcement of Article 3(2) are dominated by the assessment of zero-rating offers.³⁸¹ According to the Regulation and associated BEREC Guidelines, under which Member States+ have assessed zero rating, the assessment of zero-rating offers on the basis of Article 3(2) needs to be comprehensive, taking into account *inter alia* market conditions and structure, and the likely effects on end-users.

Zero-rating can also be qualified as traffic management in the sense of Article 3(3), which addresses traffic management practices by internet service providers.

Observed differences between Member States+ in the treatment of zero-rating can be related to the fact that NRAs are assessing zero-rating either as a traffic management measure on the basis of Article 3(3) or sometimes also as a commercial offer on the basis of Article 3(2). However, the Regulation does not prescribe priorities in enforcement by the NRAs including whether zero-rating should be examined on the basis of Article 3(2) and/or Article 3(3).³⁸²

More countries have performed an assessment of zero-rating offers on the basis of Article 3(3)³⁸³ than on the basis of Article 3(2).³⁸⁴ National courts in **Hungary** and **Sweden** have ruled that in the event of an infringement of Article 3(3), there is no need to perform a comprehensive assessment on the basis of Article 3(2).³⁸⁵

As the Regulation itself does not explicitly address zero-rating and thus does not prohibit zero-rating, the BEREC Guidelines consequently play an especially crucial role here.

³⁷⁹ According to the BEREC Work Programme 2019, BEREC will prepare guidelines on the identification of the network termination point, BoR (18) 240, paragraph 1.3.

³⁸⁰ See below, in paragraph *Final observations and recommendations*, the first Recommendation.

³⁸¹ Definition of zero-rating: when an ISP applies a price of zero to the data traffic associated with a particular application or class of applications (and the data does not count towards any data cap in place on the internet access service (BEREC Guidelines para 37)).

³⁸² See also findings in relation to Article 5(1) below.

³⁸³ In total 19 Member States+.

³⁸⁴ In total 5 Member States + on the basis of a comprehensive assessment.

³⁸⁵ Part II, Chapters 14 and 29.

Findings relating to the assessment of zero-rating offers on the basis of Article 3(2)

On the basis of our research, we conclude that Article 3(2) in conjunction with the BEREC Guidelines has led to a more coherent approach amongst Member States+ towards zero-rating compared to the situation before the Regulation was adopted. Prior to the Regulation, there was a broad range of approaches to zero-rating offers ranging from a complete ban in national legislation (**Slovenia** and **the Netherlands**)³⁸⁶ or co-regulation (**Norway**)³⁸⁷ to no specific restrictions. Amendments to national law have been undertaken. Courts in **Slovenia** and **the Netherlands** have decided that a categorical prohibition in the national legislation on rate differentiation in zero-rating offers was incompatible with the Regulation. Article 3(2) requires a comprehensive assessment of the commercial terms of the offer.

On the basis of the Regulation and the BEREC Guidelines, the case-by-case approach pursuant to Article 3(2) has moved in a more coherent direction across different Member States+. The NRAs in **Belgium, Netherlands, Norway, Portugal** and **United Kingdom** have each performed a comprehensive assessment of zero-rating offers.³⁸⁸ Although the decisions of these NRAs had to take into account the specific market circumstances, there are clear common denominators in the approach of these NRAs such as the importance of securing enough choice for end-users, non-discriminatory and transparent access for CAPs and the effects of a low generic data cap which limits the general use of the IAS.

Currently, some NRAs take the lead in performing a comprehensive assessment and others may follow later. This can be coordinated and best practices harmonised through BEREC and eventually the European courts. Until today, NRAs that have performed a comprehensive assessment have considered the zero-rating offers that they examined compliant with Article 3(2) (but in some cases subject to monitoring by the NRAs). In the **Netherlands** the CSO that had requested enforcement appealed the decision not to take enforcement measures. This appeal is still pending.³⁸⁹

Findings relating to the assessment of zero-rating on the basis of Article 3(3)

Article 3(3) relating to traffic management has also led to a more coherent approach of zero-rating across Member States+ compared to the situation prior to the adoption of the Regulation:

- Differences in treatment of zero-rated content, once the data cap is reached, are considered a violation of Article 3(3). In **Sweden** the Court has supported this view of the NRA in a ruling of 28 September 2018.³⁹⁰ In **Hungary** and **Slovenia**, Court cases are still pending;³⁹¹ and
- Restrictions to the maximum download rate for zero-rated content or throttling of zero-rated content are considered as infringements of Article 3(3). Appeal proceedings are still pending in **Austria, Germany, Hungary** and **Romania**.³⁹²

³⁸⁶ Part II, Chapters 21 and 27.

³⁸⁷ Part II, Chapter 22.

³⁸⁸ Part II, Chapters 3, 21, 22, 24 and 30.

³⁸⁹ Part II, Chapter 21.

³⁹⁰ Part II, Chapter 29. Court ruling was not appealed.

³⁹¹ Part II, Chapters 14 and 27.

³⁹² Part II, Chapters 2, 12, 14 and 25. The Administrative Court of Cologne in Germany rejected in a preliminary procedure the motion of Deutsche Telekom for temporary relief on 20 November 2018, ECLI:DE:VGK:2018:1120.1L253.18.00. This decision in the preliminary procedure can be appealed. Besides the main appeal proceedings are still pending.

Zero-rating – Conclusion

The assessment of zero-rating on the basis of the Regulation in conjunction with the BEREC Guidelines is effective and is leading to significantly stronger coherence compared to the situation prior to the adoption of the Regulation.

The fact that the assessment of zero-rating is subject to more than one provision (Article 3(2) and/or Article 3(3)) could lead to different outcomes. However, so far zero-rating offers have not been prohibited by NRAs on the basis of Article 3(2) and the enforcement decisions in the Member States+ that have been reported to us on the basis of Article 3(3) in relation to zero-rating are consistent.

Therefore we have not come across diverging results, although only few NRAs have performed a comprehensive assessment on the basis of Article 3(2) and there are still ongoing investigations and court cases regarding the topics referred to above in several Member States+.

Article 3(2) – Contractual conditions and commercial practices (other than zero-rating)

Findings and conclusion relating to other commercial practices

Enforcement actions related to provisions in Article 3(2), other than zero-rating, have been limited and relate for instance to contractual banning of certain peer-to-peer applications or the contractual banning of VoIP. Although there have been, and there are, investigations into such commercial offers, we have not found inconsistencies in matters that have been reported to us.

Article 3(3) – Traffic management (other than zero-rating)

Findings relating to port-blocking, national legislation and other traffic management measures

In the course of our research, we have come across a variety of traffic management measures other than zero-rating, such as port-blocking, blocking of content and websites and other types of traffic management.

- Port-blocking relates to security and integrity and has been a topic for supervision and enforcement in at least seven countries. However, port-blocking is treated differently amongst Member States+. An example is the blocking of port 25, which is recommended to all ISPs in one Member State (**Finland**),³⁹³ whereas it is not allowed in another Member State (**Lithuania**).³⁹⁴ The Regulation has reportedly increased awareness of this issue. For instance we understand that BEREC is considering whether a more consistent approach would be appropriate.
- There are differences in national legislation prescribing the blocking of content. Topics covered by national legislation include the blocking of online gambling sites and measures aimed at achieving child protection. Several countries (e.g. the **United Kingdom**)³⁹⁵ have introduced or changed national legislation following the entry into force of the Regulation.
- There are no other issues that have been reported to us in relation to the supervision and enforcement of Article 3(3) apart from an enforcement decision

³⁹³ Part II, Chapter 10.

³⁹⁴ Part II, Chapter 18.

³⁹⁵ Part II, Chapter 30.

in **Austria** in relation to the prioritization of a VoD service which was not justified on the basis of Article 3(5) and therefore breached Article 3(3)(3rd) due to unequal treatment and discrimination of other data traffic (see below).³⁹⁶

To date, the number of enforcement actions pursuant to Article 3(3) – apart from zero-rating and the Austrian case relating to Article 3(5) – has been limited and the supervision and enforcement of Article 3(3) seems relatively straightforward. However, some representatives of Content, Applications and Services Providers ("**CAPs**"), Consumer Organisations and Civil Society Organisations have questioned whether NRAs should be focusing more on supervision of traffic management measures and be more involved in technical measurements.

Moreover, it is expected that new/innovative services will be introduced on the basis of 5G networks with possibly various internet access services with different characteristics and/or specialised services for business customers and consumers. As a result, questions in relation to the monitoring of content in the context of traffic management for these different services may become more important. Also, traffic management measures may become necessary on a permanent basis to provide specialised services in accordance with Article 3(5) which may lead to questions relating to the interpretation of the phrase in Article 3(3) that traffic management measures shall not be maintained longer than necessary.

These topics are still debated in the technical community. However, given this debate we consider Article 3(3) effectively principles-based also bearing in mind that this Article has to be interpreted in accordance with both aims of the Regulation: on the one hand protecting end-users and on the other hand to guarantee the continued functioning of the internet ecosystem as an engine of innovation.³⁹⁷

The wording of the BEREC Guidelines relating to reasonableness and proportionality of traffic management measures³⁹⁸ and relating to traffic management measures on a permanent or recurring basis³⁹⁹ may have to be reviewed to more explicitly reflect the innovation aim of the Regulation.⁴⁰⁰ The BEREC Working Programme for 2019 also refer to an upcoming assessment on the impact of 5G on regulation and how regulation could influence the pace at which innovative services are brought to market.

In relation to the exception referred to in Article 3(3)(a) we have come across the question if a court ruling by which an ISP is ordered to block a certain website (for instance at the request of a right owner) can be invoked by or for other ISPs as well given the fact that such other ISPs will normally not be a party to such proceedings.

Article 3(3) – Conclusion (other than zero-rating)

Although we have come across a few divergent approaches by NRAs in relation to the application of Article 3(3) to traffic management measures and some questions were raised regarding supervision/enforcement of this provision, these are in our view not directly related to the wording of the Regulation. Such inconsistencies could in our view be addressed through further coordination by BEREC.

Questions in relation to reasonableness and proportionality of traffic management measures, monitoring of content in the context of traffic management measures and

³⁹⁶ Part II, Chapter 2.

³⁹⁷ Regulation, Recital 1.

³⁹⁸ BEREC Guidelines, paragraphs 57 – 67.

³⁹⁹ BEREC Guidelines, paragraph 73.

⁴⁰⁰ For instance the aim of the Regulation to guarantee the continued functioning of the internet ecosystem as an engine of innovation is referred to in paragraphs 43, 46 and 48 in relation to Article 3(2) but currently not in relation to Article 3(3).

permanent traffic management measures may become more important in the future following the introduction of next generation networks and new services.

However, in our view such questions can also be addressed on the basis of Article 3(3) bearing in mind that this Article has to be interpreted in accordance with both aims of the Regulation (protecting end-users and guaranteeing the continued functioning of the internet ecosystem as an engine of innovation).⁴⁰¹

Another question that came up in relation to the interpretation of the exception referred to under a) is whether and under what circumstances blocking measures by an ISP on the basis of a legal precedent relating to another ISP could be allowed by Article 3(3)(a).⁴⁰²

Article 3(4) – Requirements regarding privacy and the protection of personal data

Article 3(4) sets requirements regarding privacy and the protection of data in relation to traffic management. It refers to existing EU rules set out in the General Data Protection Regulation (“**GDPR**”)⁴⁰³ and the ePrivacy Directive.⁴⁰⁴ We conclude that Article 3(4) has not given rise to interpretation issues.

Findings related to Article 3(4)

There is an overlap in supervision and enforcement of the Regulation on the one hand and the GDPR and (national law implementing) the existing ePrivacy Directive on the other. This has become apparent in the case in **Sweden** related to a zero-rating offer which was not handled on the basis of Article 3(4) of the Regulation, but on the basis of Swedish national ePrivacy legislation.⁴⁰⁵

This being said, we have no indication that privacy and the protection of personal data is not effectively secured or that the allocation of enforcement powers by the Member States+ is not adequately prescribed by the Regulation.

The fact that the NRAs are (partially) leaving the initiative for supervision and enforcement to the data protection authorities is probably effective as this area belongs to the core area of expertise of these authorities. While duplication in regulation and enforcement powers might be less efficient and might lead to inconsistent decisions, no concerns were raised to us during our empirical research.

Article 3(4) - Conclusion

Based on our findings Article 3(4) regarding privacy and the protection of data is rarely applied in view of the applicability of the General Data Protection Regulation and the ePrivacy Directive, but has not given rise to interpretation issues.

⁴⁰¹ See below, in paragraph *Final observations and recommendations*, the second Recommendation.

⁴⁰² See below, in paragraph *Final observations and recommendations*, the fourth Recommendation.

⁴⁰³ Regulation (EU) 2016/679 of the European Parliament and the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

⁴⁰⁴ ePrivacy Directive, 2002/58/EC to be replaced by the ePrivacy Regulation.

⁴⁰⁵ Part II, Chapter 29.

Article 3(5) – Specialised services

Article 3(5) provides for rights and obligations in relation to specialised services, i.e. services other than IASs which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality.

Findings related to specialised services

Since the adoption of the Regulation there have not been many enforcement actions under Article 3(5) because, according to the various groups of respondents, not many specialised services have been launched yet. The expectation of the industry is that this will change especially in combination with the roll-out of 5G networks.

Although there are no commercial 5G services available yet and hence no practical application, there is uncertainty amongst stakeholders about the future interpretation of Article 3(5) by NRAs. There is concern amongst ISPs and some CAPs that Article 3(5) regarding specialised services in conjunction with the BEREC Guidelines may hamper 5G roll-out and the development of new services whilst other stakeholders (Consumer Organisations ("**COs**"), Civil Society Organisations ("**CSOs**") and other CAPs) take the view that 5G should not affect net neutrality. Furthermore concerns have been raised by ISPs stating that they need more flexibility and certainty for their future investment, and there is a risk that different countries will each adopt their own rules and policies on a case-by-case basis.

In view of a next generation of specialised services which may be introduced on the basis of 5G, questions in relation to the interpretation of Article 3(5) may come up relating to for instance when '*optimisation*' of services is necessary, when '*network capacity is sufficient*' and when specialised services are '*to the detriment of the availability of general quality of internet access services*'.

Appeal proceedings are pending in **Austria** in relation to the interpretation of Article 3(5) with respect to a Video-on-Demand service. This legal proceeding has not yet been concluded and may result in a referral to the European Court of Justice.⁴⁰⁶ Moreover, the BEREC guidelines provide relatively limited guidance relating to the interpretation of Article 3(5) in view of the introduction of new networks and services.⁴⁰⁷ A review of the BEREC guidelines on the basis of a further assessment of these elements is foreseen in BEREC Working Programme 2019.⁴⁰⁸

Article 3(5) - Conclusion

A coherent and effective application of Article 3(5) might become an issue in the future, given the principle-based approach in the Regulation in conjunction with the relatively limited guidance in the BEREC Guidelines compared to for instance the guidance provided in relation to Article 3(2). The pending legal proceeding in Austria and the case-by-case approach in the Member States+ add to the legal uncertainty.

This seems especially relevant in view of the fact that the development of 5G-networks and services is at the heart of the Digital Single Market initiatives and the Code.

⁴⁰⁶ Paragraph 3.5 of this Report and Part II, Chapter 2.

⁴⁰⁷ BEREC Guidelines, paragraphs 108-115 and 116-125. 5G is only mentioned once in footnote 26.

⁴⁰⁸ BEREC Working Programme 2019, BoR (18) 240, paragraph 3.1 and 4.1.

In view of these considerations further clarification in light of the aims of the Regulation (end-user protection and guaranteeing the continued functioning of the internet ecosystem as an engine of innovation) as foreseen in the BEREC Working Programme 2019 and supporting a coordinated case-by-case approach seems important.⁴⁰⁹

The question is whether there would be a more effective solution than a case-by-case approach. We doubt that this would be the case also in view of the fact that BEREC has gained experience in working towards a coordinated approach in the application and interpretation of the Regulation, for instance in relation to zero-rating.

7.2.2 Article 4 – Transparency measures for ensuring open internet access

Article 4 of the Regulation sets out the transparency obligations to safeguard open internet access.

Article 4(1) – Contract information

Article 4(1) sets out the transparency obligations for internet service providers in order to allow end-users to make informed choices concerning internet access contracts.

Findings relating to the transparency obligations of Article 4

Apart from the detailed specifications of Article 4(1) regarding information that needs to be provided in contracts and on the website of internet service providers, extensive guidance on this provision of the Regulation is provided in the BEREC Guidelines, by NRAs and by Member States pursuant to Article 4(3).

Compared to the situation prior to the entry into force of the Regulation, Article 4(1) has led to an increased focus on transparency. Almost all NRAs have been active in supervising and/or enforcing Article 4(1). Moreover, based on desk research performed in Q2 2018, we conclude that particularly in those countries where compliance with Article 4(1) was actively pursued by the NRA, the information published on the websites of ISPs was compliant with Article 4(1).

Although coherence of transparency measures improved as a result of the Regulation, there are differences in the interpretation and the application of Article 4(1) in the Member States+; 21 countries/NRAs have published guidance and/or additional requirements in this respect.⁴¹⁰ These additional guidance and requirements on a national level are leading to national differences in the interpretation and application of the transparency requirements among Member States+. Moreover COs and CSOs have expressed the view that information should be more easy to find and understandable.⁴¹¹

In view of these concerns, it must be recalled that the transparency rules introduced by the Regulation will be complemented with new transparency rules foreseen in the Code, which provides to a large extent for full harmonisation and detailed rules on transparency in Articles 102 - 104 and the Annexes VIII, IX and X.

Some ISPs have questioned whether the application of the generic transparency obligations envisaged in the Regulation is appropriate when it comes to the provision of IASs to business users. Business users often conclude tailor made contracts with ISPs

⁴⁰⁹See below, in paragraph *Final observations and recommendations*, the second Recommendation.

⁴¹⁰ See subparagraph 4.1.3 of the Report.

⁴¹¹ User tests have not been part of our research and therefore we cannot conclude whether users are actually engaged.

with quality of service parameters as specifically agreed. During our research, we have not come across published enforcement decisions in which NRAs have applied the provisions of the Regulation to the provision of IASs to businesses.

Article 4(1) - Conclusion

We conclude that Article 4(1) has clearly contributed to the coherence of transparency measures adopted in the interest of end-users and that Article 4(1) is effective regarding the information that is published on the ISP websites. Further harmonisation of the transparency rules will be achieved once the Code will enter into force.

A policy question that may be posed during the evaluation is whether, and to what extent, it is effective, efficient and proportionate to apply the provisions of Article 4(1) to business users. The transparency rules of Article 4(1) seem to be applied less stringently or not at all to businesses and this is not leading to concerns amongst stakeholders.⁴¹²

Article 4(2) – End-users complaints procedure

Article 4(2) relates to transparent, simple and efficient procedures which should be put in place by ISPs in relation to complaints of end-users concerning open internet access.

Findings complaint procedures

The complaint procedures are not harmonised across the EU and there are considerable differences amongst the Member States+. However no concerns in relation to Article 4(2) were revealed during our research.

Complaint handling for consumers relating to unresolved disputes already had to be transparent, simple and inexpensive pursuant to the Universal Service Directive, and should thus enable disputes to be settled fairly and promptly. These provisions will be maintained in revised form following adoption of the Code, and are in line with the basic principles of Article 4(2), which now also have to be applied to other end-users.

Article 4(2) – Conclusion

Article 4(2) is not leading to concerns amongst stakeholders. Although there are national differences, it would in our view not be proportionate and efficient to try to harmonise 29 'simple' complaint procedures to which consumers are accustomed. There is some overlap with the Universal Service Directive (to be succeeded by the Code), but providers are able to avoid duplication by using the existing procedures for complaints of consumers.

Article 4(3) – Additional requirements in legislation enacted by Member States+

Article 4(3) allows for additional transparency requirements that may be imposed by the Member States.

Findings on additional requirements

Additional requirements on the basis of this Article currently have been adopted in 11 Member States. These requirements relate to a prescribed format or channel to present the information, additional requirements to make other categories of information transparent, a requirement to notify contracts to the NRA or a requirement to notify a speed test to the NRA.

⁴¹² See below, in paragraph *Final observations and recommendations*, the fourth Recommendation.

Although the additional national requirements imposed on the basis of Article 4(3) are different across countries that implemented such measures, no serious concerns have been raised.

Article 4(3) - Conclusion

In view of the fact that additional requirements have been maintained or introduced in a number of countries following the adoption of the Regulation, and no serious concerns have been raised, the conclusion could be that Article 4(3) is effective (as a basis to increase the transparency for end-users). On the other hand, *additional* national requirements add complexity, but this issue will partly be solved when the Code is adopted.

Article 4(4) – Significant discrepancies on certified monitoring mechanisms

Article 4(4) contains a provision of contract law: significant actual discrepancies (either continuous or regularly recurring) compared to parameters that have been communicated by the ISP, qualify as non-conformity of performance. However, this only applies if such discrepancies are established by a certified monitoring mechanism.

Findings Article 4(4)

The situation regarding monitoring systems and specification of the term 'significant discrepancies' across the Member States+ is fragmented. In particular, there are differences in monitoring systems and their status of certified/non-certified. A harmonised monitoring system is being developed by BEREC but this will not be binding. In addition, there are differences in the interpretation of the term '*significant discrepancy, continuous or regularly recurring*'.

Therefore, the current state of play is that Article 4(4) is not yet effective, as - strictly speaking - it only serves a purpose in countries where there is a certified monitoring mechanism to detect significant discrepancies: such a mechanism is in place in only five Member States. Moreover, no uniform definition of 'significant discrepancy, continuous or regularly recurring' is yet in place.

It should be noted that technical findings were not within the scope of our research. The remarks made by several stakeholders during the interviews that the measurements by monitoring mechanisms may not be accurate need follow up by technical experts. Also, the interpretation of Network Termination Points determines whether the monitoring mechanisms and monitoring tools regarding the performance of the IASs should include or exclude the impact of routers and modems.⁴¹³

Article 4(4) – Conclusion

Article 4(4) may become more effective over time if a harmonised monitoring system were to be introduced and the term '*significant discrepancy, continuous or regularly recurring*' is clearly specified.

The development of a monitoring tool is in progress by BEREC and discussions in relation to the appropriateness of such a tool are ongoing. However, in our view, the consequences of (diverging) interpretations of the NTP in the Member States+ and statements by several stakeholders during the interviews that measurements by monitoring mechanisms may not be accurate need follow up by technical experts.

⁴¹³ See above, the aforementioned observations regarding the NTP in this paragraph, under heading Article 3(1) – Rights of end-users to open internet access and see below, in paragraph Final observations and recommendations, the first Recommendation.

7.2.3 Article 5 – Supervision and enforcement

Article 5 contains obligations relating to supervision and enforcement of the net neutrality provisions for NRAs (Article 5(1)) and for providers of electronic communications to the public including ISPs (Article 5(2)). Article 5(3) stipulates that BEREC shall issue guidelines for the implementation of the obligations of the NRAs in order to contribute to the consistent application of the Regulation.⁴¹⁴

Article 5(1) –Supervision, Enforcement and Reporting by NRAs

Article 5(1) obliges the NRAs to supervise and enforce compliance with Articles 3 and 4 and to publish annual reports regarding their monitoring and findings. Article 5(1) also states that NRAs may impose requirements relating to technical characteristics and QoS on one or more providers of electronic communications to the public including ISPs.

Findings supervision and enforcement by NRAs

The text of Article 5(1) did not raise concerns among stakeholders.

There are differences in intensity and the type of monitoring, supervision and enforcement measures in the Member States+. NRAs set their own priorities, there are cultural and procedural differences, the cases handled in in the various jurisdictions are different, and there are also differences in the resources available to the NRAs.

Despite these differences, monitoring, supervision and enforcement have become more coherent across the Member States as a result of the Regulation. For instance, monitoring, supervision and – in some cases – enforcement of the transparency obligations were undertaken in the vast majority of the Member States+.

The fact that the approach in Member States+ might differ does not necessarily have an impact on the effectiveness of Article 5(1). Already the fact that the NRAs have the powers set out in Article 5(1) has enhanced effective supervision and enforcement of the Regulation. Moreover different approaches (formal/informal, individual/generic) may be equally efficient.⁴¹⁵

Findings reporting by NRAs

The obligation in Article 5(1) to publish annual reports is instrumental to achieving a coherent enforcement of the Regulation. Although we observe differences in level of detail and focus areas, the fact that these reports are all published in one place and the fact that BEREC uses the reports to publish an implementation report, again contributes to a more coherent enforcement of the Regulation, and to the ongoing collection and exchange of best practices. Effectiveness would be further increased if all NRAs would provide an English translation of their annual report which is not yet the case.

Apart from the annual reports we have come across differences in policy regarding publication of decisions, appeal proceedings and court rulings in the Member States+. Moreover informal settlements are often not published. As a result the interpretation of provisions of the Regulation by individual NRAs/courts, focus areas and approaches to enforcement in the Member States+ are often not made public, and when they are

⁴¹⁴ Article 5(4) of the Regulation does not contain separate obligations and was not separately analysed.

⁴¹⁵ Reference is made to our analyses of the effectiveness of enforcement measures relating to Article 4(1) of the Regulation which supported the view that different ways of supervision and enforcement can be equally effective.

published, this does not happen in a consistent way. Moreover, translations of rulings by national courts are not provided.⁴¹⁶

Article 5(1) – Conclusion supervision, enforcement and reporting

The fact that it is left to the NRAs to determine priorities in enforcement and approach (formal or informal) seems unavoidable, as there are differences in culture, market conditions and resources in the Member States. Moreover, in our view, supervision and enforcement of the obligations set out in the Regulation cannot be harmonised in isolation from the enforcement of other regulations, given the fact that this is only one of many tasks which the NRAs have to perform. The coordination within BEREC is an important factor to improve effectiveness and efficiency in supervision and enforcement to the extent possible over time.

Moreover, a coherent and harmonised approach to enforcement cannot easily be achieved through an amendment of Article 5(1). Supervision and enforcement in practice is the result of the institutional setting of NRAs, which cooperate in BEREC. If the goal is to work towards a more harmonised procedural framework, providing for more coherence and effectiveness in supervision and enforcement, we believe that this should primarily be promoted by BEREC to the extent that the national procedural rules allow for such greater harmonisation.

Informal enforcement, which leads to unpublished decisions and settlements, may seem efficient and less time-consuming, but should not undermine transparency of policies and decisions in relation to the interpretation and enforcement of the Regulation, which in turn is crucial to enhance a coherent application of the Regulation. Moreover this is not only a matter of transparency, but also of legal/regulatory certainty.

A consistent interpretation and approach would be supported by more consistency and transparency in the publication of supervision and enforcement decisions and court rulings including translations thereof. If enforcement actions and court rulings are not transparently reported, it becomes more difficult for BEREC and for the European Commission to observe actions from NRAs and act against those decisions that are not in line with the Regulation and for stakeholders to participate in the debate.⁴¹⁷

Article 5(2) – Obligation to provide requested information for ISPs

Article 5(2) sets out the obligations for ISPs to provide information to the NRAs relevant to the obligations set out in Articles 3 and 4.

Findings relating to information requests

The obligation for ISPs to comply with information requests to a large extent complements the obligations laid down in the Framework Directive (and the Code). Based on our research, NRAs did use Article 5(2) and ISPs generally comply with this provision.

ISPs were obliged to comply with information requests from NRAs on the basis of pre-existing national legislation, but not in all countries. National legislation has in some

⁴¹⁶ Consideration 74 of the Code explains that a mechanism should be set up for collecting information on appeals and decisions to suspend decisions taken by the competent authorities in all MSs and for the reporting of that information to the Commission and BEREC. This mechanism should ensure that the Commission or BEREC can retrieve from Member States the text of the decisions and judgements with a view to developing a data-base.

⁴¹⁷ See below, in paragraph *Final observations and recommendations*, the sixth Recommendation.

cases (e.g. **Slovakia** and **United Kingdom**)⁴¹⁸ been significantly strengthened to give teeth to this provision. Therefore, Article 5(2) has led to more coherence in supervision and enforcement across the Member States+.

Article 5(2) - Conclusion

In our view Article 5(2) has led to more coherence in the enforcement of the provisions of the Regulation, and thus contributes to the effectiveness of the Regulation.

Article 5 (3) – BEREC Guidelines

Pursuant to Article 5(3), BEREC must issue guidelines for the implementation of the obligations of NRAs under that Article.

Findings on the BEREC Guidelines

The BEREC Guidelines have undoubtedly contributed to a more harmonised application of the relevant parts of the Regulation. This is particularly the case where the BEREC Guidelines are focussing on specific topics, such as zero-rating and the prohibition of tethering.

Significant differences amongst the NRAs are evident in (i) priorities for supervision and enforcement and (ii) approaches to supervision and enforcement. Yet the current scope of Article 5(3) and the Guidelines do not provide a legal basis to tackle such perceived differences in full. Moreover, it has never been the intention of the Regulation and the BEREC Guidelines to provide for a full harmonisation of supervision and enforcement. It is clear that without the BEREC Guidelines, it would be even more challenging to work towards an increasingly harmonised approach in supervision and enforcement of the Regulation.

In the course of our research we have come across topics where the principles-based approach of the Regulation is supported by stakeholders but the interpretation of these principles in the BEREC Guidelines is being criticised. For instance the BEREC Guidelines relating to transparency and specialised services/traffic management according are considered too restrictive by ISPs and some CAPs⁴¹⁹ and the guidelines in relation to zero-rating and transparency are considered too liberal by consumer organisations and digital rights organisations.⁴²⁰

Also, as set out above, the level and type of guidance provided in the BEREC Guidelines to support the case-by-case approach by the NRAs differs between for instance the guidance provided in relation to on the one hand Article 3(2) setting out the criteria for a comprehensive assessment on the basis of the aims of the Regulation relating to end-user protection and innovation and on the other hand in relation to Articles 3(3) and 3(5) where similar guidance is not provided.

Article 5(3) – Conclusion

An important factor in the evaluation of the Regulation is whether there is an appropriate balance between the provisions included in the regulation, and those left to soft law (i.e. the BEREC Guidelines). This question is especially relevant for areas of rapid development and where supervision and enforcement are intertwined with policy-making.

⁴¹⁸ Part II, Chapters 26 and 30.

⁴¹⁹ Paragraphs 3.5.3 and 4.1.3 of this Report.

⁴²⁰ Paragraphs 3.2.3 and 4.1.3 of this Report.

The Regulation and the BEREC Guidelines are complementary. The more the Regulation continues to be principles-based, the more room there will be for interpretation of principles in the BEREC Guidelines. There is a need for certain flexibility in order to find the right solutions in individual cases, especially since the e-communications sector moves very fast. However, as a consequence certain decisions are covered by BEREC Guidelines, rather than by a piece of legislation that has gone through the EU ordinary legislative procedure, such as the Regulation.

Although in our view the balance that has been found between the principles-based approach of the Regulation and the BEREC Guidelines to ensure consistent application in the Member States+ is right, there is currently legal uncertainty in particular in the application of Articles 3(3) and 3(5). Therefore we recommend that more clarity is provided which to our understanding is actually foreseen in the BEREC Working Programme 2019. This is particularly important when it comes to obligations, which are debated in the technical community and which may impact the key objectives of the Digital Single Market strategy such as the roll-out of 5G networks and the introduction of new/innovative services via such networks.⁴²¹

7.2.4 Article 6 – Penalties

Article 6 is directed to Member States to ensure that penalties can be imposed for infringement of Articles 3, 4 and 5 of the Regulation. Such penalties must be effective, proportionate and dissuasive. The term 'penalties' is not defined in the Regulation. We have followed the definitions of penalties (which includes both fines and periodic penalty payments) in chapter VI of Council Regulation (EC) No 1/2003.⁴²²

Findings relating to penalties

The rules on penalties referred to in Article 6 of the Regulation are different in each country. In **Ireland** and **Portugal**, the NRAs do not yet have the power to impose penalties.⁴²³ In **Germany**, the power for the NRA to impose penalties only applies to a subset of the provisions of the Regulation.⁴²⁴

Apart from the fact that not all NRAs have the power to impose fines, there are major differences in the amount of the fines that the NRAs can impose. In some Member States+ penalties are linked to the turnover of an entity and in others it is a fixed maximum amount or a combination of the two. For similar violations of for instance Article 3 the fixed maximum amounts range from approximately €15 000 to €3 million and turnover related fines range from 0.5% to 10%. Also the type of penalties (fines and/or periodic penalty payments with or without the possibility to impose other sanctions such as suspension of activities) differ amongst Member States+.

Only very few penalties have been issued and all of them were well below the maximum. Apparently the NRAs did not consider it necessary to impose maximum penalties to prevent or terminate violations of the Regulation. The reason might be that there is almost always a further measure that can be taken in case of violation (higher or repeated fines in the event of repeated offences and/or additional threatening sanctions such as suspension of activities in the event the violation is continued).

⁴²¹ See below, in paragraph *Final observations and recommendations*, the second Recommendation.

⁴²² Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty.

⁴²³ Part II, Chapters 15 and 24.

⁴²⁴ Part II, Chapter 12.

Article 6 - Conclusion

In view of the fact that the rules on penalties are very different in the 27 Member States+ which have implemented Article 6 and only very few penalties have been issued to date, it is too early to draw final conclusions on whether the level of penalties should be higher to be effective, dissuasive and proportionate.

7.3. Final observations and recommendations

Our main conclusion is that the Regulation, in combination with the BEREC Guidelines, has significantly contributed to a more harmonised approach to the establishment, implementation and enforcement of net neutrality rules within the EU (and Norway).

On balance, all stakeholders appreciate the benefits of the Regulation and the harmonised framework that it has created regarding the provision of, and access to, internet services within the single market. The Regulation is generally considered to be effectively principles-based, balanced and future-proof. During our research no stakeholder has indicated that the Regulation should be abolished or even (significantly) amended.

At the same time, we find that there are some issues that the Commission could consider when evaluating the Regulation.

1. The definition of Network Termination Point creates some uncertainty, especially in relation to routers and cable modems. The interpretation within the European Union is not coherent.

Although a definition of Network Termination Point is not included in the Regulation, the effectiveness of the Regulation may be influenced by whether, for example, routers and cable modems are considered as either part of the network, or, in the alternative, as terminal equipment. We therefore recommend that the impact of a diverging interpretation of the term Network Termination Point be further investigated, e.g. in the context of the transposition of the Code and the development of BEREC guidelines in this respect as foreseen in the BEREC Work Programme 2019,⁴²⁵ in particular in relation to the following provisions:

- the scope of the right of free choice of terminal equipment as laid down in Article 3(1);
- the extent to which commercial agreements relating to equipment are covered by Article 3(2) of the Regulation;
- the scope and interpretation of the rules relating to traffic management measures in Article 3(3);
- the applicability of the transparency rules on equipment and the effects on quality/speed parameters referred to in Article 4(1);
- the impact on the development and the results of monitoring tools referred to in Article 4(4) and whether measurements should include routers/modems or not; and
- the applicability of enforcement measures and penalties pursuant to Articles 5 and 6.

⁴²⁵ According to the BEREC Work Programme 2019, BEREC will prepare guidelines on the identification of the network termination point, BoR (18) 240, paragraph 1.3.

2. The objectives of the Regulation are (i) to protect end-users; and (ii) simultaneously to guarantee the continued functioning of the internet ecosystem as an engine of innovation. Given the ambitions in relation to the roll out of *inter alia* 5G networks and the development of new/innovative services, which are core to the Digital Single Market initiatives and the Code, it is important that the provisions of the Regulation are interpreted in accordance with both objectives.

However, the BEREC Guidelines are providing less guidance to support the case-by-case approach with respect to the second objective and the introduction of new networks and services.⁴²⁶ The pending Court case in Austria is adding to the legal uncertainty.⁴²⁷ According to the BEREC Work Programme 2019, BEREC will commence an assessment on the impact of 5G on regulation and how regulation could influence the pace at which innovative services are brought to market in parallel with the review of the BEREC Guidelines.⁴²⁸

Further clarification might in particular be considered regarding the following parts of Articles 3(3) and 3(5):

- Article 3(3)(2nd) – the references to '*reasonable*' traffic management measures which should be '*proportionate*' and the phrase that '*such measures shall not monitor the specific content and shall not be maintained for longer than necessary*'; and
 - Article 3(5)(2nd) – the references to '*where the optimisation is necessary*', '*if the network capacity is sufficient*' and '*to the detriment of the availability of general quality of internet access services*'.
3. With respect to the exception in Article 3(3)(a), the question has come up whether a civil court ruling by which an ISP is ordered to block a certain website (for instance at the request of a right owner), can be invoked by other ISPs as well given the fact that such other ISPs will normally not intervene in the proceedings and the civil court ruling does not have *erga omnes* effect. If this were disallowed, the alternative would be that each time a range of similar legal proceedings would have to be conducted against individual ISPs regarding the same content or the same website. A possible interpretation might be that blocking on the basis of a legal precedent could be covered by the exception referred to in Article 3(3)(a), although this would be an option and not an obligation for other ISPs which have not participated in the court proceedings as a party. We assume that in such case the usual safeguards regarding procedural justice will continue to apply.
4. It could be considered to make a distinction between consumers and business users when evaluating the effectiveness, efficiency and proportionality of the Regulation in particular in relation to the transparency rules.
5. Consistency in the interpretation of the Regulation and in the approach to supervision and enforcement would be enhanced by additional transparency of adopted measures and court rulings in that field. Although this topic is not limited to the supervision and enforcement of the Regulation, we recommend considering how greater transparency could be achieved e.g. by publication of (summaries of)

⁴²⁶ The BEREC Guidelines only refer to the second objective in paragraphs 43 and 46 in relation to the comprehensive assessment on the basis of Article 3(2).

⁴²⁷ TKK Decision of 18 December 2017 discussed in para 3.5.4 and in Part II, Chapter 2.

⁴²⁸ According to the BEREC Work Programme 2019, BEREC will prepare a report on the impact of 5G on regulation and the role of regulation in enabling the 5G ecosystem, BoR (18) 240, paragraph 3.1, footnote 8: "*Concerning the net neutrality aspect of this project, coordination is foreseen in 2019 between the BEREC Open Internet Expert Working Group and the BEREC Planning and Future Trends Expert Working Group.*"

national enforcement decisions/national court rulings and by providing English translations of annual net neutrality reports by all NRAs.⁴²⁹

We believe that it would be useful for the Commission to take these topics into account in its evaluation of the Regulation and of the current coordination with BEREC.

Finally in light of the ongoing debates amongst technical experts in relation to some of the key topics referred to above, it is in our view important to ensure that not only policy making but also application and amendment of the BEREC Guidelines is evidence based. Moreover, in view of the ongoing developments on the market there will be a need for continued evaluation.

⁴²⁹ Consideration 74 of the Code explains that a mechanism should be set up for collecting information on appeals and decisions to suspend decisions taken by the competent authorities in all MSs and for the reporting of that information to the Commission and BEREC. This mechanism should ensure that the Commission or BEREC can retrieve from Member States the text of the decisions and judgements with a view to developing a data-base.

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The results and opinions presented in this Study are the responsibility of the Project Team and do not necessarily reflect the views of the other contributors and the European Commission.

Study on the implementation of the net neutrality provisions of the Telecoms Single Market Regulation

PART II - COUNTRY CHAPTERS

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Table of Contents

Table of Contents	165
List of National Abbreviations	166
Assessment of the Implementation per Country	170
1. Introduction	170
2. Austria	176
3. Belgium	183
4. Bulgaria	193
5. Croatia	203
6. Cyprus.....	211
7. Czech Republic	219
8. Denmark.....	230
9. Estonia	238
10. Finland	243
11. France	248
12. Germany.....	256
13. Greece.....	266
14. Hungary	277
15. Ireland	286
16. Italy	291
17. Latvia	300
18. Lithuania.....	307
19. Luxembourg	315
20. Malta.....	320
21. Netherlands	327
22. Norway	336
23. Poland	343
24. Portugal.....	351
25. Romania	361
26. Slovakia.....	368
27. Slovenia	375
28. Spain	387
29. Sweden	394
30. United Kingdom	404
References - country specific	414

List of National Abbreviations

Please note that general abbreviations used throughout the Report are listed in the List of Abbreviations in Part I of the Report.

Abbreviation	Definition
Austria	
A1	À1 Telekom Austria AG
A1 TV	Product of À1 Telekom Austria AG
KommAustria	Kommunikationsbehörde Austria (Communications Authority Austria)
RTR	Rundfunk und Telekom Regulierungs-GmbH (Austrian Regulatory Authority for Broadcasting and Telecommunications)
TKG 2003	Telekommunikationsgesetz (Austrian Telecommunications Act)
TKK	Telekom-Kontroll-Kommission (Austrian Telekom-Control-Commission)
Belgium	
BIPT	Belgisch Instituut voor Postdiensten en Telecommunicatie (Belgian Institute for Postal Services and Telecommunications)
CSA	Conseil Supérieur de l'Audiovisuel (Audiovisual Regulatory Body)
VRM	Vlaamse Regulator voor de Media (Flemish Media Regulator)
Bulgaria	
CRC	Комисията за регулиране на съобщенията (Communications Regulation Commission)
Croatia	
HAKOM	Hrvatska Regulatorna Agencija za Mrežne djelatnosti (Croatian Regulatory Authority for Network Industries)
HRK	Croatian Kuna
Ordinance	The Ordinance on the Manner and Conditions of Providing Electronic Communication Networks and Services
Cyprus	
OCECPR	Γραφείο Επιτρόπου Ρυθμίσεως Ηλεκτρονικών Επικοινωνιών και Ταχυδρομείων (Office of Electronic Communications & Postal Regulations)
Czech Republic	
CTU	Český Telekomunikační úřad (Czech Telecommunication Office)
CZK	Czech Republic Koruna
Denmark	
DEA	Energistyrelsen (Danish Energy Agency)
NEF	Net Neutrality Forum

TCB	Telecommunications Complaints Board
Estonia	
ECPB	Tarbijatekaitseamet (Estonian Consumer Protection Board)
ETRA	Tehnilise Järelevalve Amet (Estonian Technical Regulatory Authority)
Finland	
FICORA	Viestintävirasto (Finnish Communications Regulatory Authority)
France	
ARCEP	Autorité de Régulation des Communications Électroniques et des Postes (French Authority for Electronic Communications and Postal services)
ARCEP Device Report	ARCEP issued a report on the effect that devices have on achieving a fully open internet
Germany	
BfDI	Bundesbeauftragte für den Datenschutz und die Informationsfreiheit (Federal Commissioner for Data Protection and Freedom of Information)
BNetzA	Bundesnetzagentur (German Federal Network Agency)
Deutsche Telekom	Telekom Deutschland GmbH
TK - TransparenzV	Verordnung zur Förderung der Transparenz auf dem Telekommunikationsmarkt (Transparency Ordinance)
TKG	German Telecommunications Act
VwVG	Federal Administrative Enforcement Act
VZBV	Verbraucherzentrale Bundesverband (Federation of German Consumer Organisations)
Greece	
EETT	Ethniki Epitropi Tilepikoinonion kai Tachydromeion (Hellenic Telecommunications & Post Commission)
HGC	Hellenic Gaming Commission
NCRTV	National Council for Radio and Television
Hungary	
NMHH	Nemzeti Média- és Hírközlési Hatóság (Hungarian National Media and Infocommunications Authority)
Ireland	
ComReg	Commission for Communications Regulation
Italy	
AGCOM	Autorità per le Garanzie nelle Comunicazioni (Italian Authority Communication Guarantees)
Latvia	
SPRK	Sabiedrisko pakalpojumu Regulēšanas Komisija (Latvian Public

	Utilities Commission)
Lithuania	
RRT	Ryšiu Reguliavimo Tarnyba (Lithuanian Communications Regulatory Authority)
Luxembourg	
ILR	Institut Luxembourgeois de Régulation (Luxembourg Regulatory Institute)
Malta	
MCA	Malta Communications Authority
Netherlands	
ACM	Autoriteit Consument en Markt (Dutch Authority for Consumers and Markets)
ACM Policy rule	ACM Policy rule on the provision of information concerning internet speeds
Decree NTP	Draft Governmental decree regarding the network termination point
DTA	Dutch Telecommunications Act
Norway	
NECA	Norwegian Electronic Communications Act
NECR	Norwegian Electronic Communications Regulations
NKOM	Nasjonal Kommunikasjonsmyndighet (Norwegian Communications Authority)
Poland	
PTA	Ustawa r. o zmianie ustawy o wspieraniu rozwoju usług i sieci telekomunikacyjnych oraz niektórych innych ustaw (Polish Telecommunications Act)
UKE	Urząd Komunikacji Elektronicznej (Polish Office of Electronic Communications)
Portugal	
ANACOM	Autoridade Nacional de Comunicações (Portuguese Regulatory Authority for the communications sector)
APRITEL	Associação dos Operadores de Comunicações Eletrónicas (Association of Electronic Communications Operators)
PECA	Portuguese Electronic Communications Act
SIS	Simplified Information Sheet
Romania	
ANCOM	Autoritatea Națională pentru Administrare și Reglementare în Comunicații (Romanian National Authority for Management and Regulation in Communications)
Slovakia	
ECA SK	Zákon o elektronických komunikáciách (Slovak Electronic Communications Act)

RÚ	Regulačný Úrad / Úrad pre reguláciu elektronických komunikácií a poštových služieb (Slovakian Regulatory Authority for Electronic Communications and Postal Services)
RÚ Recommendation	Odporúčanie špecifikácií prenosových rýchlostí v zmluvách s koncovým užívateľom (Recommendation on the Transmission Speed Specifications in End-Users' Contracts)
Slovenia	
AKOS	Agencija za komunikacijska omrežja in storitve Republike Slovenije (Slovenian Agency for Communication Networks and Services)
AKOS Recommendation	Recommendation concerning the implementation of the provisions of Regulation (EU) 2015/2120 concerning the provision of internet access services
ECA	Slovenian Electronic Communications Act
SI Decree	The Decree on the implementation of the Regulation (EU) laying down measures concerning open internet access
Slovenian Council	Council for Electronic Communications of the Republic of Slovenia
Spain	
CNMC	Comisión Nacional de los Mercados y la Competencia (National Commission on Markets and Competition)
Ministry	Ministerio de Economía y Empresa (Ministry of Economy and Business)
Secretary of State	Secretaría de Estado para el Avance Digital (Secretary of State for Digital Advancement)
TGA	Ley General de Telecomunicaciones (Telecommunications General Act)
Sweden	
PTS	Post- och Telestyrelsen (Post and Telecom Authority)
Telenor	Telenor Sverige AB
Telia	Telia Company AB
Tre	Hi3G Access AB
United Kingdom	
GCs	Ofcom's General Conditions of Entitlement
Ofcom	Office of Communications
OIA Regulations	Open Internet Access (EU Regulation) Regulations 2016

Assessment of the Implementation per Country

1. Introduction

Part II of the Report contains the assessment of the implementation and application of the Regulation (EU) 2015/2120 ("**the Regulation**")⁴³⁰ per Member State of the European Union ("**Member State**") and in Norway (Member States and Norway together: "**Member States+**"). The information reflects the collection of factual evidence about the implementation and application of the net neutrality provision as laid down in the Regulation by Member States+ and the National Regulatory Authorities ("**NRAs**").⁴³¹ It also provides the basis for the quantitative and qualitative analysis in the Article-by-Article Chapters in Part I of the Report. Part II consists of 29 Country Chapters. Below, the outline of these Country Chapters is explained.

1.1. Implementation

The subparagraph 'Implementation' discusses the differences with respect to the (pre-existing) legal and regulatory framework. For each country the following topics are discussed:

Pre-existing net neutrality legislation

Under this heading, an overview is provided of the existing regulation in Member States+ related to net neutrality. The national provisions implementing the Universal Service Directive are generally not discussed.⁴³² Even though there is some overlap between the transparency provisions of this Directive and the Regulation.

The existence of pre-existing net neutrality legislation might have influenced the initial mind-set of stakeholders in Member States+. On the one hand, Member States+ with pre-existing rules might have had to soften their approach, while on the other hand in Member States+ without pre-existing net neutrality legislation stakeholders may have needed more time to adjust to the new rules.

Competent authority; enforcement powers and penalties

Article 5(1) of the Regulation obliges NRAs to closely monitor and to ensure compliance with the Regulation. It lays down certain minimum enforcement powers that should have been granted to NRAs. These competences should be specified in the national legislation

⁴³⁰ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union (hereafter: Regulation (EU) 2015/2120).

⁴³¹ The cut-off date for the data collection at national level was 31 August 2018. In some cases relevant information brought forward by the NRAs from after this date was collected and included in this Study. Publicly available information at EU level and regarding court rulings from after the cut-off date was collected and included in the Study as well.

⁴³² Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (hereafter: Universal Service Directive, 2002/22/EC).

where the Regulation leaves either more or less discretion to the national legislator. This is particularly the case in relation to the determination of the penalties referred to in Article 6 of the Regulation.

Under this heading, the NRA is identified and the enforcement powers and penalty provisions of the NRA are described on the basis of national legislation. This includes the minimum and maximum amounts that may be imposed in relation to violations of the Regulation, if available in national legislation.

Additional legislation and regulations

Additional rules in national legislation or regulations relating to net neutrality that go beyond the obligations set out in the Regulation are discussed under this heading. These additional rules can be either additional requirements by Member States+, referred to in Article 4(3) of the Regulation or generic requirements applicable to all internet access service providers ("**ISPs**") imposed by the NRA on the basis of Article 5(1) of the Regulation. If available, national legislation referred to in Article 3(3)(a) of the Regulation is also covered.

1.2. Monitoring, supervision and enforcement

In this subparagraph, the monitoring, supervision and enforcement activities are discussed as undertaken by NRAs. For each of the Member States+, the following topics are discussed:

General information and reports

This section provides information about the annual reports published by NRAs pursuant to Article 5(1) of the Regulation.

The section also includes the average number of fulltime-equivalent ("**FTE**") dedicated to the supervision and enforcement of the net neutrality rules in the various Member States+, provided that the information is available.

Complaints

Article 4(2) of the Regulation obliges ISPs to provide a complaints procedure for end-users. The Regulation does not provide rules regarding the handling of complaints in Member States+ and the obligations of NRAs in relation to the settlement of complaints. Nevertheless, this paragraph discusses the extent to which NRAs are authorised to formally settle complaints about issues covered by the Regulation from consumers, other end-users and competitors. The section also gives information regarding the remedies available in national law.

This section also describes the number of complaints received and settled by the NRA and the way in which the complaints were settled, provided that information was available.

Monitoring and supervision measures

This paragraph discusses the monitoring and supervision activities undertaken by NRAs in Member States+.

Decisions and court cases

Supervision may ultimately result in formal enforcement. This subparagraph describes the formal enforcement decisions taken by NRAs as well as any court cases in relation to the Regulation.

Most often court cases are appeal proceedings against enforcement decisions of NRAs. However, the provisions of the Regulation may also have been debated in civil proceedings between end-users and ISPs or between ISPs.

1.3. Self-regulation and/or co-regulation

Some Member States+ had a system of self-regulation and/or co-regulation prior to when the Regulation entered into force. In some cases, the effects might have been similar to those of pre-existing legislation. The self- or co-regulation may have been continued under the Regulation. Sometimes self-regulation has taken the form of co-regulation under the active leadership of the NRA.⁴³³

1.4. Compliance with transparency obligations

We have reviewed the information in relation to internet access services ("**IASs**") on the websites of various fixed and mobile ISPs in Member States. This desk research was performed in Q2 2018.⁴³⁴ The results provide an indication how the obligations pursuant to Article 4(1) have been implemented by ISPs in the various Member States. It must be noted that the results have not been reviewed or approved neither by NRAs nor by the providers of IASs.

To display the outcome of the desk research, the following tables and symbols were used:

ISP #	(a) 435	(b) 436	(c) 437	(d) 438	(e) 439	Comments
ISP 1						
ISP 2						
ISP 3						

- ✓ the ISP has met the transparency obligations of Article 4(1) for that specific subject;
- X the ISP has not met the transparency obligation for that specific subject (e.g. the broad statement that an ISP is "entitled to impose traffic management measures" will not suffice);
- ≈ the ISP could improve the contract to meet the transparency obligation for that specific subject, local teams indicated the reasons in the comments section;

⁴³³ These initiatives have to comply with competition law but this analysis is beyond the scope of this Study.

⁴³⁴ This review was not done for Finland and Norway. At the time of the review, the NRA of Finland was still negotiating the contract terms with the ISPs and therefore these were not available on the ISPs' websites. Norway was added to the scope of the Study at a later moment in time.

⁴³⁵ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁴³⁶ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁴³⁷ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁴³⁸ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁴³⁹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

N/A the ISP does not mention any information regarding that specific subject or no public information is available regarding the ISP's contract with regard to that specific subject; and

NRA approval the NRA specified ISPs in that Member States meet the transparency obligations with regard to that specific subject.

1.5. Overview of relevant net neutrality themes

NRAs have different focus areas when it comes to the supervision and enforcement of the net neutrality provisions. The chart under this heading summarises the monitoring, supervision and enforcement activities undertaken by the NRAs in relation to the various obligations and net neutrality themes pursuant to the provisions in the Regulation. In order to make this subparagraph as fact-based and transparent as possible the graphs refer to categories of published documents (NRA policy rules and publications, NRA decisions and court cases). In the text below the graphs in the individual Country Chapters an explanation is given which documents are included in the counting.

In the graphs, the following categories of net neutrality themes are recognised:

Table 32: Categories of net neutrality themes.

Net neutrality theme	Provision in Regulation
Freedom of choice end-user	Article 3(1)
End-users' rights and choices –terminal equipment, tethering	Article 3(1)
Zero-rating	Article 3(1), 3(2) and/or 3(3)
Other commercial agreements and practices restricting open internet access	Article 3(2)
Equal treatment of traffic (Traffic discrimination)	Article 3(3)
Traffic management measures (Reasonable traffic management)	Article 3(3)
Blocking and throttling (of content, ports and/or websites; internet protocol version (IPv4/IPv6)	Article 3(3)
Exception traffic management – required by law	Article 3(3)(a)
Exception traffic management – integrity and security of the network	Article 3(3)(b)
Exception traffic management – network congestion	Article 3(3)(c)
Data protection	Article 3(4)
Specialised services	Article 3(5)
Transparency (contract information)	Article 4(1)
Internet speeds	Article 4(1)
Complaints procedures (for end-users)	Article 4(2)
Additional requirements (monitoring, information and transparency)	Article 4(3)
Monitoring mechanism (to test non-conformity of performance)	Article 4(4)

The monitoring and supervision activities for each provision of the Regulation by NRAs have been identified on the basis of their actions in the following categories:

- surveys
- research of end-users' complaints
- technical measurements
- information requests and
- other measures

We based our findings on the annual implementation reports of NRAs, complemented with our own research as well as on formal 'statements' relating to the interpretation and enforcement of the provisions of the Regulation. We used the following categories:

- policy rules and publications providing guidance to market players
- enforcement decisions by NRAs and
- court cases

In relation to the presentation of our findings we have used the following approach:

- each annual report amounts to one publication in the category "General". Because all NRAs have published the prescribed annual reports, the result is at least two for all Member States+
- policy rules and publications mostly relate to one specific subject. If the publication relates to more than one subject we only took it into account once, but we clarify in the text of the Country Chapter which topics are covered
- NRA decisions addressed against several ISPs are counted as multiple decisions. If several ISPs appealed the decision this is equally counted as multiple appeals. If only one ISP appealed the decision this only amounts to one appeal
- NRA decisions addressed to all ISPs are counted as one decision. If several ISPs appealed the decision this is counted as one appeal
- NRA decisions involving one offering, but based on the infringement of several provisions of the Regulation (for instance both Articles 3(2) and 3(3)) are counted as one NRA decision. The exact provisions of the Regulation that were taken into account in the decision are clarified in the text of the Country Chapter under 'Decisions and Court cases'

1.6. Summary of key topics and noteworthy findings

Under this heading, we described the findings in the Country Chapter which in our view are noteworthy. This description is concluded with a table and a summary of our findings relating to the key topics under the Regulation in the following format:

Key topic	Result [Country]
Pre-existing legislation	[xxx]
Maximum fine	[xxx]
Imposed fines	[xxx]
Additional legislation	[xxx]
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	[xxx]
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	[xxx]
Number of FTEs in NRA involved in net neutrality	[xxx]
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	[xxx]
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	[xxx]
Number/percentage of complaints that were settled by the NRA	[xxx]
Number of NRA decisions	[xxx]
Number of court cases	[xxx]
Main net neutrality themes	[xxx]
Monitoring mechanism (certified yes/no)	[xxx]
Self-regulation and/or co-regulation	[xxx]

1.7. Review by NRAs

All 29 NRAs participated in our Study by reviewing the Chapters of their respective jurisdictions and by providing additional information where necessary. All Country Chapters have been reviewed by the respective NRA at least twice. All NRAs approved with the content of the Country Chapters, except with regard to the ISP-table under the paragraph 'Compliance with transparency obligations'.

2. Austria

2.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Austria prior to the adoption of the Regulation apart from transparency requirements, which were maintained after the Regulation entered into force.

Competent authority and penalty rules

In Austria, the Regulatory Authority for Broadcasting and Telecommunications ("**RTR**") provides operational support for the Austrian Communications Authority ("**KommAustria**") and the Telekom-Control-Commission ("**TKK**") in the fulfilment of their duties. TKK is responsible for telecommunications regulations. TKK and RTR are responsible for enforcing the Regulation.⁴⁴⁰ Where regulatory activities relate to the radio broadcasting market, responsibility is also shared with KommAustria.⁴⁴¹

The Austrian Telecommunications Act 2003 ("**TKG 2003**") contains a general provision on penalties applicable to infringements of an ordinance or an official decision taken by the regulatory authority. If an infringement of such an ordinance or official decision occurs, the regulatory authority would issue an official decision addressing the violation. Subsequently, if the undertaking does not follow the decision, a penalty could be imposed. The range of fines is up to €58 000.⁴⁴² It is not possible to impose periodic penalty payments. In August 2018, the TKG 2003 did not include a penalty provision relating specifically to breaches of the Regulation. According to the NN-report 2018 of RTR, a legislative proposal aiming to introduce penalties for breaches of the Regulation was still pending at the time of finalisation of the report.⁴⁴³

Austria plans to introduce specific penalties for infringements of the net neutrality rules in the next amendment of the TKG 2003. The amendment will contain specific provisions concerning penalties applicable to infringements of Articles 3, 4 and 5 of the Regulation. It is expected that the fine, which the telecommunications office, a division of the Austrian Ministry for Transport, Innovation and Technology, will be able to impose following an administrative penal procedure will be up to €58 000. If there is a repeated infringement, the minimum fine should be €10 000. In August 2018 the amendment was still pending in Parliament.

Additional legislation and regulations

The TKG 2003 contains multiple provisions clarifying the transparency and quality obligations imposed on IAS.⁴⁴⁴ In particular according to Section 25 TKG 2003, providers have to submit their general terms and conditions to TKK with the commencement of the service provision. TKK will then check the terms and conditions within eight weeks. General terms and conditions have to contain the minimum content according to Article

⁴⁴⁰ Telekommunikationsgesetz 2003 = Telecommunications Act 2003 (hereafter: TKG 2003), Sections 115 and 116.

⁴⁴¹ TKG 2003, Section 120.

⁴⁴² TKG 2003, Section 109 (4).

⁴⁴³ RTR (2018), RTR Netzneutralitätsbericht 2018: Bericht nach Art. 5 Abs. 1 TSM-VO sowie Rz. 182-183 der BEREC-Leitlinien zur Implementierung der TSM-VO = RTR Net neutrality report 2018: Report pursuant to Article 5(1) TSM Regulation as well as para 182-183 of the BEREC Guidelines on the implementation of the TSM Regulation (hereafter: NN-report RTR 2018).

⁴⁴⁴ TKG 2003, Sections 17, 25 and 25b.

4 of the Regulation. This will be checked by TKK. In case of infringements, TKK can object to the terms and conditions. RTR considers this vetting process as an effective measure to monitor and enforce net neutrality requirements in practice.

2.2. Monitoring, supervision and enforcement

General information and reports

RTR is active in ensuring compliance with net neutrality rules. It provides information to the public, publishes on net neutrality, discusses net neutrality topics with providers of telecommunication services, refers to net neutrality in its annual reports and took enforcement actions.⁴⁴⁵ In addition to the legislation adopted to implement the Regulation, RTR itself issued several documents and tools. In 2016, RTR adopted a checklist explaining providers how to meet the transparency requirements of Article 4(1) of the Regulation. This checklist was supplemented with a ZIP-file containing several template documents, which providers can use to meet the transparency requirements of Article 4(1).⁴⁴⁶ In total, eight people within RTR are involved in the enforcement of the Regulation. The average number of FTEs is not available.

The **NN-report RTR 2017**, consisting of 41 pages, reflects on the previous year and provides an outlook on further monitoring activities planned for 2018.⁴⁴⁷ It also provides an overview of the products offered on the market, as well as the commercial and technical practices adopted.

In the **NN-report RTR 2018**, consisting of 47 pages, RTR informs the general public about the status of net neutrality in Austria. The report considers questions such as: how open is the internet in Austria and which measures had to be adopted by regulators in the reporting period to preserve the openness of the internet. The focus of the second reporting period was on identifying potential violations of net neutrality rules.⁴⁴⁸ The NN-report RTR 2018 includes chapters dedicated to specialised services and IAS restrictions.⁴⁴⁹

Complaints

RTR is competent to settle complaints from consumers and other end-users (conciliation procedure pursuant to Article 122 TKG 2003) about issues covered by the net neutrality provisions of the Regulation.

The NN-report RTR 2018 states that the number of complaints was nearly the same as in the previous year. According to the NN-report RTR 2018, customers filed 112 complaints (110 in 2017) regarding mobile networks (speed) and 21 complaints (26 in 2017) regarding fixed lines (speed) during the report period. The NN-report mentions only

⁴⁴⁵ TKK Decision of 18 December 2017, R 3/16. TKK Decision of 18 December 2017, R 5/17. See also below in this paragraph, under heading *Decisions and court cases*.

⁴⁴⁶ RTR (2016), Checkliste vertragliche Mindestinhalte gemäß Artikel 4 Abs.1 VO (EU) 2015/2120 = Checklist minimum contractual content according to Article 4 para. 1 VO (EU) 2015/2120 (https://www.rtr.at/de/tk/AGB_und_Entgelte/Liste_Dienste_Art4Abs1litbTSM_VO.zip, accessed 2 August 2018).

⁴⁴⁷ RTR (2017), Netzneutralitätsbericht 2017 der RTR: Bericht nach Art. 5 Abs. 1 TSM-VO sowie Rz. 182 – 183 der BEREC-Leitlinien zur Implementierung der TSM-VO = Net neutrality report 2017 of RTR: Report pursuant to Article 5(1) TSM Regulation as well as para 182-183 of the BEREC Guidelines on the implementation of the TSM Regulation (hereafter: NN-report RTR 2017).

⁴⁴⁸ Also see below in this paragraph, under headings Monitoring and supervision measures and Decisions and court cases.

⁴⁴⁹ NN-report RTR 2018.

numbers regarding those complaints that were dealt with in the context of a conciliation procedure regarding net neutrality pursuant to Article 122 TKG 2003.

Monitoring and supervision measures

The TKG 2003 contains the aforementioned provisions clarifying the transparency and quality obligations imposed on IAS.⁴⁵⁰ They also give RTR the power to set up a quality monitoring mechanism.

RTR has an online internet speed measuring mechanism in place since 2012 called *RTR-NetTest*, which works well. Users as well as stakeholders broadly accept the measurement results. *RTR-NetTest* is also used in cases brought before the conciliation body of RTR. The mechanism is not certified under the provisions of the Regulation, according to RTR.

RTR quarterly publishes a 'Telekom Monitor'. RTR has carried out an investigation titled 'Transparency of Networks'. This entailed a technical investigation on how ISPs configured their networks, including traffic management practices. This investigation has been carried out twice since the last reporting period. The last time this investigation was conducted, it showed that the number of problematic practices decreased. TKK is also constantly checking the terms & conditions of the providers, which must be submitted to TKK.

Additionally, TKK initiated request for information procedures, related to Article 3(3)(a), with respect to 13 providers in February and March of 2018. Since February of 2018, TKK has initiated seven supervisory procedures regarding operators due to webpage-blocking.

Decisions and court cases

Until now enforcement measures by RTR have not resulted in any penalties. Nevertheless procedural steps have been taken. In December 2017, TKK issued two cease and desist orders based on the Regulation:⁴⁵¹

- a. TKK prohibited the use of certain traffic management measures in the data stream of end-users (traffic shaping) in A1 Telekom Austria's (A1) product 'Free Stream'. The traffic shaping limited the maximum download rate that A1 applied in relation to the zero-rated contents and applications. RTR prohibited this practice by a formal order in December 2017. TKK found this to be an infringement of Article 3(3)(3rd) of the Regulation.
- b. Moreover, TKK decided that A1 is not allowed to prioritise the video-on-demand ("**VoD**") component in their 'A1 TV' product in case of data transmissions via internet. 'A1 TV' is a product bundle that essentially consists of two individual services: a linear live IPTV service and a VoD service. TKK came to the conclusion that there is no objective technical or commercial need for prioritising the VoD service. In this order, TKK also investigated two other topics: the disconnection of ongoing transmissions after 24 hours and the offering of dynamic IPv4 addresses against additional remuneration. TKK found the services to be in breach of the Regulation:
 - TKK concluded that the live IPTV component of 'A1 TV' was a 'specialised service' pursuant to Article 3(5) of the Regulation. Nevertheless, the VoD component of the product was not justified because the prioritisation was

⁴⁵⁰ TKG 2003, Sections 17, 25 and 25b.

⁴⁵¹ TKK Decision of 18 December 2017, R 3/16. TKK Decision of 18 December 2017, R 5/17.

not necessary in order to meet specific quality requirements of the content, applications or services.

- This offer also breached Articles 3(3)(1st) and 3(3)(3rd) of the Regulation due to unequal treatment and discrimination of other data traffic.
- A1 was found to breach Articles 3(1) and 3(2) of the Regulation because it automatically disconnected ongoing transmissions after 24 hours. According to TKK this also breached Article 3(3) of the Regulation because it hindered the provision of services by end- users themselves.
- A1 was found to infringe Articles 3(1) and 3(2) of the Regulation by offering dynamic IPv4 addresses only against additional remuneration. According to TKK this hindered the service provision by end-users.

TKK ordered A1 to remedy these issues:

- A1 was granted a period of three years to implement the technical changeover regarding 'A1 TV' necessary to end the traffic prioritisation (due to the innovation cycle of the set-top box).
- Furthermore, A1 was ordered to cease the practice of disconnecting its customers' IP connections every 24 hours within the next six months. Disconnection could only take place after 31 calendar days from then on.
- Finally, A1 was ordered to provide dynamic IPv4 addresses without demanding additional payment. This prohibition became effective eight weeks after the order was issued. Moreover, fees already paid had to be refunded.⁴⁵²

Both decisions were appealed. The appeals are still pending.

It should be noted that neither RTR nor TKK acted against the zero-rating practice of A1 as such. However, TKK touched upon the legitimacy of zero-rating in its decision on the traffic shaping practice of A1 (as described in this heading, under a). According to TKK, zero-rating is a type of commercial practice in the meaning of Article 3(2) of the Regulation. According to TKK, such practices are not generally prohibited if Content Application Providers ("**CAPs**") have access to such agreements without discrimination. Only if this type of practice reaches a level where the freedom of choice of the end-users is materially limited (cf. Recital 7 of the Regulation), such agreements would be deemed unlawful according to Article 3(2) of the Regulation.

2.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Austria.

2.4. Compliance with transparency obligations

The table below⁴⁵³ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements

⁴⁵² TKK Decision of 18 December 2017, R 5/17.

⁴⁵³ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs has been reviewed. This could also be more ISPs belonging to the same group of companies.

pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 33: Overview of desk research on transparency obligations

ISP #	(a) 454	(b) 455	(c) 456	(d) 457	(e) 458	Comments
ISP 1	✓	✓	✓	✓	✓	-
ISP 2	✓	✓	✓	✓	✓	-
ISP 3	✓	✓	N/A	✓	✓	(a): The ISP states that it does not carry out any traffic management.
ISP 4	≈	≈	✓	X	✓	(a): Some information is given regarding traffic management but it is not clear and sometimes provided in small print (b): The ISP mentions a cut-off after use of the inclusive volume, but not throttling. Unclear whether throttling occurs. (d): The ISP states on the website that there is a maximum download speeds of "30 Mbit/s" and more, and then in the small print of the same website the sentence "In accordance with EU Regulation 2015/2120, we inform you that the estimated maximum bandwidth of your tariff at the contract address is 2 Mbit/s in download and 0.5 Mbit/s in upload for LTE supply, 1 Mbit/s in download and 0.25 Mbit/s in upload for 3G supply and 180 Kbit/s in download and 90 Kbit/s in upload for 2G supply."
ISP 5	≈	≈	N/A	≈	≈	(a): On one webpage, the ISP claims not to use any traffic management measures, on another page the ISP explains that it does have traffic management measures in place and how it carries out the traffic management. (b): Some information is given regarding the quality of service parameters but it does not explain how throttling affects the service. (d): The customer information document states "in respect of the advertised download and upload speed, please look into the tariff information". Tariff information mentions some maximum up- and download speeds but does not distinguish between the "advertised" and the "estimated" maximum speed. (e): Only a vague description of the remedies available to the customers.
ISP 6	✓	✓	✓	✓	✓	-

⁴⁵⁴ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁴⁵⁵ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁴⁵⁶ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁴⁵⁷ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁴⁵⁸ Remedies, as further set out in Article 4(1)(e) of the Regulation.

2.5. Overview of relevant net neutrality themes in Austria

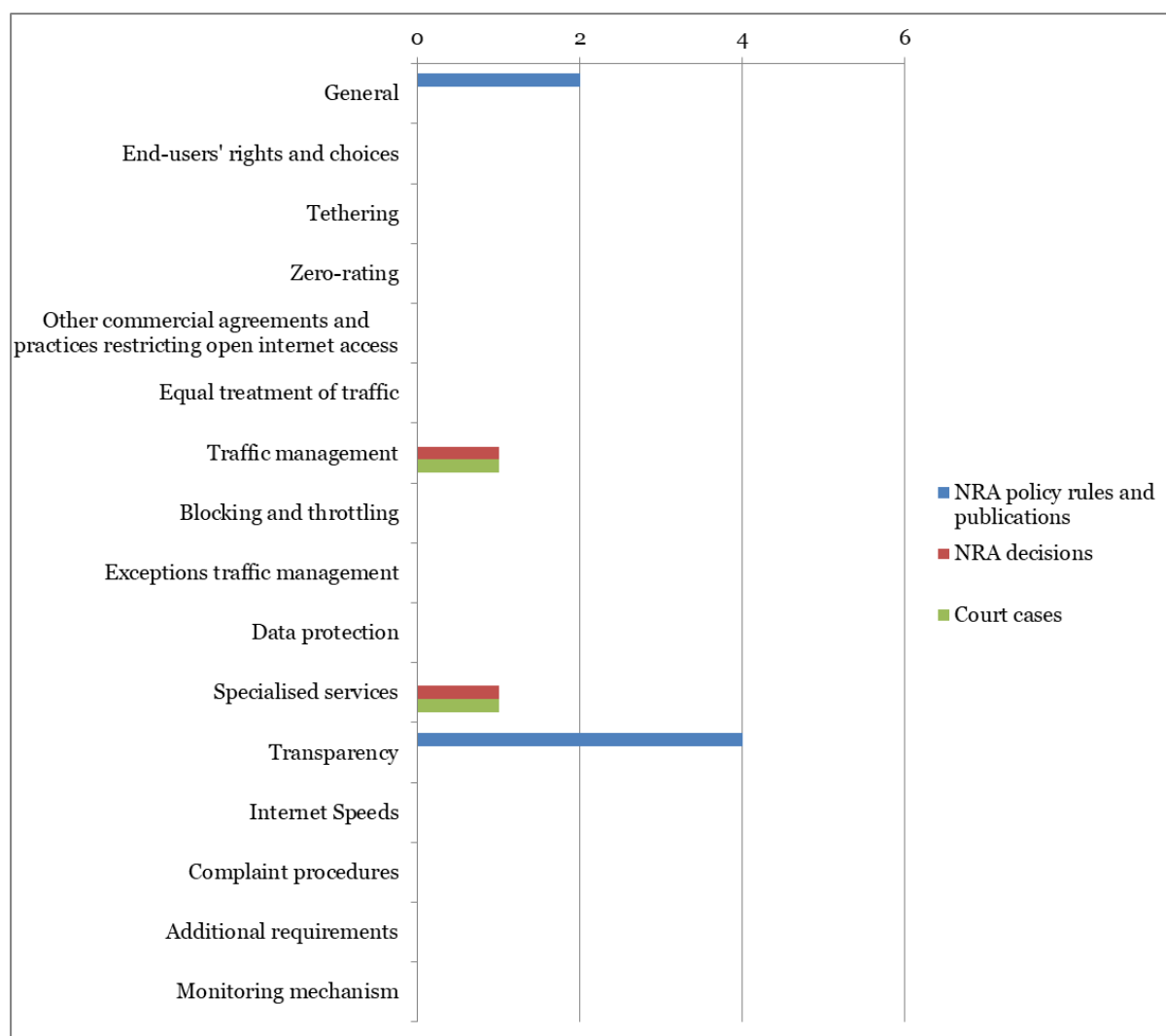


Figure 15: Blue: NN-report RTR 2017, NN-report RTR 2018, checklist and ZIP-file and two transparency investigations. Red: Two NRA Decisions of December 2017. Green: Two pending court cases regarding the two NRA decisions.

2.6. Summary of key topics and noteworthy findings

The TKG 2003 contains additional transparency and quality obligations imposed on IAS. TKK reviews the terms and conditions of all public services providers. TKK checks the existence of the minimum content according to Article 4 of the Regulation in the general terms and conditions. RTR considers this vetting process as an effective measure to monitor and enforce net neutrality requirements in practice.

Austria does not yet have specific provisions in place concerning penalties applicable to infringements of Articles 3, 4 and 5 of the Regulation. The amendment of the TKG is pending in Parliament. However, it is possible to impose penalties for infringing an ordinance or official decision of the regulatory authority. If the regulatory authority would take a decision addressing the infringement of the net neutrality provision and this decision is not followed, it is possible to impose a penalty.

In its Annual NN-reports, RTR gives an elaborate economic overview of the market situation in Austria.

TKK issued two cease and desist orders in December 2017 against A1 Telekom Austria. TKK prohibited the use of certain traffic management measures (traffic shaping) and decided that it was not allowed to prioritise the VoD service. TKK also prohibited the ISP to disconnect its customers' IP connection every 24 hours and to demand additional payment for the receipt of a dynamic public IP address by its mobile subscribers. Fees already paid are to be refunded. Both decisions are appealed and the appeals are still pending.

The table below provides an overview of the results in Austria for some of the key topics.

Key topic	Result Austria
Pre-existing legislation	Yes, transparency legislation (still in force)
Maximum fine	Up to €58 000
Imposed fines	None
Additional legislation	Yes
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	<i>Not available</i>
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	The NRA has the authority to settle complaints (conciliation procedure) from consumers and end-users about issues covered by the Regulation
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	269 ⁴⁵⁹
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	2
Number of court cases	2 (pending)
Main net neutrality themes	Specialised services, transparency and restriction of the IAS
Monitoring mechanism (certified yes/no)	Yes, not certified
Self-regulation and/or co-regulation	No

⁴⁵⁹ Number is referring to complaints concerning net quality dealt with in RTR's conciliation procedures.

3. Belgium

3.1. Implementation

Pre-existing net neutrality legislation

Belgium did not have any net neutrality legislation prior to the adoption of the Regulation. However, proposals introducing the principle of net neutrality, non-discriminatory treatment of traffic and permitted types of traffic management had been initiated by Parliament. These were put on hold due to the Regulation proposed by the European Commission ("**Commission**").

Even though there was no specific net neutrality legislation, there was legislation and regulation on topics related to the Regulation. Already in 2012, transparency obligations related to the use of terminal equipment, minimum quality of service and traffic management measures were added to the Electronic Communications Act, as an implementation of the 2009 Directives concerning electronic communications.⁴⁶⁰ This Act also conferred on the Belgian Institute for Postal Services and Telecommunications ("**BIPT**") the power to impose minimum quality of service requirements in order to prevent a degradation of service and interruption or delay of network traffic, as mentioned in Article 5(1) of the Regulation.⁴⁶¹ The Flemish Media Decree explicitly conferred the same power to the Flemish Regulator for the Media ("**VRM**").⁴⁶² Finally a provision focusing on traffic management was added, according to which all providers of public electronic communication services and networks are obliged to inform BIPT of the traffic management measures taken to prevent network congestion.⁴⁶³

In its decision of 15 July 2015, BIPT imposed upon operators providing fixed and mobile electronic communications services the obligation to publish certain quality indicators on their websites.⁴⁶⁴ Based on these indicators, which are measured by the operators themselves, BIPT publishes a quality barometer on its website that enables end-users to compare the quality of different offers.⁴⁶⁵

BIPT issued a policy rule in 2012 containing transparency obligations regarding internet speeds based on the implementation of the Universal Service Directive.⁴⁶⁶

Competent authority and penalty rules

BIPT is the competent authority for monitoring and enforcing the Regulation. With regards to audio-visual media services, the sector regulators of the three language communities in Belgium (VRM, Conseil Supérieur de l'Audiovisuel ("**CSA**") and Medienrat) also have some limited net neutrality monitoring competences like the

⁴⁶⁰ Wet betreffende de elektronische communicatie = Electronic Communications Act, Articles 108 and 113.

⁴⁶¹ Wet betreffende de elektronische communicatie = Electronic Communications Act, Article 113§4.

⁴⁶² Decreet Betreffende Radio-Omroep en Televisie = Flemish Media Decree, Article 192/4 (hereafter: Flemish Media Decree).

⁴⁶³ Wet betreffende de elektronische communicatie = Electronic Communications Act, Article 113§5.

⁴⁶⁴ BIPT Decision of 15 July 2015 regarding the quality of service indicators.

⁴⁶⁵ BIPT, Quality indicators (<http://www.bipt.be/en/consumers/internet-tv/quality-of-service/quality-indicators>, accessed 27 September 2018).

⁴⁶⁶ BIPT Decision of 4 December 2012 concerning communication of the speed of fixed broadband connection.

assessment of the freedom of expression. However, all regulators coordinate their actions if it concerns the Regulation.⁴⁶⁷

In Belgium, the general penalty rules of BIPT apply to violations of the Regulation. Natural persons can be fined up to €5 000. Legal persons can be fined up to a maximum of 5 % of their turnover. However, this is subject to a cap of €1 000 000 if the legal person in question does not pursue revenue-generating activities. In case of a repeated offence, the cap is 10 % of the turnover.⁴⁶⁸ BIPT only has the power to impose one-off fines. Imposing periodic penalty payments is the exclusive competence of the courts.⁴⁶⁹

Additional legislation and regulations

All provisions of the Electronic Communications Act, mentioned above,⁴⁷⁰ remained valid after the entry into force of the Regulation.

In 2017, in conjunction with the legislation adopted to implement the Regulation, BIPT aligned its 2012 policy rule regarding the communication of the speed of fixed connections⁴⁷¹ with the requirements of the Regulation and Guidelines issued by the Body of European Regulators for Electronic Communications ("**BEREC**") on the basis of Article 5(3) ("**BEREC Guidelines**") by: (i) extending the scope of the decision to include mobile internet; (ii) abolishing the distinction between peak and off-peak times for speed performance; (iii) having the parameters for speed performance correspond with the Regulation; and (iv) taking "utmost account" of the BEREC Guidelines. This policy rule also contains an obligation for ISPs to provide a speed measurement mechanism on their website.⁴⁷²

There is a system of certification of modems in Belgium. Therefore, limitations of choice in terminal equipment related to the technical requirements of certification are deemed to be justified. BIPT is of the opinion that prior certification may be necessary for some technologies to connect a modem. On the one hand, because not all technology is sufficiently mature to connect all terminal equipment without problems and on the other hand, because the impact of possible network failures differs depending on the technology used.⁴⁷³

⁴⁶⁷ BIPT (2017), Jaarlijks verslag betreffende het toezicht op netneutraliteit in België (periode 30 april 2016 - 30 april 2017) = Annual report regarding net neutrality monitoring in Belgium (period from 30 April 2016 – 30 April 2107) (hereafter: NN-report BIPT 2017), p. 3.

⁴⁶⁸ Wet met betrekking tot het statuut van de regulator van de Belgische post- en telecommunicatiesector = Law on the status of the regulator of the Belgian postal and telecommunications sector, Article 21.

⁴⁶⁹ The audiovisual media sector regulators can also impose fines. The VRM can impose fines up to €125 000 (Flemish Media Decree, Article 228). The CSA can impose a fine of an amount that is not lower than €250 or higher than 3 % of the annual turnover excluding tax. In the event of a repeated infringement within a period of five years, this amount can be increased to 5 % of the annual turnover excluding tax (Decree of the French Community on Audiovisual Media Services, Article 159§1 no. 7). The Medienrat may impose a fine between €2 500 and €25 000 (Decree on Audiovisual Media Services and Cinema Performances, Article 120).

⁴⁷⁰ See this paragraph under heading Pre-existing net neutrality legislation.

⁴⁷¹ See this paragraph, under heading Pre-existing net neutrality legislation.

⁴⁷² BIPT Decision of 2 May 2017 regarding the communication of the speed of a fixed or mobile broadband connection.

⁴⁷³ Schriftelijke vraag en antwoord = Parliamentary question and answer, 2017 n0. 829.

3.2. Monitoring, supervision and enforcement

General information and reports

BIPT ensures compliance with the net neutrality rules. It (i) informs the public on net neutrality;⁴⁷⁴ (ii) refers to the Regulation and the BEREC Guidelines in its communications;⁴⁷⁵ (iii) engages in discussions with stakeholders on net neutrality; and (iv) actively monitors compliance with the Regulation.⁴⁷⁶ BIPT stated that six of its employees are involved in net neutrality, amounting to a total of one FTE in 2017.⁴⁷⁷

The **NN-report BIPT 2017** consists of 21 pages and provides information concerning the implementation and monitoring of the Regulation.⁴⁷⁸ According to the NN-report BIPT 2017, the main focus in Belgium is: (i) zero-rating; (ii) traffic management measures; and (iii) additional transparency measures.⁴⁷⁹ The NN-report 2017 first explains the legal framework. It mentions the Regulation, the BEREC Guidelines and Belgian policy rules and decisions.⁴⁸⁰ The NN-report 2017 explains how BIPT monitors the quality of the network.⁴⁸¹ It goes on summarising the enforcement activities.⁴⁸² BIPT sent a questionnaire regarding traffic management to the main ISPs. BIPT also investigated several zero-rating offers: (i) the summer offers of Base and Proximus; (ii) the Tuttimus, Mobilus and Bizz offers of Proximus; and (iii) the 'My Apps Space' project of Proximus. Finally, the NN-report 2017 mentions the follow-up given by BIPT to complaints.⁴⁸³

In the **NN-report BIPT 2018**, consisting of 24 pages, BIPT reports on its monitoring activities, as well as the implementing decisions or initiatives taken to promote open internet.⁴⁸⁴ With respect to the implementation of the legal framework, BIPT refers to the same initiatives as it did in the NN-report BIPT 2017. However, BIPT has been monitoring compliance with the Regulation. It has monitored traffic management practices by questioning ISPs on the use of DPI.⁴⁸⁵ It also consulted ISPs regarding the security exception in Article 3(3)(b) of the Regulation on behalf of the European Union Agency for Network and Information Security ("**ENISA**").⁴⁸⁶ In addition, BIPT continued to monitor zero-rating.⁴⁸⁷ BIPT followed up on Proximus' zero-rating offers already mentioned in the NN-report BIPT 2017. BIPT also issued an opinion on the 'My Apps Space' pilot project of Proximus.⁴⁸⁸ BIPT had discussions with several ISPs about the legality of zero-rating a customer service app and on fair use policies of open bundles.

⁴⁷⁴ BIPT, Netwerkneutraliteit = Network neutrality (<http://www.bipt.be/nl/consumenten/internet/dienstkwaliteit/netwerkneutraliteit>, accessed 28 September 2018).

⁴⁷⁵ For example BIPT (2016), Communication of the BIPT Council of 21 April 2016 on the verification of the transparency of the Internet traffic management measures in 2015 - Verification of the observance of Article 113§5, of the Act of 13 June 2005 on electronic communications (hereafter: Communication of the BIPT Council of 21 April 2016).

⁴⁷⁶ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁴⁷⁷ Survey completed by BIPT in the context of this Study.

⁴⁷⁸ NN-report BIPT 2017.

⁴⁷⁹ NN-report BIPT 2017, p. 20.

⁴⁸⁰ NN-report BIPT 2017, p. 3-10.

⁴⁸¹ NN-report BIPT 2017, p. 10.

⁴⁸² NN-report BIPT 2017, p. 11-19.

⁴⁸³ NN-report BIPT 2017, p. 17-19.

⁴⁸⁴ BIPT (2018), Annual report regarding net neutrality monitoring in Belgium (period from 1 May 2017 – 30 April 2018) (hereafter: NN-report BIPT 2018).

⁴⁸⁵ NN-report BIPT 2018, p. 10-12.

⁴⁸⁶ NN-report BIPT 2018, p. 12.

⁴⁸⁷ NN-report BIPT 2018, p. 13-21.

⁴⁸⁸ BIPT (2018), Advice of the BIPT Council of 25 April 2018 regarding the evaluation of the My Apps Space pilot project by Proximus in light of Regulation (EU) 2015/2120 regarding net neutrality.

Lastly, the NN-report mentions complaints made concerning compliance with the Regulation.⁴⁸⁹

Complaints

BIPT is not competent to settle complaints related to the Regulation from consumers, other end-users or competitors against ISPs and cannot impose remedies for such complaints. It does receive reports from complainants or from the Office of the Ombudsman for Telecommunications, on the basis of which it may decide to intervene in order to solve structural shortcomings of the market so as to ensure compliance with the law and the interests that BIPT is required to protect.

End-users can complain to the Office of the Ombudsman for Telecommunications. The Office of the Ombudsman can subsequently ask BIPT for its opinion. In addition, BIPT can decide to start an investigation *ex-officio*; based on the information received from the Office of the Ombudsman.⁴⁹⁰ The complaints mentioned hereafter comprise both referrals by the Ombudsman as well as the aforementioned direct reports to BIPT.

BIPT mentions these reports as complaints in its NN-reports. According to the NN-report 2017, BIPT provided input to the Ombudsman and in some cases subsequently decided to start an investigation *ex officio*.⁴⁹¹ According to the NN-report 2018, BIPT received two reports, one from a CAP and one from a consumer, and gave input to the Ombudsman regarding one complaint.⁴⁹²

The complaints mainly focus on three types of issues. First, BIPT received two complaints concerning zero-rating by Proximus. BIPT answered both complainants by referring to its report regarding the analysis of zero-rating by Proximus.⁴⁹³ Second, BIPT received complaints concerning the lack of freedom to choose the modem or other terminal equipment. The NN-report BIPT 2017 explains that modems need to go through an extensive testing phase in order to receive certification. The limitation of choice in terminal equipment is deemed to be justified due to the technical requirements of certification referred to above.⁴⁹⁴ The NN-report BIPT 2018 notes, however, that BIPT sent a request for information to Orange, following a complaint concerning the mandatory use of the Flybox modem. The investigation is still ongoing. Finally, there has been one complaint regarding the prohibition of tethering in the general conditions of Lycamobile. This prohibition was removed by the ISP following a request for information.

Monitoring and supervision measures

In 2016, BIPT issued a communication regarding the monitoring of transparency of traffic management measures. This communication discussed the relationship between Article 113§5 in the Electronic Communications Act and Article 4 of the Regulation.⁴⁹⁵ The conclusion is fourfold. First, the obligation to publish information concerning traffic management measures is in line with the Regulation. Second, the Regulation stresses the impact of traffic management on privacy and the protection of personal data referred to in Articles 3(4) and 4(1)(a). BIPT expects ISPs to add more details on this topic. Compliance with this obligation will be monitored in the future. Third, the legislation obliges providers of electronic communication services to send a draft text regarding

⁴⁸⁹ NN-report BIPT 2018, p. 22-23. See also below in this paragraph, under heading *Complaints*.

⁴⁹⁰ NN-report BIPT 2017, p. 17. NN-report BIPT 2018, p. 22.

⁴⁹¹ NN-report BIPT 2017, p. 17-19.

⁴⁹² NN-report BIPT 2018, p. 22-23.

⁴⁹³ BIPT (2017), Report regarding the analysis of zero-rating of apps in the Proximus offers.

⁴⁹⁴ See above, paragraph Implementation, under heading Additional legislation and regulations.

⁴⁹⁵ Communication of the BIPT Council of 21 April 2016, see also "Pre-existing net neutrality legislation".

traffic management measures to BIPT before publication. This could be seen as an additional monitoring, information and transparency requirement under Article 4(3) of the Regulation. Finally, BIPT notes that the Electronic Communications Act is more extensive than the Regulation. This is because its scope not only includes ISPs but all undertakings offering public electronic communication services or networks.

There is no certified online monitoring mechanism in Belgium that allows end-users to test the conformity of ISPs' performance.⁴⁹⁶ However, both NN-reports mention that BIPT developed two interactive maps reflecting the mobile and fixed coverage of networks and their respective speeds.⁴⁹⁷ BIPT also plans to do a "drive test" in order to measure the quality of the mobile networks. This would be supplemented by the launch of an application whereby end-users can measure the quality of experience in real time (crowdsourcing). This data could afterwards be used by BIPT for general monitoring purposes.⁴⁹⁸ Apart from these interactive tools developed by BIPT, there is also a monitoring mechanism developed by the national consumer organisation ("**CO**"), '*Test-Aankoop, Test-Achats*'. This application BECOVER+ allows end-users to test the quality of mobile networks in real-time. It measures latency, download- and upload speed, streaming quality and general internet access.⁴⁹⁹

The NN-reports and the survey show that BIPT engages in monitoring based on information requests and discussions with ISPs and other stakeholders. In order to monitor the compliance of ISPs with Articles 3(3) and 4(1)(a), BIPT has sent questionnaires to the main ISPs every year since the entry into force of the Regulation. In its questionnaires of 2 April 2015,⁵⁰⁰ BIPT asked ISPs to provide a list of all the traffic management and traffic shaping measures that have been applied. Furthermore, ISPs were also asked to indicate the relevant terms of their retail contracts in which end-users would be able to find information regarding the consequences of these measures. ISPs were requested to provide BIPT with a link to the page on their website on which they publish information concerning traffic management. The questionnaire was followed up by an interview with one ISP, other ISPs received written remarks.⁵⁰¹ After the entry into force of the Regulation, which requires the NRA not only to monitor the transparency of traffic management measures, but also to check the legality thereof, BIPT sent a new questionnaire to ISPs in order to get more information on: (i) port-blocking policies; (ii) prioritisation of traffic; (iii) the use of DPI; and (iv) congestion measures. The NN-report BIPT 2017 provides an overview of the results of this questionnaire.⁵⁰² On 9 April 2018, BIPT sent a new questionnaire to the main ISPs about the traffic management measures used in their networks. The questions focused on the use of DPI. According to the NN-report 2018, the answers provided by ISPs show that they only use DPI in case of an incident or a user's complaint. This use of DPI is still subject of further factual and legal analysis by BIPT. On the same date, 9 April 2018, BIPT sent a consultation document to a number of ISPs concerning the security exception in Article 3(3)(b) of the Regulation on behalf of ENISA.⁵⁰³

⁴⁹⁶ BIPT Survey completed in the context of this Study.

⁴⁹⁷ BIPT, Coverage map for fixed broadband access (<http://www.bipt.be/en/consumers/internet-tv/quality-of-service/coverage-maps-for-fixed-broadband-access>, accessed 28 September 2018). BIPT, Coverage map mobile networks (<http://www.bipt.be/en/consumers/telephone/quality-of-service/coverage-maps-mobile-networks>, accessed 28 September 2018).

⁴⁹⁸ NN-report BIPT 2017, p. 10. NN-report BIPT 2018, p. 9.

⁴⁹⁹ <https://www.test-aankoop.be/applicaties/becover> (accessed 28 September 2018).

⁵⁰⁰ Based on the Electronic Communications Act, Article 113§5.

⁵⁰¹ For more information see Communication of the BIPT Council of 21 April 2016.

⁵⁰² NN-report BIPT 2017, p. 11-13.

⁵⁰³ NN-report BIPT 2018, p. 10-12.

BIPT monitors zero-rating products offered on the Belgian market. BIPT never issued a formal decision regarding zero-rating. Nevertheless, the publications by BIPT provide guidance regarding the implementation of Articles 3(2) and 3(3) of the Regulation:

- BIPT has investigated temporary zero-rating offers of Base and Proximus. In the summer of 2016 both ISPs zero-rated Pokémon Go. Base also zero-rated music streaming apps (YouTube, Spotify and Deezer). BIPT considered these offers to be compliant with the Regulation due to their temporary nature.⁵⁰⁴
- Both NN-reports mention the monitoring of several permanent Proximus zero-rating offers.⁵⁰⁵ In these Proximus' offers customers have to pick one app from a list of six possible applications: Facebook, WhatsApp, Snapchat, Instagram, Twitter or Pokémon Go that will be zero-rated. These offers were analysed under Articles 3(3) and 3(2) and under the comprehensive assessment criteria regarding the commercial and technical conditions of the offer included in paragraph 46 the BEREC Guidelines. BIPT concluded that there was no infringement of the Articles 3(2) and 3(3). The full assessment has been published in a separate report.⁵⁰⁶ There was no infringement of Article 3(3) because once the data cap is reached; Proximus does not discriminate between the data traffic to which zero-rating applies and the other data traffic. In the multifactor analysis BIPT assessed the following factors: (i) whether the zero-rating offers comply with the general aims of the Regulation or whether those aims are circumvented; (ii) the respective market positions of ISPs and CAPs involved; (iii) the effects of the zero-rating offers on end-users' rights of consumers and business customers; (iv) the effects of the zero-rating offers on end-users' rights of CAPs; (v) the availability of alternative offers; and (vi) the scale of the zero-rating offers. BIPT took into account previous competition assessments of the potential dominant positions of participating CAPs and the data allowance that remained available to consumers for the use of other apps. BIPT will continue monitoring the policy of allowing other CAPs to join the offer, the scale of the offer and the market positions. In the NN-report 2018 BIPT notes that it continued to monitor these offers the following year and found that its earlier conclusion could be maintained.
- BIPT also analysed 'The My Apps Space' project of Proximus. Proximus intended to introduce sponsored zero-rating.⁵⁰⁷ Customers would be able to choose several applications of a list, which would then be zero-rated because the participating companies would pay for the data usage of these apps. BIPT sent several requests for information to Proximus. The project was discontinued before BIPT finished its assessment. BIPT still published the advice it was preparing in order to provide guidance to the market.⁵⁰⁸ BIPT's provisional assessment was that the offer did not infringe Article 3(3) of the Regulation, because the zero-rated apps were inaccessible after the user exceeded its monthly data allowance. BIPT noted that Proximus took into account the assessment criteria of paragraph 46 of the Guidelines regarding the commercial and technical conditions of the offer, when designing the product. BIPT did not fully assess compliance with these criteria due to the withdrawal of the product. However, BIPT signalled a problem

⁵⁰⁴ BEREC Guidelines (2016), para 36. NN-report BIPT 2017, p. 14.

⁵⁰⁵ NN-report BIPT 2017, p. 14-15. NN-report BIPT 2018, p. 13-16.

⁵⁰⁶ BIPT (2017), Report regarding the analysis of zero-rating of apps in the Proximus offers.

⁵⁰⁷ BIPT (2018), Advice of the BIPT Council of 25 April 2018 regarding the evaluation of the My Apps Space pilot project by Proximus in light of Regulation (EU) 2015/2120 regarding net neutrality.

⁵⁰⁸ NN-report BIPT 2017, p. 15-17. NN-report BIPT 2018, p. 17-18. BIPT, Advice of the BIPT Council of 25 April 2018 regarding the evaluation of the My Apps Space pilot project by Proximus in light of Regulation (EU) 2015/2120 regarding net neutrality.

related to the restriction of the sponsoring to use within Belgium as this seemed to infringe the Roam like at Home principle.

- Finally, BIPT was approached by several ISPs regarding the zero-rating of customer service apps. BIPT confirmed the possibility, as stated in paragraph 35 of the Guidelines, of continuing the zero-rating of the customer service app even after the data cap has been exceeded in order to allow the customer to buy an extra data bundle. However, according to BIPT other functions within the customer service app, such as the exchange of loyalty points in order to buy products, should be turned off after exceeding the data cap. This would constitute an infringement of Article 3(3). BIPT did not issue a formal decision prohibiting this offer, because it has not been commercialised by the ISP.⁵⁰⁹

In addition, an enforcement action was taken by BIPT against technical content differentiation/discrimination of which they were informed during informal discussions with ISPs. The ISP allowed the zero-rated traffic to continue after the data cap had been reached, while all other traffic was blocked or throttled. BIPT sent a request for information and the infringement was resolved due to an IT update by the ISP days after the request for information.⁵¹⁰

Decisions and Court cases

No formal enforcement actions have been taken in relation to net neutrality in Belgium.

3.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Belgium.

3.4. Compliance with transparency obligations

The table below⁵¹¹ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

⁵⁰⁹ NN-report BIPT 2018, p. 18-20.

⁵¹⁰ BIPT Survey completed in the context of this Study.

⁵¹¹ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 34: Overview of desk research on transparency obligations

ISP #	(a) 512	(b) 513	(c) 514	(d) 515	(e) 516	Comments
ISP 1	✓	✓	N/A	✓	N/A	-
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	N/A	N/A	✓	≈	(e) : Price reduction / damages.
ISP 4	✓	✓	N/A	✓	N/A	-
ISP 5	✓	✓	N/A	✓	✓	-
ISP 6	✓	✓	N/A	✓	N/A	-
ISP 7	✓	✓	N/A	✓	✓	-

3.5. Overview of relevant net neutrality themes in Belgium

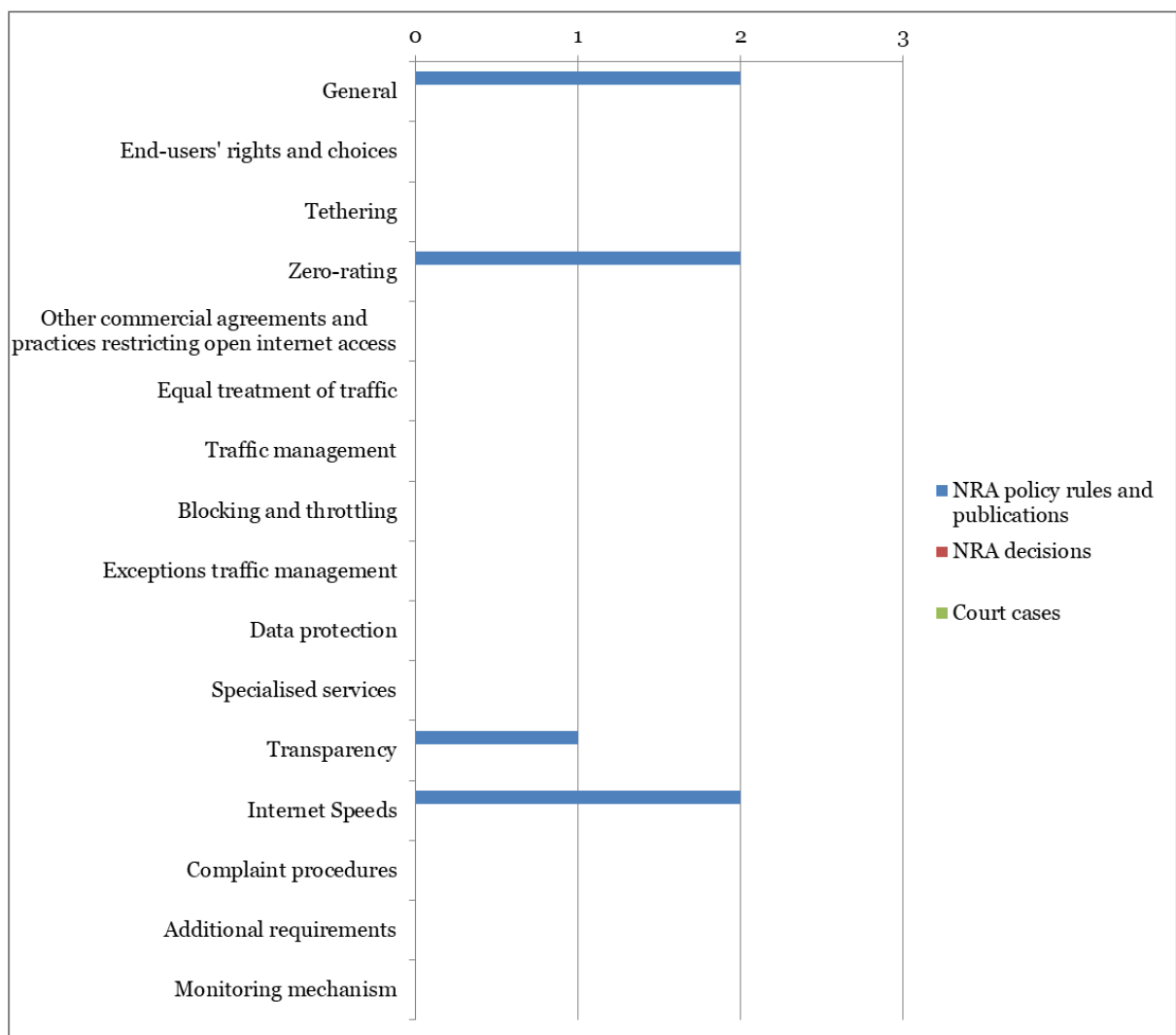


Figure 16: Blue: NN-report BIPT 2017, NN-report BIPT 2018, Advice of the BIPT Council of 25 April 2018, BIPT report regarding the analysis of zero-rating of apps in the

⁵¹² Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁵¹³ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁵¹⁴ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁵¹⁵ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁵¹⁶ Remedies, as further set out in Article 4(1)(e) of the Regulation.

Proximus offers, Communication of the BIPT Council of 21 April 2016, BIPT Decision of 2 May 2017 and BIPT Decision of 4 December 2012.

3.6. Summary of key topics and noteworthy findings

There are a number of authorities involved in the monitoring and supervision of the Regulation. Apart from BIPT, the sector regulators of the three language communities in Belgium (VRM, CSA and *Medienrat*) also have some limited net neutrality monitoring competences related to the assessment of the freedom of expression. Furthermore, in relation to end-users' complaints the Office of the Ombudsman for Telecommunications has a leading role.

In Belgium, a separate certification requirement applies relating to terminal equipment. The NRA considers this requirement to be justified under the Regulation.

Belgium has performed assessments of zero-rating offers both on the basis of Articles 3(2) and 3(3) of the Regulation, including a comprehensive assessment regarding the commercial and technical conditions of the offer as referred to in paragraph 46 of the BEREC Guidelines.

- Certain zero-rating offers of Base and Proximus, which were considered compliant due to their temporary nature.
- BIPT assessed a zero-rated offer in which customers had to pick one app from a list of six possible applications: Facebook, WhatsApp, Snapchat, Instagram, Twitter or Pokémon Go which will be zero-rated. On the basis of the comprehensive assessment criteria referred to in the BEREC Guidelines BIPT concluded that there was no infringement of the Articles 3(2) and 3(3).
- BIPT also analysed 'The My Apps Space' project of Proximus. Proximus intended to introduce sponsored zero-rating. The customer would be able to choose several applications out of a list, which would then be zero-rated because the participating companies would pay for the data usage of these apps. BIPT's provisional assessment was that also this the offer did not infringe Article 3(3) of the Regulation, because the zero-rated apps were inaccessible after the user exceeded its monthly data allowance.
- Finally, BIPT was approached by several ISPs regarding the zero-rating of customer service apps. BIPT confirmed the possibility, as stated in paragraph 35 of the BEREC Guidelines, of continuing the zero-rating of the customer service app even after the data cap has been exceeded in order to allow the customer to buy an extra data bundle. However, according to BIPT other functions within the customer service app, such as the exchange of loyalty points in order to buy products, should be turned off after exceeding the data cap.

The table below provides an overview of the results in Belgium for some of the key topics.

Key topic	Result Belgium
Pre-existing legislation	Yes, transparency, minimum quality of service and traffic management (still in force)
Maximum fine	Natural persons can be fined up to €5 000 and legal persons can be fined a maximum of 5 % of their turnover; if they do not pursue an activity from which they obtain a revenue, legal persons can be fined up to €1 000 000.

3. Belgium

	In case of a repeated offence, the cap is 10 % of the turnover.
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	1
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	None
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Zero-rating, traffic management measures, transparency requirements
Monitoring mechanism (certified yes/no)	Yes (third party), not certified
Self-regulation and/or co-regulation	No

4. Bulgaria

4.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Bulgaria prior to the adoption of the Regulation.

Competent authority and penalty rules

The Communications Regulation Commission ("**CRC**") is the NRA responsible for monitoring and ensuring compliance with the net neutrality provisions laid down in the Regulation. On 27 December 2016, a bill amending the Electronic Communications Act in order to implement the Regulation was adopted.⁵¹⁷ This bill provides penalty rules for infringements of the provisions laid down in Articles 3, 4 and 5 of the Regulation. The penalties range from €1 000 to €100 000 for infringements of Article 3, from €250 to €2 500 for infringements of Article 4 and from €2 000 to €20 000 for infringements of Article 5(2) of the Regulation.⁵¹⁸ The amounts can be doubled in case of repeated infringements of Articles 3 and 4 of the Regulation. CRC cannot impose periodic penalty payments for infringements of the net neutrality rules.

In Bulgarian legislation it is the chairman of the NRA who imposes the penalties for non-compliance with the Electronic Communications Act (including non-compliance with the Regulation), not the NRA itself. According to the Administrative Violations and Sanctions Act, officials from the CRC administration send a statement for the administrative offence, which contains a description of the infringement and provides the offender a right to state its objections.⁵¹⁹ The law does not require these statements to be published since they are not considered to be an act of the NRA itself. On the basis of these statements, the chairman issues a penalty notice setting the fine. These penalty notices are not publicly available.

Additional legislation and regulations

The Bulgarian Gambling Act states that the Gambling Commission can adopt a decision listing websites that are used for providing gambling games without the necessary licences.⁵²⁰ The Gambling Commission can then request the court to issue an order requiring all ISPs to block access to these websites.⁵²¹ Blocking these websites is considered a justified exception on the basis of Article 3(3)(a) of the Regulation.

In August 2018, there was no additional legislation or regulation concerning net neutrality in Bulgaria. However, CRC is planning to take a final position on the implementation of Articles 3 and 4 of the Regulation.⁵²²

⁵¹⁷ Electronic Communications Act, State Gazette No. 41/22.05.2007 as amended on 27 December 2016, State Gazette No. 103/27.12.2016 (hereafter: Electronic Communications Act).

⁵¹⁸ Electronic Communications Act, Articles 331(10) and 334d.

⁵¹⁹ Administrative Violations and Sanctions Act, State Gazette No. 92/28.11.1969, Chapter 3.

⁵²⁰ Gambling Act, State Gazette No. 26/30.03.2012, Article 22(1)(14).

⁵²¹ Gambling Act, State Gazette No. 26/30.03.2012, Article 22(4).

⁵²² See below, in paragraph Monitoring, supervision and enforcement, under heading General information and reports.

4.2. Monitoring, supervision and enforcement

General information and reports

In Bulgaria there are five employees of CRC involved in net neutrality. However, these experts are also engaged in other topics than net neutrality.

The **NN-report CRC 2017**, consisting of four pages, provides an overview of (i) CRC's monitoring activities; and (ii) the main results of the investigations carried out by CRC.⁵²³ For the period under review, CRC did not find any practices that were not compliant with the provisions of the Regulation.

The **NN-report CRC 2018**, consisting of eight pages, is more extensive than the NN-report CRC 2017.⁵²⁴ It provides an overview of (i) CRC's monitoring activities; (ii) the main results of the investigations carried out by CRC;⁵²⁵ and (iii) the measures taken by CRC pursuant to Article 5(1) of the Regulation.

CRC prepared a draft position on the implementation of Articles 3 and 4 of the Regulation, in line with the BEREC Guidelines.⁵²⁶ This document intends to provide guidance in relation to the interpretation of certain terms and definitions set forth in the Regulation and to describe the criteria based on which the NRA will examine compliance with the Regulation, including with respect to the speed of service and transparency of the contractual terms. More specifically, this draft position intends to define the meaning of 'impending network congestion' and 'exceptional or temporary network congestion' within the meaning of Article 3(3)(c). It envisages that the term 'significant discrepancy, continuous or regularly recurring' as referred to in Article 4(4) should be defined quantitatively and by duration and it will provide guidance on the determination of the different speeds as referred to in Article 4(1)(d) of the Regulation. The position will not be legally binding, but it will determine CRC's process and policy when investigating net neutrality issues. The draft position was published on 14 December 2017 for public consultation and CRC received comments from the main ISPs, which will be considered in the final position. This position has not been finalised yet (August 2018).

Complaints

CRC is competent to settle complaints received from end-users and complaints forwarded by the Consumer Protection Commission or other competent authorities. CRC is competent to take action when the ISP's behaviour is in violation of the Regulation. CRC does not have the power to settle disputes between end-users and ISPs.

The NN-report CRC 2018 provides a table with the number of complaints per month (May 2017 – April 2018), distinguishing between complaints regarding fixed services and complaints regarding mobile services. In total, CRC received 108 complaints from end-users; 80 regarding fixed services and 28 regarding mobile services. CRC did not keep a record of complaints for the first reporting period (until April 2017).

⁵²³ CRC (2017), Annual report of the Communications Regulation Commission on the fulfilment of the requirements under Article 3 and Article 4 of Regulation (EC) 2015/2120 (hereafter: NN-report CRC 2017).

⁵²⁴ CRC (2018), Годишен доклад за изпълнение на регламент (ес) 2015/2120 за 2017г. = Annual report of the Communications Regulation Commission on the fulfilment of the requirements of Regulation (EC) 2015/2120 (hereafter: NN-report CRC 2018).

⁵²⁵ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁵²⁶ CRC, Позиция на крс относно изпълнение на изискванията на чл. 3 и чл. 4 на регламент (ес) 2015/2120 от страна на доставчиците, предоставящи достъп до интернет за крайни потребители = Draft Position of the Bulgarian Communications Regulatory Commission regarding implementation of the requirements of Articles 3 and 4 of Regulation 2015/2120 by ISPs.

The complaints of end-users regarding fixed networks are mainly focused on internet speeds. If the available speeds are significantly lower than the internet speeds promised in the contract, most providers allow end-users to freely terminate the contract.

There was one complaint on the blocking of port 25. CRC accepted that this practice could be applied in order to maintain the integrity and security of the network. Nevertheless, the provider involved was willing to remove the blocking of port 25 at the request of its end-users.

Complaints regarding mobile networks mainly relate to service quality, internet speeds and poor network coverage. One complaint concerning ambiguity in the terms of a zero-rating product has been examined by CRC.⁵²⁷

Monitoring and supervision measures

CRC sends out annual surveys to ISPs to collect information on the compliance with Articles 3 and 4(1) of the Regulation. The second annual questionnaire (2017-2018) was updated in order to align it with the technical and commercial practices investigation questionnaire prepared by BEREC.⁵²⁸ In the period covering the NN-report CRC 2017, CRC also developed two specific surveys. A questionnaire on port-blocking practices was sent to ISPs and a questionnaire concerning end-users' satisfaction with IAS, mostly regarding quality of service, was published on the website.⁵²⁹

The responses to the questionnaires show that ISPs block certain ports and websites, such as gambling websites, websites containing child pornography and ports known to be vulnerable for spam. The gambling websites could be blocked pursuant to a court order following a decision by the Gambling Commission. There is no legislation requiring ISPs to block websites containing child pornography, but accessing such content is a crime under the Bulgarian Criminal Code.⁵³⁰ ISPs are blocking such content voluntarily, preventing users from committing a crime. CRC considers the blocking of websites containing child pornography in compliance with Article 3(1) of the Regulation, since accessing this type of content is a crime. Furthermore, there is no legal requirement to block certain ports, but some ISPs block ports (such as port 25) in order to preserve the integrity and the security of their networks. The blocking of ports is considered to be a justified exception under Article 3(3)(b) of the Regulation if a port is commonly used for the distribution of viruses, spam and/or different types of malware.

Traffic management measures reported by ISPs include the prioritisation of traffic related to network management, optimisation of specific content applications or services and blocking of specific ports and websites. Based on further analysis of these traffic management measures, CRC concluded that the measures were justified exceptions pursuant to the Regulation. Zero-rating products are offered by several ISPs in Bulgaria. According to ISPs, the zero-rated apps are slowed down when the data cap is reached, receiving the same treatment as non-zero-rated traffic. A large number of ISPs responded that they offer IPTV as specialised service. ISPs state that this service in no way affects the quality of IASs, despite complaints by end-users to CRC.

The NN-report CRC 2018 mentions ongoing investigations related to the provisions laid down in Articles 3 and 4(1) of the Regulation. One of these investigations was started pursuant to a complaint and relates to the conditions of a commercial zero-rating offer including Facebook and WhatsApp.⁵³¹ The second investigation relates to an ISP on the

⁵²⁷ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁵²⁸ BEREC Report on tools and methods (2017), Annex 2 – TCPI template.

⁵²⁹ www.crc.bg (accessed 7 August 2018).

⁵³⁰ Criminal Code, State Gazette No. 26/02.04.1968, Article 159.

⁵³¹ See below in this paragraph, under heading *Decisions and court cases*.

fixed network that allegedly provides insufficient information in the contract concerning normally available internet speeds. CRC refers to one additional investigation on the question as to whether ISPs' subscribers have internet access when using a certain router (tethering). This investigation was also based on a complaint.

CRC's survey on consumer satisfaction generated a limited response. The results indicate that most end-users are satisfied with the quality of their IAS. Concerns are mainly related to internet speeds of fixed networks and coverage of mobile networks. This concurs with the end-users' complaints to CRC.

CRC also monitored the compliance of the information provided by ISPs on their websites and in contracts in relation to Articles 4(1) and 4(2) of the Regulation. There are some issues concerning the communication of internet speeds on fixed networks, especially regarding the normally available speed and the minimum download and upload speed. The main issue in contracts for mobile services is the lack of information on the impact of throttling when using services and applications once the data cap has been reached.

In the NN-report CRC 2018, CRC also states that it is finalising the public procurement process for the development of a monitoring mechanism to measure the quality of IASs through fixed and mobile networks pursuant to Article 4(4) of the Regulation. CRC indicates that it might also be interested in the software to be provided by BEREC on an opt-in basis. It is in the process of taking decision whether to start a public procurement procedure or to wait to opt-in for the BEREC net neutrality measurement instrument after its implementation.

Decisions and court cases

During the period covered by the second NN-report, CRC has pursued seven cases related to the provisions laid down in Articles 4(1)(b) and 4(1)(d) of the Regulation and has notified its findings to the respective providers. In two cases, the contracts did not contain clear and comprehensible information about the normally available speed. In one case, information regarding the minimum download and upload speed was missing. In three cases, mobile ISPs only stated in the end-users' contracts that the IAS will be throttled once the data cap has been reached, without explaining the impact of this throttling on the use of specific services and applications. In the last case, a mobile ISP did not include information about the estimated maximum and the advertised speed once the data cap has been reached and a speed limit is applied. The Chairman of CRC imposed administrative sanctions on BTC, Net 1, Telenor and A1 Bulgaria by a penalty notice, following CRC statements in these cases.⁵³² The imposed sanctions were €250 (BGN 500) each. This is the minimum for these violations as defined in Article 334d(2) of the Electronic Communications Act. Six notices were appealed by ISPs resulting in six court cases and four appeal procedures to a higher court. The relevant conclusions from these court decisions are listed below.

- In the appeal against the penalty notice of 4 December 2017 involving Telenor the decision was overturned.⁵³³ The Court concluded that the general terms and conditions of Telenor detail how speed limitations could affect the use of content, applications and services and there is no violation of Article 4(1)(b) of the Regulation. The text of the terms and conditions specifies where the restrictions relating to access to and/or use of services may depend on. In this regard it defines the product or service chosen by the consumer as well as the terminal

⁵³² Penalty notices were issued on 18 October 2017, 9 November 2017, 16 November 2017, 4 December 2017, 3 January 2018, 10 January 2018 and 19 February 2018 (please note that some of the mentioned ISPs were sanctioned more than once and these notices are not publicly available).

⁵³³ District Court of Yambol 4 April 2018, no. 111, ECLI:BG:RC233:2018:20180200073.002.

device that is used. It also states that Telenor restricts the internet speed after a certain volume of traffic within the period of time agreed between parties and that this may lead to difficulties in the use of certain services and applications. Furthermore, the Court considers the general terms and conditions to be an integral part of the contract concluded between the ISP and the consumer. This judgment was confirmed by the higher court.⁵³⁴

- In the appeal procedure against the penalty notice of 10 January 2018 involving A1 Bulgaria (Mobiltel) the appeal in first instance was dismissed and the penalty notice upheld.⁵³⁵ The appeal in second (highest national) instance was also dismissed and the penalty notice upheld.⁵³⁶ Appendix 1, to the contract concluded with the consumer, stated that after the 1000 MB package has been reached at maximum speed, the speed of internet access will be reduced to 64 kbps. The Appendix did not include a clear reference that A1 Bulgaria may exercise its right to further restrict the speed limit and to what value it may limit it. It was therefore concluded by the Court that A1 Bulgaria has not fulfilled its obligation under Article 4(1)(b) of the Regulation.
- The Court decided in the appeal against the penalty notice of 19 February 2018 that the contract concluded between A1 Bulgaria (Mobiltel) and the consumer does not contain the minimum required information as laid down in the Regulation.⁵³⁷ According to the Court, the requirement of Article 4(1)(b) relates to the quality of the service as a consequence of the imposed restriction. The appeal was dismissed and the fine was confirmed.

The investigation regarding the conditions of a commercial zero-rating offer involving Facebook and WhatsApp has been completed. CRC adopted a decision on 27 June 2018. This decision has not been appealed by the ISP. According to this decision, the ISP is obliged to:

- provide and publish information relating to the functionalities and services of Facebook and WhatsApp that are zero-rated (e.g. browsing on the wall, sending messages, video/audio calls, watching uploaded videos, following links via the Facebook Messenger browser, etc.). During the investigation, CRC found that only some of these services and functionalities were zero-rated but that the end-users were unaware of this because the provided information was vague and unclear;
- provide and publish information about the conditions pursuant to which Facebook is zero-rated – i.e. what browsers should they use in order for using Facebook to be zero-rated. During the investigation, CRC found that Facebook is zero-rated only when the end-users are using apps or browsers that do not use data compression technologies. Since the average user cannot be expected to understand which browsers are included in the zero-rated offer, the ISP was obliged to provide this information; and
- notify its subscribers, whose contracts include zero-rating of Facebook and WhatsApp, about the additional information.

It should be noted that this zero-rated offer was part of 32 different tariff plans offered by Telenor Bulgaria EAD. The zero-rated offer included traffic to Facebook, Facebook

⁵³⁴ District Court of Yambol, Cassation Chamber 22 June 2018, no. 115, ECLI:BG:AD728:2018:20180600097.001.

⁵³⁵ District Court of Plovdiv 28 March 2018, no. 552, ECLI:BG:RC533:2018:20180201018.003.

⁵³⁶ Administrative Court of Appeal of Plovdiv 23 July 2018, no. 1571, ECLI:BG:AD718:2018:20180601571.001.

⁵³⁷ District Court of Ruse 5 July 2018, no. 641, ECLI:BG:RC452:2018:20180200641.004.

Messenger and WhatsApp, except for: voice and video calls; external pages (such as opening a video clip, opening a news site web page through the Facebook browser, etc.); and the use of a browser using data compression technology (e.g. without using the Facebook app).

The decision does not examine if the offer was compliant with Article 3 of the Regulation. The reason is that the decision was based on the NRA's powers to oblige the ISP to clarify its contracts by providing and publishing more information about the zero-rated services. Those powers are established in the Electronic Communications Act.

However, CRC also noticed that the plans, which contained the zero-rated services, were no longer offered to the ISP's subscribers and were only offered for a brief period of time (about a year). The number of subscribers to those plans is therefore continuously decreasing. Subscribers are subscribing to the ISP's newer tariff plans which do not include zero-rating. CRC concluded that the choice of the end-users did not seem to be limited by the zero-rated offer.

The table below provides an overview of the enforcement decisions and court cases on the basis of the Regulation in Bulgaria to the extent that this information has been made public:

Date	ISP	(sub)paragraphs of the Regulation	Brief description of violation(s)	Type of enforcement measure	Appeal in first instance (incl. result or ongoing)?	Appeal in second instance
18.10.2017	BTC	Article 4(1)(d)	Lack of minimal download and upload speed in the contract	Fine	Overtuned ⁵³⁸	Pending
09.11.2017	BTC	Article 4(1)(d)	Lack of expected maximum and advertised speed after the data cap is reached, as well as lack of explanation about the limitation of the IAS speed after the data cap is reached.	Fine	Pending	<i>n/a</i>
16.11.2017	Net 1 EOOD	Article 4(1)(d)	Lack of minimal download and upload speed in the contract	Fine	Not appealed	Not appealed
04.12.2017	Telenor Bulgaria EAD	Article 4(1)(b)	Lack of explanation what is the effect of slowing down all the traffic after the data cap is reached, as well as lack of explanation which apps and services can be used after the speed of the IAS is slowed down.	Fine	Overtuned ⁵³⁹	Judgment in first instance confirmed ⁵⁴⁰

⁵³⁸ Please note that this court decision is not publicly available.

⁵³⁹ District Court of Yambol 4 April 2018, no. 111, ECLI:BG:RC233:2018:20180200073.002.

⁵⁴⁰ District Court of Yambol, Cassation Chamber 22 June 2018, no. 115, ECLI:BG:AD728:2018:20180600097.001.

03.01.2018	BTC	Article 4(1)(d)	Lack of usually available download/upload speed in the contract	Fine	Overtaken on procedural grounds ⁵⁴¹	Judgment in first instance annulled and the penalty decision of CRC upheld ⁵⁴²
10.01.2018	A1 Bulgaria EAD (Mobilitel)	Article 4(1)(b)	Lack of clear and comprehensible explanation of how any limitation of volume, speed or other parameters of service quality may in practice affect the IAS, and in particular the use of content, applications and services.	Fine	Upheld ⁵⁴³	Judgment in first instance confirmed ⁵⁴⁴
19.02.2018	A1 Bulgaria EAD (Mobilitel)	Article 4(1)(b)	Same as above.	Fine	Upheld ⁵⁴⁵	n/a
27.06.2018	Telenor Bulgaria EAD	This decision was not based on the Regulation but on the powers, provided by the Electronic communications Act.	The information in the contracts was too vague. End-users were unable to understand when using Facebook, Facebook Messenger and WhatsApp was zero-rated and when not – i.e. which functionalities of those apps were zero-rated.	Order to provide and publish additional information about the zero-rated services. No fine was imposed.	Not appealed	Not appealed

4.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Bulgaria.

⁵⁴¹ District Court of Plovdiv 31 May 2018, no. 938, ECLI:BG:RC533:2018:20180201016.002.

⁵⁴² Administrative Court of Appeal of Plovdiv 9 October 2018, no. 2315, ECLI:BG:AD718:2018:20180602315.001. The content of this decision is not included in the Report.

⁵⁴³ District Court of Plovdiv 28 March 2018, no. 552, ECLI:BG:RC533:2018:20180201018.003.

⁵⁴⁴ Administrative Court of Appeal of Plovdiv 23 July 2018, no. 1571, ECLI:BG:AD718:2018:20180601571.001.

⁵⁴⁵ District Court of Ruse 5 July 2018, no. 641, ECLI:BG:RC452:2018:20180200641.004.

4.4. Compliance with transparency obligations

The table below⁵⁴⁶ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 35: Overview of desk research on transparency obligations

ISP#	(a) ⁵⁴⁷	(b) ⁵⁴⁸	(c) ⁵⁴⁹	(d) ⁵⁵⁰	(e) ⁵⁵¹	Comments
ISP 1	≈	N/A	✓	✓	✓	(a) : The ISP copied the Articles from the Regulation in its general terms. There is no clarification of these measures. (b) : No detailed information.
ISP 2	≈	N/A	✓	✓	✓	(a) and (b) : Same comment as for ISP 1.
ISP 3	≈	N/A	✓	✓	✓	(a) and (b) : Same comment as for ISP 1.
ISP 4	N/A	N/A	✓	✓	✓	(b) : Same comment as for ISP 1.
ISP 5	N/A	N/A	✓	✓	✓	(b) : Same comment as for ISP 1.
ISP 6	≈	N/A	✓	✓	✓	(a) and (b) : Same comment as for ISP 1.
ISP 7	≈	N/A	✓	✓	✓	(a) and (b) : Same comment as for ISP 1.
ISP 8	≈	N/A	✓	✓	✓	(a) and (b) : Same comment as for ISP 1.
ISP 9	≈	N/A	✓	✓	✓	(a) and (b) : Same comment as for ISP 1.

⁵⁴⁶ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁵⁴⁷ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁵⁴⁸ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁵⁴⁹ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁵⁵⁰ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁵⁵¹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

4.5. Overview of relevant net neutrality themes in Bulgaria

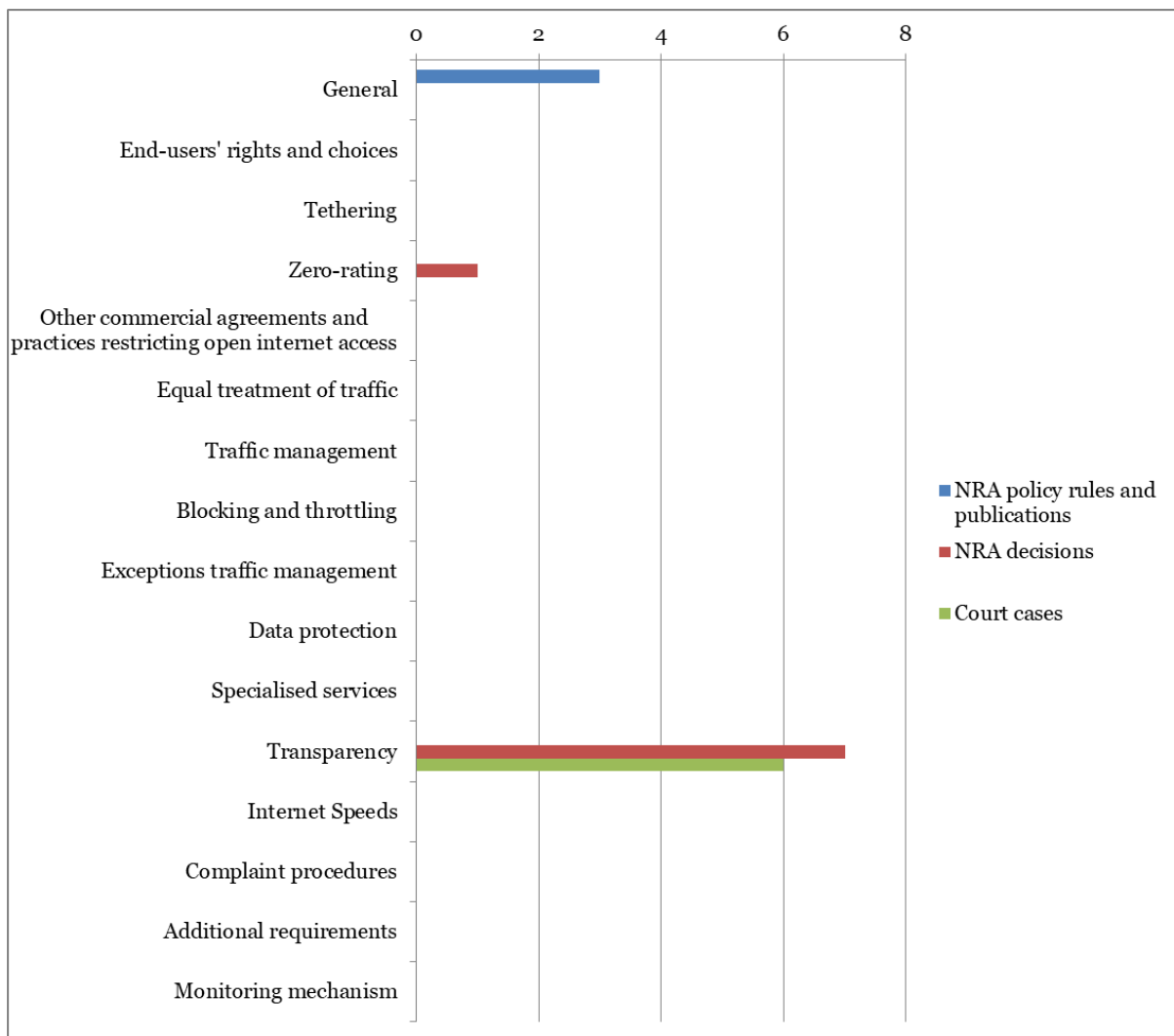


Figure 17: Blue: NN-report CRC 2017, NN-report CRC 2018 and Draft Position of the CRC. Red: Penalty notices of 18 October 2017, 9 November 2017, 16 November 2017, 4 December 2017, 3 January 2018, 10 January 2018 and 19 February 2018. Green: Court cases involving the six penalty notices (6x).

4.6. Summary of key topics and noteworthy findings

CRC investigated seven cases related to the obligations as laid down in Article 4(1)(b) and 4(1)(d) of the Regulation. In all of these cases, the chairman of CRC imposed an administrative fine of €250, which is the minimum fine for infringement of the provisions laid down in Article 4 of the Regulation. Six of these penalty notices were appealed by the ISP. The Court annulled two penalty notices (in one instance it was concluded that there was no infringement and one decision is not published) and upheld three penalty notices. The last case is still pending. In four cases an appeal in second instance was submitted (in one case the judgment of the Court in first instance was annulled; in two cases the judgment of the Court in first instance was confirmed; one appeal procedure is still pending).

Furthermore, CRC issued a decision with regard to a zero-rating offer by Telenor Bulgaria in which it obliged the ISP to provide and publish information about which functionalities and services of Facebook and WhatsApp are zero-rated and about the conditions

applicable to this zero-rating offer and to inform subscribers accordingly. This decision has not been appealed by the ISP.

The table below provides an overview of the key topics and its results in Bulgaria.

Key topic	Result Bulgaria
Pre-existing legislation	No
Maximum fine	Up to €100 000 for infringing Article 3; Up to €2 500 for infringing Article 4; Up to €20 000 for infringing Article 5(2)
Imposed fines	€250 (BGN 500)
Additional legislation	Yes, Gambling Act
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	None
Number of FTEs in NRA involved in net neutrality	<i>Not available</i>
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	108 ⁵⁵²
Number/percentage of complaints that were settled by the NRA	<i>Not applicable</i>
Number of NRA decisions	8
Number of court cases	6 (in four instances the court decision was appealed)
Main net neutrality themes	Transparency (contract information), traffic management measures (reasonable traffic management), zero-rating
Monitoring mechanism (certified yes/no)	No
Self-regulation and/or co-regulation	No

⁵⁵² These complaints were received between 1 May 2017 and 30 April 2018.

5. Croatia

5.1. Implementation

Pre-existing net neutrality legislation

The Ordinance on the Manner and Conditions of Providing Electronic Communication Networks and Services ("**the Ordinance**") applied in Croatia before the Regulation entered into force.⁵⁵³ It contained provisions related to net neutrality and was amended in accordance with the Regulation.⁵⁵⁴

Already in 2012, the Croatian Regulatory Authority for Network Industries ("**HAKOM**") certified a monitoring mechanism *HAKOMetar* in order to better monitor the conditions regarding QoS of fixed broadband IAS.⁵⁵⁵

Competent authority and penalty rules

HAKOM is the NRA responsible for enforcing the Regulation on the basis of the Electronic Communications Act.⁵⁵⁶

HAKOM has the power to impose penalties in case of a breach of the net neutrality rules. Article 119, paragraph 1, subparagraph 70 of the Electronic Communications Act describes all potential infringements.⁵⁵⁷ HAKOM has the power to initiate proceedings before the competent court and to propose a fine. The range of fines for all breaches is HRK 100 000 to HRK 1 000 000 (approximately €13 500 to €135 000) for legal entities and HRK 20 000 to HRK 100 000 (approximately €2 700 to €13 500) for the responsible person of the legal entity. HAKOM may propose a fine, but it would be automatically suspended in case of an appeal. The final imposition of the penalty is the sole authority of the court. The Court is not bound by the proposal of HAKOM. It can impose a higher or a lower fine. HAKOM is not competent to impose orders subject to periodic penalties. However, the General Administrative Procedure Act provides for enforcement instruments that HAKOM can use. For example to ensure compliance with an enforcement order, without a penalty being determined by the Court, HAKOM can impose an administrative fine on the responsible person of the legal entity in the amount of up to ten average annual gross salaries in Croatia in the previous year in order to the legal entity to fulfil its obligations. In case of further non-compliance another higher fine can be adjudicated within the determined scale. If necessary, the fine may be adjudicated several times.⁵⁵⁸ This administrative fine is not a penalty in the strict sense. It does not represent a sanction for an established breach of the law. It is merely an instrument for the execution of a decision.

⁵⁵³ Pravilnik o načinu i uvjetima obavljanja djelatnosti elektroničkih komunikacijskih mreža i usluga = Ordinance on the manner and conditions of performance of activity electronic communication networks and services.

⁵⁵⁴ See below in this paragraph, under heading *Additional legislation and regulations*.

⁵⁵⁵ The monitoring mechanism can accessed through:
<https://www.hakom.hr/default.aspx?id=1144> (accessed 26 July 2018).

⁵⁵⁶ Zakon o elektroničkim komunikacijama = Electronic Communications Act, Article 1a(2)(3).

⁵⁵⁷ Zakon o elektroničkim komunikacijama = Electronic Communications Act, Article 119, Paragraph 1 and Subparagraph 70.

⁵⁵⁸ General Administrative Procedure Act 2009, Article 142.

Additional legislation and regulations

On 4 July 2016, the latest amendments of the Ordinance entered into force.⁵⁵⁹ Most of the net neutrality, open access and transparency requirements are prescribed in this document.

The Ordinance provides a clarification of transparency requirements (technical characteristics and minimum quality for a specific category of service) and of traffic management measures. The Ordinance provides information on the way traffic management measures are monitored and on the occasions and allowed duration of special traffic management measures in case of congestion or network security. The Ordinance clarifies the method of monitoring and analysing the impact of specialised services on IASs. Furthermore, the Ordinance defines the speed categories used in the Regulation. In contracts and in advertisements operators must specify the minimum and maximum speed. In fixed networks the minimum speed may not be lower than 70 % of the maximum speed.

5.2. Monitoring, supervision and enforcement*General information and reports*

In its annual programme of activities, HAKOM sets out its plans for the following year.⁵⁶⁰ As of 2016 net neutrality was declared a topic of particular interest in need of continuous attention. Furthermore, HAKOM issued guidelines containing an introduction on net neutrality as a concept.⁵⁶¹ Finally, in its annual activity report of 2016, HAKOM described the various activities it conducted regarding transparency, blocking of traffic and other supervision measures.⁵⁶²

HAKOM indicated that on average there were five employees involved in net neutrality, amounting to a total of on average two FTEs in 2017.⁵⁶³ Furthermore, the NN-reports state that HAKOM established an internal net neutrality team consisting of employees from several departments (e.g. legal, communication services, consumer protection and radio communication).

The **NN-reports HAKOM 2017**⁵⁶⁴ & **2018**⁵⁶⁵, both consisting of ten pages, follow the BEREC Recommendation⁵⁶⁶ and provide: (i) information on an overall description of the national situation regarding compliance with the Regulation; (ii) a description of the monitoring activities carried out; (iii) the number and types of complaints and infringements related to the Regulation; (iv) the main results of surveys conducted; (v)

⁵⁵⁹ Pravilnik o načinu i uvjetima obavljanja djelatnosti elektroničkih komunikacijskih mreža i usluga = Ordinance on the manner and conditions of performance of activity electronic communication networks and services.

⁵⁶⁰ HAKOM (2015), Godišnji program rada za 2016 = Annual Programme of Activities for 2016. HAKOM (2016), Godišnji program rada za 2017 = Annual Program of Activities for 2017.

⁵⁶¹ Hakom, Mrežna neutralnost = Net Neutrality <https://www.hakom.hr/default.aspx?id=8814> (accessed 1 October 2018).

⁵⁶² HAKOM (2017), Godišnje izvješće o radu za 2016 = Annual activities report 2016.

⁵⁶³ Survey completed by HAKOM in the context of this Study.

⁵⁶⁴ HAKOM (2017), Report on the national implementation of the Regulation (EU) 2015/2120.

⁵⁶⁵ HAKOM (2018), Annual report on the national implementation of the Regulation (EU) 2015/2120: (period from 1 May 2017 - 30 April 2018).

⁵⁶⁶ BEREC Guidelines, paragraph 183.

main results and values retrieved from technical measurements; and (vi) measures adopted/applied pursuant to Article 5(1).⁵⁶⁷

According to both NN-reports, HAKOM performed, *inter alia*, the following activities since the entry into force of the Regulation: (i) meetings with ISPs, stimulating ISPs to carry out self-assessments or to check internal compliance with the Regulation; (ii) market surveys (e.g. checking the relevant information on the ISP's webpages); (iii) analyses of complaints and reports by end-users; (iv) information requests to ISPs; and (v) official assessments of zero-rating offers.⁵⁶⁸

Complaints

HAKOM is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs. Both consumers and other end-users have the possibility of the following remedies: financial compensation, termination of the contract without compensation or changing to a more appropriate package (only for discrepancies between the actual performances of the IAS regarding the speed). Competitors can only rely on supervision decisions and penalties for ISPs.

The NN-reports state that HAKOM did not receive any complaint of end-users with regard to the blocking or throttling of certain apps and services or with regard to price discrimination.

The NN-report 2017 mentions 130 end-user complaints submitted via the *HAKOMetar* mechanism regarding minimum speed. In the observed period around 10 000 measurements were conducted. The NN-report 2018 mentions 23 complaints regarding internet QoS in fixed networks and eight complaints regarding internet QoS in mobile networks. Also 102 end-user complaints concerning minimum speed were submitted via *HAKOMetar*, while around 11 000 measurements were conducted. Results show that most of the operators provide internet access speeds according to signed agreements and that most of the users achieve at least minimum speeds. All complaints have been settled by HAKOM.

Monitoring and supervision measures

HAKOM stated in its NN-report 2018 that it developed a detailed questionnaire in cooperation with the Faculty of Electrical Engineering and Computing of the University of Zagreb. The topics included restrictions and blockings, QoS mechanisms used in the network, the number of traffic classes, the implemented rules of prioritisation, the used aggregation factors, the rules for upgrading network elements and application-dependent and independent traffic control mechanisms. The survey was sent to three mobile ISPs and seven fixed ISPs. The preliminary conclusions are that traffic management measures are only applied in order to preserve the integrity and security of the network and as congestion management measures. ISPs do not use traffic management in a discriminatory way. Furthermore, ISPs include in their contracts clear and comprehensible information on (i) the impact of traffic management measures; (ii) how the measures might affect the end-users' experience in general and with regard to specific applications; and (iii) the impact on the protection of personal data. The survey did not identify any practices that could pose a problem of compliance with Article 3 of the Regulation.

From the NN-report 2018, it follows that in Croatia two ISPs have zero-rating offers. HAKOM carried out three investigations and in two cases they requested the ISP to

⁵⁶⁷ More information on the findings and conclusions of HAKOM is provided below in this paragraph, under headings *Complaints and Monitoring and supervision measures*.

⁵⁶⁸ See below in this paragraph, under heading *Monitoring and supervision measures*.

change the offer. One of the investigations is still ongoing. They investigated VIPnet's zero-rated VIP NOW streaming offer on the basis of the criteria in the Guidelines and decided that it did not comply with Article 3(3) of the Regulation, because the service could be freely accessed after the exhaustion of the user's data cap, while all other internet traffic was charged. HAKOM also investigated the StreamOn offer from the incumbent Hrvatski Telekom, which zero-rates certain music and video streaming. Participation in StreamOn is open to all CAPs. However, StreamOn also includes traffic management measures by throttling bandwidth for video streaming to a maximum of 2 Mbit/s. According to HAKOM this entails unequal treatment of data traffic and violates Article 3(3) of the Regulation. Operators voluntarily changed their offers in order to comply with the Regulation; therefore no final decision was taken by HAKOM.

According to the NN-report 2018, HAKOM carried out one formal assessment of a possible violation of Article 3(3) of the Regulation. Hrvatski Telekom applied technical discrimination of traffic in the context of StreamOn.⁵⁶⁹ Hrvatski Telekom changed its practices after a discussion with HAKOM, therefore, no formal decision was taken.

HAKOM also conducted a separate survey amongst ISPs regarding port-blocking practices. They concluded that while ISPs block several ports, such blocking is not taking place on a permanent basis. Therefore, HAKOM concludes that the blocking is justified by the security exception provided in Article 3(3) of the Regulation. ISPs mainly block ports (23, 25, 53, 135, 445, etc.)⁵⁷⁰ to prevent spam, DDoS attacks and to safeguard users from malware and spoofing.

As set out in the NN-report 2018, specialised services (in the fixed network: VoIP and IPTV and in mobile networks: VoLTE) were monitored and analysed on a case-by-case basis. HAKOM concluded that such services are not used or offered as a substitute for IASs and are not provided at the expense of the availability or the general quality of IAS. Consequently, they do not infringe upon the Regulation. The NN-report 2017 states that 'non-discriminatory IAS does not affect networks development and implementation of new technologies by operators'. This conclusion was reached based on market trends and especially 5G developments in 2017 and 2018.

The Electronic Communications Act obliges operators in Croatia to notify their terms and conditions to HAKOM. The Ordinance contains several additional transparency requirements. The NN-report 2018 concluded that most of the fixed operators and all mobile ISPs are compliant with the Regulation and the Ordinance. The main issue for fixed operators is to define the term 'normally available speed' while the main issue for mobile operators is defining 'realistically achievable speeds'. The concept 'normally available speed' is not yet defined by HAKOM, because a high threshold for minimum speed has been in force since 2012. This part of the Ordinance was still under review in August 2018.

HAKOM certified a monitoring mechanism *HAKOMetar* in order to better monitor the contractual conditions regarding QoS of fixed broadband IAS.⁵⁷¹ The monitoring mechanism enables end-users to determine whether there is non-conformity of performance and to obtain related measurement results. To prove a significant discrepancy, end-users must perform three measurements through the mechanism within five days (the measurements have to be performed on different days).⁵⁷² The measurements must be done in the following conditions: the end-user should be the only user of the computer; there should not be any other applications running; the computer

⁵⁶⁹ See above under this heading.

⁵⁷⁰ See Part I, Chapter 3, paragraph 3.3 for more information on these ports.

⁵⁷¹ The monitoring mechanism can be accessed through:

<https://www.hakom.hr/default.aspx?id=1144> (accessed 26 July 2018).

⁵⁷² HAKOM, *HAKOMetar* - Upute za korištenje aplikacije = Application instructions for *HAKOMetar*.

should be the only device (in addition to a switch/router from a service provider) in the local area network; wireless connections must be turned off; and there may not be a VPN connection of any type. In Croatia, ISPs must ensure a minimum internet speed of at least 70 % of the advertised speed of the IAS. If – for technical reasons – the ISP is not able to deliver the prescribed minimum speed on a regular basis, the ISP is obliged to terminate the contract without paying fees to the end-user, and may, additionally – with the consent of the end-user – allow the switch to a more appropriate package or reduce the monthly fee.

In 2017, the mobile application *HAKOMetar Plus* was made available. This mechanism provides end-users with information about the quality of services of their mobile and WLAN network connection.⁵⁷³ The results are bundled into aggregated values for different categories and geographically presented on maps that can be used to compare IAS offers. ISPs are obliged to inform end-users how they can test the speed of their IAS, for instance by referring them to the measuring mechanism. If there is non-conformity end-users can change to a more appropriate package or terminate the contract without compensation. HAKOM reported that between 30 April 2016 and 26 June 2018 the monitoring mechanisms have been used 11 000 times.⁵⁷⁴

Decisions and court cases

There have been no formal decisions or court cases regarding net neutrality in Croatia.

5.3. Self-regulation and/or co-regulation

There is no self- and/or co-regulation in Croatia.

5.4. Compliance with transparency obligations

The table below⁵⁷⁵ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 36: Overview of desk research on transparency obligations

ISP #	(a) 576	(b) 577	(c) 578	(d) 579	(e) 580	Comments
ISP 1	≈	✓	≈	✓	✓	(a): The terms provide only that access to services can be limited or slowed down due to exceptional circumstances (fraud, misuse, protection of end-users, etc.). (c): With respect to specialised services, the terms open up the possibility of offering such services, but do not provide details.

⁵⁷³ The monitoring mechanism can be accessed through <https://hakometarplus.hakom.hr/home> (accessed 26 July 2018).

⁵⁷⁴ Survey completed by HAKOM in the context of this Study.

⁵⁷⁵ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs has been reviewed. This could also be more ISPs belonging to the same group of companies.

⁵⁷⁶ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁵⁷⁷ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁵⁷⁸ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁵⁷⁹ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁵⁸⁰ Remedies, as further set out in Article 4(1)(e) of the Regulation.

ISP 2	N/A	✓	≈	≈	≈	(c): Same comment as for ISP 1. (d): No minimum or maximum speeds are provided, or "triggers" for remedies. (e): Only basic information on end-users' remedies when speeds are not realized, are available.
ISP 3	≈	✓	≈	N/A	✓	(a): The terms only state that the operator will monitor its traffic regularly to avoid blocking or slowing down. (c): Same comment as for ISP 1.
ISP 4	≈	✓	N/A	N/A	✓	(a): Same comment as for ISP 1.
ISP 5	N/A	✓	≈	≈	≈	(c): Same comment as for ISP 1. (d): Same comment as for ISP 2. (e): Same comment as for ISP 2.
ISP 6	≈	✓	≈	N/A	✓	(a): Same comment as for ISP 3. (c): Same comment as for ISP 1.

5.5. Overview of relevant net neutrality themes in Croatia

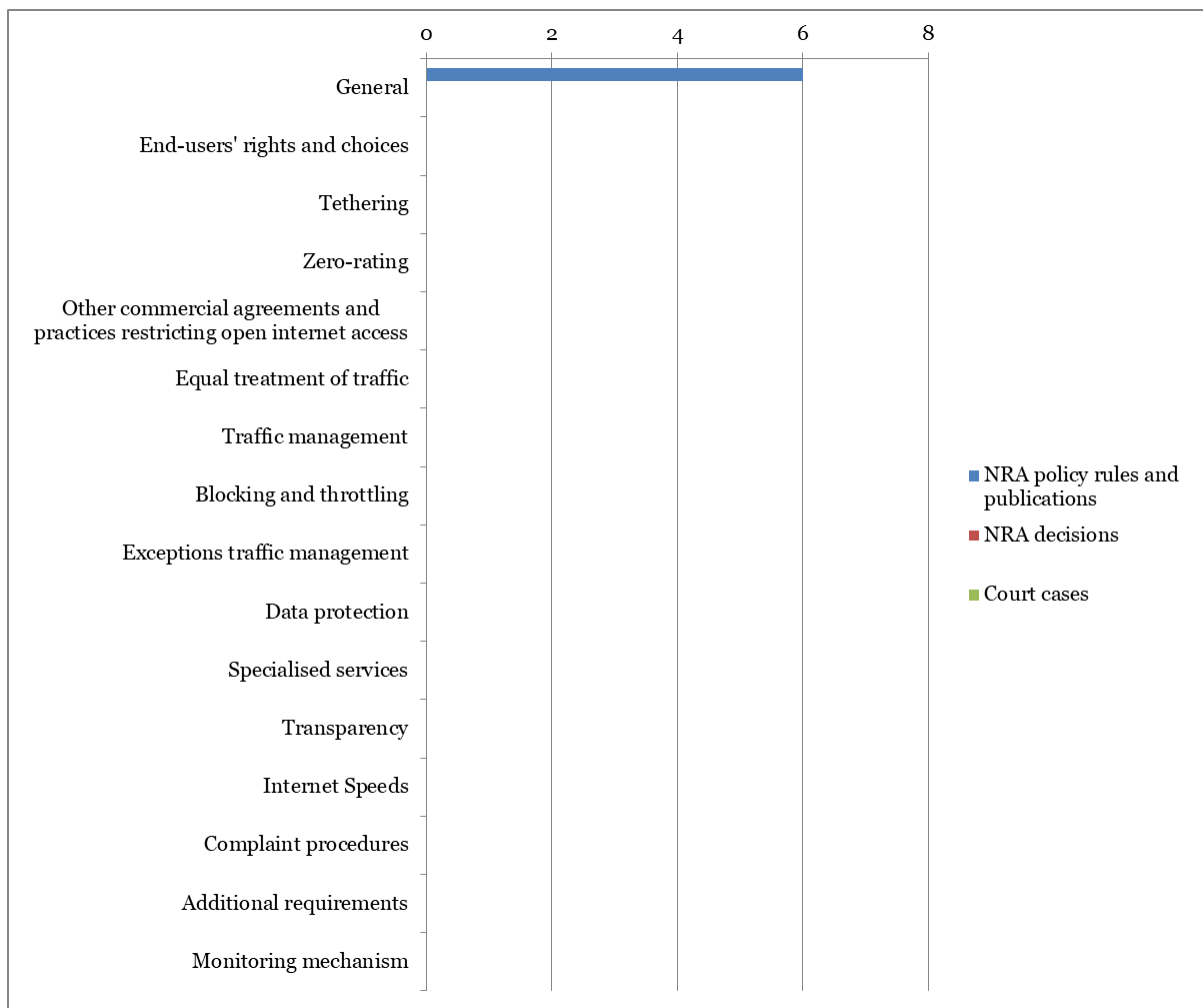


Figure 18: Blue: NN-report HAKOM 2017, NN-report HAKOM 2018, Ordinance on the manner and conditions of performance of activity electronic communication networks and services, Annual programme 2016, Annual programme 2017 and Annual activities report 2016.

5.6. Summary of key topics and noteworthy findings

Additional transparency requirements apply in Croatia pursuant to the Ordinance. Moreover, the Electronic Communications Act obliges operators in Croatia to notify their terms and conditions to HAKOM.

Further, HAKOM developed a detailed questionnaire in cooperation with the Faculty of Electrical Engineering and Computing of the University of Zagreb. The topics included restrictions and blockings, QoS mechanisms used in the network, the number of traffic classes, the implemented rules of prioritisation, the used aggregation factors, the rules for upgrading network elements and application-dependent and independent traffic control mechanisms.

HAKOM investigated three zero-rating offers. Two offers violated Article 3(3) of the Regulation and ISPs were asked to change their offers.

The table below provides an overview of the results in Croatia for some of the key topics.

Key topic	Result Croatia
Pre-existing legislation	Yes, net neutrality and transparency (amended)
Maximum fine	The range of fines for all breaches is HRK100 000 to HRK1 000 000 (approximately €13 500 to €135 000) for legal entities and HRK20 000 to HRK100 000 (approximately €2 700 to €13 500) for the responsible person of the legal entity.
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes, in the Ordinance
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	263
Number/percentage of complaints that were settled by the NRA.	263
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Zero-rating, Transparency (contract information), Internet speeds, Monitoring mechanism (to test non-conformity of performance)
Monitoring mechanism (certified yes/no)	Yes, HAKOMetar, certified HAKOMetar Plus, not certified
Self-regulation and/or co-regulation	No

6. Cyprus

6.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Cyprus prior to the adoption of the Regulation.

Competent authority and penalty rules

The Office of Electronic Communications & Postal Regulations ("**OCECPR**") is responsible for the monitoring and enforcement of the Regulation in Cyprus.

Cyprus adopted a bill transposing the requirements on penalties of Article 6 of the Regulation⁵⁸¹ and notified these measures to the Commission on 26 April 2016. In case of infringements of Articles 3, 4 and 5 of the Regulation OCECPR may impose administrative penalties. These penalties may reach the amount of €854 for each day the infringement is continued or of €170 800 and can be doubled in case of recurrence. Furthermore, OCECPR may suspend the general authorisation if the ISP violates Decree 72/2017⁵⁸² and/or the Regulation.

Additional legislation and regulations

Based on the competence granted by the Electronic Communications and Postal Services Law, OCECPR issued Decree 72/2017 on net neutrality, which came into force on 3 March 2017.⁵⁸³ Decree 72/2017 is intended to support the implementation of the net neutrality provisions and to provide guidance on the monitoring and enforcement by OCECPR. It takes into account the provisions of the Regulation and the BEREC Guidelines.

Decree 72/2017 provides guidance regarding the implementation of the Regulation and the BEREC Guidelines by defining some of the concepts and by introducing certain additional obligations for ISPs according to Article 5(1) of the Regulation. With respect to legally binding specifications on internet speeds, OCECPR introduces: (i) the obligation for ISPs to inform subscribers on the impact of terminal equipment on the maximum available speed; (ii) the obligation for ISPs to define the time periods during which the normally, minimum and maximum available speeds will occur respectively; and (iii) sanctions if during three consecutive days the actual performance of the internet speed is 80 % or lower in comparison to the normally available or minimum speed defined in the contracts. This last rule is an interpretation of the notion of 'significant, continuous or regularly recurring discrepancies'. Decree 72/2017 also defines specialised services as 'services beyond broadband internet access that include content or applications or a combination thereof, for the provision of which it is necessary for the provider to secure certain operating characteristics in order to achieve a certain level of quality'.

In Cyprus, ISPs have to report to OCECPR information regarding IAS speed and other quality parameters, commercial agreements and practices, traffic management measures, specialised services, processing of personal data, information provided to

⁵⁸¹ Το περί Συλλογής Πληροφοριών και Επιβολής Διοικητικού Προστίμου Διάταγμα του 2008, Κ.Δ.Π 300/2008 = The Collection of Information and Administrative Sanction, Decree 300/2008.

⁵⁸² Κ.Δ.Π. 72/2017, ο περί ρυθμίσεως ηλεκτρονικών επικοινωνιών και ταχυδρομικών υπηρεσιών νομοσ του 2004 = Decree 72/2017, The Electronic Communications and Postal Services Law of 2004 (hereafter: Decree 72/2017). Also see below in this paragraph, under heading *Additional legislation and regulations*.

⁵⁸³ Decree 72/2017.

end-users at customer service points and websites as well as details of complaints.⁵⁸⁴ This additional reporting obligation is considered to be an additional requirement in accordance with Article 5(1) of the Regulation.

6.2. Monitoring, supervision and enforcement

General information and reports

OCECPR actively monitors and enforces the Regulation. OCECPR adopted Decree 72/2017, held meetings with stakeholders before and after the entry into force of the Regulation and raised awareness among the general public for instance by publishing an explanatory note.⁵⁸⁵ According to OCECPR, there are three FTEs involved in net neutrality matters in 2017.⁵⁸⁶

The **NN-report OCECPR 2017**, consisting of 11 pages, provides a description of (i) the national market situation; (ii) the monitoring activities carried out by OCECPR; (iii) the number and types of complaints and infringements; (iv) the main results of surveys conducted by OCECPR; (v) the main results retrieved from technical measurements; and (vi) the measures adopted by OCECPR pursuant to Article 5(1) of the Regulation.⁵⁸⁷ The report provides a short summary of the activities performed by OCECPR following the entry into force of the Regulation. Decree 72/2017 was adopted, a free mechanism for the evaluation of the performance of Broadband Connection Services (2B2T) has been provided and OCECPR conducted market surveys and sent information requests related to the compliance with Articles 3 and 4 of the Regulation. With respect to traffic management measures, OCECPR explains the measures of one ISP in detail in Annex B of the report.⁵⁸⁸ Annex A describes two zero-rating offers investigated by OCECPR. OCECPR concludes that ISPs comply with the Regulation and Decree 72/2017.⁵⁸⁹ However, OCECPR will continue to monitor potential infringements.

The **NN-report OCECPR 2018**, consisting of nine pages, follows the same structure as the NN-report OCECPR 2017.⁵⁹⁰ Compared to the previous reporting period, OCECPR has concluded its investigation of the zero-rating offer of one ISP.⁵⁹¹ In relation to the traffic management measures used by some ISPs to prevent congestion of the network, OCECPR requested to ensure compliance with the Regulation.⁵⁹² Furthermore, OCECPR reports on the first results gathered by its monitoring mechanism and concludes that the overall quality of services is satisfactory and within the terms and conditions set by ISPs.

Complaints

Based on Decree 72/2017, ISPs report all complaints and details of the complaints to OCECPR. Both NN-reports OCECPR 2017 & 2018 extensively describe the end-user complaints related to net neutrality received by ISPs. OCECPR breaks down its analysis on the number and types of complaints related to the Regulation per ISP and based on whether these complaints relate to fixed or mobile networks as well as on the subject matter of these complaints. The reports state that all complaints have been resolved by ISPs and no further action was taken by OCECPR.

⁵⁸⁴ Decree 72/2017.

⁵⁸⁵ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁵⁸⁶ Survey completed by OCECPR in the context of this Study.

⁵⁸⁷ OCECPR (2017), Annual report 2017 on open internet.

⁵⁸⁸ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁵⁸⁹ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁵⁹⁰ OCECPR (2018), Annual report 2018 on open internet.

⁵⁹¹ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁵⁹² See below in this paragraph, under heading *Monitoring and supervision measures*.

OCECPR also receives and resolves complaints itself. A complaint may only be rejected by the NRA if it is clearly unfounded. In all other cases, OCECPR shall communicate the complaint to the person concerned. Such a complaint may constitute the object of an enquiry and/or investigation by OCECPR if it is not satisfied with the response or if the complainant gives notice in writing that the complaint has not been dealt with satisfactorily.

OCECPR may investigate any ISP, with regard to whom a complaint has been lodged. OCECPR is also authorised to:

- a. request ISPs to amend/refrain from any practices that may constitute an infringement;
- b. require ISPs to compensate the complainant; and
- c. impose administrative penalties or suspend the general authorisation of the provider.

The NN-reports mention the number of complaints to consumer associations and the complaints directly to OCECPR (18 between 1 May 2016 – 30 April 2017 and 12 between 1 May 2017 – 30 April 2018). Based on this combined information, the NN-reports conclude that ISPs provide appropriate complaint procedures that are easily accessible and efficient. In addition, OCECPR concludes complaints are handled on a timely basis in accordance with Article 4(2) of the Regulation.

Monitoring and supervision measures

OCECPR published an explanatory note on its website for end-users.⁵⁹³ The note contains background information on the Regulation and clarifies the tools provided by OCECPR for the evaluation of broadband services, for the comparison of prices and for the filing of complaints. Furthermore, OCECPR explains the terms and conditions for its handling of complaints by end-users related to net neutrality.⁵⁹⁴ End-users can complain to OCECPR free of charge, but must first contact the ISP regarding the complaint. OCECPR aims to review the complaint within a month but may take longer if necessary. The end-user will be kept up to date regarding the review of the complaint.

OCECPR conducted formal assessments of compliance with Articles 3 and 4 of the Regulation based on information received through market surveys, information requests in accordance with Article 5(2) of the Regulation, obligatory additional reporting by ISPs and reviewing the relevant information on ISPs webpages and in general terms and conditions of contracts.

In Cyprus, fixed ISPs oblige their subscribers to use the terminal equipment provided by them in order to ensure (i) the configuration that enables them to provide bundled services; (ii) adequate security of terminal equipment and customer network access; and (iii) remote access support services. In the NN-report 2018, OCECPR considers this to be reasonable justifications for the provision of obligatory equipment.

OCECPR noted in the NN-report 2018 that information submitted by ISPs indicated that only one provider offers zero-rated services (the services are listed in Annex A of the NN-report 2017 and include music streaming and Facebook). OCECPR carried out a formal assessment of these services and concluded that since only a limited number of subscribers uses the zero-rated applications, there is no immediate impact on end-users'

⁵⁹³ OCECPR (2017), Καταναλωτές και Ανοικτό Διαδίκτυο = Consumers and Net Neutrality.

⁵⁹⁴ OCECPR, Όροι και Προϋποθέσεις Διαχείρισης Παραπόνων = Terms and Conditions of Complaints Management.

rights. Of the total number of the provider's subscribers 0.01 % and 0.1 % respectively uses the two services (0.03 % and 0.3 % of the total number of mobile subscribers).

In relation to traffic management practices OCECPR found in both NN-reports that some ISPs throttled the access of heavy data users in order to prevent congestion of the network. ISPs limited the access rate of these users based on their traffic volume in order to prevent congestion of the network. ISPs were notified that throttling could constitute an infringement of Article 3(3) of the Regulation and were asked to amend their practices and/or conditions in order to ensure compliance. In August 2018, OCECPR was still investigating this matter by having technical discussions with ISPs.

ISPs also reported on potential specialised services. OCECPR concluded in the NN-report 2018 that ISPs do not yet offer specialised services in Cyprus. The technical practices used for the provision of bundled services were assessed in order to determine whether the provision of IPTV or Voice Telephony affected the provision of IAS. OCECPR concluded that all ISPs use additional dedicated bandwidth to provide these products, which is allowed according to the Regulation and does not qualify as a specialised service as defined in Decree 72/2017.

OCECPR states in both NN-reports that ISPs comply with their obligation to define upload and download speeds in their contracts and on their websites.

OCECPR certified a monitoring mechanism. The online mechanism 2B2T is a free tool for the evaluation of performance of broadband connection services.⁵⁹⁵ The application enables end-users to measure data transmission speeds (downstream and upstream), delay, jitter (delay variation) and packet loss. All results are made public enabling end-users and OCECPR to make direct comparisons between the advertised speed of ISPs and the average speed that each user of 2B2T receives. The mechanism is certified because end-users can use it to prove significant discrepancies. Significant discrepancies occur if, in three consecutive days, measured speeds are less than or equal to 80 % of the minimum or normal speed specified by the ISP.⁵⁹⁶ OCECPR has issued secondary legislation that introduces 2B2T as the only measurement mechanism approved for the performance evaluation of IAS.⁵⁹⁷

In the survey, OCECPR confirms that the mechanism has been used 5266 times by 755 registered end-users and that there have been three complaints by end-users regarding speed performance of fixed internet services based on the use of the mechanism.⁵⁹⁸ Moreover, OCECPR confirms that it uses the mechanism itself for monitoring, supervision and enforcement purposes. Pursuant to Decree 72/2017, OCECPR has reserved the right to introduce additional technical requirements and minimal service requirements on an ad hoc basis.

In addition to the aforementioned enforcement action, OCECPR noted in the survey conducted for this Study that they requested information from ISPs on network capacity management (twice), traffic management (twice) and justifications for traffic management (twice).⁵⁹⁹ ISPs generally made the requested information available within the time limits and with the level of detail required by OCECPR.⁶⁰⁰ OCECPR also held informal discussions regarding the equal treatment of traffic (three times).

⁵⁹⁵ 2B2T, System for Performance Evaluation of Broadband Connection Services (<http://2b2t.ocecpr.org.cy>, accessed 30 July 2018).

⁵⁹⁶ Decree 72/2017, Article 7(5).

⁵⁹⁷ Decree 72/2017, Annex 1.

⁵⁹⁸ Survey completed by OCECPR in the context of this Study.

⁵⁹⁹ Survey completed by OCECPR in the context of this Study.

⁶⁰⁰ Survey completed by OCECPR in the context of this Study.

Decisions and court cases

There have been no formal decisions or court cases in relation to the Regulation in Cyprus.

6.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Cyprus.

6.4. Compliance with transparency obligations

The table below⁶⁰¹ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 37: Overview of desk research on transparency obligations

ISP #	(a) 602	(b) 603	(c) 604	(d) 605	(e) 606	Comments
ISP 1	N/A	✓	N/A	✓	✓	-
ISP 2	N/A	✓	✓	N/A	✓	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	N/A	✓	N/A	✓	✓	-
ISP 5	N/A	✓	✓	N/A	✓	-
ISP6	✓	✓	N/A	✓	✓	-
ISP 7	N/A	✓	N/A	✓	N/A	-

⁶⁰¹ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁶⁰² Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁶⁰³ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁶⁰⁴ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁶⁰⁵ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁶⁰⁶ Remedies, as further set out in Article 4(1)(e) of the Regulation.

6.5. Overview of relevant net neutrality themes in Cyprus

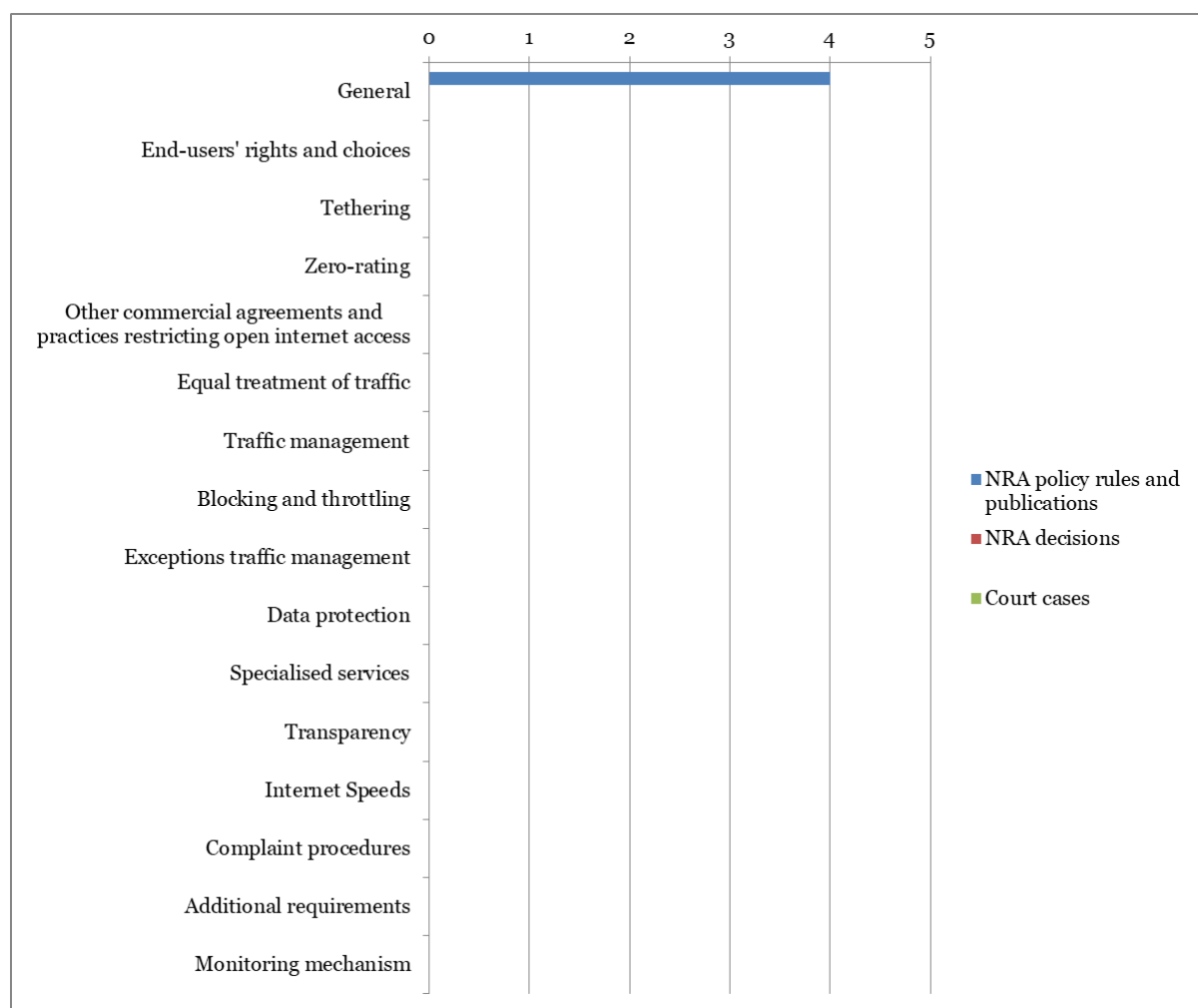


Figure 19: Blue: NN-report OCECPR 2017, NN-report OCECPR 2018, Decree 72/2017 and explanatory note for end-users on OCECPR's website.

6.6. Summary of key topics and noteworthy findings

OCECPR issued specific additional requirements pursuant to Article 5(1) of the Regulation in Decree 72/2017:

- the notion of 'significant, continuous or regularly recurring discrepancies' in Article 4(4) of the Regulation was specified in Decree 72/2017 by introducing the obligation for ISPs to notify subscribers of sanctions if during three consecutive days the actual performance is 80 % or lower in comparison to the advertised performance;
- ISPs also have to define the time periods during which the normally, minimum and maximum available speeds will occur respectively; and
- ISPs are obliged to notify subscribers of the impact of terminal equipment on the maximum available speed.

In addition, OCECPR has determined that ISPs have to report information regarding IAS speed and other quality parameters, commercial agreements and practices, traffic management measures, specialised services, processing of personal data, information

provided to end-users at customer service points and websites as well as details of complaints.

Moreover, OCECPR is involved in the monitoring and handling of end-users' complaints. Pursuant to Decree 72/2017, ISPs have to report all end-users' complaints. Subsequently, OCECPR describes the consumer complaints related to net neutrality in its annual reports specifying the number, type and subject matter of complaints per ISP and whether the complaints relate to fixed or mobile networks. OCECPR provides a free mechanism for the evaluation of the performance of broadband connection services (2B2T). This is a certified monitoring mechanism, which is used frequently by end-users.

In Cyprus, ISPs oblige their subscribers to use the terminal equipment provided by them in order to ensure the provision of bundled services, security solutions and remote access support services. In the NN-report 2018, OCECPR considers this to be reasonable justifications for the provision of obligatory equipment.

OCECPR carried out a formal assessment of zero-rated services and concluded that there is no immediate impact on end-users' rights, because the number of subscribers using zero-rated services is very low. OCECPR also concluded that ISPs do not yet offer specialised services. Moreover, all ISPs use additional dedicated bandwidth to provide IPTV or Voice Telephony, which is considered allowed according to the Regulation and it does not qualify as a specialised service as defined in Decree 72/2017.

The table below provides an overview of the results in Cyprus for some of the key topics.

Key topic	Result Cyprus
Pre-existing legislation	No
Maximum fine	Penalties may reach the amount of €170 800 and can be doubled in case of a repeated breach
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	3
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	OCECPR has to resolve complaints and disputes. A complaint may only be rejected if it is clearly unfounded. OCECPR may hold an enquiry into the activities and operations of any provider, with regard to whom a complaint has been lodged by any person. OCECPR is also authorised to request ISPs to amend/refrain from infringing practices, to require ISPs to compensate the complainant or to impose administrative penalties or suspend the General

	Authorisation of the provider
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	30
Number/percentage of complaints that were settled by the NRA	30 / 100 %
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	End-users' rights and choices (terminal equipment), transparency (including internet speeds), complaint procedures
Monitoring mechanism (certified yes/no)	Yes, certified
Self-regulation in place	No

7. Czech Republic

7.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in the Czech Republic prior to the adoption of the Regulation.

Competent authority and penalty rules

The Czech Telecommunication office ("**CTU**") monitors and supervises compliance with the Regulation. The NN-reports state that CTU appointed officers in charge of the implementation and enforcement of the Regulation. In total, 46 employees are involved in net neutrality.⁶⁰⁷

The legislation implementing the penalties applicable to infringements of the Regulation was adopted on 19 July 2017.⁶⁰⁸ Penalties may reach up to CZK 15 000 000 (approximately €600 000) or up to 5 % of the net turnover, whichever is higher. If the IAS contract violates the Regulation, the Electronic Communications Act or certain consumer protection rules, CTU also has the power to order the provider to amend its contract terms. CTU does not have the power to enforce this order with periodic penalties. According to Section 118(12)(p) of the Electronic Communications Act, CTU may only impose sanctions if an ISP: (i) does not provide access to the open internet; (ii) does not include sufficient information in its contracts; or (iii) does not introduce transparent, simple and effective procedures for dealing with end-users' complaints. The sanctions set out in the Electronic Communications Act cover all violations of Articles 3 and 4 of the Regulation. They do not relate to Articles 5(1) and 5(2) of the Regulation.

Additional legislation and regulations

There is no additional legislation or regulation concerning net neutrality in the Czech Republic yet. However, the NN-report 2018 mentions several issues on which CTU is planning to provide additional regulation.⁶⁰⁹

7.2. Monitoring, supervision and enforcement

General information and reports

The **NN-report CTU 2017**, consisting of 14 pages, equals the answers provided by CTU to the BEREC questionnaire on the national implementation of the Regulation.⁶¹⁰

⁶⁰⁷ Survey completed by CTU in the context of this Study.

⁶⁰⁸ Zákon o elektronických komunikacích a o změně některých souvisejících zákonů (zákon o elektronických komunikacích) = The Electronic Communications Act and the amendment of some related laws (Electronic Communications Act), Act no. 127/2005.

⁶⁰⁹ See below, paragraph Monitoring, supervision and enforcement, under heading General information and reports.

⁶¹⁰ CTU (2017), Report of the Czech Telecommunication Office on the results of the implementation of Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union, for the time period from 1 May 2016 to 30 April 2017. Parts of this report will be discussed in more detail below in this paragraph.

The **NN-report CTU 2018**, consisting of 15 pages, provides an overview of the progress made by CTU in monitoring and enforcing the Regulation. It explicitly states that the aim is not only to assess compliance with the Regulation during the reference period, but also to increase awareness of the rights and obligations arising from the Regulation in order to prevent the problems identified in the report.⁶¹¹

In CTU's statement on selected questions of open internet access and on European net neutrality rules ("**the Statement**"), CTU expresses its opinion on some debated areas of net neutrality and informs the public about the approach it will take.⁶¹² In particular, it deals with the specific Czech issue of access to the internet, which, although provided via mobile networks (especially based on the 3G and LTE technologies), is only intended for use at the location specified in the contract (so-called internet at a fixed location via mobile networks). Providing this service at a fixed location enables the providers to offer a higher quality service to the customers. According to the Statement internet at a fixed location via mobile networks must meet the transparency requirements and the quality of service provisions for standard fixed networks within the meaning of Article 4(1) of the Regulation and paragraphs 143-149 of the BEREC Guidelines. As long as the particular service provision contract complies with these rules, the practice is not considered to be a breach of the Regulation.

Furthermore, the Statement specifies 'significant discrepancy, continuous or regularly recurring discrepancies', between the actual service performance and the contractually determined transmission speeds as referred to in Article 4(4) of the Regulation. CTU defined the so-called detectable change in the performance of the IAS. With regard to internet access at a fixed location, a decrease of at least one of the actually achieved data download or upload speeds below 50 % of the value of the speeds specified in the contract terms as a normally available speed is deemed to be a detectable change. In the case of mobile internet, a decrease of at least one of the actually achieved data download or upload speeds below 25 % of the value of the speeds specified in the contract as advertised data download and upload speeds is deemed to be a detectable change. On this basis, significant continuous and regularly recurring discrepancies were also defined. A discrepancy that creates a continuous detectable change in the performance of the IAS longer than 30 minutes is deemed to be a significant continuous discrepancy compared to the normally available speed (for IAS at a fixed location) or the advertised download and upload speeds (for the mobile internet). A discrepancy involving at least three detectable changes in the performance of the IAS longer than 1 minute over a one-hour period is a regularly recurring discrepancy compared to the normally available or advertised download and upload speeds.

Regarding technical monitoring of networks CTU prepared methodologies, which will be used when performing measurements and when controlling quality of service parameters. CTU's 'measuring of data parameters of networks using the TCP protocol'⁶¹³ and the 'methodology for measuring and evaluating data parameters of fixed electronic

⁶¹¹ CTU (2018), Report of the Czech Telecommunication Office on the results of monitoring compliance with Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union, for the period from 1 May 2017 to 30 April 2018. Parts of this report will be discussed in more detail below in this paragraph.

⁶¹² CTU (2017), Vyjádření Českého telekomunikačního úřadu k vybraným otázkám přístupu k otevřenému internetu a evropským pravidlům síťové neutrality = Statement of Czech Telecommunication Office to selected questions on open internet access and to European net neutrality rules.

⁶¹³ CTU (2016), Measuring of Data Parameters of Networks Using the TCP Protocol.

communication networks'⁶¹⁴ were updated, based on the operational and practical experience from previous measurements. These documents were still part of a public consultation in August 2018. The 'methodology for measuring and evaluating data parameters of mobile electronic communication networks' has been published on CTU's website.⁶¹⁵ In addition, CTU is developing, as part of a public procurement contract, an application enabling implementation and visualisation of technical measurements of the data speed on mobile networks.

Complaints

CTU is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs. Not every complaint is solved by setting a remedy. The vast majority of complaints are solved by providing an explanation (legal advice) to the complainant. If CTU concludes that the Regulation was infringed, it can impose a fine and an obligation to change the contract. If the dispute settlement procedure, which is not the same as a formal complaint, is initiated CTU can decide such a dispute.

CTU has been monitoring and evaluating the numbers and content of the complaints and enquiries of the subscribers. Settlement of the complaints usually includes legal advice to the complainant regarding his rights and possible remedies. If the complaint indicates a possible offence, CTU can use it to take other official steps (inspection, proceedings regarding an offence). CTU publishes a quarterly summary report on the numbers and content of the complaints in its monthly monitoring reports. As of October 2017, CTU has been monitoring complaints regarding issues of open internet access separately.

Approximately 30 % of all end-users' complaints relate to IASs. These complaints concern inadequate performance, unstable quality of service and blocking of certain types of services.

Monitoring and supervision measures

CTU gathers information on compliance with the Regulation via i) *ex-officio* investigations of for example contract terms; ii) continuous monitoring of the situation on the Czech market; iii) enquiries following complaints by end-users; and iv) assessments of new offers. Requests for information and individual meetings with representatives of ISPs are another source of information. CTU also started its own technical measurements; so far only in the test-mode.

CTU publishes a monthly monitoring report summarising the main developments in the electronic communications sector.⁶¹⁶ In the January 2018 edition, CTU included information on its annual plan to increase awareness of net neutrality principles.⁶¹⁷

CTU has initiated a range of investigations, which resulted in a number of enforcement decisions, relating to:

⁶¹⁴ CTU (2016), Metodika pro měření a vyhodnocení datových parametrů pevných komunikačních sítí = Methodology on performing measurements and evaluation of data parameters of fixed communications networks.

⁶¹⁵ CTU (2017), Metodika pro měření a vyhodnocení datových parametrů mobilních sítí elektronických komunikací = Methodology on performing measurement and assessment of data parameters of mobile electronic communications networks.

⁶¹⁶ CTU, Monitorovací zprávy = Monitoring reports (<https://www.ctu.cz/monitorovaci-zpravy>, accessed 1 October 2018).

⁶¹⁷ CTU (2018), Monitorovací zpráva = Monitoring report 2018, no. 1.

- restrictions to use terminal equipment (Article 3(1));
- zero-rating offers (Articles 3(2) and 3(3));
- other traffic management measures (Article 3(3));
- transparency obligations in relation to specialised services (Article 4(1)(c)); and
- other transparency obligations.

CTU states in its NN-report 2018 that although the situation with respect to transparency has improved, the objective of full-compliance is not met yet. Therefore, CTU is considering using Article 5(1) of the Regulation to adopt a regulatory measure specifying the obligations under Article 4(1).

CTU cooperates with CZ.NIC (an independent association) to provide the monitoring system *NetMetr* to end-users.⁶¹⁸ This application allows users to test the speed and overall quality of their internet connection at any time. *NetMetr* is based on the source code of the RTR-NetTest. If problems are detected with the quality of the internet connection, CTU will use its own technical measurement procedures to investigate the issue. Consequently the *NetMetr* application is not certified. In addition, there is a new comprehensive monitoring system for inspection and verification of selected parameters of electronic communications services provided via mobile and fixed networks. In the future, this system should include both a publicly available mechanism for measuring the quality of IASs and certified technology for monitoring and inspection. Moreover, since the beginning of 2017, CTU, together with the **Austrian, Slovak and Slovenian** NRAs, has been participating in the 'MoQos' project, which aims to compare data on the availability and quality of high-speed internet in both mobile and fixed networks. The application does not only allow for the standard measurement of download and upload speeds, but also for a number of additional tests (over 70) to assess quality of service. Finally, CTU is considering a system to carry out long-term monitoring by the end-users' router or other equipment.

Decisions and court cases

Since 30 April 2016, approximately 60 administrative proceedings were initiated. Most of these proceedings related to infringements of several provisions of the Regulation by the same ISP. By the end of May 2018, CTU adopted final decisions in 17 cases; two of these decisions have been appealed. All of these decisions required the ISP either to amend contractual terms or to change certain practices.

CTU identified three common practices in the Czech Republic that might restrict the rights laid down in Article 3(1) of the Regulation. In some cases, the IAS agreement is either (i) inseparably connected to the use of the terminal equipment offered by the ISP; or (ii) the ISP uses unclear and incomprehensible contract terms regarding the connection between the service and the terminal equipment. In other cases, (iii) the use of terminal equipment, which in itself was not offered by the ISP, needed prior approval of the ISP. CTU started 15 administrative proceedings to investigate potential infringements of Article 3(1) of the Regulation. In six of these cases there has been a final decision ordering the ISP to amend its contracts and practices. In two other cases, the infringement was resolved during the investigation, so the case was closed before an enforcement decision was issued. The remaining investigations are still ongoing.

CTU examined four zero-rating products offered on the Czech market.

- i. One provider amended its offer immediately after the start of the investigation, so CTU closed the case. This ISP currently offers special data packages that can

⁶¹⁸ www.netmetr.cz (accessed 1 October 2018).

only be used for (different) social media services and messaging services. These packages are provided free of charge as a bonus for certain types of subscriptions. The data from special packages may only be used if the subscriber has not reached the data cap of its monthly package. CTU does not consider these offerings an infringement of the Regulation.

- ii. In the second case, end-users could continue to use the zero-rated application (Spotify) free of charge even after they reached their monthly data bundle and all other services were blocked. CTU considered this to be an infringement of Article 3(3). Given the fact that once the data cap was reached, the IAS was limited to one single application, CTU also considered it to be an infringement of Articles 3(1) and 3(2). The ISP, O2, was ordered to change its contract terms and no other penalties were imposed.⁶¹⁹ More information on this case was published in the April monitoring report of CTU.⁶²⁰
- iii. CTU also assessed the Vodafone Pass offer.⁶²¹ The terms of this offer allowed the provider to reduce the quality of the video streaming services included in the offer. Vodafone was requested to amend its contract terms in order to prevent infringements of Article 3(3) of the Regulation. No administrative proceedings were initiated because Vodafone complied with the request by CTU and deleted the aforementioned provisions from its contract terms.
- iv. Furthermore, CTU assessed T-Mobile's StreamOn offer.⁶²² T-Mobile reserved the right to amend the terms and conditions in the future to limit the data speed. T-Mobile was requested to amend its contract terms in order to prevent infringements of Article 3(3) of the Regulation. Again, no administrative proceedings were initiated because T-Mobile complied with the request by CTU and deleted the aforementioned provisions from its contract terms.

Based on CTU's review of contracts and meetings with ISPs, four administrative proceedings were conducted concerning infringements of the first and third subparagraphs of Article 3(3) of the Regulation. In all these cases the transmission speed was automatically reduced after the specified volume of data for certain types of applications, services and content was exceeded. With regard to other services the download and upload speeds remained unchanged. CTU concluded that these practices constituted unequal treatment of data traffic prohibited by Article 3(3) of the Regulation and ordered the providers to stop these practices; no penalties were imposed.⁶²³

With regard to Article 3(5) of the Regulation CTU did not find any issues. While specialised services such as IPTV, VoD and Reverse Time Shift, are offered in the Czech Republic, they do not hinder the IASs. Nevertheless, CTU had objections against the implementation of Article 4(1)(c) in relation to specialised services. Information regarding the impact of specialised services is often missing in the contract or is incomprehensible for end-users. Several ISPs have been requested to amend their contracts following administrative proceedings. CTU has initiated 12 proceedings related to Article 4(1)(c) of the Regulation. On 30 May 2018, ten final decisions had been issued

⁶¹⁹ CTU Decision of 21 March 2018 (not publicly available).

⁶²⁰ CTU (2018), Monthly monitoring report 2018, no. 4.

⁶²¹ In December 2017 and March 2018 CTU's monthly Monitoring report included information regarding the assessment of the Vodafone Pass and T-Mobile's StreamOn offer. See CTU (2017), Monitorovací zpráva = Monitoring report 2017, no. 12. CTU (2018), Monitorovací zpráva = Monitoring report 2018, no. 3.

⁶²² Reference in previous footnote.

⁶²³ CTU Decisions of 22 May 2017, 29 August 2017, 30 November 2017 and 12 March 2017.

ordering ISPs to amend their contract terms; no penalties were imposed.⁶²⁴ Two other decisions of CTU ordering an amendment of the contractual provisions have been appealed.⁶²⁵

With respect to the transparency requirements the NN-report 2018 states that CTU reviewed more than 150 contracts. Compared to the NN-report 2017 – when the investigations were exclusively focused on nationwide, major providers of IAS – the NN-report 2018 extended the scope of the review to regional ISPs. Most issues related to the information requirements of Article 4(1)(b)-(d) of the Regulation. Either the information was missing completely or it was unclear and incomprehensible. For example, the requirements laid down in Article 4(1)(b) were only applied if the volume of the transferred data was limited. In addition, unclear or incomprehensible statements were used in the contract terms to define download and upload speeds. Information about the practical impact of specialised services was often only stated in the contract terms for the specialised services and not in the IAS contract. CTU initiated 23 administrative proceedings; in 16 cases final decisions have been taken requesting the ISP to amend its contract terms and seven investigations are still ongoing.⁶²⁶ Two of these decisions have been appealed to the chairman of the CTU council by the ISP. These appeals have not been decided yet.⁶²⁷ In one proceeding the ISP claims a lack of CTU's competence to demand a change of the contract, in the second proceeding the ISP did not agree with CTU's conclusions.

Enforcement decisions are not published by CTU, but CTU reports on most of the decisions in its monthly monitoring reports. A summary is provided in the table below.

Table 38: Overview of decisions in the Czech Republic

#	Date of issue	Appealed	Subject of the decision	Penalties
1	22 May 2017	No, legally effective since 7 June 2017	Articles 3(1), 3(3), 4(1)(c)-(d)	No, amendments to contractual terms
2	29 August 2017	No, legally effective since 14 September 2017	Articles 3(1), 3(2), 3(3), 4(1)(d)	No, amendments to contractual terms
3	30 November 2017	No, legally effective since 18 December 2017	Articles 3(1), 3(3), 4(1)(b)-(d)	No, amendments to contractual terms
4	12 March 2018	No, legally effective since 29 March 2018	Articles 3(1), 3(2), 3(3)	No, amendments to contractual terms
5	29 November 2017	No, legally effective since 15 December 2017	Articles 3(1), 4(1)(b), 4(1)(d)	No, amendments to contractual terms
6	12 December 2017	No, legally effective since 27 December 2017	Articles 3(1), 4(1)(b), 4(1)(d)	No, amendments to contractual terms
7	21 March 2018	No, legally effective	Articles 4(1)(a),	No, amendments

⁶²⁴ CTU Decision of 22 March 2018. CTU Decision of 23 March 2018. Four CTU Decisions of 21 March 2018. CTU Decision of 12 April 2018. CTU Decision of 11 April 2018. CTU Decision of 30 November 2017. CTU Decision of 22 May 2017 (all not publicly available).

⁶²⁵ Two CTU Decisions of 21 March 2018 (not publicly available).

⁶²⁶ CTU Decision of 22 May 2017. CTU Decision of 29 August 2017. CTU Decision of 29 November 2017. CTU Decision of 30 November 2017. CTU Decision of 12 December 2017. Five CTU Decisions of 21 March 2018. CTU Decision of 22 March 2018. CTU Decision of 23 March 2018. CTU Decision of 6 April 2018. CTU Decision of 11 April 2018. CTU Decision of 12 April 2018 (all not publicly available).

⁶²⁷ Two CTU decisions of 21 March 2018 (not publicly available).

		since 7 April 2018	4(1)(c)-(e)	to contractual terms
8	21 March 2018	Appealed	Article 4(1)(b)-(d)	No, amendments to contractual terms
9	21 March 2018	No	Articles 3(1), 4(1)(b)-(d)	No, amendments to contractual terms
10	11 April 2018	No, legally effective since 28 April 2018	Article 4(1)(c)-(d)	No, amendments to contractual terms
11	6 April 2018	No	Articles 3(1), 4(1)(d)	No, amendments to contractual terms
12	21 March 2018	No	Article 4(1)(a)-(d)	No, amendments to contractual terms
13	12 April 2018	No, legally effective since 28 April 2018	Article 4(1)(c)-(d)	No, amendments to contractual terms
14	21 March 2018	No	Article 4(1)(b)-(c)	No, amendments to contractual terms
15	23 March 2018	No, legally effective since 10 April 2018	Article 4(1)(b)-(d)	No, amendments to contractual terms
16	22 March 2018	No	Article 4(1)(b)-(d)	No, amendments to contractual terms
17	21 March 2018	Appealed	Article 4(1)(c)-(d)	No, amendments to contractual terms

7.3. Self-Regulation and/or co-Regulation

There is no self-regulation and/or co-regulation in the Czech Republic.

7.4. Compliance with transparency obligations

The table below⁶²⁸ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

⁶²⁸ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 39: Overview of desk research on transparency obligations

ISP #	(a) 629	(b) 630	(c) 631	(d) 632	(e) 633	Comments
ISP 1	✓	✓	✓	✓	✓	-
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	✓	✓	✓	✓	✓	-
ISP 5	✓	✓	✓	✓	✓	-
ISP 6	✓	✓	✓	✓	✓	-
ISP 7	N/A	✓	N/A	✓	N/A	-
ISP 8	✓	✓	✓	✓	N/A	-
ISP 9	N/A	✓	N/A	✓	✓	-

⁶²⁹ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁶³⁰ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁶³¹ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁶³² Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁶³³ Remedies, as further set out in Article 4(1)(e) of the Regulation.

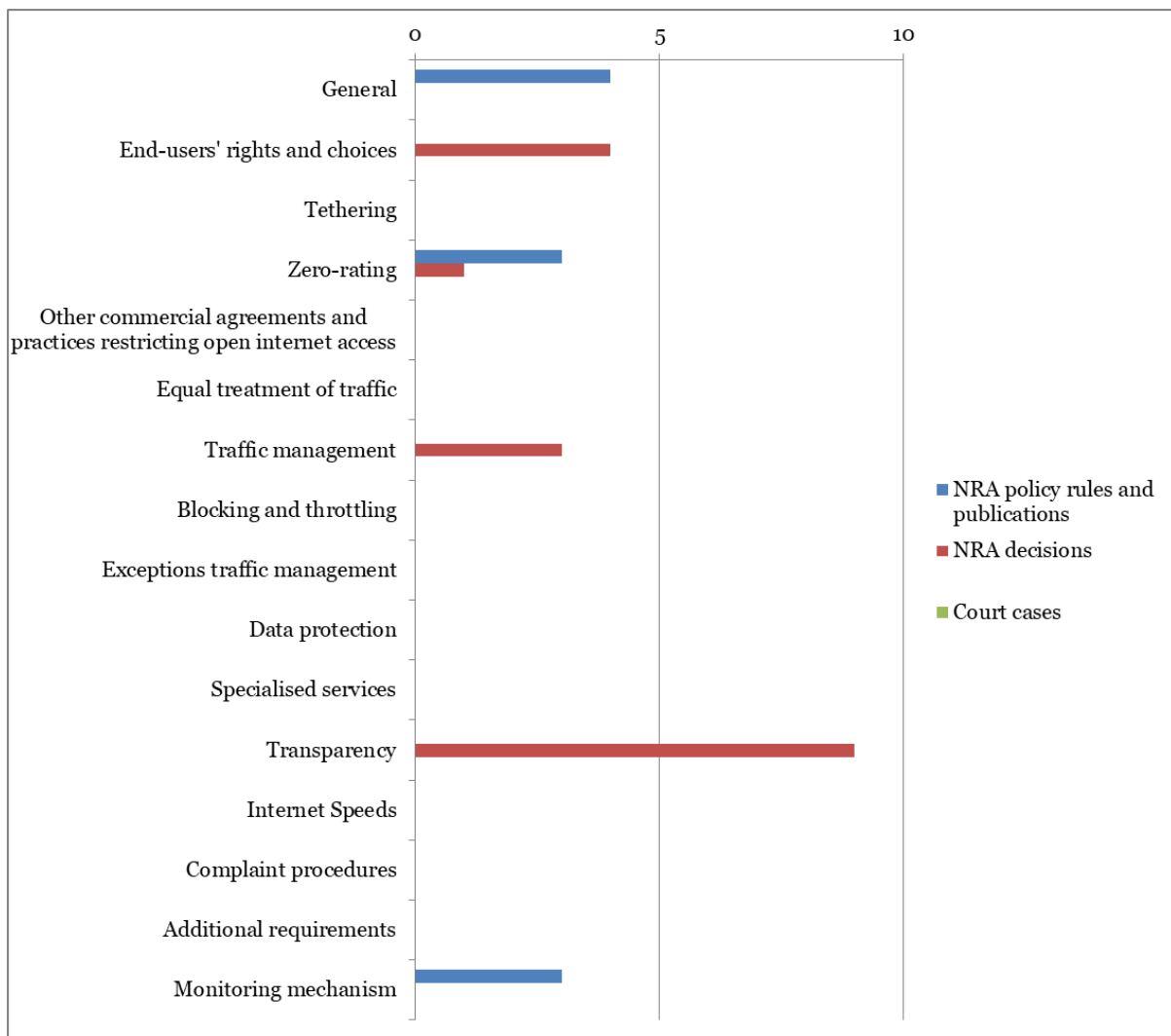
7.5. Overview of relevant net neutrality themes in Czech Republic⁶³⁴

Figure 20: **Blue:** NN-report CTU 2017, NN-report CTU 2018, Statement of Czech Telecommunication Office, Monitoring reports no. 12/2017, 1/2018, 3/2018 and 4/2018, Measuring of data parameters of networks using the TCP protocol, Methodology on performing measurements and evaluation of data parameters of fixed communications networks and Methodology on performing measurement and assessment of data parameters of mobile electronic communications networks. **Red:** NRA Decisions of 22 May 2017, 29 August 2017, 30 November 2017, 12 March 2018, 29 November 2017, 12 December 2017, 21 March 2018, 22 March 2018, 23 March 2018, 6 April 2018, 11 April 2018 and 12 April 2018.

7.6. Summary of key topics and noteworthy findings

CTU has undertaken approximately 60 investigations and has reviewed approximately 150 IAS contracts on the basis of Article 4(1) of the Regulation. These investigations resulted in 17 enforcement decisions. Most of the investigations and decisions concern orders relating to infringements of multiple (sub)paragraphs of Articles 3 and 4 of the Regulation:

⁶³⁴ The 17 NRA decisions in CZ are based on the infringement of several provisions of the Regulation. Each was counted as 1 NRA decision and ranked in the first available category i.e. 4x end-users' rights and obligations, 1x zero-rating, 3x equal treatment of traffic and 9x transparency. The court cases only relate to transparency cases.

- 15 investigations initiated and six decisions related to restrictions to use terminal equipment (Article 3(1)). Remedial orders were imposed in relation to (i) provisions in the IAS agreement prescribing the use of terminal equipment offered by the ISP; (ii) unclear and incomprehensible contractual provisions regarding the use of terminal equipment; or iii) contractual provisions requiring prior approval of the terminal equipment by the ISP.
- four investigations and four decisions related to zero-rating (Articles 3(2) and 3(3)). The investigations focused on issues such as restrictions after the data cap was reached and the (potential) reduction of quality of service for certain categories of data. None of the decisions were based on a comprehensive assessment referred to in paragraph 46 the BEREC Guidelines.
- four decisions related to other traffic management measures (Article 3(3)) such as reductions of transmission speed after the specified volume of data was reached for certain types of applications, services and content.
- 12 decisions were taken referring to lack of transparency regarding obligations in relation to specialised services (Article 4(1)(c)).
- 24 investigations and 17 decisions related to other transparency obligations. Two of these decisions have been appealed and the cases are still pending.

All of the decisions require ISPs to amend their contract terms or commercial practices and no penalties have been imposed yet.

CTU publishes monthly monitoring reports in which some of the decisions have been described. None of these aforementioned decisions have been published.

CTU has published the Statement providing guidance on some topics relating to the Regulations (as cited in part 2.5.2) including a specification of 'significant, continuous or regularly recurring discrepancies', between the actual service performance and the contractually determined transmission speeds as referred to in Article 4(4) of the Regulation.

The table below provides an overview of the results in the Czech Republic for some of the key topics.

Key topic	Result Czech Republic
Pre-existing legislation	No
Maximum fine	CZK 15 000 000 (approximately €600 000) or up to 5 % of the net turnover, whichever is higher
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	<i>Not available</i>

7. Czech Republic

Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	17 (Until 1 May 2018)
Number of court cases	0
Main net neutrality themes	End-users' rights, traffic management, zero-rating, transparency (contract information)
Monitoring mechanism (certified yes/no)	Yes (third party), not certified
Self-regulation and/or co-regulation	No

8. Denmark

8.1. Implementation

Pre-existing net neutrality legislation

The Danish NRA had the competence to regulate net neutrality since the revision of the Danish Act on Electronic Communications Networks and Services in 2011.⁶³⁵ Preparations for this Act stipulated the basic principle that Danish ISPs would determine fair terms for the use of the internet in order to protect net neutrality.⁶³⁶ If they would fail to do so, the Danish NRA could exercise its right to set rules for net neutrality. Nevertheless, the NRA never used its competence to regulate net neutrality.

Shortly after the Danish Act on Electronic Communications Networks and Services was revised, Danish ISPs agreed on non-binding informal guidelines called 'cooperation on and guidelines for net neutrality'.⁶³⁷ These guidelines were prepared by and agreed upon in the so-called Net Neutrality Forum ("**NEF**").

The NEF is a voluntary sector-specific cooperation forum, set up by the Danish Telecom Industry Association, where stakeholders with a direct interest in net neutrality can meet with the NRA to discuss topics related to net neutrality. The Danish NRA participates as an observer in the NEF. Any issues discussed in the NEF can potentially be taken up by the NRA for a formal investigation. The NEF provides the NRA with an annual report, which sets out the topics and specific cases that have been discussed.⁶³⁸ As a result of the guidelines and the NEF, the NRA saw no need to regulate net neutrality.

The NEF's guidelines were repealed after the introduction of the Regulation.⁶³⁹ However, the NEF continues to exist to discuss net neutrality topics related to the Regulation.

Furthermore, an executive order, which implements the Universal Services Directive,⁶⁴⁰ obliges ISPs to inform end-users of the quality of services in their end-users' contracts since 2011.⁶⁴¹ This order continued after the Regulation entered into force.

Competent authority and penalty rules

In Denmark, the Ministry of Energy, Utilities and Climate is entrusted with the overall responsibility for compliance with the Regulation. More specifically, the Danish Energy

⁶³⁵ Lov om elektroniske kommunikationsnet og -tjenester = Act on Electronic communications networks and services, 2011, no. 169, Section 4(7).

⁶³⁶ Skriftlig fremsættelse: Videnskabsministeren = Written submission of the Minister of Science, 2010/1 SF.LL 59.

⁶³⁷ NEF (2011), Samarbejde om - og retningslinjer for "netneutralitet" = The Net Neutrality Forum, Cooperation on and guidelines for net neutrality.

⁶³⁸ NEF (2014), Rapport til Teleforum – Status for 2013 = Annual report 2013. NEF (2017), TI's netneutralitetsforum: Statusrapport for 2016 = Annual report 2016. NEF (2018), TI's netneutralitetsforum: Statusrapport for 2017 = Annual report 2017. The 2013, 2016 and 2017 Annual report from the Net Neutrality Forum can be found at: <http://www.teleindu.dk/branchesamarbejde/netneutralitet/> (accessed 13 August 2018).

⁶³⁹ Tele Industrien, Netneutralitet = Net neutrality (<http://www.teleindu.dk/branchesamarbejde/netneutralitet/>, accessed 13 August 2018).

⁶⁴⁰ Universal Services Directive, 2002/22/EC.

⁶⁴¹ Bekendtgørelse om udbud af elektroniske kommunikationsnet og -tjenester = Executive Order on the provision of electronic communications networks and services, BEK, 2011, no. 715.

Agency ("**DEA**") has been designated as the independent NRA for supervising and enforcing the Regulation.⁶⁴²

The authority in charge of supervising and enforcing the telecommunications market in Denmark has historically moved around between various ministries and agencies. The reason that DEA is the organisation in charge of supervising and enforcing the Regulation is because telecommunications services are perceived to be infrastructure services.

Sanctions include penalties such as administrative fines and orders (injunctions).⁶⁴³ There are neither pre-determined penalty levels, nor pre-determined maximum amounts for penalties. The sanctions could include (i) imposition of an order (injunction) to change certain practices possibly subject to periodic penalties in case of non-compliance; and (ii) a prohibition to provide certain services during a certain time period. It is not possible for DEA to impose punitive fines.

Additional legislation and regulations

Reference is made to the aforementioned executive order based on the Universal Services Directive⁶⁴⁴ setting out certain requirements for ISPs to inform end-users of the quality of services in their end-users' contracts.⁶⁴⁵ Otherwise, there is no additional legislation or regulation in place in Denmark concerning net neutrality.

The requirements in the executive order relate to ISP contracts with consumers and require information on:

- i) level of quality of services (QoS), including response times and limitations on the use of the network or service;
- ii) traffic prioritisation, if such is carried out, and consequences to the end-user in the use of the service;
- iii) measures that the ISP can initiate with reference to security or integrity incidents, threats or vulnerabilities; and
- iv) limitations on the use of terminal equipment.

8.2. Monitoring, supervision and enforcement

General information and reports

Prior to the implementation of the Regulation, net neutrality did not seem to receive much attention in Denmark. The topic is more or less absent in the public debate and DEA has not received complaints from end-users regarding the subject. DEA noted that two of its employees are involved in net neutrality, with an average of 0.25 FTEs in 2017.⁶⁴⁶

⁶⁴² Bekendtgørelse om adgang til det åbne internet og international roaming = Executive Order on Access to the Open Internet and International Roaming, BEK, 2016, no. 324, Article 2.

⁶⁴³ Bekendtgørelse om adgang til det åbne internet og international roaming = Executive Order on Access to the Open Internet and International Roaming, BEK, 2016, no. 324, Article 3.

⁶⁴⁴ Universal Services Directive, 2002/22/EC.

⁶⁴⁵ Bekendtgørelse om udbud af elektroniske kommunikationsnet og -tjenester = Executive Order on the provision of electronic communications networks and services, BEK, 2011, no. 715.

⁶⁴⁶ Survey completed by DEA in the context of this Study.

The Agency has a website dedicated to net neutrality with links to the Regulation, the BEREC Guidelines, the NN-reports DEA 2017 & 2018 and some general explanations of what net neutrality entails.⁶⁴⁷

Furthermore, as set out above, net neutrality is discussed by DEA and ISPs in the NEF.⁶⁴⁸ The NEF has had four meetings since the Regulation entered into force, in September 2016, March 2017, September 2017 and in April 2018. In the March 2017 NEF meeting, a complaint by a publisher, which was sent to NRAs in Sweden and the Netherlands regarding Tesla, was discussed.⁶⁴⁹ The complainant argued that Tesla offers zero-rating infringing the Regulation. According to the complainant, the SIM card in the Tesla cars provides the user free access to Spotify. Consequently, Tesla acts as an MVNO. Therefore a Tesla car should be considered as a smartphone on wheels. During the NEF it was discussed whether this service would qualify as an IAS. However, DEA has not published an opinion on the issue.

In the September 2017 NEF meeting, the Danish ISPs argued that extensive net neutrality regulation and supervision was unnecessary in Denmark, since there had not been any issues with net neutrality in Denmark so far.⁶⁵⁰ During the meeting also net neutrality and the introduction of 5G was discussed, in particular network slicing and the possibility of specialised services. Different examples were discussed, including whether video streaming in 8K or live streaming with a certain quality for one TV-channel could be considered a specialised service. DEA stated that only technical and non-commercial considerations should be taken into account when deciding on traffic management measures.

In the **NN-report DEA 2017**⁶⁵¹ and the **NN-report DEA 2018**⁶⁵² both consisting of 14 pages, DEA stated that ensuring net neutrality in Denmark was mainly achieved through voluntary cooperation of ISPs. DEA reported that it sent out a questionnaire to 42 Danish ISPs to collect data about the implementation of the Regulation in both 2017 and 2018. Based on these questionnaires and the fact that it had not received any complaints, DEA concluded that Danish consumers have access to high quality, non-discriminatory IAS. DEA also concluded that ISPs appear to generally treat all traffic alike.

Complaints

DEA has no power to settle complaints. DEA is competent to receive complaints from consumers, businesses and competitors, but these do not receive a formal status as party if an infringement case is opened by DEA as result of the complaint. Civil consequences such as financial compensation must be sought with other authorities or the courts. End-users can bring cases to the Telecommunications Complaints Board ("**TCB**"). The TCB will usually ask DEA to assess the case.

⁶⁴⁷ Energistyrelsen, Netneutralitet: Reglerne om netneutralitet skal sikre, at forbrugerne også fremover har adgang til et frit og åbent internet = Net neutrality: The rules on network neutrality must ensure that consumers also have access to a free and open Internet in the future (<https://ens.dk/ansvarsomraader/telepolitik/konkurrenceregulering-paa-teleomraadet/netneutralitet>, accessed 13 August 2018).

⁶⁴⁸ See paragraph Implementation, under heading Pre-existing net neutrality legislation.

⁶⁴⁹ NEF, Referat fra møde den 24. marts 2017 i TI's netneutralitetsforum = Minutes of the NEF meeting of 24 March 2017.

⁶⁵⁰ NEF, Referat fra møde den 29. september 2017 i TI's netneutralitetsforum = Minutes of the NEF meeting of 29 September 2017.

⁶⁵¹ DEA (2017), Energistyrelsens tilsyn med EU-forordningen om adgang til det åbne internet 30. april 2016 – 30. april 2017 = The Danish Energy Authority's supervision of the EU regulation on access to the open Internet April 30, 2016 - April 30, 2017.

⁶⁵² DEA (2018), Energistyrelsens tilsyn med EU-forordningen om adgang til det åbne internet = The Danish Energy Authority's supervision of the EU regulation on access to the open Internet (hereafter: NN-report DEA 2018).

DEA did not receive complaints regarding net neutrality. DEA has received one question, though from a consumer concerning a zero-rating offer by a mobile ISP. DEA did not find an infringement of the Regulation, because there were sufficient competing offers, the zero-rated services did not rely on heavy data usage, data packages in Denmark generally have a high data cap and the offers of zero-rating did not significantly influence consumer choice.⁶⁵³

Monitoring and supervision measures

DEA carries out both proactive (*ex-officio*) and reactive (on the basis of complaints) supervision to monitor the compliance of ISPs with the Regulation. DEA has a history of only supervising on the basis of complaints and it takes a cooperative approach through informal discussions instead of formal orders or penalties. The proactive supervision DEA has carried out so far consists of the aforementioned questionnaires.

In the NN-report DEA 2017, DEA stated that it informed ISPs of the Regulation, the BEREC Guidelines and the development of BEREC's supervisory mechanisms. Furthermore, DEA mentions the participation in the NEF as a monitoring activity.

In its NN-reports DEA 2017 & 2018, DEA described that only minor issues were identified in the aforementioned 2017 and 2018 questionnaires conducted by DEA. According to DEA, these problems have been resolved by positive cooperation with ISPs. Most problems were the result of misunderstood questions or a lack of knowledge of the Regulation. DEA stated that one ISP limited tethering without being aware that such limitation infringed the Regulation. DEA issued an injunction against limiting tethering.⁶⁵⁴

In the 2017 data collection, two small mobile ISPs indicated they allowed zero-rated services to continue when end-users had exhausted the data cap. According to the BEREC Guidelines, this would infringe the Regulation. DEA informed ISPs about this and ISPs changed their practice. DEA did not have to take a formal decision.

DEA elaborated in the NN-reports DEA 2017 & 2018 that it will continue its supervisory activities, it will carry out monitoring of complaints received and/or raised at the NEF and that it will gather information from ISPs through annual data collections i.e. questionnaires. DEA considers the current enforcement measures to be effective, proportionate and dissuasive. Furthermore, DEA considers that a more uniform and harmonised approach across Member States is not necessary in relation to penalties.⁶⁵⁵

DEA has a website for measuring internet speeds and coverage.⁶⁵⁶ The monitoring mechanism is developed by a third party and is not certified. DEA does not use this monitoring mechanism for monitoring, supervising and enforcing in relation to the Regulation.⁶⁵⁷

Decisions and court cases

In its NN-report 2018, DEA stated that one ISP limited tethering without being aware that such limitation infringed the Regulation. The mobile ISP offered 'unlimited data on the mobile phone', but limited tethering to 10 GB. In accordance with the BEREC Guidelines, DEA found this to be in violation of the net neutrality provisions, in particular of the right of end-users to use equipment of their choice. DEA issued a decision on 22 August 2017 and on 8 September 2017 it adopted an injunction against limiting

⁶⁵³ NN-report DEA 2018, Section 3.3, p. 6.

⁶⁵⁴ See below in this paragraph, under heading *Decisions and court cases*.

⁶⁵⁵ Survey completed by DEA in the context of this Study.

⁶⁵⁶ See <https://tjekditnet.dk/> (accessed 13 August 2018).

⁶⁵⁷ Survey completed by DEA in the context of this Study.

tethering. The ISP complied and did not appeal the decision. This decision was not published and was only mentioned in the NN-report.

8.3. Self-regulation and/or co-regulation

There is no longer self-regulation and/or co-regulation regarding net neutrality in Denmark. However, as mentioned above, before the Regulation entered into effect, Danish ISPs adhered to non-binding informal guidelines on net neutrality.⁶⁵⁸

8.4. Compliance with transparency obligations

The table below⁶⁵⁹ provides an overview of desk research of public information provided on the websites of various fixed and mobile ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 40: Overview of desk research on transparency obligations

ISP #	(a) ⁶⁶⁰	(b) ⁶⁶¹	(c) ⁶⁶²	(d) ⁶⁶³	(e) ⁶⁶⁴	Comments
ISP 1	N/A	≈	✓	≈	✓	(b) : QoS are not specifically set out in the contract, but they can be obtained by contact to the customer service. (d) : The specific internet speed is set out in the order confirmation only and not in the contract. On the other hand, the terms have a good explanation of net speed/gross speed, best effort speed, and guaranteed speed
ISP 2	✓	✓	✓	✓	✓	-
ISP 3	✓	✓	✓	≈	✓	(d) : Speed is explained, however the specific speed is not set out in the contract but probably only in an order confirmation
ISP 4	✓	≈	✓	✓	✓	(b) : same comment as for ISP 1
ISP 5	✓	✓	✓	✓	✓	-
ISP 6	✓	✓	✓	≈	✓	(d) : same comment as for ISP 3
ISP 7	N/A	✓	✓	✓	✓	-
ISP 8	≈	✓	✓	N/A	✓	(a) : It is set out in the general terms that specific speed and net/gross speed is determined in the specific terms for the purchased product. Such terms are not publically available

⁶⁵⁸ See paragraph Implementation, under heading Pre-existing net neutrality legislation.

⁶⁵⁹ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs has been reviewed. This could also be more ISPs belonging to the same group of companies.

⁶⁶⁰ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁶⁶¹ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁶⁶² Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁶⁶³ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁶⁶⁴ Remedies, as further set out in Article 4(1)(e) of the Regulation.

8.5. Overview of relevant net neutrality themes in Denmark

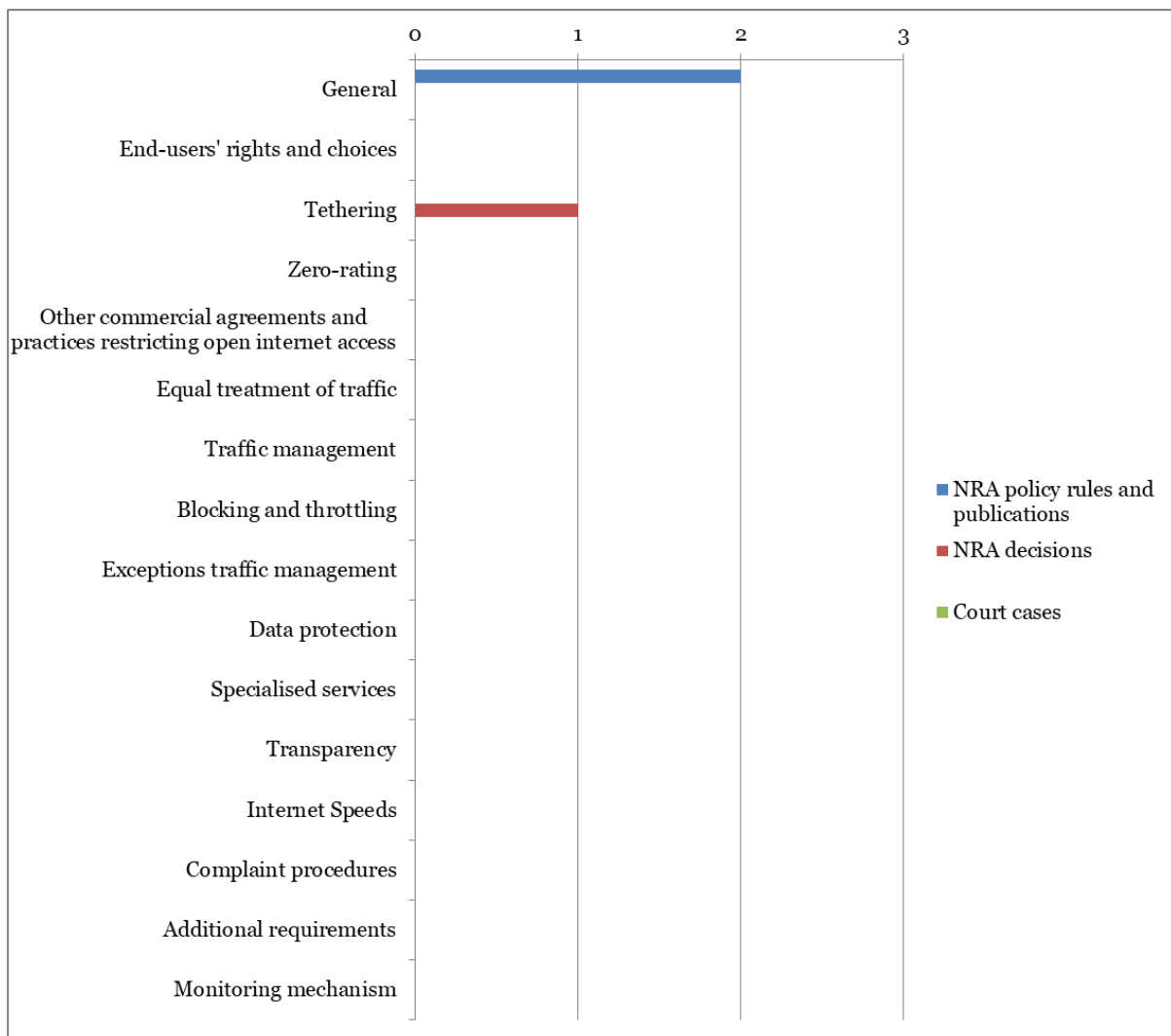


Figure 21: Blue: NN-report DEA 2017 and NN-report DEA 2018. Red: NRA Decision of 22 August 2017.

8.6. Summary of key topics and noteworthy findings

In Denmark the Danish Energy Agency, DEA, an agency of the Ministry of Energy, Utilities and Climate, is entrusted with the overall responsibility of monitoring and enforcing compliance with the Regulation.

In 2011, ISPs in Denmark agreed upon non-binding informal guidelines and established the Net Neutrality Forum (NEF). This self-regulatory scheme was no longer necessary after the entry into force of the Regulation. Nevertheless, the NRA and ISPs still have regular NEF meetings to discuss net neutrality. In the September 2017 NEF meeting, the Danish ISPs argued that extensive net neutrality regulation and supervision is unnecessary in Denmark, since there had not been any issues with net neutrality in Denmark so far.

DEA dealt with a few issues related to limitation of tethering and zero-rated services. With regard to zero-rating two smaller providers of mobile internet access indicated that they allowed zero-rated services to continue when end-users had exhausted the data cap. DEA informed ISPs that this was a violation of the Regulation (no formal decision

was taken) and ISPs changed their behaviour without challenging the decision. Furthermore, DEA issued an injunction against limiting tethering. The ISP complied and did not appeal the decision.

DEA considers the current enforcement measures to be effective, proportionate and dissuasive, and that a more uniform and harmonised approach across Member States is not necessary in relation to penalties.

The table below provides an overview of the results in Denmark for some of the key topics.

Key topic	Result Denmark
Pre-existing legislation	Yes (unused by the NRA, as ISPs determined their own guidelines)
Maximum fine	No pre-determined penalty levels; No pre-determined maximum amounts; No powers to impose penalties by way of punishment
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes. The requirements in the executive order based on the Universal Directive, relate to end-users' contracts with consumers and requires information on: <ul style="list-style-type: none"> i) level of quality of services (QoS), including response times and any limitations on the use of the network or service; ii) traffic prioritisation, if such is carried out, and any consequences to the end-user in the use of the service; iii) measures, which the ISP can initiate with reference to security or integrity incidents, threats or vulnerabilities; and iv) any limitation on the use of terminal equipment
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	0.25
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	No formal role (usually providing assessment to TCB)
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	0
Number/percentage of complaints that were settled by the NRA	0
Number of NRA decisions	1
Number of court cases	0
Main net neutrality themes	End-users' rights and choices (terminal equipment, tethering), specialised services

	and Internet speeds
Monitoring mechanism (certified yes/no)	Yes (not certified)
Self-regulation and/or co-regulation	No (not anymore)

9. Estonia

9.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Estonia prior to the adoption of the Regulation.

Competent authority and penalty rules

The NRA, the Estonian Technical Regulatory Authority ("**ETRA**") is responsible for monitoring compliance with the requirements laid down in Articles 3, 4 and 5 of the Regulation. On average, there are two FTEs involved in net neutrality in Estonia.⁶⁶⁵ The Estonian Consumer Protection Board ("**ECPB**") is responsible for enforcing the obligations referred to in Article 3(4). ETRA actively cooperates with the ECPB on topics falling within the remit of both authorities.

The penalty rules are set out in the Electronic Communications Act, the Administrative Procedure Act and the Law Enforcement Act. Penalties up to €9 600 can be imposed. The penalty can be imposed multiple times, until the infringement has ended. It is not possible to impose periodic penalty payments in Estonia.

Additional legislation and regulations

There is no additional net neutrality legislation or regulation in Estonia.

9.2. Monitoring, supervision and enforcement

General information and reports

The **NN-report ETRA 2017**, consisting of nine pages, provides a description of (i) the national market situation and (ii) a short summary of the activities performed by ETRA following the entry into force of the Regulation.⁶⁶⁶

The **NN-report ETRA 2018**, consisting of 11 pages, provides like the NN-report 2017, a description of (i) the national market situation and (ii) an update on the monitoring activities carried out by ETRA.⁶⁶⁷

Complaints

ETRA is the only authority competent to settle complaints related to the Regulation from competitors against ISPs. ETRA can force ISPs to comply with the Regulation. The ECPB is authorised to settle complaints from consumers and other end-users related to the Regulation.⁶⁶⁸

In the NN-report 2018 ETRA states that the number of complaints concerning the Regulation has been very low. During the first reporting period from 1 May 2016 to 30 April 2017, ETRA did not receive any complaints.⁶⁶⁹ In the second reporting period

⁶⁶⁵ Survey completed by ETRA in the context of this Study.

⁶⁶⁶ ETRA (2017), Report on the Estonian Technical Regulatory Authority's work on the implementation of the EU Net Neutrality Regulation.

⁶⁶⁷ ETRA (2018), Report on the Estonian Technical Regulatory Authority's work on the implementation of the EU Net Neutrality Regulation.

⁶⁶⁸ Survey completed by ETRA in the context of this Study.

⁶⁶⁹ Survey completed by ETRA in the context of this Study.

from 1 May 2017 to 30 April 2018 ETRA received one complaint related to the Regulation.⁶⁷⁰

Regarding Article 4(2) of the Regulation, ETRA ascertained, after review of end-users' contracts, that all ISPs have established simple and efficient procedures to address queries and complaints arising from the Regulation. Furthermore, all ISPs have described the procedures (consumer disputes committee or court) that can be used if the complaint could not be solved.

Monitoring and supervision measures

ETRA carried out an analysis of the commercial offers available on the market and of the traffic management policies of ISPs by checking ISPs' websites. According to the NN-report ETRA 2017, the information gathered did not suggest any restrictions to end-users' rights in relation to the access and distribution of information and content or to the free choice of terminal equipment. There is only one ISP that offers IPTV as a specialised service. ETRA found that complied with Article 3(5), because the service was not offered at the expense of other IASs and sufficient network capacity was provided. Furthermore, ETRA analysed the compliance of the main ISPs with Articles 4(1) and 4(2). ETRA found that the main ISPs were complying with the requirements of the Regulation. At the time of the NN-report 2017 there were no zero-rating offers on the Estonian market.

The NN-report 2018 mentions that ETRA again analysed the commercial offers available on the market and did not find any issue related to Article 3(1) of the Regulation. In addition, three zero-rated products have been reviewed. Telia has two zero-rating offers, one entails video streaming and the other music streaming. Elisa also had a zero-rating product. This offer was withdrawn at the beginning of 2018 without any intervention by ETRA. Upon Telia's request, ETRA carried out an assessment of Telia's zero-rating offer. The assessment has not been made public. The offer concerned Telia's own TV service MINU.TV. Telia also contacted other local Over-the-Top ("**OTT**")-TV service providers to join the offer. Two other OTT-services joined two months after the launch of the offer. Telia's other product zero-rates Spotify. At the time of the NN-report 2018 Telia was still negotiating with other music streaming services to join the offer. ETRA concluded that both offers were in line with the net neutrality rules, since no preference is given to zero-rated services in data traffic management compared to other data traffic and the differences relate only to pricing, which is allowed. Furthermore, both offers block the zero-rated services when the subscriber reaches its monthly data cap. ETRA also took Article 3(2) of the Regulation and the BEREC Guidelines into account in its assessment.⁶⁷¹

ETRA further analysed the traffic management policies of various mobile and fixed ISPs. The information showed that traffic management measures are not applied in the Estonian market, except for situations as defined in the justified exceptions referred to in Article 3(3). Further information is not available, because this assessment has not been made public.

In Estonia, one ISP offers IPTV services with specific quality of service requirements. ETRA notes that the ISP was consulted and that this ISP ensured the specialised service is not offered at the expense of other IASs and that sufficient network capacity is provided.

Finally, in September 2017, ETRA met with the main mobile and fixed ISPs regarding their compliance with the transparency requirements of Article 4 of the Regulation. ISPs

⁶⁷⁰ Survey completed by ETRA in the context of this Study.

⁶⁷¹ Survey completed by ETRA in the context of this Study.

were given a deadline of January 2018 to adapt their websites and end-users' contracts. Between January and April 2018, ETRA checked and confirmed that the contracts complied with the rules.

According to the NN-reports ETRA 2017 and 2018, ETRA does not provide additional guidance on net neutrality topics. No additional requirements based on Articles 4(3) or 5(1) were adopted.

Decisions and court cases

ETRA did not take any formal decisions pursuant to the Regulation and there are no court cases to report.

9.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Estonia.

9.4. Compliance

The table below⁶⁷² provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 41: Overview of desk research on transparency obligations

ISP #	(a) 673	(b) ⁶⁷⁴	(c) ⁶⁷⁵	(d) ⁶⁷⁶	(e) ⁶⁷⁷	Comments
ISP 1	✓	✓	✓	✓	✓	-
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	✓	✓	✓	✓	✓	-
ISP 5	✓	✓	N/A	✓	✓	-
ISP 6	✓	✓	N/A	✓	✓	-

⁶⁷² The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁶⁷³ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁶⁷⁴ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁶⁷⁵ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁶⁷⁶ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁶⁷⁷ Remedies, as further set out in Article 4(1)(e) of the Regulation.

9.5. Overview of relevant net neutrality themes in Estonia

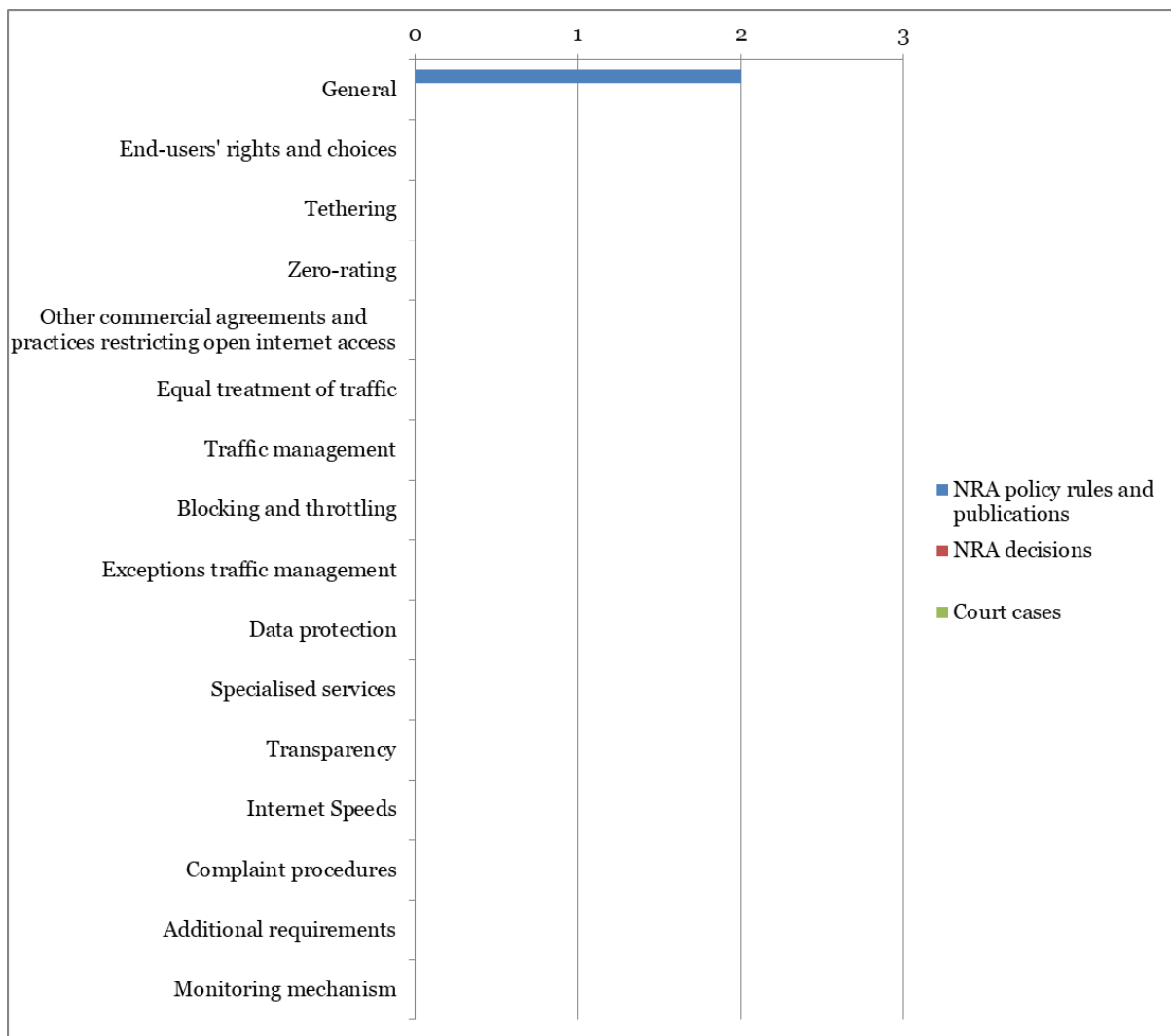


Figure 22: Blue: NN-report ETRA 2017 and NN-report ETRA 2019.

9.6. Summary of key topics and noteworthy findings

Net neutrality does not seem to be the main focus of ETRA.

ETRA assessed two zero-rating offers and assessed ISPs transparency practices and traffic management practices. No formal decisions were taken.

The table below provides an overview of the results in Estonia on some of the key topics.

Key topic	Result Estonia
Pre-existing legislation	No
Maximum fine	€9 600
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and	No

transparency)	
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Authority to settle complaints of competitors <i>[ECPB is the authority to settle complaints of consumers and other end-users]</i>
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	1 <i>[excluding complaints with the ECPB]</i>
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Zero-rating, specialised services, transparency
Monitoring mechanism (certified yes/no)	No
Self-regulation and/or co-regulation	No

10. Finland

10.1. Implementation

Pre-existing net neutrality legislation

The principle of net neutrality was already introduced to Finland in the Communications Market Act.⁶⁷⁸ In 2015, the Communications Market Act was replaced by the Information Society Code,⁶⁷⁹ which introduced comprehensive net neutrality rules in Chapter 15. The Regulation was subsequently implemented by amending Sections 110, 108 and 304 of the Information Society Code.⁶⁸⁰

Competent authority and penalty rules

The Finnish Communications Regulatory Authority ("**FICORA**") is the NRA responsible for supervision and enforcement of the Regulation. FICORA can monitor and enforce compliance with the Regulation the same way as other parts of the Electronic Communications Regulation in accordance with Chapter 42 of the Information Society Code (excluding Sections 333 and 335 related to powers of FICORA in relation to enforcing obligations in connection with significant market power in the wholesale markets). In addition, according to Section 110 of the Information Society Code, FICORA may issue further regulation within the meaning of Articles 5(1) and 4(4) of the Regulation.

According to Section 332 of the Information Society Code, FICORA may order periodic penalties or termination of (part of) the business activities or correcting measures at the defaulter's expense to enforce obligations set out in the Information Society Code, including rules on net neutrality. These regulatory powers are laid down in the Act on Incremental Penalties (1113/1990), which does not set any maximum limit for incremental penalties. FICORA is not authorised to impose punitive penalties.

Additional legislation and regulations

There is no additional legislation or regulation in Finland concerning net neutrality. FICORA issued a recommendation on filtering traffic in telecommunications operators' networks to certain ports (such as port 25) for information security reasons in February 2018.⁶⁸¹ Although this recommendation is not legally binding, FICORA notes that it only issues recommendations on the basis of careful consideration.

Based on national legislation in force before the Regulation, ISPs are required to monitor the performance of their communications networks or service components, measure utilisation rate of the capacity and determine sufficient limit values for the utilisation rate.⁶⁸²

⁶⁷⁸ Act no 393/2003. Section 68 of the Communications Market Act stated that the terms of an agreement on a telephone network subscriber connection and any other agreement on receiving a communications service could not restrict the user's right to choose a content service provider.

⁶⁷⁹ Laki sähköisen viestinnän palveluista = Information Society Code, 917/2014.

⁶⁸⁰ Laki tietoyhteiskuntakaaren muuttamisesta ja väliaikaisesta muuttamisesta = Act no 456/2016 on amending the Information Society Code, 917/2014.

⁶⁸¹ See below, paragraph Monitoring, supervision and enforcement, under heading Monitoring and supervision measures.

⁶⁸² Survey completed by FICORA in the context of this Study.

10.2. Monitoring, supervision and enforcement

General information and reports

When ensuring compliance with the net neutrality rules, FICORA relies mostly on informal discussions and providing information and guidance to ISPs, the main national content providers, the consumer authority and the general public. According to FICORA there are 5 employees involved in net neutrality corresponding to an annual average of one FTE.⁶⁸³

The **NN-report FICORA 2017**, consisting of ten pages, contains information on the Regulation and summarises FICORA's key observations regarding the status of net neutrality in Finland between 30 April 2016 and 30 April 2017.⁶⁸⁴ Overall, the report is satisfied with the level of non-discriminatory IASs in Finland.

The **NN-report FICORA 2018**, consisting of 11 pages, contains information on the Regulation and summarises FICORA's key observations regarding the status of net neutrality in Finland between 30 April 2017 and 30 April 2018.⁶⁸⁵ FICORA reports that it has updated the general information on net neutrality on its website.⁶⁸⁶

The NN-reports FICORA 2017 and 2018 state that FICORA is well-connected to the industry and relies on continuous dialogue with ISPs and other stakeholders, such as the Finnish Competition and Consumer Authority.

Complaints

FICORA is competent to settle complaints from consumers, other end-users and competitors about issues covered by the net neutrality provisions in the Regulation, except for Article 3(4), which is supervised by the Data Protection Authority. All the enforcement powers as described above in paragraph *Implementation*, under heading *Competent authority and penalty rules* may be used.

The NN-reports FICORA 2017 and 2018 do not specify an exact number of complaints, but the number of complaints was limited.⁶⁸⁷

Monitoring and supervision measures

FICORA relies mainly on informal discussions and it provides information and guidance to ISPs. In addition, FICORA monitors compliance by sending information requests to ISPs. Based on national legislation in force before the Regulation, ISPs are required to monitor the performance of their communications networks or service components, measure utilisation rate of the capacity and determine sufficient limit values for the utilisation rate.⁶⁸⁸ In general, FICORA finds these measures to be effective.⁶⁸⁹

⁶⁸³ Survey completed by FICORA in the context of this Study.

⁶⁸⁴ FICORA (2017), Verkkoneutraliteetin vuosiraportti 2017 = Network neutrality annual report 2017, 003/2017 J.

⁶⁸⁵ FICORA (2018), Verkkoneutraliteetin vuosiraportti 2018 = Network neutrality annual report 2018, 002/2018 J.

⁶⁸⁶ FICORA, Internetin avoimuus eli verkkoneutraliteetti = Internet openness, ie network neutrality (<https://www.viestintavirasto.fi/internetpuhelin/internetinavoimuus.html>, accessed 22 October 2018).

⁶⁸⁷ Survey completed by FICORA in the context of this Study.

⁶⁸⁸ See below, paragraph Implementation, under heading Additional legislation and regulations.

⁶⁸⁹ Survey completed by FICORA in the context of this Study.

FICORA carried out a survey in the fall of 2016 concerning compliance by ISPs with the Regulation. Information was gathered on the blocking of ports, prioritisation of internet traffic and capacity of networks (in cases where the ISP offers services other than internet services). FICORA found that some port-blocking applied by ISPs was detrimental to subscribers, because it prevented maintenance of internet servers and usage of VoIP. FICORA communicated to ISPs that they needed to change their practices. After the publication of the NN-report, FICORA issued a recommendation on the subject.⁶⁹⁰ The survey also showed that some ISPs offered prioritised broadband connections to companies. In the NN-report, FICORA stated that it entered into discussions with these ISPs, following which the provision of these services was discontinued.

In 2017, FICORA continued to monitor ISPs' port-blocking practices. In October 2017 FICORA sent a survey to ISPs concerning port-blocking. Based on the received answers, FICORA requested operators to explain the reasons for the restrictions and to discontinue the restrictions (unless justified in accordance with the recommendations).

The NN-report FICORA 2018 states that there were informal discussions on technical measures such as prioritisation of internet traffic. The first case concerned the offering of a free WLAN connection which included advertisements on top of the regular web content by modifying the HTTP messages. The other case concerned an ISP that only allowed certain pre-approved modems in its cable networks, which relates to Article 3(1) of the Regulation. Both cases were solved by informal discussions with ISPs. The first ISP stopped modifying the traffic (i.e. selling advertisements) and the second ISP modified its process by defining criteria for network security and is now accepting all modems that comply with these criteria.

Since 30 April 2016, FICORA conducted one investigation concerning end-users' rights and choices (Article 3(1) of the Regulation) and six investigations into ISP contracts (Article 3(2) of the Regulation).⁶⁹¹ FICORA concluded these investigations because ISPs removed the contract conditions (e.g. restricting tethering and hosting servers) that violated the Regulation after informal discussions.

Furthermore, FICORA sent several requests for information; once regarding the management of network capacity, once regarding the management of network traffic and three times regarding justifications for the application of traffic management.⁶⁹² FICORA studied the results and asked ISPs to remove all traffic management practices that violate the Regulation. ISPs complied voluntarily. FICORA did not have to take formal decisions. Since 30 April 2016, FICORA did not take any enforcement actions related to content differentiation or discrimination infringements.⁶⁹³

Decisions and court cases

So far, there have been no official decisions or court cases related to net neutrality in Finland.

10.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Finland.

⁶⁹⁰ FICORA (2018), Filtering traffic in telecommunications operators' networks to certain communications ports for information security reasons: FICORA Recommendation 312 A/2018 S.

⁶⁹¹ Survey completed by FICORA in the context of this Study.

⁶⁹² Survey completed by FICORA in the context of this Study.

⁶⁹³ Survey completed by FICORA in the context of this Study.

10.4. Compliance with transparency obligations

FICORA assessed the IAS specific contract conditions of all major ISPs. The discussion on updating the general contract conditions is still ongoing.

10.5. Overview of relevant net neutrality themes in Finland

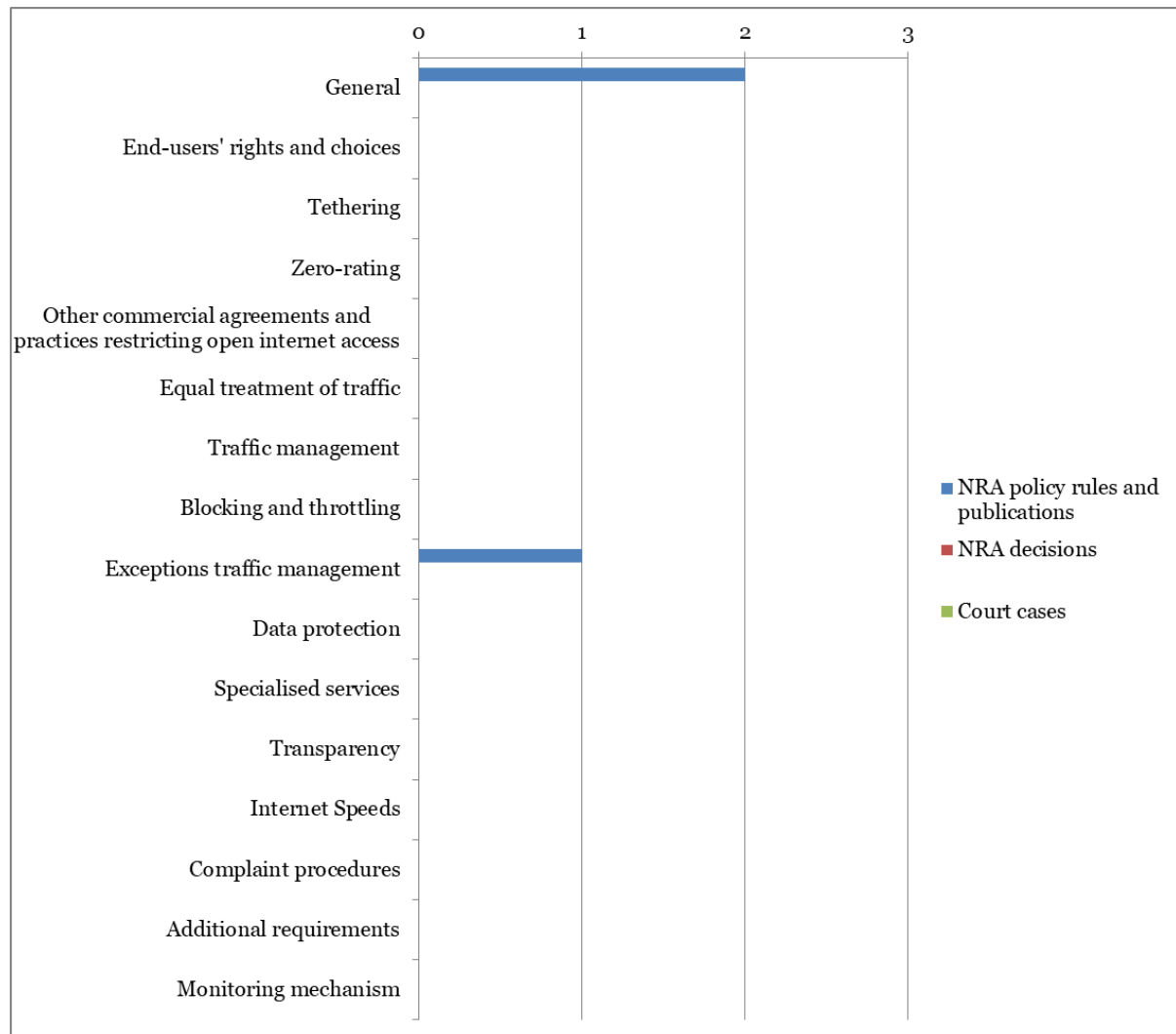


Figure 23: Blue: NN-report FICORA 2017, NN-report FICORA 2018 and NRA Recommendation of 14 February 2018.

10.6. Summary of key topics and noteworthy findings

FICORA has not taken any official decisions or enforcement measures and relies mainly on informal discussions and on providing information and guidance to ISPs.

FICORA has a special focus on port-blocking and filtering and issued a recommendation in 2018 on 'filtering traffic in telecommunications operators' networks to certain communications ports for information security reasons'. This recommendation provides guidance on port-blocking in view of the Regulation.

The table below provides an overview of the results in Finland for some of the key topics.

Key topic	Result Finland
Pre-existing legislation	Yes, net neutrality (amended)
Maximum fine	Provisions on conditional fines, threat of termination and threat of completion are laid down in the Act on Conditionally Imposed Fines (1113/1990), which does not set any maximum limit for conditional fines. FICORA is not empowered to impose penalties by way of punishment
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes (Recommendation on filtering traffic, Performance monitoring)
Number of FTEs in NRA involved in net neutrality	1
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes all, except for complaints related to Article 3(4)
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>
Number/percentage of complaints that were settled by the NRA. Enforcement decision, informal intervention	<i>Not available</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Port-blocking, equal treatment of traffic (traffic discrimination), transparency (contract information)
Monitoring mechanism (certified yes/no)	No
Self-regulation and/or co-regulation	No

11. France

11.1. Implementation

Pre-existing net neutrality legislation

There was no specific net neutrality legislation in France prior to the Regulation. However, French Law No 86-1067 provided for the freedom of online communications to the public.⁶⁹⁴ Furthermore, Law No 96-659 protected the principle of network neutrality with regard to the content of messages transmitted.⁶⁹⁵ Both principles are now included in the Regulation.⁶⁹⁶

In 2010, the French NRA, *Autorité de Régulation des Communications Électroniques et des Postes* ("**ARCEP**") published a list of ten proposals on net neutrality, which ISPs agreed with, that constituted the first non-binding framework on net neutrality in France.⁶⁹⁷ Some of these proposals required ARCEP to take monitoring and supervision actions, while other proposals eventually became part of the Regulation. In the fifth proposal ARCEP recommended amongst others that 'the term "unlimited" cannot be used to describe service offerings that include "fair use" type limitations that result in access being cut off temporarily or in extra billing for the services, or in an excessive degradation of access speeds or the quality of the service.'⁶⁹⁸

A Ministerial decree was published in 2013 that lists quality of service parameters, which ISPs have to include in their contracts: download speed, upload speed, latency, web browsing speeds, quality of video streaming, Peer-to-Peer download speeds and package loss.⁶⁹⁹ This decree continues to apply after the Regulation entered into force.⁷⁰⁰

Competent authority and penalty rules

The enforcement powers of ARCEP are covered in the French Postal and Electronic Communications Code.⁷⁰¹ ARCEP is the authority in charge of ensuring open internet access. Consequently, it includes topics related to net neutrality in its annual report.⁷⁰² France's Directorate-General for Competition, Consumer Affairs and Fraud Repression is also competent for some of the particulars that have to be included in contracts according to Article 4.

⁶⁹⁴ Article 1, Loi No 86-1067 relative à la liberté de communication (Loi Léotard) = Law No 86-1067 relative to the freedom of communication (hereafter: Law no. 86-1067).

⁶⁹⁵ Loi No 96-659 de réglementation des télécommunications = Law No 96-659 of regulation of telecommunications, Article 2.

⁶⁹⁶ Regulation (EU) 2015/2120, Article 3(1).

⁶⁹⁷ ARCEP (2010), Internet and network neutrality: Proposals and recommendations.

⁶⁹⁸ ARCEP (2010), Internet and network neutrality: Proposals and recommendations, p. 60.

⁶⁹⁹ Arrêté relatif à l'information préalable du consommateur sur les caractéristiques techniques des offres d'accès à l'internet en situation fixe filaire = Ministerial Decree relating to the prior information of the consumer on the technical characteristics of internet access offers in a wired fixed situation, NOR: ESSC1327107A as amended by Arrêté portant modification de l'arrêté du 3 décembre 2013 relatif à l'information préalable du consommateur sur les caractéristiques techniques des offres d'accès à l'internet en situation fixe filaire = Ministerial Decree amending the Decree of 3 December 2013 relating to the prior information of the consumer on the technical characteristics of internet access offers in a wired fixed situation, NOR: EINC1525767A, of 1 March 2016.

⁷⁰⁰ See below in this paragraph, under heading *Additional legislation and regulations*.

⁷⁰¹ Code des postes et des communications électroniques = Postal and Electronic Communications Code, Article L36-11.

⁷⁰² Loi n° 2017-55 portant statut général des autorités administratives indépendantes et des autorités publiques indépendantes = Law no. 2017-55 on the General Statute of Independent Administrative Authorities and Independent Public Authorities, Article 30.

Penalties can go up to 3 % of a market player's annual turnover without VAT during the financial year preceding the infringement. The maximum penalty amount is increased up to 5 % of the annual turnover in the event of a repeated infringement. If it is not possible to determine the exact turnover, ARCEP may impose a one-off penalty of €150 000 or €375 000 in case of repeated infringements. A penalty may only be imposed if a market player ignores a formal demand to cease the infringement. There is nothing prescribed with respect to the form the fine, except that it must respect the cap provided for in the Communications Code. As a last resort, ARCEP may ban a market player from providing a service. Moreover, the law provides for specific powers to collect information from all market players on topics such as traffic management.

Additional legislation and regulations

The aforementioned Ministerial decree lists the quality of service parameters that ISPs have to include in their contracts: download speed, upload speed, latency, web browsing speeds, quality of video streaming, Peer-to-Peer download speeds and package loss which continued to apply after the Regulation.⁷⁰³

11.2. Monitoring, supervision and enforcement

General information and reports

ARCEP supervises and enforces the Regulation through questionnaires, mechanisms, platforms, international cooperation and dialogues. ARCEP has created a special team of five employees dedicated to the open internet. This is not limited to net neutrality, but also includes monitoring IP interconnection and IPv6. According to ARCEP, five to ten of its employees are involved in net neutrality, with an annual average of four FTEs in 2017.⁷⁰⁴

In the **NN-report ARCEP 2017**, consisting of 87 pages, ARCEP indicated that during the first year after the Regulation entered into effect, it preferred an informal dialogue with stakeholders, but also had the normally available supervision and enforcement measures at its disposal.⁷⁰⁵ With regard to infringements, ARCEP stated that it prefers a dialogue with stakeholders instead of using its power to impose sanctions.

In the **NN-report ARCEP 2018**, consisting of 93 pages, ARCEP sets out how it reinforced its approach.⁷⁰⁶ With regard to the first step, ARCEP added the '*J'alerte l'ARCEP*' user reporting site to its diagnosis-tools, is waiting for BEREC's monitoring mechanism and was developing a traffic management detection mechanism in August 2018. With regard to the analysis, after the proactive dialogues in 2017, the competent ARCEP body is planning to examine specific ISP behaviours.⁷⁰⁷

⁷⁰³ Arrêté relatif à l'information préalable du consommateur sur les caractéristiques techniques des offres d'accès à l'internet en situation fixe filaire = Ministerial Decree relating to the prior information of the consumer on the technical characteristics of internet access offers in a wired fixed situation, NOR: ESSC1327107A, as amended by Arrêté portant modification de l'arrêté du 3 décembre 2013 relatif à l'information préalable du consommateur sur les caractéristiques techniques des offres d'accès à l'internet en situation fixe filaire = Ministerial Decree amending the Decree of 3 December 2013 relating to the prior information of the consumer on the technical characteristics of internet access offers in a wired fixed situation, NOR: EINC1525767A, of 1 March 2016.

⁷⁰⁴ Survey completed by ARCEP in the context of this Study.

⁷⁰⁵ ARCEP (2017), The state of internet in France: 2017 (hereafter: NN-report ARCEP 2017).

⁷⁰⁶ ARCEP (2018), The state of internet in France: 2018 (hereafter: NN-report ARCEP 2018).

⁷⁰⁷ See below, paragraph Monitoring, supervision and enforcement.

Finally, apart from the aforementioned reporting, ARCEP issued a report on the effect that devices have on achieving a fully open internet, the ARCEP device report.⁷⁰⁸ In this report, ARCEP assessed whether terminal equipment (smartphones, tablets, computers, etc.), their operating systems and their application store limit the ability of end-users to access the content and services of their choice on the internet. In the report, ARCEP mapped impediments to open internet stemming from devices. It categorised these impediments in four categories: (1) limits due to the nature of the device; (2) limits derived from the evolution of devices' software and OS; (3) limits derived from the editorial policy of the operating systems and app stores; and (4) limits resulting from competition models between systems.

ARCEP proposes several actions to ensure freedom of choice for end-users and an open internet from end to end, including:

- a principle of freedom of choice of content and applications, regardless of the terminal equipment used has to be laid down in legislation;
- facilitating the change of terminal equipment;
- allowing users to remove pre-installed apps;
- enabling alternative rankings in app stores;
- allowing users to easily access apps from alternative app stores (if reliable); and
- allowing all content and service developers to access the same device functions.⁷⁰⁹

The ARCEP device report concluded that, on the one hand, some of the impediments also have positive effects for end-users. The pre-installation of apps allows end-users, for example, to use their devices straight out of the box. On the other hand, ARCEP concluded that some restrictions limit the distribution of content or access to certain online services without having a *prima facie* positive effect for end-users. ARCEP mentions, for example, that app stores sometimes refuse to index services without justification or make users anxious about installing apps from alternative app stores even though such apps are not less reliable.

ARCEP considers that because device suppliers and operating systems providers are mostly international companies and the framework for open internet is European, action will eventually have to be taken on a European level.

Complaints

ARCEP is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs concerning the Regulation. For consumers, ARCEP can only impose an injunction against the offer, enforce minimum quality requirements or impose a fine on the ISP. ARCEP is not able to provide consumers with financial compensation or modification of specific contracts. The same applies to other end-users, provided that a dispute resolution procedure could also be triggered. For competitors, only the dispute settlement procedure could be triggered. ARCEP received one complaint from a competitor of an ISP.

The NN-report ARCEP 2018 states that ARCEP's user reporting site (*J'alerte l'ARCEP*) yielded 367 net neutrality-related signals from end-users between October 2017 and

⁷⁰⁸ ARCEP (2018), Smartphones, tablets, voice assistants: devices, the weak link in achieving an open internet.

⁷⁰⁹ ARCEP (2018), Smartphones, tablets, voice assistants: devices, the weak link in achieving an open internet, p. 61.

April 2018. However, not all of these signals actually constituted net neutrality complaints or infringements (they rather involved quality of service issues of specific applications). Because not all signals actually constituted infringements, ARCEP clarified in the NN-report ARCEP 2018 that the signals required assessments by experts to determine whether they related to an infringement of the Regulation and if so whether action should be taken.

ARCEP also noted that *La Quadrature du Net* pointed out that currently optimisation of specialised services is unnecessary and hinders competing OTT services from emerging.⁷¹⁰ *La Quadrature du Net's* remark was principally targeted at audio-visual services of ISPs. ARCEP is still investigating *La Quadrature du Net's* remark.

Monitoring and supervision measures

The competent ARCEP body examined the issue of freedom of choice and use of terminal equipment in ISPs' plans, and especially whether certain limitation clauses in users' contracts were compatible with the provisions contained in Article 3(1) of the Regulation.⁷¹¹ These restrictions applied in particular to the use of tethering (completely prohibited or subject to data caps), and the inability to use IASs with certain types of devices (tablets, 4G cards, connected objects, 4G boxes, etc.). ARCEP noted that clauses limiting the use of tethering and prohibiting the use of SIM cards in certain devices had to be removed from the concerned ISPs' contracts by autumn 2018.

ARCEP mentioned in the NN-report ARCEP 2018 that in the beginning of 2018, it received many end-users' complaints through the *J'alerte l'ARCEP* platform regarding access to Netflix through the IAS offered by Free. The competent ARCEP body identified the interconnection of Free's network with the rest of the internet as one of the potential causes for the poor quality of access to Netflix. The competent ARCEP body found that, because Free relied heavily on a single transit provider for its access to the majority of global traffic, some of that transit provider's links were overloaded on a regular basis. The competent ARCEP body concluded that, without any traffic management measures necessarily being in place, the services that use up the most bandwidth (such as video streaming services) can experience quality issues if the aforementioned transit provider's lines are saturated. ARCEP stated that the situation for end-users is improving and that it continues to monitor the developments.⁷¹²

The NN-report ARCEP 2018 clarifies that ARCEP has been supporting the development of a traffic management detection app designed by Northeastern University. Once complete, this app should enable any users wanting to test their line to detect traffic management practices that could violate the Regulation.

ARCEP also monitors mobile quality of service and provides an interactive mapping tool called '*monreseaumobile.fr*' that allows users to view all collected data in ARCEP's annual audit (aimed at tracking operators' progress with respect to service quality), as well as data on operators' coverage.⁷¹³

Finally, ARCEP stated that it is working on installing certain Application Programming Interfaces (APIs) in terminal equipment of ISPs to characterise the end-users' environment.⁷¹⁴ These software-elements allow for remote characterisation of the end-users' environment, which means that specific elements of the environment can be taken

⁷¹⁰ Survey completed by ARCEP in the context of this Study.

⁷¹¹ NN-report ARCEP 2018.

⁷¹² Interview with ARCEP in the context of this Study.

⁷¹³ The mechanism is available through the following link: <https://www.monreseaumobile.fr> (accessed 23 July 2018).

⁷¹⁴ Interview with ARCEP in the context of this Study.

into account when analysing the results of the measurement. ARCEP considers this to be an important issue that was not taken up in the BEREC Guidelines. ARCEP considers that Application Programming Interfaces make measurements more reliable.

Decisions and court cases

In 2017, the ISP Free was sued by two companies: Buzzee and Itema. Both companies provide mailing services. Free decided that Buzzee and Itema were sending spam and decided to block access to their servers. In both cases, Free was ordered to unblock the company's servers. In the case against Buzzee, the Court of Appeal held that ISPs may not completely block servers or IP addresses pursuant to their own criteria. There is no legislative or regulatory provision allowing ISPs to delete on its own initiative messages, which it would itself describe as spam. Doing so leads to disregarding the principle of neutrality that is imposed on ISPs.⁷¹⁵ In the case against Itema, the Paris Commercial Court stated that telecom operators may not completely block servers or IP addresses according to their own criteria and must ensure the neutrality of their services regarding the content that they are carrying on their network.⁷¹⁶ Both Buzzee and Itema decided to sue Free before commercial court in order to be able to obtain compensation for the blockage of their servers. Consequently, ARCEP was not involved in these civil court cases.

11.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation with regard to net neutrality in France.

11.4. Compliance with transparency obligations

The table below⁷¹⁷ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 42: Overview of desk research on transparency obligations

ISP #	(a) 718	(b) 719	(c) 720	(d) 721	(e) 722	Comments
ISP 1	≈	N/A	✓	≈	≈	<p>(a): No mention of the measures applied when managing traffic, which uses personal data, the types of personal data used, and how the ISP ensures the privacy of end-users and protect their personal data.</p> <p>(d): Advertised speed is missing (regarding download and upload). With respect to some services, normally available speed is not mentioned (regarding download and upload).</p> <p>(e): The ISP does offer remedies in case of non-compliance with respect to internet speed and</p>

⁷¹⁵ Cour d'appel de Paris (Pôle 1 - ch. 8) 10 March 2017, n° 16/03440.

⁷¹⁶ Tribunal de Commerce de Paris 15 February 2017, n° 2016060173.

⁷¹⁷ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁷¹⁸ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁷¹⁹ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁷²⁰ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁷²¹ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁷²² Remedies, as further set out in Article 4(1)(e) of the Regulation.

						interruption of service. However, in light of the ISP's incomplete presentation of internet speeds, the mention of the possible remedies offered in case of non-compliance with such speeds is not entirely satisfactory. The ISP's terms and conditions also include a more general provision regarding remedies offered to the consumer (e.g. mediation, going to court).
ISP 2	N/A	≈	✓	≈	≈	(b): For one service only, but not for all, the ISP specifies the volume limitation and speed of service parameters that may in practice have an impact on IASs. (d): For the fiber connection service, minimum, normally available and advertised speed is missing (regarding download and upload); for ADSL connection, for download, advertised and maximum speed is missing and for upload, minimum, maximum and advertised speed is missing; for the VDSL2 service, for download, advertised and maximum speed is missing and for upload, minimum, advertised and maximum speed is missing. (e): Same comment as for ISP 1.
ISP 3	N/A	N/A	X	≈	≈	(d): For the fiber connection service, for download, normally available and advertised speed is missing and for upload, minimum, normally available and advertised speed is missing; for ADSL connection, for download, advertised speed is missing and for upload, minimum, maximum and advertised speed is missing; for the VDSL2 service, for download, advertised speed is missing and for upload, minimum, and advertised speed is missing. (e): Same comment as for ISP 1.
ISP 4	N/A	N/A	N/A	≈	X	(d): For the fiber connection service, for download and upload, minimum, normally available and advertised speed is missing; for ADSL connection, for download, minimum and advertised speed is missing and for upload, minimum, normally available and advertised speed is missing; for the VDSL service, for download, minimum and advertised speed is missing and for upload, minimum, normally available and advertised speed is missing. (e): The ISP only offers remedies regarding interruption of service (there are no remedies mentioned regarding internet speed or other quality of service requirements). The ISP's terms and conditions also include a more general provision regarding remedies offered to the consumer (e.g. mediation), but there is no mention of the possibility for the consumer to go to court.
ISP 5	N/A	N/A	N/A	≈	X	(d): No numerical values for internet speeds are specified. (e): Same comment as for ISP 4.
ISP 6	≈	N/A	N/A	≈	X	(a): Same comment as for ISP 1. (d): Advertised speed is missing (regarding download and upload). (e): Same comment as for ISP 4.
ISP 7	N/A	N/A	N/A	≈	X	(d): Same comment as for ISP 5. (e): Same comment as for ISP 4.
ISP 8	≈	N/A	N/A	N/A	X	(a): Same comment as for ISP 1.

						(e): Same comment as for ISP 4.
ISP 9	N/A	N/A	N/A	N/A	X	(e): Same comment as for ISP 4.

11.5. Overview of relevant net neutrality themes in France

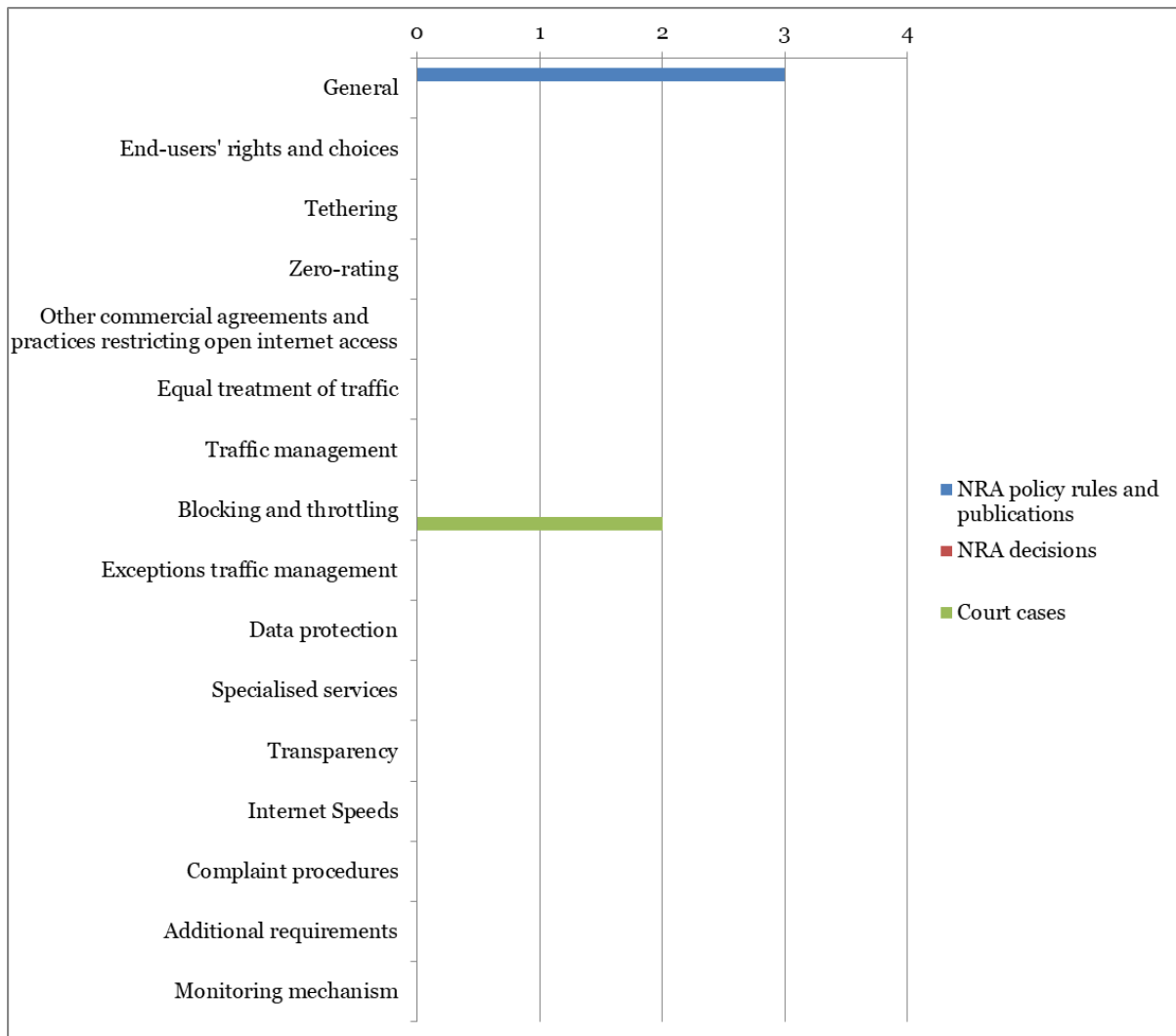


Figure 24: Blue: NN-report ARCEP 2017, NN-report ARCEP 2018 and ARCEP device report.
Green: Court cases of 15 February 2017 and 10 March 2017.

11.6. Summary of key topics and noteworthy findings

ARCEP is overall satisfied with the current state of the Regulation, which is future-proof, and does not call for its review.

At the same time, ARCEP notices that there are actors other than ISPs, in the technical chain of internet access, which might close the internet and challenge its open architecture. In the ARCEP device report, ARCEP explained that it considers the terminals of end-users, such as smartphones, to be the weak link of an open internet. According to ARCEP, certain restrictions on these terminals limit the distribution of content or access to online services for end-users.

ARCEP also identified interconnection as one of the potential causes for the poor quality of access.

In France, the Regulation was invoked in civil court litigation. The ISP Free blocked the access to two mailing services companies, Buzzee and Iteima, because Free held that these companies were sending spam. Free was ordered to unblock the access. ARCEP was not involved in these proceedings.

ARCEP has not yet taken any formal decisions with regard to infringements of the Regulation.

The table below provides an overview of the results in France for some of the key topics.

Key topic	Result France
Pre-existing legislation	Yes, transparency (still in force)
Maximum fine	3 % of the turnover without VAT during the last financial year, or 5 % in the event of a repeated infringement (€150 000 / €375 000 if it is not possible to establish the exact turnover)
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	4
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	367 ⁷²³
Number/percentage of complaints that were settled by the NRA	Not available
Number of NRA decisions	0
Number of court cases	2
Main net neutrality themes	End-users' rights and choices – terminal equipment, tethering, traffic management measures (reasonable traffic management), transparency (contract information)
Monitoring mechanism (certified yes/no)	No
Self-regulation and/or co-regulation	No

⁷²³ These signals came from the J'Alerte l'ARCEP platform, which was launched in October 2017. Therefore, the signals range from October 2017 – April 2018.

12. Germany

12.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Germany prior to the adoption of the Regulation.

The German Telecommunications Act ("**TKG**") held a legal provision that, in theory, would have allowed the federal government to adopt rules on net neutrality if it deemed it necessary.⁷²⁴ However, the government never adopted such rules and this provision was abolished in 2017 after the Regulation entered into force.

Competent authority and penalty rules

In Germany, the *Bundesnetzagentur* ("**BNetzA**") is responsible for enforcing the Regulation. Depending on the case, BNetzA can ask other authorities for an opinion (e.g. the Federal Cartel Office ("**BKA**"), the state media authorities and the Federal Commissioner for Data Protection and Freedom of Information ("**BfDI**"). BNetzA has done so frequently in the context of net neutrality, both to prepare for the upcoming rules as well as during investigations of 'StreamOn' offer and the 'Vodafone Pass'.⁷²⁵ In respect of data protection, the competence is shared between BNetzA and BfDI, but BNetzA would be responsible for enforcing the relevant provisions.

BNetzA is competent to enforce the net neutrality rules by way of administrative orders (if necessary followed by penalty payments) as well as by administrative fines:

- Pursuant to Section 126 TKG, BNetzA has the right to issue binding and enforceable orders (administrative acts), which the telecommunications service providers and network providers have to implement. If they do not comply with such an order (and if the order is not annulled temporarily or permanently by a court), BNetzA can enforce its orders using the enforcement measures of the Federal Administrative Enforcement Act ("**VwVG**").⁷²⁶ BNetzA may impose penalty payments (administrative coercion) of up to €500 000 (cf. Sections 6, 9, 11 and 13 VwVG and Section 126 (2) TKG). In case of continued non-compliance such a penalty can be repeated. Both the amount of the penalty and the decision to repeat the penalty in case of continued non-compliance are at the lawful discretion of BNetzA. A discontinuance order is only possible in case of serious and/or repeated infringements.
- In addition, pursuant to Section 149 (1b) and (2) TKG, certain infringements of the Regulation are considered administrative offences. These can be penalised with a fine of maximum €500 000 in case of infringements of Article 3(3)(3rd) of the Regulation or in case of continuous non-compliance with an enforceable order with €100 000 for infringements of Article 4(1) of the Regulation. The difference between "enforcement penalties" and fines is that fines are punitive sanctions for infringements while enforcement penalties aim to ensure compliance with the law. Non-compliance with an information request pursuant to Article 5(2) of the Regulation can result in a fine of up to €10 000.

⁷²⁴ Telekommunikationsgesetz = German Telecommunications Act.

⁷²⁵ See below, paragraph Monitoring, supervision and enforcement, under heading Monitoring and supervision measures.

⁷²⁶ Verwaltungsvollstreckungsgesetz = Federal Administrative Enforcement Act.

- In the most serious cases BNetzA can issue a prohibition order (similar to a cease and desist order), which means that the respective service provider is not allowed to offer telecommunications services and/or to operate a telecommunications network anymore in Germany (Section 126(3) TKG). This power has not been used so far.

Additional legislation and regulations

The German Transparency Ordinance ("**TK-TransparenzV**") entered into force on 1 June 2017.⁷²⁷ It obliges ISPs to provide product information sheets so the consumer can spot the essential contractual provisions presented in a simple form before concluding the contract. ISPs have to inform consumers in particular about the following subjects:

- Product Information Sheet with specified contents (Sections 1 and 2 TK-TransparenzV);
- available data transmission rate, including options for the customers to check whether the offered transmission rates are actually provided (Sections 7 and 8 TK-TransparenzV);
- the duration of the contract and how to change service provider (Section 5 TK-TransparenzV); and
- applicable volume caps and volume-based throttles and how much of the respective data volume has currently been used; the user has to be notified when he used 80 % of that volume and when that volume has been fully used (Section 10 TK-TransparenzV).

The TK-TransparenzV contains an annex with details regarding how the service providers have to measure and present their data rates.

Templates for product information sheets can be found on BNetzA's website.⁷²⁸ The templates are the result of a hearing conducted by BNetzA and providers are encouraged to make use of those templates to inform their customers in compliance with the Regulation and TK-TransparenzV.

Furthermore, an administrative notice clarifying the undefined legal terms set out in Article 4(4) ('significant discrepancy, continuous or regularly recurring, between the actual performance of the IAS regarding speed') was published by BNetzA on 4 July 2017 for fixed-line IAS.⁷²⁹

⁷²⁷ Verordnung zur Förderung der Transparenz auf dem Telekommunikationsmarkt (TK-TransparenzV) = Transparency Ordinance.

⁷²⁸ www.bundesnetzagentur.de/tk-transparenzverordnung (accessed 4 October 2018).

⁷²⁹ BNetzA (2017), Mitteilung der Bundesnetzagentur zur Konkretisierung der unbestimmten Rechtsbegriffe "erhebliche, kontinuierliche oder regelmäßig wiederkehrende Abweichung bei der Geschwindigkeit" bei Festnetz-Breitbandanschlüssen im Download gemäß Art. 4 Abs. 4 Verordnung (EU) 2015/2120 u. a. über Maßnahmen zum Zugang zum offenen Internet = Communication from the Federal Network Agency to clarify the indefinite legal terms "significant, continuous or recurring deviation in the speed" for fixed broadband connections in the download according to Art. 4(4) Regulation (EU) 2015/2120 u. a. on access to the open internet, Mitteilung Nr. 485/2017, Amtsblatt Nr. 13/2017. This administrative notice is further discussed below under paragraph 12.2, under heading *Monitoring and supervision measures*.

12.2. Monitoring, supervision and enforcement

General information and reports

BNetzA is active in ensuring compliance with net neutrality rules. Its annual reports contain information about monitoring and enforcement activities with respect to the application of the Regulation. According to BNetzA, there are five employees involved in net neutrality corresponding with a number of four FTEs.

According to the **NN-report BNetzA 2017**,⁷³⁰ consisting of 23 pages, BNetzA investigated zero-rating options, contract clauses prohibiting certain usage of IAS and port and website-blockings. Furthermore, the NN-report provides information about the number of end-users' complaints concerning the speed of IAS and it describes how BNetzA implemented and still is implementing its 'broadband measurement' mechanism.

The **NN-report BNetzA 2018**,⁷³¹ consisting of 30 pages, provides information on monitoring and enforcement activities of BNetzA, in particular relating to zero-rating offers (involving the prohibition of throttling video streaming in the 'StreamOn' case of Telekom Deutschland GmbH ("**Deutsche Telekom**") and the voluntary adaption of the zero-rating offer including the general terms and conditions in the 'Vodafone Pass' case of Vodafone GmbH and other issues as explained below.⁷³²

Complaints

BNetzA is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs. An arbitration procedure is available for consumers and other end-users. Parties involved in the arbitration procedure are the complainant and the provider as defendant. The number of cases is not available. The NN-report BNetzA 2018 specifies that there were less than 50 substantiated complaints regarding Article 4(4). According to BNetzA, in the majority of cases a solution to the satisfaction of the complainant could be reached. Depending on the case, different solutions could be observed (e.g. fault clearance, rectification of a defect, tariff change and vouchers). BNetzA cannot force the parties to come to an agreement. They remain free to go to court. The NN-report BNetzA 2018 states that due to statistical reasons it is not possible to compare the number of complaints in 2018 with the number of complaints noted in the previous report.

Monitoring and supervision measures

BNetzA's main sources to deploy enforcement and supervision powers are complaints by end-users as well as information provided by public media, other authorities or providers. In principle, BNetzA follows a complaints-based approach with respect to its monitoring and supervision activities. BNetzA has a monitoring mechanism, which is considered as to be certified pursuant to Article 4(4).⁷³³ In May 2018 there were

⁷³⁰ BNetzA (2017), Netzneutralität in Deutschland Jahresbericht 2016/2017 = Net Neutrality in Germany Annual Report 2016/2017 (hereafter: NN-report BNetzA 2017).

⁷³¹ BNetzA (2018), Netzneutralität in Deutschland Jahresbericht 2017/2018 = Net Neutrality in Germany Annual Report 2017/2018 (hereafter: NN-report BNetzA 2018).

⁷³² See below in this paragraph under heading *Monitoring and supervision measures*, specifically under b).

⁷³³ The mechanism was launched in September 2015 and is available at <https://breitbandmessung.de/> (accessed 4 October 2018).

approximately 2 800 successful.⁷³⁴ On 2 May 2018, BNetzA also launched a desktop-app that can be used for those measurements.⁷³⁵

Furthermore, an administrative notice specifying the undefined legal terms set out in Article 4(4) ('significant discrepancy, continuous or regularly recurring, between the actual performance of the IAS regarding speed') was published by BNetzA on 4 July 2017 for fixed-line IAS. The clarification firstly addresses the meaning of the legal terms in Article 4(4) and, secondly, lays down guidelines for the verification process using BNetzA's monitoring mechanism (*Breitbandmessung*). According to the notice there have to be two days where measurements are carried out ('testing days'), and where the consumers have to carry out 20 measurements in total. According to BNetzA, there is a case of 'continuously or regularly recurring significant discrepancy' within the meaning of Article 4(4) of the Regulation if the measurements lead to one of the following results:

- within both testing days no measured download reaches 90% of the contractually agreed maximum download speed;
- the normally available download speed is not reached in 90 % of the measurements; and/or
- on both testing days the download speed remained below the contractually agreed minimum speed.

As indicated above in this paragraph, BNetzA launched a range of investigations in the reporting period related to zero-rating offers and traffic management measures. We explain the details below.

a) *Blocking of VoIP and Peer-to-Peer traffic*

According to its NN-report 2018, BNetzA requested a reseller that acted as an ISP to cease prohibiting the use of VoIP and Peer-to-Peer traffic in its contracts since such a prohibition constitutes a violation of Article 3(1) of the Regulation. Following BNetzA's intervention, the ISP changed its practice.

In the NN-report 2018, BNetzA notes that there have been few complaints relating to this topic. BNetzA assumes that this is due to workshops and information briefings carried out by BNetzA.

b) *Zero-rating / StreamOn and Vodafone Pass*

BNetzA investigated the 'StreamOn' service, offered by Deutsche Telekom and issued a binding decision. Deutsche Telekom was the first ISP to offer a zero-rated service in Germany, consequently this investigation received a lot of public attention.⁷³⁶

BNetzA also published a supervision measure, which did not result in a formal decision, concerning Vodafone's zero-rating offer 'Vodafone Pass'.⁷³⁷ It became a matter of public interest. Vodafone started offering this zero-rating option on 26 October 2017. Vodafone Pass was offered as an add-on option to the tariffs 'RED/Young M' and 'RED Young/L'. If customers bought one of the available passes, certain services were excluded from the data volumes included in the tariffs. Vodafone offered such passes for several categories of content services, such as audio, video, text and social media. Vodafone Pass is a

⁷³⁴ Survey completed by BNetzA in the context of this Study.

⁷³⁵ <https://breitbandmessung.de/desktop-app> (accessed 4 October 2018).

⁷³⁶ This case is further discussed below under this heading, as well as in this paragraph, under heading *Decisions and court cases*.

⁷³⁷ NN-report BNetzA 2018, para 24.

classic example of add-on zero-rating. To benefit from one of the passes, CAPs had to enter into a 'service provider agreement' with Vodafone. Vodafone was not throttling video streaming, however it reserved the right to do so in its general terms and conditions.

In the context of the investigation, BNetzA asked a number of third parties (such as the state media authorities, BKA, broadcasting associations, consumer protection agencies, third party CAPs, etc.) for factual information and opinions.

BNetzA examined the contractual clause in which Vodafone reserved the right to throttle video traffic. BNetzA also referred to a lack of published terms and conditions of participation for CAPs and to the requirement for content providers to offer an application in order to participate in Vodafone's offer. Vodafone reacted by voluntarily implementing the changes requested by BNetzA. Therefore, BNetzA concluded that it was no longer necessary to continue the investigation.⁷³⁸ According to the NN-report BNetzA 2018 the requirement of transparent and open participation conditions without discrimination is now adhered to.

In its NN-report 2018 BNetzA states that it expects Vodafone not to introduce a video throttling mechanism before the court procedures on Deutsche Telekom's StreamOn are concluded.⁷³⁹ According to the NN-report, Vodafone agreed to inform BNetzA three months in advance if it plans to introduce video throttling. This would give BNetzA time to examine and possibly prohibit such throttling. Since Vodafone adjusted its zero-rating offer voluntarily, there was no need to adopt a formal decision.

c) Blocking of incoming IP traffic

The NN-Report BNetzA 2018 describes a case in which the authority dealt with a complaint concerning a mobile provider who allegedly blocked incoming IP-traffic if this traffic flow had not been initiated by the respective end-user. According to BNetzA, this could hinder remote access to devices. BNetzA discussed the issue with the provider, which argued that it was meant to protect end-users from possible attacks, bill shocks and network failures. According to the report, BNetzA was still investigating the issue on the date of the finalisation of the NN-report (30 April 2018).

d) Connectivity issues due to the lack of public IPv4 addresses

The NN-report BNetzA 2018 states that BNetzA is dealing with an increasing number of complaints regarding the scarcity of IPv4 addresses and the alternatives that ISPs use to deal with this scarcity. In particular, some ISPs use the network address translation technique to offer one IPv4 address to multiple users. However, this prevents the users from creating direct connections over the internet between two IPv4 addresses. This limits the use of IPv4 addresses, e.g. services allowing remote control of smart home function and the operation of private internet servers accessible via the public internet (e.g. for gaming).

These cases are not closed yet. However, in its NN-report 2018, BNetzA mentions that IPv4 addresses are generally scarce, but also stresses that the users have a right to use their IASs without restriction. BNetzA discusses the solution of offering the option to request a 'real' IPv4 address to use at their own discretion and that such addresses could be issued if technically and economically possible in the individual circumstances. BNetzA comments that such claims will no longer be a problem if IPv4 is replaced by IPv6.

⁷³⁸ BNetzA (2018), Pressemitteilung: Bundesnetzagentur fordert Anpassungen bei 'Vodafone Pass' = Press release: Federal Network Agency calls for adjustments 'Vodafone Pass'.

⁷³⁹ NN-report BNetzA 2018, para 24. See for more information on these cases below in this paragraph, under heading *Decisions and court cases*.

BNetzA also notes that, in any case, providers have to be transparent about the fact that they are using the network address translation technique and how this limits the use of IASs. According to BNetzA, this has to be reflected in the terms of use of the respective services.

e) *Port-blockings*

According to its NN-Reports, BNetzA has examined traffic management measures of ISPs, including port-blocking and the corresponding blocking of incoming IP-traffic. BNetzA entered into informal discussions with ISPs in relation to port-blockings.

According to the NN-report 2017, BNetzA assessed one ISP's practice of blocking ports UDP 67/DHCP; UDP 69/TFTP; UDP/TCP 135-139 and TCP 445 in order to preserve the security of the network and terminal equipment of end-users. BNetzA considers the described port-blocking to be compatible with Article 3(3)(b). Nevertheless, BNetzA requested ISPs, without taking a formal decision to clearly communicate the practice in their general terms and conditions in order to comply with the transparency obligations as laid down in Article 4(1)(a).

According to the NN-report 2018, BNetzA continued and expanded its investigation into the permanent blocking, i.e. for longer than one month. The investigation concerned a fixed ISP and a mobile ISP. According to BNetzA's statements port-blocking can prevent the use of certain applications via the respective IASs because these applications rely on the respective (blocked) ports.

BNetzA notes that the practice of port-blocking can be justified if blockings are used to preserve the integrity and security of the network, of services provided via that network and of the terminal equipment of end-users pursuant to Article 3(3)(b). According to BNetzA, the ports blocked in both types of cases were ports that are regularly used for attacks on end-devices, since they can be used to exploit known vulnerabilities. In addition, these ports are mainly used by applications within LANs, not over the internet, so there are no major consequences for the end-users.

f) *Blocking of kinox.to and other websites*

According to the NN-report BNetzA 2017, BNetzA received some requests or complaints related to the blocking of certain webpages. BNetzA informed the providers that blocking of webpages is forbidden under Article 3(3) of the Regulation.

BNetzA investigated the blocking of the website 'kinox.to' by Vodafone. The background relates to IP enforcement and litigation. IP right holders brought claims against Vodafone before the regional court of Munich that granted the claimants a 'blocking order'.⁷⁴⁰ Subsequently on 1 February 2018 a preliminary injunction in civil court proceedings obliged the provider to block the website kinox.to. Vodafone implemented the decision by blocking the respective website via its Domain Name Servers ("**DNS**"). BNetzA was not a party of these court proceedings. BNetzA investigated, however, from an administrative perspective whether the blocking of the website was justified pursuant to Article 3(3)(a) of the Regulation. BNetzA concluded that there was no breach of the rules of the Regulation.

⁷⁴⁰ OLG München 14 June 2018, 29 U732/18. Vodafone has appealed against the decision of the regional court of Munich. The higher court of Munich has recently upheld the previous decision (by decision of 14 June 2018). It is not yet known whether Vodafone will challenge this decision before the Federal Court of Justice.

Decisions and court cases

BNetzA adopted one administrative order regarding the enforcement of the net neutrality rules (the 'StreamOn' case discussed below). All other cases were solved without formal decisions either because ISPs voluntarily adjusted their practices and/or their general terms and conditions in order to comply or because no breach was found. Neither penalty payments nor administrative fines have been imposed so far.

The main feature of StreamOn is that customers of Deutsche Telekom can use audio or video streaming apps of certain 'content partners' of Deutsche Telekom without depleting the included data volume of their bundle. StreamOn is a classic zero-rating offer. Deutsche Telekom has been offering StreamOn since 19 April 2017 as a free of charge add-on option to its '*MagentaMobil*' tariff line. Depending on the Magenta tariffs consumers could get zero-rating only for music (for the basic 'M' tariff) or for both music and video (for the medium-priced 'L' tariffs and for the premium '*MagentaEins*' tariff). However, for the medium-priced 'L' tariffs⁷⁴¹ Deutsche Telekom announced that it would limit the maximum volume of video streaming to 1.7 Mbit/s, which translates to SD video quality and does not allow HD. This applied to all video streaming irrespective of whether it was offered by a content partner of Deutsche Telekom or by a third-party CAP. According to the price list of the 'L' tariff of Deutsche Telekom, this volume throttling would apply by default, but customers could manually switch it off for a time period of 24 hours. During this timeframe, the streaming volume was unlimited, but the streaming data would count against the volume cap of the respective tariff. For the premium '*MagentaEins*' option (in which the customer has both a mobile and a fixed tariff), the maximum streaming volume was not limited, which meant that customers could video stream with HD quality if network coverage and reception allowed it. The zero-rating does not apply while using the network of roaming partners of Deutsche Telekom outside of Germany.

Music or video streaming providers who want to become a 'content partner' have to accept the content partner terms of Deutsche Telekom. These terms stipulate the right of Deutsche Telekom to limit the data volume available for video streaming in case of 'Magenta L' customers. Participation as content partner is free of charge for both sides. Originally, content partnership was only available to streaming services, but Deutsche Telekom later also included download services.

In December 2017, BNetzA adopted its official decision.⁷⁴² BNetzA accepted StreamOn in principle as a justified zero-rating offer, but ordered Deutsche Telekom to implement certain changes before the end of March 2018. BNetzA requested two changes:

- 1) StreamOn has to comply with the roam-like-at-home ("**RLAH**") principle.
- 2) Video streaming has to be available to customers without throttling in the L-tariffs.

In its decision BNetzA explained that by limiting the maximum rate of video streaming in the 'L' tariffs, Deutsche Telekom breached the obligation of equal treatment of all data traffic (Article 3(3) of the Regulation), which BNetzA considers to be a 'core element' of net neutrality. BNetzA held that Deutsche Telekom had no objective technical reason for throttling the data transmission rate. In this regard, BNetzA referred to the BEREC Guidelines. BNetzA also argued that the performance of an individual network does not provide legal grounds for restricting the data transmission rate for data-intensive communications. In this regard, BNetzA argued that limiting of the rate was neither a

⁷⁴¹ Specifically: 'L', 'L Plus', 'L Premium' and 'L Plus Premium'.

⁷⁴² BNetzA Decision of 10 November 2017, Zero-Rating StreamON / 312-DurchSVOSTreamOn, 114-3983.

compression technique, in the meaning of Recital 11, nor a justified traffic management measure in the meaning of Article 3(3) of the Regulation.

To conclude BNetzA considered the video throttling to be a breach of the prohibition of discrimination of traffic (Article 3(3)(1st) of the Regulation) and of the prohibition to slow down traffic (Article 3(3)(3rd) of the Regulation). The BNetzA also held that throttling required the monitoring of content, which is not permitted according to Article 3(3)(3rd) of the Regulation. BNetzA ordered Deutsche Telekom to remodel the respective product terms and prohibited the throttling of video in the 'L' tariffs. BNetzA requested Deutsche Telekom to implement these changes before the end of March 2018. BNetzA informed that it would impose enforcement penalties in case of non-compliance.

According to media reports, Deutsche Telekom has used an appeal procedure before BNetzA and simultaneously challenged the decision of BNetzA before a court, including via preliminary proceedings. There was a media report in August 2018 stating that the court procedure is still pending.⁷⁴³ The Administrative Court of Cologne rejected in a preliminary proceeding the motion of Deutsche Telekom for temporary relief on 20 November 2018.⁷⁴⁴ This decision in the preliminary procedure is open for appeal. Besides that a final decision in the main procedure is still expected.

12.3. Self-regulation and or co-regulation

There is no self-regulation and/or co-regulation in place in Germany.

12.4. Compliance with transparency obligations

The table below⁷⁴⁵ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 43: Overview of desk research on transparency obligations

ISP #	(a) 746	(b) 747	(c) 748	(d) 749	(e) 750	Comments
ISP 1	N/A	✓	✓	✓	✓	-
ISP 2	✓	✓	✓	✓	≈	(e): Mentions right to complain and right to terminate the agreement but not legal remedies
ISP 3	N/A	✓	✓	✓	✓	-
ISP 4	✓	✓	✓	✓	≈	(e): Reference to general dispute resolution provision in contract terms, without reference to performance of the internet access
ISP 5	✓	✓	✓	≈	≈	(d): In the description of services, internet speeds

⁷⁴³ Magenta Mobil: Das sind die neuen Telekom-Tarife = Magenta Mobil: These are the new telecom rates (<http://www.areamobile.de/news/48256-magenta-mobil-das-sind-die-neuen-telekom-tarife>, accessed 4 October 2018).

⁷⁴⁴ Verwaltungsgericht Köln, 20 November 2018, ECLI:DE:VGK:2018:1120.1L253.18.00.

⁷⁴⁵ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁷⁴⁶ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁷⁴⁷ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁷⁴⁸ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁷⁴⁹ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁷⁵⁰ Remedies, as further set out in Article 4(1)(e) of the Regulation.

						are stated at "x to y Kbit/s" not as minimum, average, advertised and maximum speeds (e): Contract only says that customers may complain to their provider but other remedies are not mentioned
ISP 6	N/A	✓	✓	✓	✓	-
ISP 7	✓	✓	✓	✓	≈	(c): Statement that voice over LTE will slow down data traffic up to 0.03 Mbit/s (e): Same comment as for ISP 2
ISP 8	✓	≈	✓	✓	≈	(b): Some information is provided but it is somewhat vague. (e): Same comment as for ISP 5

12.5. Overview of relevant net neutrality themes in Germany

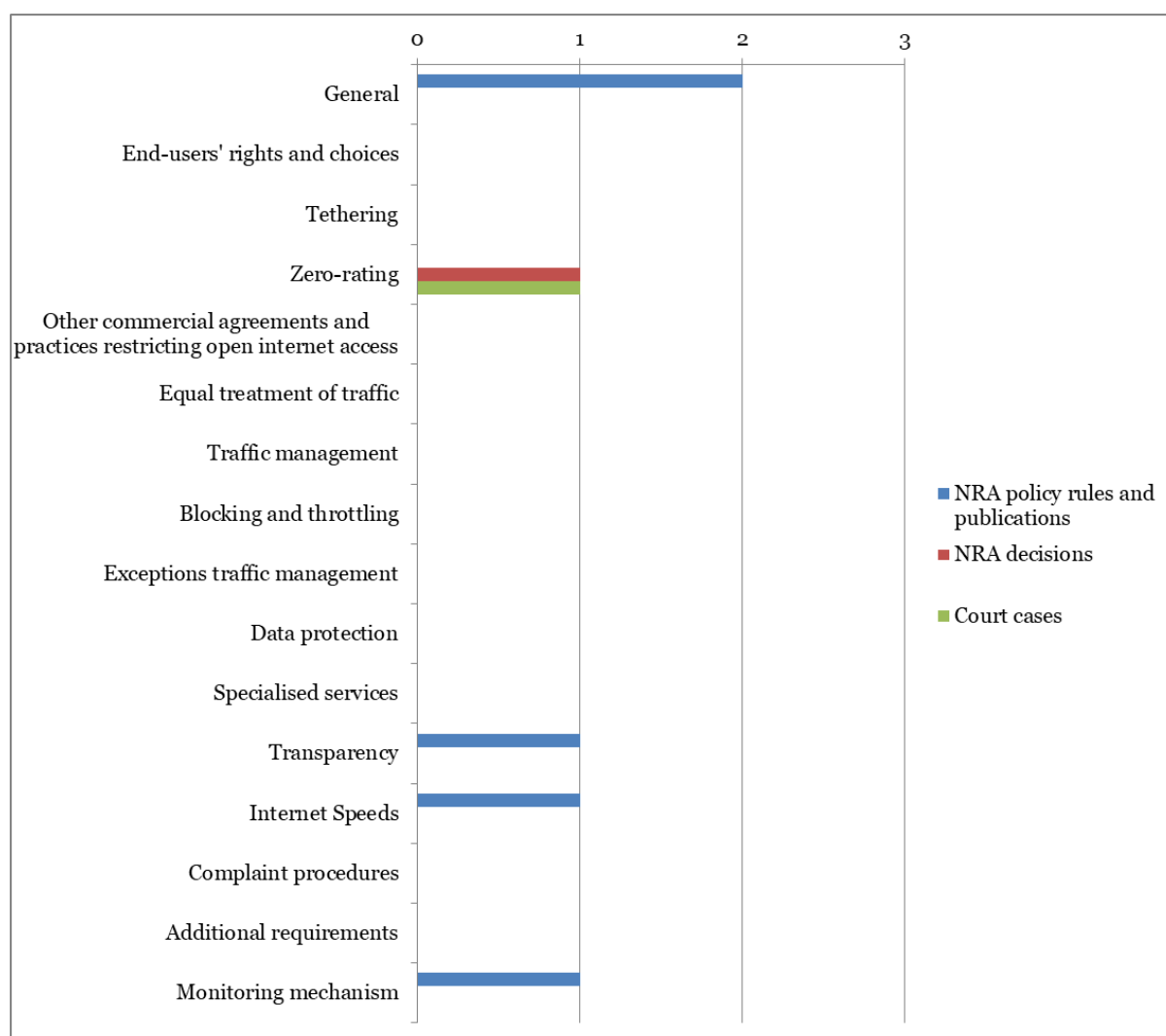


Figure 25: Blue: NN-report BNetzA 2017, NN-report BNetzA 2018, Transparency Ordinance of June 2017, Monitoring Mechanism of September 2015 and Administrative Notice of July 2017. Red: NRA Decision of December 2017. Green: Pending court case regarding the NRA decision.

12.6. Summary of key topics and noteworthy findings

Due to national legislation, BNetzA is authorised to issue binding orders (administrative acts) in case of non-compliance with the Regulation and can, if necessary, enforce these

acts with enforcement penalties. In case of continued non-compliance BNetzA announced the use of such enforcement penalties in its decision on Deutsche Telekom's StreamOn. It is not publicly known, however, whether BNetzA did indeed impose a penalty.

BNetzA is also authorised to impose administrative fines in relation to some (but not all) of the provisions of the Regulation. This competence is limited to infringements of Articles 3(3)(3rd), 4(1), 5(1) and 5(2) of the Regulation.

The German Transparency Ordinance of July 2017 obliges ISPs to provide product information sheets and other transparency information so consumers can spot the essential contractual provisions before concluding the agreement.

BNetzA determined positions on major issues regarding the prohibition to use VoIP and Peer-to-Peer traffic in contracts (Article 3(1)), blocking of websites and ports (Article 3(3)) and specified undefined legal terms set out in Article 4(4). Furthermore, BNetzA has published a notice that explains BNetzA's understanding of 'significant discrepancy' within the meaning of Article 4(4) of the Regulation. This notice applies only to fixed IAS.

BNetzA undertook comprehensive reviews of the zero-rated offers StreamOn and Vodafone Pass. Both are classic zero-rating offers, meaning that certain categories of data are excluded from the data volumes included in the tariffs. Unlike Deutsche Telekom, Vodafone did not throttle video streaming. BNetzA considered the throttling of video streaming in StreamOn to be a breach of the prohibition of discrimination of traffic (Article 3(3)(1st) of the Regulation) and of the prohibition to slow down traffic (Article 3(3)(3rd) of the Regulation). Finally, regarding the exclusion of zero-rating during roaming BNetzA argued that this infringed the roam-like-at-home principle. The investigation by BNetzA was based on a review of the contract materials (Article 3(2) of the Regulation) and on a review of the technical details (Article 3(3) Regulation). The decision of BNetzA on 'StreamOn' is under appeal and there is no court decision yet, although in a preliminary procedure the motion of Deutsche Telekom for temporary relief was rejected.

The table below provides an overview of the results in Germany for some of the key topics.

Key topic	Result Germany
Pre-existing legislation	Yes (but unused)
Maximum fine	Up to €500 000
Imposed fines	None
Additional legislation	Yes, German Transparency Ordinance (TK-Transparenzverordnung)
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes, additional requirements regarding transparency are laid down in the German Transparency Ordinance and BNetzA has published additional information
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	4
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all

Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	1
Number of court cases	1 (pending)
Main net neutrality themes	Zero-rating, traffic management, transparency
Monitoring mechanism (certified yes/no)	Yes, certified
Self-regulation and/or co-regulation	No

13. Greece

13.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Greece prior to the adoption of the Regulation. However, the right to free internet access is considered a specific expression of the right to participate in the information society, which is laid down since 2003 in Article 5A of the Greek Constitution. This right is further specified by virtue of Greek Law 4070/2012 on electronic telecommunications.⁷⁵¹

Competent authority and penalty rules

The Hellenic Telecommunications & Post Commission ("**EETT**") is the designated authority for net neutrality under Greek Law 4070/2012 on electronic telecommunications, with the exception of topics related to the processing of personal data (Article 3(4) of the Regulation), which belong to the competence of the Hellenic Data Protection Authority.

The general penalty rules laid down in Article 77 of the Greek Law 4070/2012 on electronic telecommunications apply for enforcing the Regulation. EETT can give recommendations, impose a fine of an amount up to €3 000 000, impose periodic penalties and, in the case of serious and recurrent infringements, suspend or withdraw the general authorisation of the ISP. The fines can even include periodic penalties with a retroactive effect.⁷⁵²

Additional legislation and regulations

Law 4002/2011 obliges ISPs to block all gambling websites blacklisted by the Hellenic Gaming Commission ("**HGC**").⁷⁵³

EETT is planning to issue a binding decision on net neutrality pursuant to Articles 4(3) and 5(1) of the Regulation. This is not a mere transposition of the obligations of the Regulation into national law, but an addition to the Regulation that will provide further specifications.⁷⁵⁴ The consultation period of this decision has ended and the decision will

⁷⁵¹ Νόμος υπ' αριθμ. 4070 ΦΕΚ Α' 82/10.04.2012 "Ρυθμίσεις Ηλεκτρονικών Επικοινωνιών, Μεταφορών, Δημοσίων Εργων και άλλες διατάξεις" = Law 4070/2012 on Electronic Communications, Transport, Public Works and other provisions (Official Government Gazette A-82/10.04.2012).

⁷⁵² Ibid., Article 77.

⁷⁵³ Άρθρο 51, παρ. 5 του Νόμου υπ' αριθμ. 4002 (ΦΕΚ Α 180 22.8.2011) "Τροποποίηση της συνταξιοδοτικής νομοθεσίας του Δημοσίου - Ρυθμίσεις για την ανάπτυξη και τη δημοσιονομική εξυγίανση - Θέματα αρμοδιότητας Υπουργείων Οικονομικών, Πολιτισμού και Τουρισμού και Εργασίας και Κοινωνικής Ασφάλισης" = Article 51, para 5 of Law 4002/2011 ("the gambling law"). The list of illegal sites is available at https://www.gamingcommission.gov.gr/images/epopteia-kai-elegxos/blacklist/blacklist_en.xlsx (accessed 24 September 2018).

⁷⁵⁴ EETT, Δημόσια διαβούλευση Σχέδιο Απόφασης της EETT για την εξειδίκευση θεμάτων του Κανονισμού (ΕΕ) 2015/2120 του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου «για τη θέσπιση μέτρων σχετικά με την πρόσβαση στο ανοικτό διαδίκτυο και την τροποποίηση της οδηγίας 2002/22/ΕΚ για την καθολική υπηρεσία και τα δικαιώματα των χρηστών όσον αφορά δίκτυα και υπηρεσίες ηλεκτρονικών επικοινωνιών» = Public Consultation Draft of EETT decision of 2 October 2017 on the specification of issues related to the Regulation (EU) 2015/2120 of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services.

probably enter into force in the upcoming months. This decision sets out additional transparency requirements for ISPs and provides clarifications for the application of traffic management and commercial practices. It also entails a methodological framework for estimating speeds as well as the conditions under which subscribers can claim compensation in the case of discrepancies between the actual performance of the IAS and the performance indicated in the contract.

Moreover, on 22 February 2018 EETT issued a non-binding recommendation to providers of fixed IAS that operate on the Greek market. It will remain in force until the aforementioned binding decision enters into force.⁷⁵⁵ EETT recommends providers of fixed IAS to: (i) adequately inform end-users before an agreement is concluded on the actual maximum speed of the IAS and (ii) allow existing subscribers to downgrade their IAS free of charge (i.e. without paying a penalty for premature end of contract), in order to have a nominal speed closer to the realistically achievable speed.

13.2. Monitoring, supervision and enforcement

General information and reports

In September 2017 EETT issued its general (authority-wide) annual report of which a small part referred to net neutrality.⁷⁵⁶ It provides *inter alia* general information on the Regulation and the Guidelines. It also provides an explanation of the activities of EETT concerning net neutrality, indicating the modifications applied to the complaints mechanism of the consumer service department of EETT⁷⁵⁷ and mentioning the participation of EETT in the BEREC Net Neutrality Implementation & Supervision work groups. In total four persons are (partly) involved in the enforcement of the Regulation, corresponding to a yearly average of around one FTE.⁷⁵⁸

The **NN-report EETT 2017**, consisting of 27 pages, provides an overview of the implementation of the Regulation in Greece for the reporting period from 1 May 2016 until 30 April 2017.⁷⁵⁹ EETT presents the national situation and its main activities in relation to net neutrality. Most of the information is collected through an ISP survey (containing questions on zero-rating, sub-internet offers, traffic management practices, and specialised services) sent to major ISPs in Greece representing a cumulative national market share of more than 99 %.

Key-actions for the future identified by EETT in the NN-report EETT 2017 are: (i) drafting additional national rules on net neutrality in line with the BEREC Guidelines, pursuant to Articles 4(3) and 5(1) of the Regulation; (ii) updating the speed measurement platform Hyperion; and (iii) implementing on a formal basis a hybrid system of quality measurements of mobile networks, able to perform measurement analysis in various forms (e.g. while moving, inside a building etc.).

⁷⁵⁵ EETT (2018), Σύσταση της EETT προς τους παρόχους υπηρεσιών πρόσβασης στο διαδίκτυο σχετικά με τις ταχύτητες σύνδεσης Η Εθνική Επιτροπή Τηλεπικοινωνιών και Ταχυδρομείων = EETT Recommendation to internet service providers on the internet access speed.

⁷⁵⁶ EETT (2017), Έκθεση πεπραγμένων 2016 = Activities report 2016.

⁷⁵⁷ As set out under the heading *Complaints* below.

⁷⁵⁸ Survey completed by EETT in the context of this Study.

⁷⁵⁹ EETT (2017), Έκθεση Ανοικτού Διαδικτύου 2016-2017: Ετήσια έκθεση της EETT προς την Ευρωπαϊκή Επιτροπή και το Σώμα Ευρωπαίων Ρυθμιστών Ηλεκτρονικών Επικοινωνιών (BEREC) για την εφαρμογή του Κανονισμού (ΕΕ) 2015/2120 σχετικά με την πρόσβαση στο ανοικτό διαδίκτυο= Open internet exhibition 2016-2017: EETT annual report to the European Commission and the European Regulators' Body for Electronic Communications (BEREC) on the implementation of Regulation (EU) 2015/2120 on access to the open internet (hereafter: NN-report EETT 2017).

The **NN-report EETT 2018**, consisting of 25 pages, provides an overview of the net neutrality situation in Greece and the implementation process of the Regulation in Greece for the reporting period from 1 May 2017 until 30 April 2018.⁷⁶⁰ In this period, EETT focused on the preparation of the aforementioned binding decision for net neutrality, which will clarify the principles laid down in the Regulation. EETT also issued the aforementioned (informal) recommendation urging ISPs to inform end-users more thoroughly concerning the IAS. The report has the same structure as the previous one including results from an ISP survey, quality measurements and analysis of complaints.

The key-actions for the future as identified by EETT in the NN-report EETT 2018 are similar to the key actions set out in previously. In addition the report refers to the amendment of the broader regulatory framework for quality of service indicators for electronic communications networks, which is part of the supervision tasks mentioned in Article 5(1) of the Regulation.⁷⁶¹

Complaints

EETT is competent to settle complaints on the basis of the Regulation from competitors against ISPs. If EETT receives the complaint as a dispute resolution petition, Article 34 of L.4070/2012 only specifies that EETT should settle the dispute with a binding decision. If EETT receives the complaint in the context of an infringement procedure, Article 77 of L.4070/2012 applies. In that case the remedies can consist of recommendations, fines and suspensions or withdrawals of the general authorisation of the ISP. So far EETT has not received any complaints regarding the Regulation from competitors.

EETT does not have the power to settle complaints related to the Regulation from consumers and other end-users against ISPs and cannot impose remedies for such complaints. If EETT receives such a complaint it will inform the end-user that they could at their discretion appeal to one of the Alternative Consumer Dispute Resolution bodies, registered in the special register established and kept by the General Directorate for Consumer Protection and Market Surveillance.⁷⁶² CAPs may file a complaint to the National Council for Radio and Television ("**NCRTV**"), which regulates audio-visual content. EETT may assist the NCRTV in the examination of such complaints if ISPs are involved. EETT can facilitate the communication between end-users and ISPs in order to resolve the complaint. According to EETT's procedure, complaints of subscribers are automatically forwarded to the respective provider since they have the primary responsibility to examine complaints. ISPs are obliged to respond to the subscriber within 20 days. However, EETT may examine individual or collective subscriber complaints and initiate an administrative procedure based on these complaints, if an infringement is detected.

In order to better monitor end-users' complaints concerning net neutrality issues, the consumer service department of EETT upgraded its information system to provide a more detailed record of complaints. It distinguishes the following categories: general

⁷⁶⁰ EETT (2018), 'Έκθεση Ανοικτού Διαδικτύου 2017-2018: Ετήσια έκθεση της EETT προς την Ευρωπαϊκή Επιτροπή και το Σώμα Ευρωπαίων Ρυθμιστών Ηλεκτρονικών Επικοινωνιών (BEREC) για την εφαρμογή του Κανονισμού (ΕΕ) 2015/2120 σχετικά με την πρόσβαση στο ανοικτό διαδίκτυο= Open internet exhibition 2017-2018: EETT annual report to the European Commission and the European Regulators' Body for Electronic Communications (BEREC) on the implementation of Regulation (EU) 2015/2120 on access to the open internet (hereafter: NN-report EETT 2018).

⁷⁶¹ See above, paragraph Implementation, under heading Additional legislation and regulations.

⁷⁶² Law 4070/2012, Article 65 par.4 and 834/2/9-11-2017 Απόφαση της Εθνικής Επιτροπής Τηλεπικοινωνιών και Ταχυδρομείων (ΕΕΤΤ) «Κανονισμός Γενικών Αδειών», όπως ισχύει, Παράρτημα Β', Άρθρο 2.1.14, παρ. Η. = EETT Decision 834/2/9-11-2017 «Regulation on General Authorisation», Annex B, Article 2.1.14, par. H.

quality of service, quality of specific applications and services, restrictions on the use of terminal devices and complaints on contract terms.

From 1 May 2016 to 30 April 2017 EETT's consumer services department received a total number of 106 end-user complaints related to net neutrality: 89 concerning the general quality of IAS, seven concerning the quality of specific applications and services and ten concerning the terms of the IAS contract.⁷⁶³

From 1 May 2017 to 30 April 2018 EETT's consumer service department received a total number of 186 end-user complaints: 176 concerning the general quality of IAS, one concerning the quality of specific applications and services, seven concerning restrictions on the use of terminal devices and two concerning the terms of the IAS contract.⁷⁶⁴

Monitoring and supervision measures

In the reporting period from 1 May 2016 to 30 April 2017, EETT carried out the following monitoring and supervision measures: monitoring of network performance on fixed and mobile networks using EETT's measurement mechanism Hyperion⁷⁶⁵; the annual EETT ISP survey; and examination of net neutrality related information in ISP's contracts.

1) Monitoring of network performance

The report contains the results of QoS measurements of IASs in Greece. The reported results are based on measurements conducted by EETT (using Nemo of Keysight) for mobile networks, and measurements on the web platform 'Hyperion' for fixed networks. The report contains detailed information on the methodology and the execution of the measurements.

EETT concludes that in the area of network performance monitoring, particular attention needs to be given to the very low normally available speed of fixed networks. This creates inconsistency between the advertised and the actual speed. The low normally available speed can be attributed to the xDSL technology in which there are significant losses the further away from the local exchange or other concentration points, but also to the fact that nominal speeds correspond to maximum theoretical speeds at the internet connection level and do not take into account factors such as line length and network congestion.

2) The results of the annual EETT ISP survey 2016-2017

On the basis of the answers provided by ISPs, 14 different traffic management practices were observed. The most common traffic management practice is traffic prioritisation, followed by a number of blocking measures. Other reported traffic management measures include throttling, rate/content adjustment, capacity reservation and load balancing. Prioritisation is usually done by separating all network traffic into traffic classes in order to give priority to voice or video traffic (more commonly), but also to special categories of customers (e.g. business customers). Blocking practices include the blocking of inappropriate or harmful content (including parental controls and antivirus/antimalware services) and port-blocking. EETT notes that certain cases of deliberate degradation of selected applications require further investigation, since in accordance with the Regulation there has to be equal treatment of traffic and any differentiation must be based on objective requirements. Furthermore, EETT notes that there is a lack of transparency concerning traffic management measures. End-users were usually not informed, or only partially informed.

⁷⁶³ NN-report EETT 2017, p. 24.

⁷⁶⁴ NN-report EETT 2018.

⁷⁶⁵ <https://hyperiontest.gr> (accessed 9 October 2018).

There are two common practices that fall under the exception of Article 3(3)(a) of the Regulation. All ISPs block websites of illegal gambling providers blacklisted by the HGC.⁷⁶⁶ In addition, 2 out of 6 ISPs reported a ban on access to websites containing content in violation of intellectual property rights, following a court order. Under the exceptions of Article 3(3)(b), the most common practice is to prevent DDoS attacks. In order to protect vulnerable points of the network, ISPs block IP addresses from which DDoS attacks are carried out. ISPs also block specific ports in order to protect users from spam and phishing mails. The blocking of specific IP addresses is temporary. According to results of the questionnaire the blocking of webpages against fraud or of malicious content, which are blacklisted, is permanent, but the measures are updated by ISPs when there is no longer a reason to block. In some cases the blacklist is developed by the ISP itself. Others use lists from respected organisations, such as CISCO Talos Security and Intelligence. The exact criteria used for blacklisting are not published, but often there is a general reference in the contract terms that an ISP may take measures to protect from security threats and malicious software. EETT did not find any traffic management practices within the exception of Article 3(3)(c).

With regard to commercial practices, a large number of zero-rating offers is available on the Greek market. The majority refer to user support services of the ISP. However, a variety of other applications such as music and video streaming, file storage and QoS measurement applications are zero-rated. The EETT's analysis so far focused on throttling or blocking once the data cap is reached, discriminatory pricing of content of the provider itself compared to similar content provided by third parties, the existence of exclusivity clauses in contracts between ISPs and CAPs and in zero-rating offers.

According to EETT's questionnaire conducted in 2016-2017 the most common specialised services in Greece are IPTV and VoIP, as well as VPN. In terms of use of network capacity, EETT states that IPTV services are of particular importance. In general, providers ensure that there is enough capacity to avoid congestion and apply control criteria before the user can subscribe to the service, e.g. the minimum speed available on the user's connection. However, in order to determine whether there is a downgrading of the overall quality of IAS, measurements and detailed justifications are required.

3) Analysis of net neutrality related information in ISP's contracts 2016-2017

Following a review of ISP contracts and publicly available information EETT concludes that the provided information should be improved. There is a lack of understandable information. Moreover, the information is often general and does not specify the impact of the practice on the IAS.

Specific conclusions of EETT's analysis in relation to the different sub-paragraphs of Article 4(1) are as follows:

- a. ISPs generically state they can apply traffic management practices, in particular pursuant to the exceptions provided in Article 3(3). Information about the precise measures and the impact of these measures is often lacking.
- b. In general, there is no information on the effect of speed or other quality of service parameters on IAS. Several providers refer to fair use policies that contain data volume limits beyond which there is a service barrier or degradation.
- c. The most common specialised service is IPTV. However, the terms of use either do not refer to the effect on the IAS or a potential impact is reported without

⁷⁶⁶ See above, paragraph *Implementation*, under heading *Additional legislation and regulations*, for more on such blocking.

giving any further information on the circumstances and the severity of this effect.

- d. ISPs do not mention specific internet speeds. Some providers of fixed services state that the maximum speed will be determined after service activation without further explanation on the definition or the measurement methodology. Most ISPs state that the normally available speed is as high as possible and depends on many factors.
- e. All companies allow their subscribers to submit complaints in case of discrepancies between the actual performance and the contractually guaranteed performance of the IAS. However, the exact definition of discrepancies and the way they can be measured needs further clarification.

Especially concerning transparency of adequate information on internet speeds and remedies, EETT concluded that more guidance is needed. EETT advocated for a clear and uniform framework for establishing continuous or regularly recurring discrepancies and for the available remedies. This is one of the reasons why EETT is working on the draft decision.⁷⁶⁷

4) Monitoring of network performance

In order to improve the monitoring of network performance EETT upgraded the measuring platform Hyperion by improving the user interface and making measurement data openly available. In 2017 the measurement platform Hyperion had about 15 000 measurements from unique registered users' connections. This is a large increase compared to the previous reporting period.⁷⁶⁸ The tool is not certified.

In the area of network performance monitoring a slight increase in the overall speed of fixed internet access was observed, which can be attributed to the growth of VDSL service providers. However, the delay and delay variation increased, while the percentage of the nominal speed achieved was maintained at approximately the same level. This may indicate congestion in fixed networks.

The measurement campaign regarding mobile networks was carried out by way of drive tests and statically. According to the report the results of the monitoring of mobile networks will be announced in the autumn of 2018 on the EETT website.

5) Results of the annual EETT ISP survey 2017-2018

In the subsequent reporting period from 1 May 2017 to 30 April 2018 EETT: continued its monitoring of IAS performance; carried out a new ISP survey; and examined updated contract terms in ISPs' contracts.

Additionally, EETT conducted an audit on end-users' information that is provided in ISP's stores in order to examine whether end-users are adequately informed about their broadband subscription speeds prior to signing a contract and whether existing subscribers are offered the possibility of downgrading an IAS free of charge, in order to have a nominal speed closer to the realistically achievable speed.

In the EETT survey 2017-2018, 19 traffic management practices were observed. The most common traffic management practice remains traffic prioritisation, followed by traffic shaping and traffic differentiation. Prioritisation is usually applied to voice or video traffic. Traffic shaping refers to data rate limits set in zero-rating offers or in fair use

⁷⁶⁷ See above, paragraph Implementation, under heading Additional legislation and regulations.

⁷⁶⁸ NN-report EETT 2018.

policies. Traffic differentiation is linked to prioritisation and is used either to provide a different quality of service or to charge traffic categories differently (e.g. in zero-rating practices). Other traffic management practices include: capacity management of VoIP traffic, optimisation of video resolutions on mobile networks in poor network coverage conditions, antivirus/antimalware services and parental controls which allow the user to activate security filters, e.g. for pornography. The use of DPI techniques to perform traffic management is done in six cases with the purpose of identifying traffic categories so that the traffic management practices can be applied. End-users are informed of the traffic management in ten cases. This is an improvement compared to 2016-2017. The findings related to traffic management measures falling under the exceptions of Article 3(3) are similar to the findings reported in the NN-report 2017.

Regarding commercial practices, a large number of zero-rating and differentiated pricing programmes are offered (24 active offers at the end of 2017). Compared to the previous reporting period, there is an increase of add-on zero-rated services, in which the user pays a certain fee for a higher zero-rated data cap.

Compared to the NN-report 2017, both the number and type of specialised services offered on the Greek market remain the same. All specialised services are provided via fixed networks.

6) Analysis of net neutrality related information in ISP's contracts 2016-2017

EETT reviewed the most recent contract terms and information provided to end-users. According to EETT, the information related to traffic management practices and internet access speeds has improved. However, similar problems are reported as in the previous year. Consequently EETT is working on its aforementioned draft decision.

Since 30 April 2016, EETT did not conduct any formal investigation and has not taken formal enforcement decisions related to violations of the Regulation.⁷⁶⁹ Nevertheless, EETT requested individual ISPs to provide information on network traffic management (twice), justifications for any traffic management applied (twice), zero-rating offers (twice), sub-internet offers (twice), traffic management exceptions (twice) and specialised services (twice).⁷⁷⁰

Decisions and court cases

There have not been any decisions of court cases in Greece related to net neutrality yet.

13.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Greece.

13.4. Compliance with transparency obligations

The table below⁷⁷¹ provides an overview of desk research of public information provided on the websites of ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

⁷⁶⁹ Survey completed by EETT in the context of this Study.

⁷⁷⁰ Survey completed by EETT in the context of this Study.

⁷⁷¹ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 44: Overview of desk research on transparency obligations

ISP #	(a) 772	(b) 773	(c) 774	(d) 775	(e) 776	Comments
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	N/A	✓	N/A	≈	✓	(d): No reference is made to any measures taken in cases of significant discrepancies (e.g. from other MNOs: amendment or termination of agreement).
ISP 4	✓	✓	N/A	✓	N/A	-
ISP 5	N/A	✓	N/A	N/A	✓	-
ISP 6	✓	N/A	N/A	✓	✓	-
ISP 7	✓	✓	N/A	✓	✓	-
ISP 8	N/A	✓	N/A	≈	✓	Same comment as for ISP 3

⁷⁷² Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁷⁷³ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁷⁷⁴ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁷⁷⁵ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁷⁷⁶ Remedies, as further set out in Article 4(1)(e) of the Regulation.

13.5. Overview of relevant net neutrality themes in Greece

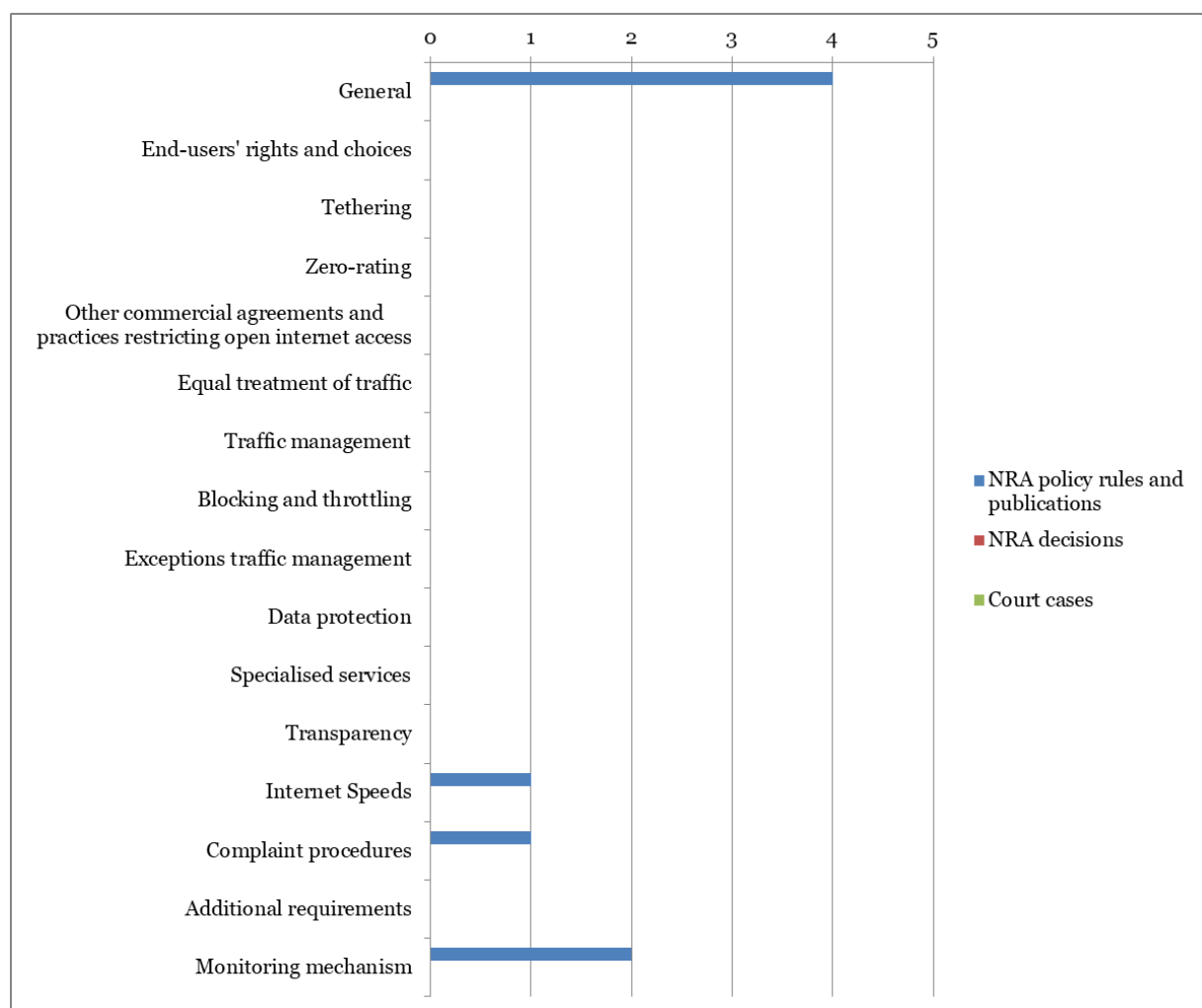


Figure 26: Blue: NN-report EETT 2017, NN-report EETT 2018, Draft of EETT decision of 2 October 2017, Hellenic Telecommunications & Post Commission annual report 2016, EETT Recommendation to the providers of IASs with respect to the internet access speed, EETT Decision 834/2 9-11-2017 «Regulation on General Authorisation» and monitoring mechanism Hyperion and Nemo.

13.6. Summary of key topics and noteworthy findings

EETT focused its monitoring and supervision activities primarily on traffic management measures and transparency. EETT performed measurements of the quality of IASs, sent out surveys and reviewed contract terms and information provided by ISPs to end-users. Following the results EETT started preparing a decision with further guidance and additional requirements on the basis of Article 4(3) and 5(1) of the Regulation.

On 22 February 2018 EETT issued a non-binding recommendation to providers of fixed IAS, which applies until the above binding decision enters into force.⁷⁷⁷ EETT recommends providers of fixed IAS to: (i) adequately inform end-users before an agreement is concluded on the actual maximum speed of the IAS and (ii) to allow existing subscribers to downgrade their IAS free of charge (i.e. without paying a penalty

⁷⁷⁷ EETT (2018), Σύσταση της EETT προς τους παρόχους υπηρεσιών πρόσβασης στο διαδίκτυο σχετικά με τις ταχύτητες σύνδεσης Η Εθνική Επιτροπή Τηλεπικοινωνιών και Ταχυδρομείων = EETT Recommendation to internet service providers on the internet access speed.

for premature end of contract), in order to have a nominal speed closer to the realistically achievable speed.

EETT actively monitors the quality of fixed IAS using the data gathered from end-users using its measurement mechanism Hyperion and of mobile IAS by carrying out measurement campaigns.

In Greece, ISPs are required to block websites of illegal gambling providers blacklisted by the HGC pursuant to the obligations laid down in national legislation.

The table below provides an overview of the results in Greece for some of the key topics.

Key topic	Result Greece
Pre-existing legislation	No
Maximum fine	€3 000 000
Imposed fines	None
Additional legislation	Yes, Law 4002/2011 (The gambling law)
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No (not yet), awaiting Decision which still has to be adopted in final form
Requirements imposed by NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No (not yet), non-binding recommendation to be followed by Decision (still to be adopted in final form)
Number of FTEs in NRA involved in net neutrality	1
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Authority to settle complaints of competitors
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	292 complaints from end-users (complaints registered and addressed to responsible ISP) 0 complaints from CAPs 0 complaints from competitors
Number/percentage of complaints that were settled by the NRA.	<i>Not applicable</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Traffic management, transparency (contract information), internet speeds, monitoring mechanism
Monitoring mechanism (certified yes/no)	Yes Hyperion, not certified Nemo (third party), not certified
Self-regulation and/or co-regulation	No

14. Hungary

14.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Hungary prior to the adoption of the Regulation.

In 2012, the Hungarian NRA *Nemzeti Média- és Hírközlési Hatóság* ("**NMHH**") issued a decree containing rules related to minimum quality of service requirements.⁷⁷⁸ This decree requires ISPs to: (i) publish in a searchable, storable and printable format information relating to guaranteed and offered download and upload speed on their website; (ii) publish a coverage map on their website, if they provide mobile internet access and (iii) indicate the guaranteed, and the offered upload and download speeds in every advertisement relating to the offered services. The information should be provided in a standard format. In 2015, NMHH issued a new decree requiring ISPs to publish standard service description tables for each of their IAS offers on their websites and to update this description continuously.⁷⁷⁹ These decrees remained in force after the Regulation became applicable.

Competent authority and penalty rules

The Electronic Communications Act gives NMHH the authority to supervise electronic communication service providers by way of electronic communication rules and acts.⁷⁸⁰ Even though this Act has not been amended after the Regulation, NMHH considers the Regulation to be a set of 'electronic communication rules', which enable it to supervise compliance with the Regulation.

NMHH may impose the normal sanctions for infringements of the Regulation. If a breach is neither serious nor continuous, NMHH may decide to order the offending ISP to cease the unlawful behaviour, refrain from future unlawful behaviour or change its behaviour within a determined timeframe. It can also set conditions.⁷⁸¹ If the infringement is serious or continuous, NMHH may impose a fine of up to 0.5 % of the ISP's net turnover during the most recent business year in case of (i) a breach of the rules pertaining to electronic communication; (ii) unlawful deviations from the required content of general terms and conditions; or (iii) failure to comply with a notification obligation.⁷⁸² The applicable rules of administrative procedure do not contain explicit rules concerning periodic penalty payments and such periodic or other penalty payments have not been imposed in practice (in net neutrality cases).

⁷⁷⁸ NMHH rendelet az elektronikus hírközlési szolgáltatás minőségének az előfizetők és felhasználók védelmével összefüggő követelményeiről, valamint a díjazás hitelességéről szóló = Decree of the NMHH on the rules of quality of services (Quality Decree), 13/2011 (XII.27).

⁷⁷⁹ NMHH rendelet az elektronikus hírközlési előfizetői szerződések részletes szabályairól = Decree of the NMHH on the rules of subscription agreements (Electronic Communications Decree), 2/2015 (III. 30).

⁷⁸⁰ 2003. évi C. törvény az elektronikus hírközlésről = Electronic Communications Act C 2003 (hereafter: Electronic Communications Act), Article 10.13.

⁷⁸¹ Electronic Communications Act, Article 49.2.

⁷⁸² Electronic Communications Act, Article 49.4.

In the NN-report NMHH 2017, NMHH stated that it did not identify any circumstance that would justify the introduction of additional specific sanctions for net neutrality other than those already available.⁷⁸³

Additional legislation and regulations

The additional transparency and quality requirements set out by NMHH prior to the Regulation⁷⁸⁴ are still applicable.

14.2. Monitoring, supervision and enforcement

General information and reports

Through annual supervisory plans,⁷⁸⁵ *ex officio* investigations, market monitoring and its measurement mechanism,⁷⁸⁶ NMHH supervises and enforces the Regulation. NMHH noted that 15 of its employees are involved in net neutrality, with an annual average of two FTEs in 2017.

In the **NN-report NMHH 2017**, consisting of 21 pages, NMHH sets out its monitoring activities. NMHH found that in general ISPs comply with the Regulation. When the NN-report NMHH 2017 was published, NMHH was still investigating some practices of ISPs and their offered plans.⁷⁸⁷ Furthermore, NMHH stated that it could effectively monitor and control compliance with net neutrality requirements. NMHH also noted it was improving its monitoring systems to increase recognition of the system and its results in order to improve enforcement of the Regulation for both end-users and ISPs.⁷⁸⁸

In the **NN-report NMHH 2018**, consisting of 18 pages, NMHH explains its monitoring and enforcement activities in relation to compliance with transparency, quality of service and traffic management obligations.⁷⁸⁹ According to this report ISPs started introducing new types of zero-rated offers that did not allow the use of the zero-rated services after the data cap was reached. According to NMHH, monitoring compliance of these new offerings with the Regulation is a new challenge.

⁷⁸³ NMHH (2017), Jelentés a hálózatsemlegesség magyarországi helyzetéről: Az Európai Parlament és a Tanács 2015. november 25-i (EU) 2015/2120 rendelete szerint a 2016. április 30-tól 2017. április 30-ig terjedő időszakra vonatkozóan = Report on the situation of network neutrality in Hungary in accordance with Regulation (EU) No 2015/2120 of the European Parliament and of the Council of 25 November 2015 for the period from 30 April 2016 to 30 April 2017 (hereafter: NN-report NMHH 2017).

⁷⁸⁴ See above in this paragraph, under heading *Pre-existing net neutrality legislation*.

⁷⁸⁵ NMHH (2016), A nemzeti média- és hírközlési hatóság 2017. évi felügyeleti terve: elektronikus hírközlés posta = The annual supervisory plan of the NMHH for the year 2017: electronic communication postal service. NMHH (2017), A nemzeti média- és hírközlési hatóság 2018. évi felügyeleti terve: elektronikus hírközlés posta = The annual supervisory plan of the NMHH for the year 2018: electronic communication postal service.

⁷⁸⁶ This internet speed measuring mechanism can be accessed at: <http://www.szelessav.net/> (accessed 25 July 2018). See below in this paragraph, under heading *Monitoring and supervision measures*.

⁷⁸⁷ These plans are discussed in more detail below in this paragraph, under heading *Monitoring and supervision measures*.

⁷⁸⁸ See below in this paragraph, under heading *Monitoring and supervision measures*.

⁷⁸⁹ NMHH (2018), A nyílt Internet helyzete Magyarországon 2017: Éves jelentés a 2017. április 30-tól 2018. május 01-ig terjedő időszakra vonatkozóan a hálózatsemlegesség témakörében = Annual report on the topic of net neutrality for the period from 30 April 2017 to 1 May 2018 (hereafter: NN-report NMHH 2018).

Complaints

In both NN-reports, NMHH stated that it had not received any complaints regarding net neutrality yet. NMHH does not have the power to settle complaints related to the Regulation from consumers, other end-users or competitors against ISPs and cannot impose remedies for such complaints.

Monitoring and supervision measures

Besides *ex officio* investigations and its monitoring mechanism, NMHH also uses other monitoring and supervision methods. In the NN-report NMHH 2017, reference is made to an open source software mechanism (Glasnost) adopted by NMHH. It inspects blocking of specific sites (e.g. torrent sites) and detects traffic discriminations (e.g. slow-downs) through software measurements. In February 2017 the original international version of Glasnost was shut down.⁷⁹⁰ Nonetheless, the Glasnost system of NMHH functions independently from the original international Glasnost system and is still operational. NMHH intends to change this system in the near future and is developing a system in close cooperation with the Budapest University of Technology and Economics. In the NN-report NMHH 2018, NMHH states it monitored the net neutrality aspects of contractual and commercial terms of ISPs (mainly zero-rating offers). Furthermore, NMHH monitored possible restrictions of end-users' rights in relation to the use of terminal equipment.

In the NN-report NMHH 2018, NMHH sets out how it used surveys to monitor compliance with the Regulation. NMHH collected information relating to net neutrality with an annual survey amongst subscribers and end-users. NMHH conducted a survey to monitor the public opinion on net neutrality. NMHH reported the following results of the annual survey undertaken amongst subscribers and end-users:

- 14 % of end-users subscribed to zero-rated plans of mobile ISPs;
- in 2017, 58 % of fixed IAS end-users experienced some problems with their IAS. The most common problem was connection failure, i.e. when it is not possible to reach the internet at all. Slow internet speeds were also a common problem; and
- the number of customers who were satisfied with their internet speeds remained unchanged compared to previous years: 75 % of the fixed IAS end-users and 66 % of the mobile IAS end-users declared that their ISP more or less provided the offered speed.

With regard to the survey of the public opinion regarding net neutrality, NMHH noted in the NN-report NMHH 2018 that consumer awareness of net neutrality increased by 22 % compared to the previous reporting period. It was still considered too low. Based on these findings, NMHH announced measures to improve awareness e.g. via social media.

Finally, NMHH launched an internet speed monitoring mechanism in 2015, which is still being used.⁷⁹¹ NMHH did not explicitly certify the monitoring system but it can be used to prove significant discrepancies and can as such be considered to be certified. Therefore it qualifies as a monitoring system referred to in Article 4(4) of the Regulation.⁷⁹² However, Hungarian law is based on the free deliberation of evidence by the court in a dispute, so any measurement results may be suitable to influence the decision but a dispute will not be automatically decided based only on the results of the

⁷⁹⁰ Max Planck Institute for Software Systems, Glasnost: Test if your ISP is shaping your traffic (<http://broadband.mpi-sws.org/transparency/glasnost.php>, accessed 7 August 2018).

⁷⁹¹ <http://www.szelessav.net/> (accessed 25 July 2018).

⁷⁹² BEREC Guidelines (2016), para 161.

mechanism. NMHH reported that the mechanism has been used 2 769 408 times between April 2016 and June 2018.⁷⁹³

In the NN-report NMHH 2017, NMHH stated that the monitoring system showed the offered speed was reached in 72.4 % of the measurement locations and 76.7 % of the IASs were able to reach the offered speed. However, services were characterised by considerable fluctuations of speed. NMHH concluded in the NN-report NMHH 2017 that the average speed of some of the IASs is often below the advertised speed during peak times. NMHH did not take any follow-up actions concerning the internet speed of IASs yet.

In the NN-report NMHH 2018, NMHH stated that measurements from the internet speed monitoring mechanism showed it was likely that some IASs would fail to meet the quality of service requirements, even if a more permissive interpretation of the concept of 'normally available speed' would be used. Nevertheless, the results significantly improved compared to previous years. In the speed category exceeding 100 Mbps, the results were clearly worse than in other categories. Furthermore, even though in peak times the performance decreased less than in previous years, the average download speeds still varied throughout the day, especially during weekends and on national holidays. Furthermore, NMHH assumed that measurements showed that fixed ISPs were able to artificially and continuously limit the upload and download speeds to a level below the commercial maximum speed value in some plans. Limitations of upload and download speeds could have net neutrality implications. NMHH stated it is examining these packages.

NMHH requested information from ISPs on network capacity management (once), traffic management (once) and justifications for traffic management measures (once).

NMHH investigated zero-rating. This resulted in enforcement decisions subject to appeal.⁷⁹⁴ Furthermore, NMHH launched one investigation into end-users' rights and choices, and several investigations of zero-rating offers. These investigations for potential breach of Article 3 of the Regulation were not finalised yet:

1. Zero-rating - 'Unlimited social media and navigation' & 'Unlimited chat' - Telekom Magyar's packages offer unlimited social media and chat usage. Data used did not count towards the data cap provided in the package and the download and upload speeds were not throttled or blocked, even if the data cap was reached. The ISP discontinued these offers.
2. End-users' rights and choices - Unlimited package 'Korlátlan Net'- Telekom Magyar's package includes unlimited browsing data in Hungary and 15 GB in the EU. This package may only be used by consumers and the SIM card linked to this package can only be used in mobile phones. It breaches the contract, if the SIM is used in devices that are not meant to be used for making voice calls. The download and upload speed is significantly slowed down when using certain traffic types (P2P, VPN) and in case of certain means of use (BitTorrent), in order to ensure the security of services and the coherence of the network.
3. 'Red Infinity' - Vodafone Magyarország offers unlimited mobile data in Hungary, but limits the video resolution for playing video content to 480p. This resolution provides an optimal quality of service, when played on mobile phones ('optimisation service'), but on larger screens it may be of inferior quality. The ISP offers an opt-out option from the optimisation service. NMHH is examining whether this package breaches the obligations included in the Regulation because it discriminates between traffic in the meaning of Article 3(3) of the Regulation.

⁷⁹³ Survey completed by NMHH in the context of this Study.

⁷⁹⁴ See below in this paragraph, under heading *Decisions and court cases*.

4. Zero-rating – 'Vodafone Pass' – This offer includes unlimited use, even in case of minimum data packages, of certain content and applications (e.g. navigation, social media, chat, etc.), until the purchased general data plan runs out. Once the data cap is reached, the upload and download speed of the package is restricted to 0 Mbit/s. Consequently also the zero-rated content and applications cannot be used once the data cap is reached.

Decisions and court cases

In 2016, NMHH launched investigations into the zero-rating offers of Magyar Telekom and Telenor Magyarország. Magyar Telekom offered a zero-rated plan for television and film.⁷⁹⁵ Telenor Magyarország offered zero-rated plans for social media and music applications (together: 'zero-rating plans').⁷⁹⁶ In all three cases users were able to use the zero-rated applications even after their data cap was exceeded, whereas other types of internet usage were blocked. The main issue in the zero-rating cases was the fact that ISPs used the zero-rating offers to steer traffic towards certain CAPs and away from others, based on the ISPs' business interests. NMHH established that these offers constituted traffic management measures that were not allowed under Article 3(3) of the Regulation. The fact that zero-rated traffic did not count against the generic data cap of the subscriber was not at issue in these cases.

The first plan offered by Magyar Telekom '*Korlátlan TV és film*' (Unlimited TV and film; the 'unlimited option'), offered unlimited access exclusively to two online video streaming services (TV GO, HBO GO). The unlimited option could be chosen by subscribers with a mobile or home data and television package. It was not only available for subscribers of Magyar Telekom, but any user who has internet access could purchase the unlimited option. By purchasing the unlimited option subscribers could use TV GO and HBO GO services without generating chargeable data traffic. This meant that the TV GO services could be used via the internet without limitation and the usage of such services did not reduce the data traffic quota of the post-paid mobile or home subscription, whereas the usage of other similar services did. At the request of NMHH the ISP confirmed that after the underlying data package purchased by the subscriber ran out all services except the ones included in the Unlimited Option were slowed down.

The packages offered by Telenor Magyarország included unlimited use of specific music streaming services, online radio and certain social media and messaging services. The packages were available as an option for all monthly post-paid and prepaid customers with an active mobile data package. The basic music package offered 500 MB data for four specific streaming applications (Deezer, Apple Music, Tidal, Spotify) and seven online radios (Kossuth, Petőfi, Bartók, Dankó, Rádió 1, Music FM and Sláger FM) (the 'music applications'). The social media package had two components: 1 GB data free to use and domestic quota-free use of certain social media and messaging applications such as Facebook, Facebook Messenger, WhatsApp, Instagram, Twitter and Viber (the 'social media'). The data traffic generated by the music applications and the social media part of the package was not deducted from the data quota available to subscribers. After the amount of data included in the quota was used, the music applications and the social media remained available to subscribers without restrictions. In contrast, data traffic generated by other internet usage incurred charges and access to them, depending on the tariff plan of the subscriber, was slowed down or blocked once the amount of data included in the subscriber's data pack was used.

⁷⁹⁵ NMHH Decision of 21 November 2016, OH/21331-4/2016.

⁷⁹⁶ NMHH Decision of 11 January 2017, OH/29545-6/2016. NMHH Decision of 19 January 2017, OH/27686-5/2016.

NMHH concluded that the traffic management measures in these plans violated Article 3(3) of the Regulation. NMHH determined that the commercial practice of ISPs deviated from the requirements set out in the Regulation because:

- it provided preferential treatment to certain internet content (cinematographic content in case of Magyar Telekom and social media, chat, music and online radio in case of Telenor Magyarország) without justification;
- Magyar Telekom provided preferential treatment to a certain categories of services (e.g. films, series) included in the Unlimited Option, whereas other similar content could not be accessed in the same way; and
- both ISPs provided preferential treatment only to certain applications (TV GO, HBO GO, certain radio channels, social media sites), even if several other similar applications were available on the market.

In its first instance decisions, NMHH found that the zero-rating plans could be considered as a traffic management measure that differentiates between internet content and therefore breaches the requirements of non-discrimination and equal treatment. Additionally, NMHH found that such measures could not be deemed reasonable because they were not based on objectively different quality of service requirements. On the contrary they were based solely on commercial considerations. Therefore they were prohibited under Article 3(3) of the Regulation.

NMHH only reviewed the zero-rating packages in light of compliance with Article 3(3) of the Regulation and also referred to paragraphs 41 and 55 of the BEREC Guidelines. NMHH's decisions (first and second instance) did not include a comprehensive assessment as set out in paragraph 46 of the BEREC Guidelines. This was criticised by ISPs in their appeal submitted to the second instance authority, i.e. the president of NMHH. The president of NMHH in the case of Magyar Telekom stated that the comprehensive assessment was not necessary because the practices could be defined as objective infringements of the Regulation. The provisions aiming to prevent any negative effects on the rights of the end-users and the market were created based on a well-founded and assessed theory (laid down in the preamble of the Regulation). Therefore, he did not consider it necessary to further prove or support the existence of such infringing practices; because the breach of said provisions in itself proves the occurrence of the infringement. In summary, NRAs do not need to prove the negative effects of such objectively infringing practices.

This interpretation was confirmed in the second instance decisions in the cases of Telenor Magyarország. In its appeal submitted to the president of NMHH, Telenor Magyarország criticised that the NRA did not take into account the provisions of Articles 3(1) and 3(2) and only based its findings on Article 3(3) of the Regulation. Additionally, it criticised the fact that the NRA did not conduct a comprehensive assessment examining market positions and effects on end-users. In the second instance decision the president stated that the Regulation does not require a comprehensive assessment in case of traffic management measures breaching Article 3(3). NMHH also stated that Telenor Magyarország's offers clearly fell under paragraph 55 of the BEREC Guidelines and were, as such, objectively considered agreements or practices involving technical discrimination constituting unequal treatment, which is not compatible with Article 3(3).

Consequently, NMHH's President dismissed both appeals.⁷⁹⁷ ISPs submitted a request for judiciary review of NMHH's decision to the competent administrative court and requested a preliminary ruling of the European Court of Justice. The court dismissed the request for

⁷⁹⁷ President of the NMHH Decision of 30 January 2017, MD/21331-10/2016. President of the NMHH Decision of March 2017, MD/27686-9/2016. President of the NMHH Decision of March 2017, MD/29545-10/2016.

judiciary review against the decision in the case against Magyar Telekom (without referring the case to the European Court of Justice), following which the plan was discontinued.⁷⁹⁸ The decision by the court to dismiss the request for judiciary review has not been published. As far as NMHH is aware, Magyar Telekom did not appeal the court's dismissal of its request for judiciary review. The other two appeals of Telenor are still ongoing.

14.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation with regard to net neutrality in Hungary.

14.4. Compliance with transparency obligations

The table below⁷⁹⁹ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 45: Overview of desk research on transparency obligations

ISP #	(a) 800	(b) 801	(c) 802	(d) 803	(e) 804	Comments
ISP 1	≈	✓	✓	✓	✓	(a): The explanation is quite brief and confusing regarding the actual effect that traffic management measures may have on the quality of services, or rights of the user.
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	✓	N/A	✓	≈	(e): The General Terms and Conditions (GTC) do not specifically refer to the fact that users may always turn to the competent courts, regardless of using other legal remedy procedures.
ISP 4	≈	✓	N/A	✓	✓	(a): The GTC contain provisions relating to the effect of traffic management measure, but they are with small print and are not clearly structured in the document.
ISP 5	≈	≈	N/A	✓	✓	(a): The GTC contain the description of traffic management measures. However, the effects are not clearly stated. (b): The description of QoS parameters undertaken by the ISP is quite brief compared to the other two incumbents.
ISP 6	≈	✓	N/A	✓	✓	(a): According to the GTC the ISP qualifies its subscribers as "excess traffic generating subscriber" after downloading a certain amount of data, who are then ranked lower on the priority list when distributing network resources during network overload. We understand from the NRA NN- report that the NMHH is still investigating whether this intervention is in violation of the provision on net neutrality.

⁷⁹⁸ Survey completed by NMHH in the context of this Study.

⁷⁹⁹ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁸⁰⁰ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁸⁰¹ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁸⁰² Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁸⁰³ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁸⁰⁴ Remedies, as further set out in Article 4(1)(e) of the Regulation.

14.5. Overview of relevant net neutrality themes in Hungary

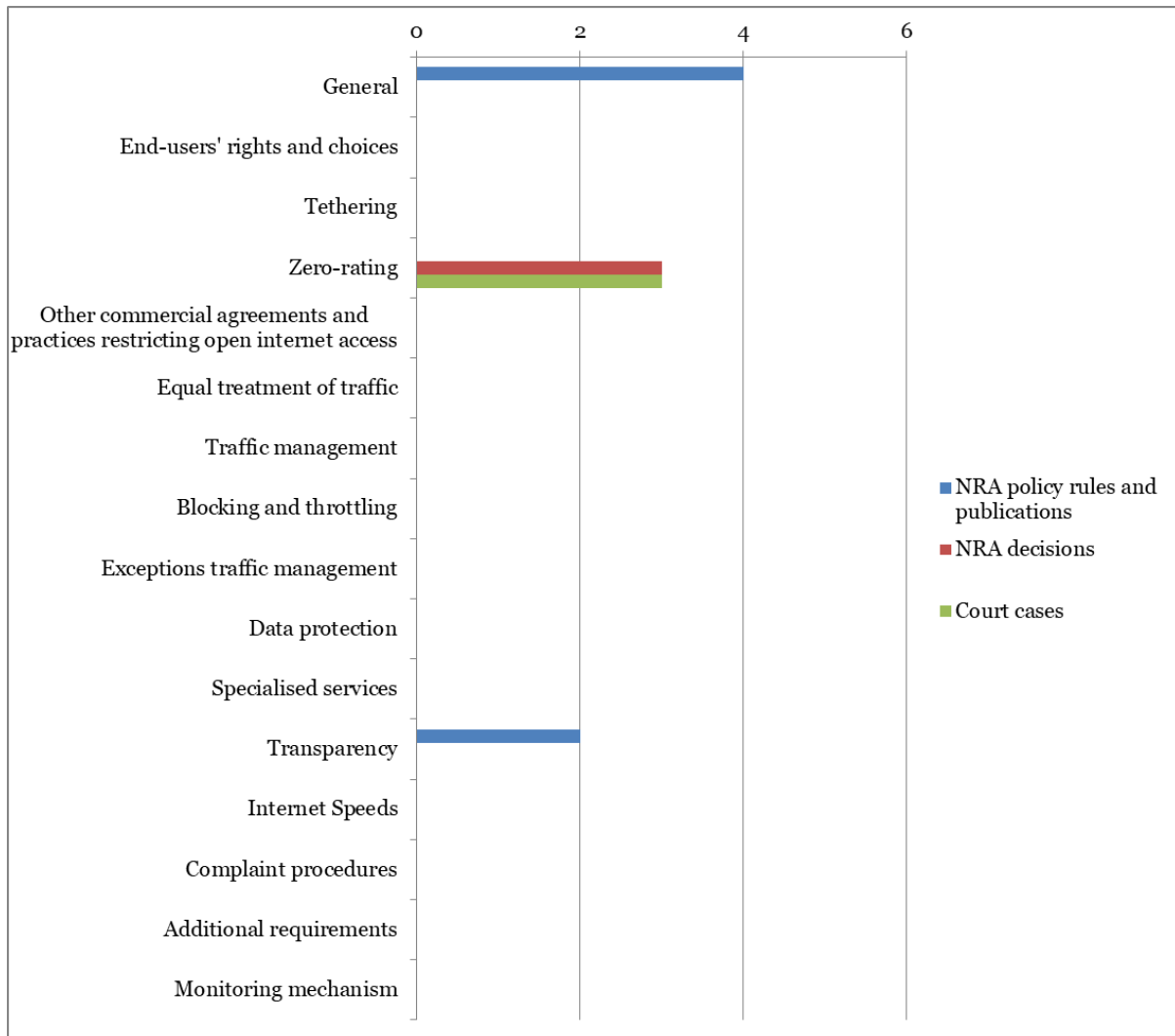


Figure 27: **Blue:** NN-report NMHH 2017, NN-report NMHH 2018, Annual supervisory plan of the NMHH for 2017, Annual supervisory plan of the NMHH for 2018, Quality Decree and Electronic Communications Decree. **Red:** NRA Decisions of 30 November 2016, 11 January 2017 and 19 January 2017. **Green:** (Pending) court cases regarding the three NRA decisions.

14.6. Summary of key topics and noteworthy findings

NMHH investigated zero-rating offers of Magyar Telekom and Telenor Magyarország. Magyar Telekom offered a zero-rated plan for television and film. Telenor Magyarország offered zero-rating of social media and music applications. The zero-rated content was not deducted from the data cap, and once the cap was reached zero-rated services remained available while other content was blocked or slowed down. NMHH found that the zero-rating plans could be considered traffic management measures violating the requirements of non-discrimination and equal treatment. Moreover, there was no justification for these measures, because they were not based on objectively different quality of service requirements of specific categories of traffic, but on commercial considerations. Therefore, the measures were prohibited under Article 3(3) of the Regulation. The review by NMHH does not include an assessment on the basis of Article 3(2) of the Regulation.

Both decisions were appealed and both companies requested to refer the cases to the European Court of Justice. In the case of Magyar Telekom, the decision of NMHH was confirmed by the court. The other cases of Telenor are still pending. No preliminary questions have been asked to the European Court of Justice yet.

In the second reporting year, NMHH noticed that ISPs started introducing new types of zero-rating offers that did not allow the use of the zero-rated services once the data cap was reached. According to NMHH, the monitoring of the compliance of these new offerings with the Regulation is still a new challenge.

Other investigations relate to restrictions to use a SIM card only in mobile phones by consumers and low speeds when using certain traffic types (P2P, VPN) and in case of certain means of use (BitTorrent), in order to ensure the security of services and the coherence of the network. Also, NMHH is investigating an offer that restricts the resolution rate of videos to 480p. These investigations are still ongoing.

The table below provides an overview of the results in Hungary for some of the key topics.

Key topic	Result Hungary
Pre-existing legislation	Yes, transparency legislation (still in force)
Maximum fine	0.5 % of the ISP's net turnover for the most recent business year
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	None
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	0
Number/percentage of complaints that were settled by the NRA	<i>Not applicable</i>
Number of NRA decisions	3
Number of court cases	3 (2 pending)
Main net neutrality themes	Zero-rating, internet speeds, monitoring mechanism (to test non-conformity of performance)
Monitoring mechanism (certified yes/no)	Yes (certified)
Self-regulation and/or co-regulation	No

15. Ireland

15.1. Implementation

Pre-existing legislation

There was no net neutrality legislation in Ireland prior to the adoption of the Regulation.

Competent authority and penalty rules

Ireland's Communications Regulation Act grants the Commission for Communications Regulation ("**ComReg**") the authority to ensure compliance by undertakings with obligations in relation to the supply of and access to electronic communications services, electronic communications networks and associated facilities as well as the transmission of such services on such networks.⁸⁰⁵

Legislation to give effect to the Regulation has not yet been adopted in Ireland. Consequently there is no provision for criminal sanctions, no provision to seek penalty orders from the civil courts and no provision that allows ComReg to impose a penalty for infringements of the Regulation. The Department of Communications, Climate Action & Environment has drafted regulations, which are considered by the Office of Parliamentary Counsel. It is anticipated that ComReg will be provided with the necessary enforcement powers shortly.⁸⁰⁶

Additional legislation and regulations

There is no additional legislation or regulation in Ireland concerning net neutrality.

15.2. Monitoring, supervision and enforcement

General information and reports

ComReg supervises the Regulation by conducting market surveillance of information published by ISPs, by sending information requests to ISPs and by analysing consumer complaints and end-users' reports. ComReg noted that in 2017, four of its employees were involved in net neutrality, amounting to an average of three FTEs in 2017.⁸⁰⁷

In a 2017 ComReg set out its strategic intent and vision.⁸⁰⁸ In relation to net neutrality, ComReg noted that a monitoring and compliance programme was being implemented to monitor traffic management practices and transparency in consumer contracts.

In the **NN-report ComReg 2017**, consisting of 13 pages, ComReg outlined how it would (i) safeguard open internet access; (ii) ensure that transparency measures are in place for open internet access; (iii) supervise and remedy breaches of the Regulation; and (iv) implement the penalties for such breaches.⁸⁰⁹ However, ComReg predicted that its lack of enforcement powers and the lack of Irish legislation on penalties for breaches would hinder its progress in enforcing net neutrality.

⁸⁰⁵ Communications Regulation Act 2002, number 20 of 2002, Article 10(1)(a).

⁸⁰⁶ Information provided by the Department of Communications, Climate Action & Environment on 3 October 2018.

⁸⁰⁷ Survey completed by ComReg in the context of this Study.

⁸⁰⁸ ComReg (2017), Electronic Communication Strategy Statement: 2017-2019.

⁸⁰⁹ ComReg (2017), Implementation of EU net neutrality Regulations in Ireland: 2017 report (1 May 2016 to 30 April 2017) (hereafter: NN-report ComReg 2017).

In the **NN-report ComReg 2018**, consisting of 14 pages, ComReg stated to focus on: (i) general monitoring mechanisms; (ii) a certified measurement technique; and (iii) publicly available QoS checking solutions.⁸¹⁰ ComReg noted that a preliminary version of (i) was completed, tested and ready for national deployment. A solution to (ii) had also been developed and was ready for use in enforcement cases, assuming that ComReg would receive the appropriate enforcement powers. Regarding (iii), ComReg allocated resources to the development of a reference system measurement mechanism, expected to be delivered to BEREC in Q3 2019.

Complaints

ComReg does not have the competence to settle complaints related to the Regulation by consumers, other end-users or competitors against ISPs and cannot impose remedies for such complaints. However, in anticipation of more enforcement powers, ComReg is consulting upon alternative dispute resolution procedures, intended for disputes related to the Regulation between end-users and ISPs.

Monitoring and supervision measures

In the **NN-reports ComReg 2017 & 2018**, ComReg set out that it mainly uses the following mechanisms to monitor compliance with the Regulation: (i) market surveillance of information published by ISPs; (ii) specific information requests addressed to ISPs; (iii) analysis of consumer complaints; and (iv) analysis of end-users' reports. Furthermore, in the reports ComReg stated that informal information requests were sent to ISPs and informal discussions were held with ISPs regarding traffic management and contract information. However, in the absence of enforcement powers, ComReg did not commence formal assessments of agreements on commercial and technical conditions, of commercial practices such as zero-rating, of price discriminations practices, of port-blocking, of traffic management and other relevant ISP practices. In the NN-report ComReg 2018, ComReg noted that it had conducted normal market monitoring for the purpose of detecting specialised services and the terms and conditions on which such services are supplied.

Decisions and court cases

There have been no decisions and/or court cases, whether in civil or administrative courts, related to net neutrality in Ireland.

15.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation regarding net neutrality in Ireland.

15.4. Compliance with transparency obligations

The table below⁸¹¹ provides an overview of desk research of public information provided on the websites of ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

⁸¹⁰ ComReg (2018), Implementation of EU net neutrality Regulations in Ireland: 2018 report (1 May 2017 to 30 April 2018) (hereafter: NN-report ComReg 2018).

⁸¹¹ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 46: Overview of desk research on transparency obligations

ISP #	(a) 812	(b) 813	(c) 814	(d) 815	(e) 816	Comments
ISP 1	N/A	N/A	N/A	N/A	N/A	-
ISP 2	✓	N/A	N/A	✓	N/A	-
ISP 3	N/A	N/A	N/A	✓	N/A	-
ISP 4	N/A	N/A	N/A	≈	N/A	(a): the ISP states that it can publish fair use policies, which will contain traffic management and/or quality of service parameters. (d): the ISP states that it cannot guarantee any minimum service levels.
ISP 5	✓	≈	N/A	≈	N/A	(b): the ISP only states that it will manage the capacity of its networks if certain qualities of service parameters are exceeded. The exact parameters are subject to change, though, which makes it hard for end-users to determine when they will be affected. (d): the ISP cannot guarantee internet speeds.
ISP 6	N/A	N/A	N/A	N/A	N/A	-

⁸¹² Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁸¹³ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁸¹⁴ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁸¹⁵ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁸¹⁶ Remedies, as further set out in Article 4(1)(e) of the Regulation.

15.5. Overview of relevant net neutrality themes in Ireland

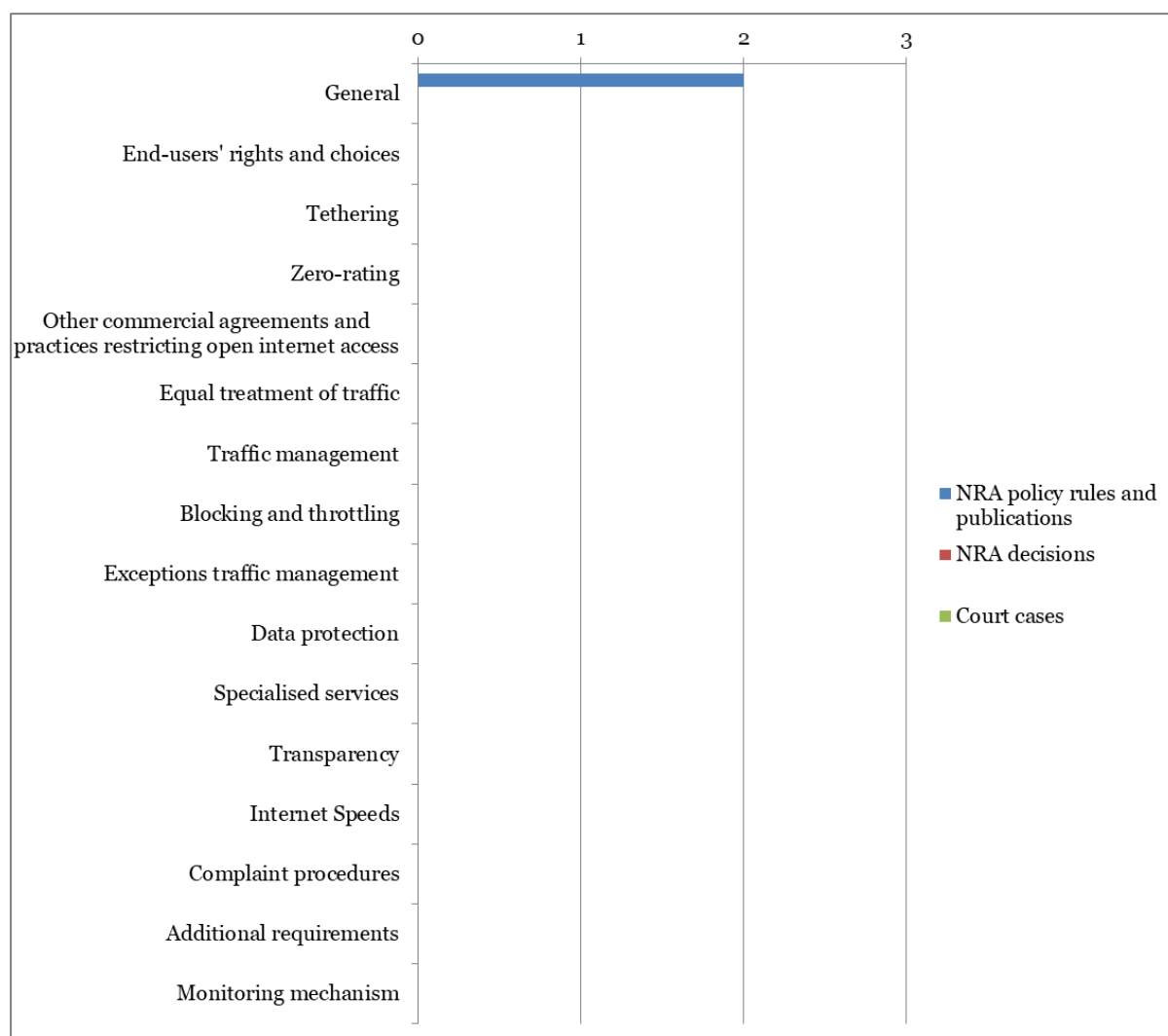


Figure 28: Blue: NN-report ComReg 2017 and NN-report ComReg 2018.

15.6. Summary of key topics and noteworthy findings

Because national enforcement legislation has not yet been adopted in Ireland, there is no provision for criminal sanctions, no provision to seek remedies from the civil courts and no provision allowing ComReg to impose a penalty. Furthermore, the transparency obligations from the Regulation, which go further than the Universal Services Directive,⁸¹⁷ have not been implemented in Ireland.

In the absence of enforcement powers, ComReg has not commenced formal assessments of agreements on commercial and technical conditions, of commercial practices such as zero-rating, of price discriminations practices, of port-blocking, of traffic management and other relevant ISP practices.

The table below provides an overview of the results in Ireland for some of the key topics.

⁸¹⁷ Universal Service Directive, 2002/22/EC.

Key topic	Result Ireland
Pre-existing legislation	No
Maximum fine	Because national enforcement legislation has not yet been put in place in Ireland, it is not possible to impose penalties for infringements of the net neutrality provisions
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	3
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	None
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Transparency (contract information), Monitoring mechanism (to test non-conformity of performance), Level of Penalties / Remedies
Monitoring mechanism (certified yes/no)	No
Self-regulation and/or co-regulation	No

16. Italy

16.1. Implementation

Pre-existing net neutrality legislation

Although quality of service obligations (including transparency on advertised broadband speed) were already in place, there was no specific net neutrality legislation in Italy prior to the adoption of the Regulation. However, in the Declaration of internet rights that entered into force in 2015, net neutrality had been designated as a constitutional principle.⁸¹⁸

Already in 2008, the *Autorità per le garanzie nelle comunicazioni* ("**AGCOM**") adopted a resolution that set out measurement and transparency requirements regarding minimum and maximum internet speeds for ISPs.⁸¹⁹ This resolution is still in force.

Competent authority and penalty rules

AGCOM, the Italian NRA, is responsible for the supervision and enforcement of the telecommunications market.⁸²⁰ Based on the Italian Electronic Communications Code, AGCOM is entitled to take the measures needed to guarantee the liberty and secrecy of communications and ensure economic freedom and competition in the telecommunications market.⁸²¹ AGCOM is authorised to impose orders to change certain practices, if necessary subject to an incremental penalty per day/week in the case of non-compliance with the Regulation. Furthermore, AGCOM is authorised to send requests for information as set out in Article 5(2) of the Regulation. Based on the aforementioned Electronic Communications Code, AGCOM may impose fines for infringements of Articles 3, 4(1), 4(2) and 5(2) of the Regulation ranging from €120 000 up to €2 500 000.⁸²² These minimum and maximum fines are also applicable in case of repetition.

Additional legislation and regulations

The aforementioned resolution of 12 November 2008 setting out measurement and transparency requirements regarding minimum and maximum internet speeds for ISPs⁸²³ is still in force. In June 2016, AGCOM introduced a resolution that sets out transparency obligations for ISPs with regard to the economic conditions and tariffs of their plans.⁸²⁴

⁸¹⁸ (2015) Dichiarazione dei diritti in internet = Declaration of Internet Rights.

⁸¹⁹ AGCOM (2008), Delibera n. 244/08/CSP Ulteriori disposizioni in materia di qualità e carte dei servizi di accesso a internet da postazione fissa ad integrazione della delibera n. 131/06/CSP = Resolution no.244/08/CSP Further provisions on quality and service cards for Internet access services from a fixed location in addition to Resolution no. 131/06/CSP of 12 November 2008 (hereafter: AGCOM Resolution no. 244/08/CSP).

⁸²⁰ Istituzione dell'Autorità' per le garanzie nelle comunicazioni e norme sui sistemi delle telecomunicazioni e radiotelevisivo = Establishment of the Regulatory Authority regarding Communications and Standards in Telecommunication and Broadcasting Systems, Law 1997, no. 249.

⁸²¹ Codice delle comunicazioni elettroniche = Electronic Communications Code, Legislative Decree 2003, no. 259.

⁸²² Electronic Communications Code, Legislative Decree 2003, no. 259 as amended by Disposizioni per l'adempimento degli obblighi derivanti dall'appartenenza dell'Italia all'Unione europea - Legge europea 2017 = Provisions for the fulfillment of obligations deriving from Italy's membership of the European Union - European Law 2017, Law 2017, no. 167.

⁸²³ AGCOM (2008), Resolution no. 244/08/CSP.

⁸²⁴ AGCOM (2016), Delibera n. 252/16/CONS Misure a tutela degli utenti per favorire la trasparenza e la comparazione delle condizioni economiche dell'offerta dei servizi di comunicazione elettronica = Resolution n. 252/16/CONS Measures to protect users in order to

This resolution requires ISPs, amongst other things, to post the details of end-users' plans and offers in a clear and simple manner on their websites and post a table of the economic conditions and tariffs of their plans.⁸²⁵ These resolutions qualify as additional requirements in accordance with Article 5(1) of the Regulation. We also refer to two 2018 AGCOM decisions, one imposing certain transparency obligations on ISPs⁸²⁶ and the other focussing on the end-users right to freely choose their broadband router,⁸²⁷ discussed in paragraph *Monitoring, supervision and enforcement*, under heading *General information and reports*, below

16.2. Monitoring, supervision and enforcement

General information and reports

AGCOM issues policies and advice concerning the implementation of the Regulation. It requested information, organised formal meetings and conducted interviews and noted that on average three FTEs were involved in net neutrality in 2017.⁸²⁸

In the **NN-report AGCOM 2017**,⁸²⁹ consisting of 16 pages, and the **NN-report AGCOM 2018**,⁸³⁰ consisting of 32 pages, AGCOM noted that since the entry into force of the Regulation, it closely monitored and ensured compliance with Articles 3 and 4 of the Regulation. Furthermore, AGCOM actively contributed to the work of the BEREC expert working groups in preparing the Guidelines for the implementation of NRAs' obligations regarding net neutrality. The reports contain detailed information on the monitoring and supervision measures.⁸³¹

AGCOM launched two public consultations on 30 January 2018, resulting in two decisions.

- The first consultation related to physical infrastructure used for electronic communications services, the purpose of which was to improve transparency in

encourage transparency and comparison of economic conditions for the provision of electronic communications services of 16 June 2016 (hereafter: AGCOM Resolution n. 252/16/CONS).

⁸²⁵ A lay-out for such tables is set out in Attachment 1 to AGCOM Resolution n. 252/16/CONS of 16 June 2016.

⁸²⁶ AGCOM (2018), Delibera n. 292/18/CONS Definizione delle caratteristiche tecniche e delle corrispondenti denominazioni delle diverse tipologie di infrastruttura fisica utilizzate per l'erogazione dei servizi di telefonia, reti televisive e comunicazioni elettroniche = Resolution n. 292/18/CONS Definition of the technical characteristics and the corresponding denominations of the different types of physical infrastructure used for the delivery of telephone services, television networks and electronic communications of 19 July 2018 (hereafter: AGCOM Resolution n. 292/18/CONS).

⁸²⁷ AGCOM (2018), Delibera n. 348/18/CONS Misure attuative per la corretta applicazione dell'articolo 3, commi 1, 2, 3, del regolamento (ue) n. 2015/2120 che stabilisce misure riguardanti l'accesso a un'internet aperta, con specifico riferimento alla libertà di scelta delle apparecchiature terminali = Resolution n. 348/18/CONS Implementing measures for the correct application of Article 3, paragraphs 1, 2, 3 of Regulation (EU) 2015/2120 setting out measures regarding access to an open internet, with specific reference to the freedom of selection of terminal equipment of 18 July 2018 (hereafter: AGCOM Resolution n. 348/18/CONS).

⁸²⁸ Survey completed by AGCOM in the context of this Study.

⁸²⁹ AGCOM (2017), Relazione Annuale 2017: Attività di vigilanza in materia di net neutrality: Implementazione del Regolamento (UE) 2120/2015 = Annual report: Supervisory activities on net neutrality: implementation of Regulation (EU) 2120/2015.

⁸³⁰ AGCOM (2018), Relazione Annuale 2018: Attività di vigilanza in materia di net neutrality: Implementazione del Regolamento (UE) 2015/2120 = Annual report: Supervisory activities on net neutrality: implementation of Regulation (EU) 2120/2015 (hereafter: NN-report AGCOM 2018).

⁸³¹ See below in this paragraph, under this heading and under heading *Monitoring and supervision measures*.

retail offerings for broadband and ultra-broadband.⁸³² Following the consultation AGCOM published a binding decision imposing certain transparency obligations in advertising and in contracts for (ultra)broadband IAS on 19 July 2018.⁸³³ The decision requires ISPs *inter alia* to inform end-users on the type of architecture through which the IAS is offered (e.g. copper, fibre or a mix of both). This decision clarified some of the transparency requirements of Articles 4(1)(b) and (d) of the Regulation and AGCOM considers this decision to be an additional requirement under Article 5(1) of the Regulation.

- The other consultation aimed at obtaining comments about the right of end-users to use the terminal equipment of their choice and about the prohibition of ISPs to enter into agreements with end-users or to adopt commercial practices that restrict that right.⁸³⁴ On 2 August 2018, AGCOM published a decision stating that end-users have the right to freely choose their broadband router.⁸³⁵ According to AGCOM, ISPs cannot require end-users to rely exclusively on the broadband supplied by the ISP itself. The decision also provided indications on the location of the network termination point (NTP). In the decision, AGCOM stipulates that modems/routers cannot be considered as NTP but have to be considered as terminal equipment. This decision has been appealed by several ISPs and the proceedings are pending.⁸³⁶

Complaints

AGCOM is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs. In Italy, there is a two-layer system for consumer complaints. Consumers must first address their complaints to Regional Boards for Telecommunication (known as *Co.Re.Com*). If consumers are not satisfied with the way these boards treat their complaint, they can escalate the complaint to AGCOM. AGCOM can impose the normal remedies for infringements of the Regulation. It will first send the infringing ISP a warning to amend its offer. If the ISP does not abide by the warning AGCOM sends the ISP a cease and desist letter. If the ISP still fails to comply, AGCOM will impose a fine.

Based on the NN-report AGCOM 2017 and NN-report AGCOM 2018, AGCOM analyses complaints made by end-users, ISPs and suppliers of terminal equipment. The number of complaints is not specified in the reports.

⁸³² AGCOM (2018), Delibera n. 33/18/CONS Consultazione pubblica in merito alla definizione delle caratteristiche tecniche e delle corrispondenti denominazioni delle diverse tipologie di infrastruttura fisica utilizzate per l'erogazione dei servizi di telefonia, reti televisive e comunicazioni elettroniche, ai sensi dell'art = Resolution n. 33/18/CONS Public consultation on the definition of technical characteristics and the corresponding denominations of the different types of physical infrastructure used for the delivery of telephone services, television networks and electronic communications of 30 January 2018,

⁸³³ AGCOM Resolution n. 292/18/CONS.

⁸³⁴ AGCOM (2018), Delibera n. 35/18/CONS Consultazione pubblica su possibili misure per la libera scelta delle apparecchiature terminali da parte di consumatori e utenti finali di servizi di connessione ad una rete pubblica di comunicazioni o di servizi di accesso ad internet = Resolution n. 35/18/CONS Public consultation on possible measures for the free choice of terminal equipment by consumers and end-users of connection services to a public communications network or Internet access services of 30 January 2018.

⁸³⁵ AGCOM Resolution n. 348/18/CONS.

⁸³⁶ One of the appeals requesting a suspension has been rejected by a lower court and is currently being appealed at the second instance court. Lawyers of the consortium are representing the provider in the appeal proceedings.

In the survey for this Study, AGCOM noted that it received approximately 30 complaints related to possible infringements of Articles 3(1) and 3(2) of the Regulation.⁸³⁷

Monitoring and supervision measures

In the NN-report AGCOM 2017 and the NN-report AGCOM 2018, AGCOM described the following monitoring and supervision measures:

1. acquiring information directly from the web sites of the main ISPs, requesting information from ISPs concerning the general terms and conditions of their contracts and conducting interviews with those ISPs;
2. monitoring traffic management practices by sending a questionnaire to ISPs regarding traffic management measures;
3. monitoring and supervising zero-rating offers;⁸³⁸ and
4. acting upon complaints regarding compliance with the Regulation.⁸³⁹

ISPs' responses to the questionnaire regarding traffic management measures are still being analysed by AGCOM. Furthermore, AGCOM noted in its NN-report AGCOM 2018 that, as a result of its monitoring of zero-rated offers, ISPs have changed commercial practices. Furthermore, AGCOM stated that it sent a request for information to ISPs regarding specialised services.⁸⁴⁰ AGCOM is still analysing the information provided and has not completed the formal assessment yet.

Furthermore, AGCOM launched investigations into end-users' rights and choices approximately 60 times (Article 3(1) of the Regulation).⁸⁴¹ Out of those investigations, 40 started *ex officio* and 20 were based on complaints. The complaints that resulted in investigations came from individual consumers (70 %), from COs (20 %) and from competitors (10 %). According to the annual reports, all issues addressed in these complaints relating to open internet access and tethering were resolved. One complaint relating to tethering resulted in an enforcement decision (see the Vodafone case).⁸⁴²

Additionally, AGCOM launched approximately 80 investigations into commercial and technical conditions that limit end-users' rights.⁸⁴³ 70 started *ex officio* and 10 were based on complaints (all from competitors).⁸⁴⁴ AGCOM noted that, with regard to these investigations, informal discussions were held with ISPs (two times) following which one ISP was formally requested to end the infringement and a fine was imposed (see the Wind Tre case).⁸⁴⁵

⁸³⁷ Survey completed by AGCOM in the context of this Study.

⁸³⁸ See the descriptions of the cases set out below in this paragraph, under this headings and heading *Decisions and court cases*.

⁸³⁹ See above in this paragraph, under heading *Complaints*.

⁸⁴⁰ Survey completed by AGCOM in the context of this Study.

⁸⁴¹ Survey completed by AGCOM in the context of this Study.

⁸⁴² AGCOM (2018), Delibera n. 68/18/CONS Diffida alla società Vodafone Italia s.p.a. in relazione alla corretta applicazione del regolamento (ue) n. 2015/2120 che stabilisce misure riguardanti l'accesso a un'internet aperta = Notice to the company Vodafone Italia s.p.a. in relation to the correct application of regulation (eu) no. 2015/2120 establishing certain measures concerning access to an open internet of 14 February 2018 (hereafter: AGCOM Resolution n. 68/18/CONS). See further, below in this paragraph under heading *Decisions and court cases*.

⁸⁴³ Survey completed by AGCOM in the context of this Study.

⁸⁴⁴ Survey completed by AGCOM in the context of this Study.

⁸⁴⁵ AGCOM (2017), Delibera n. 123/17/CONS Diffida alla società wind tre s.p.a. (già h3g s.p.a. e wind telecomunicazioni s.p.a.) in relazione alla corretta applicazione del regolamento (ue) n. 2015/2120 che stabilisce misure riguardanti l'accesso a un'internet aperta = Resolution n. 123/17/CONS Notice to the company wind tre s.p.a. (now h3g s.p.a. and wind

AGCOM introduced an internet speed monitoring mechanism. This internet speed monitoring mechanism consists of two separate elements: *Misura Internet* (measure internet) and Nemesys.⁸⁴⁶ As explained in the NN-report AGCOM 2018, AGCOM published comparative statistical values of quality measurements of ISPs' performance since 2010. These comparative statistical values are published in the context of the *Misura Internet* project.⁸⁴⁷

Nemesys is a certified monitoring mechanism consisting of a software mechanism for end-users to measure upload and download speeds of their IAS.⁸⁴⁸ The measurements are performed in accordance with the ETSI EG 202 765 -x standard family. The measurement mechanism has been certified by ISCOM (the technical body of the relevant Ministry). As explained in the NN-report AGCOM 2018, if an end-user enables Nemesys, the mechanism collects upload and download speed measurements every 15 minutes over a 24-hour period (i.e. 96 measurements) and calculates the minimum speed as the 95-quantile of the measurements. The 95-quantile of the measurements means that the measurements are sorted in descending order and the value of the 91st measurement is taken as the minimum speed. Even though 96 samples are required for a complete characterisation of the line, only five samples below the guaranteed minimum speed will lead to a preliminary negative certificate of the measurement. After 45 days, if a new measurement does not show that the contractually promised minimum speed has been restored, the user may request termination of the IAS agreement at no cost or request a commercial downgrade of the offer, if an offer based on the same technology is provided at a lower price than the one the end-user subscribed to.

The certificate obtained with the Nemesys software can be used to prove significant discrepancies referred to in Article 4(4) of the Regulation in litigation or in the complaint to the ISP. Currently in August 2018, Nemesys is certified to measure the quality of connections with speeds up to 100 Mbps, but AGCOM stated that it will be possible to measure connections with speeds up to 1 Gbps in the future. AGCOM noted in the NN-report AGCOM 2018 that in 2017 86 % of the certificates produced by end-users using Nemesys, showed a measured minimum speed below the speed specified in the IAS-agreement.⁸⁴⁹

The NN-report AGCOM 2018 states that AGCOM is working on a web based tariff comparison mechanism to replace an existing third-party accreditation scheme.

Decisions and court cases

AGCOM took enforcement actions against two zero-rating plans offered by Wind Tre on 15 March 2017.⁸⁵⁰ AGCOM ordered the ISP to cease the offering or to object to the decision. The zero-rated plans only allowed certain zero-rated apps/services to continue after the plan's internet allowance was exceeded while access to the internet was blocked for other apps and services. The decision was based on Article 3(3) of the

telecomunicazioni s.p.a.) in relation to the correct application of Regulation (EU) 2015/2120 setting up measures concerning access to an open internet of 15 March 2017 (hereafter: AGCOM Resolution n. 123/17/CONS). See further below in this paragraph under heading *Decisions and court cases* and survey completed by AGCOM in the context of this Study.

⁸⁴⁶ Both monitoring mechanisms were introduced through AGCOM Resolution n. 244/08/CSP.

⁸⁴⁷ The mechanism for fixed IAS is available at <https://www.misurainternet.it/> (accessed 31 July 2018) and for mobile IAS at: <http://misurainternetmobile.it/risultaticomparativi/> (accessed 31 July 2018).

⁸⁴⁸ Nemesys is also available through <https://www.misurainternet.it/> (accessed 31 July 2018).

⁸⁴⁹ According to AGCOM this does not mean that 86 % of the IASs have speeds below the advertised speed, the mechanism is likely to be used by end-users that believe they are not receiving what they paid for.

⁸⁵⁰ AGCOM Resolution n. 123/17/CONS. Also see above in this paragraph, under heading *Monitoring and supervision measures*.

Regulation. Wind Tre did not comply in time, so AGCOM initiated a sanctioning procedure. Wind Tre paid AGCOM a reduced sanction of €20 258.⁸⁵¹

AGCOM also initiated enforcement actions against an offer by Vodafone pursuant to which users were obliged to pay an extra daily internet connection fee (€6/day) for the use of tethering. This additional payment was charged on top of regular payments for a data bundle, also if end-users only consumed data (in tethering mode) included in their subscription. Vodafone users that subscribed to the 'Vodafone Exclusive' option (at an extra cost of €1,90 per month), could tether without additional costs. AGCOM assessed Vodafone's plan and concluded that it infringed Articles 3(1) and 3(2) of the Regulation. Therefore, AGCOM ordered Vodafone to correctly apply Articles 3(1) and 3(2) of the Regulation.⁸⁵² Vodafone did not appeal this decision.

In addition, we refer to the two 2018 AGCOM decisions discussed above in paragraph *Monitoring, supervision and enforcement* under heading *General information and reports*, one of which has been appealed.⁸⁵³

16.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Italy.

16.4. Compliance with transparency obligations

The table below⁸⁵⁴ provides an overview of desk research of public information provided on the websites of ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 47: Overview of desk research on transparency obligations

ISP #	(a) 855	(b) 856	(c) 857	(d) 858	(e) 859	Comments
ISP 1	N/A	≈	N/A	✓	✓	-
ISP 2	✓	≈	N/A	✓	✓	-
ISP 3	✓	≈	N/A	✓	≈	(e) : The ISP does not specify that consumers can also go to the courts if they are unsatisfied with the IAS. It only provides for support telephone number and web site for complaints and settlement procedure before Regional Boards for Telecommunication (Co.Re.Com).
ISP 4	N/A	≈	N/A	✓	✓	-

⁸⁵¹ AGCOM Decision of 7 December 2017, 2/17/DTC/OBL.

⁸⁵² AGCOM Resolution n. 68/18/CONS. Also see above in this paragraph, under heading *Monitoring and supervision measures*.

⁸⁵³ AGCOM Resolutions n. 292/18/CONS and n. 348/18/CONS (appealed).

⁸⁵⁴ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁸⁵⁵ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁸⁵⁶ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁸⁵⁷ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁸⁵⁸ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁸⁵⁹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

ISP 5	N/A	≈	N/A	✓	✓	-
ISP 6	≈	≈	N/A	≈	✓	(a): The ISP only states that it reserves the right to impose non-discriminatory traffic management measures, which could temporarily limit the internet service without specifying how these could impact on the quality of the service, on the privacy of the end-users and on the protection of their personal data. (d): The ISP does not indicate a minimum, normally available nor maximum speed; there is only one indication of upload and download speed (advertised).
ISP 7	✓	N/A	N/A	✓	✓	-
ISP 8	✓	≈	N/A	≈	≈	(d): Same comment as for ISP 6. (e): Same comment as for ISP 3.

16.5. Overview of relevant net neutrality themes in Italy

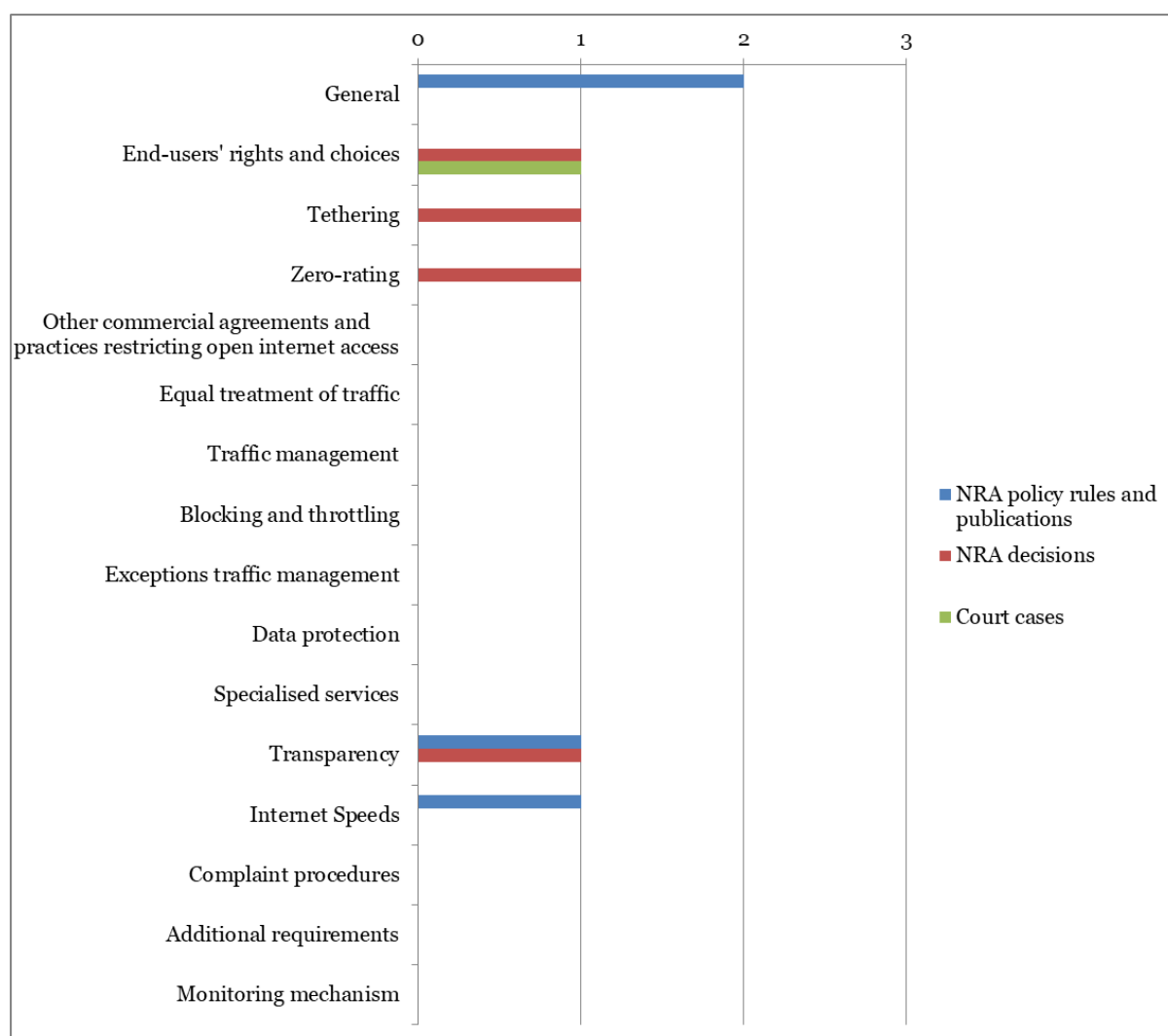


Figure 29: Blue: NN-report AGCOM 2017, NN-report AGCOM 2018 and NRA resolutions of 12 November 2008 and 16 June 2016. Red: NRA Decisions of 15 March 2017, 14 February 2018, 18 July 2018 and 19 July 2018. Green: Pending court cases related to NRA decision 18 July 2018.

16.6. Summary of key topics and noteworthy findings

AGCOM issued a decision on the freedom of end-users to choose their terminal equipment and in relation to the definition of the NTP. According to AGCOM, ISPs cannot require end-users to rely exclusively on those broadband modems/routers supplied by the ISP itself. AGCOM holds that modems/routers cannot be the NTP but have to be considered terminal equipment.

AGCOM has adopted a certified monitoring mechanism (Nemesys) to measure upload and download speeds of IAS. Moreover, AGCOM specified the criteria for proving a significant discrepancy in the sense of Article 4(4) of the Regulation. Nemesys collects 96 samples of the upload and download speeds. If 5 out of 96 are below the minimum guaranteed speed, Nemesys provides a preliminary negative certificate of the measurement carried out. After 45 days, if a new measurement does not show that the contractually offered minimum speed has been restored, the user may request termination at no cost or lower-priced offer based on the same technology. The certificate obtained with Nemesys can be used as binding evidence in litigation or for complaints to the ISP.

AGCOM took enforcement actions against two zero-rating plans offered by Wind Tre that only allowed certain zero-rated apps/services to continue after the plan's internet allowance was exceeded while access to the internet was blocked for other apps and services. Based on Article 3(3) of the Regulation, AGCOM ordered the ISP to cease the offering or to object to the decision. Wind Tre was late in complying with this order, so AGCOM initiated a sanctioning procedure. This procedure was never finalised because Wind Tre paid a fine of €20 258 without awaiting the final sanction.

Additionally, AGCOM issued an order against an offer by Vodafone that obliged users to pay an extra daily internet connection fee for the use of tethering. AGCOM held that the plan infringed Articles 3(1) and 3(2) of the Regulation (no appeal pending).

Key topic	Result Italy
Pre-existing legislation	Yes, transparency legislation (still in force)
Maximum fine	€2 500 000
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	3
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes
Number of complaints on net neutrality	30 ⁸⁶⁰

⁸⁶⁰ These complaints were not specified by AGCOM in the NN-report AGCOM 2018, but were mentioned by AGCOM in the survey for this study. It is therefore not known when AGCOM received these complaints.

between 1 May 2016 – 30 April 2018	
Number/percentage of complaints that were settled by the NRA.	30
Number of NRA decisions	4
Number of court cases	1 (several appeals against the same decision are pending)
Main net neutrality themes	End-users' rights and choices, zero-rating, internet speeds, monitoring mechanism
Monitoring mechanism (certified yes/no)	Italy has two internet speed monitoring mechanisms in place: an aggregated internet speed comparison mechanism and a certified mechanism for end-users to test compliance with the contractually agreed upon internet speeds
Self-regulation and/or co-regulation	No

17. Latvia

17.1. Implementation

Pre-existing legislation

In August 2011, the Latvian NRA *Sabiedrisko pakalpojumu regulēšanas komisija* ("**SPRK**") issued a decision stipulating that the minimum guaranteed upload and download speeds in a fixed network may not be less than 20 % of the maximum speed if that speed was indicated in the contract.⁸⁶¹ For mobile networks, the minimum guaranteed speed of the broadband IAS could not be lower than the lowest limit of broadband connection speed (i.e. 256 Kbit/s). This decision was amended after the Regulation entered into force.⁸⁶² Apart from this decision, there was no pre-existing net neutrality legislation in Latvia.

Competent authority and penalty rules

The Law on Regulators of Public Utilities designates SPRK as the NRA for electronic communications in Latvia.⁸⁶³ Section 158.6 of the Latvian Administrative Violations Code was amended to allow SPRK to impose penalties for violations of Articles 3, 4, 5(1) and 5(2) of the Regulation.⁸⁶⁴ The maximum fine for infringements by natural persons or officials is €700, while the maximum fine for legal persons is €14 000. A consultation on the procedure of imposition and amounts of fines is ongoing.

Furthermore, SPRK noted in the NN-report SPRK 2017⁸⁶⁵ and NN-report SPRK 2018⁸⁶⁶ that Section 148.1 of the Latvian Administrative Violations Code allows SPRK to fine ISPs for not including the required (net neutrality) information in electronic communications services contracts. For these types of infringements, the maximum fine for officials is €350 and €430 for legal entities. If the same acts are committed by officials or legal entities within one year after the imposition of a fine, the maximum fines increases to €700 for officials and €7 100 for legal entities.

In addition, on the basis of the Law on Regulators of Public Utilities, SPRK is authorised to request information from providers of public utilities. A 2015 decision of SPRK stipulates that if SPRK detects an infringement by ISPs, the SPRK has to send a warning

⁸⁶¹ SPRK (2011), *Vispārējās atļaujas noteikumi* = SPRK Decision on General licence terms, no. 1/19, as amended by *Vispārējās atļaujas noteikumi elektronisko sakaru nozarē* = SPRK Decision on General permission rules in the field of electronic communication, no. 1/8 (hereafter: SPRK Decision on General licence terms, no. 1/19 as amended by no. 1/8).

⁸⁶² See below in this paragraph, under heading *Additional legislation and regulations*.

⁸⁶³ *Likumu par sabiedrisko pakalpojumu regulatoriem* = Law on Regulators of Public Utilities, Articles 2(2) and 6(1).

⁸⁶⁴ *Grozījumi Latvijas Administratīvo pārkāpumu kodeksā* = Amendments to the Latvian Administrative Violations Code, OP no. 2016/123.4.

⁸⁶⁵ SPRK (2017), *Sabiedrisko pakalpojumu regulēšanas komisijas ziņojums Eiropas Komisijai un Eiropas Elektronisko komunikāciju regulatoru iestādei par veikto pārraudzību saistībā ar Eiropas Parlamenta un Padomes Regulā (ES) 2015/2120 noteikto piekļuvi atvērtam internetam 2016/2017.gadā* = Report of the Public Utilities Commission to the European Commission and the Body of European Regulators for Electronic Communications on the monitoring of the access to the open internet provided by Regulation (EU) 2015/2120 of the European Parliament and of the Council 2016/2017 (hereafter: NN-report SPRK 2017). The report has 8 pages.

⁸⁶⁶ SPRK (2018), *Elektronisko sakaru pakalpojumu pārskats par 2017.gadu* = Electronic communications services report for 2017 (hereafter: NN-report SPRK 2018). The report has 41 pages.

letter to the ISP.⁸⁶⁷ If the ISP does not stop the infringement detected by SPRK within the time period specified in the warning letter, SPRK has to keep a record of the administrative violation. If the ISP commits a similar infringement within one year and does not remedy the infringement within the time period specified by SPRK, SPRK must keep a record of the repeated administrative violation and send a letter to the ISP indicating the detected repeated infringement. SPRK's letter must warn the ISP not to repeat the infringement and set a deadline for eliminating the infringement. Finally, SPRK must warn the ISP that if the infringement is not remedied before the deadline or if the SPRK finds another infringement, SPRK may suspend the activities of the ISP for a period of up to five years.

Additional legislation and regulations

In December 2006 SPRK published a decision prescribing the quality parameters ISPs should measure and submit to SPRK. In addition they should submit an annual report on measurements of the parameter values. End-users should also receive these parameter values. This decision was amended in November 2017. ISPs are no longer required to publish the annual reports.⁸⁶⁸ ISPs have to use the following parameters: 1) period to set up physical access; 2) number of physical network failures; 3) period to remedy a network failure; 4) upload and download speeds in Mbps; 5) average latency in milliseconds; 6) average jitter in milliseconds; 7) packet loss coefficient percentage; and 8) service availability percentage (the percentage of time during the billing cycle in which the IAS is available for the end-user). ISPs must declare the values of the aforementioned parameters and submit these declarations to SPRK. The declarations are publicly available on SPRK's website.⁸⁶⁹

In August 2011, SPRK issued a decision requiring that minimum guaranteed upload and download speeds in a fixed network may not be less than 20 % of the maximum speed if this speed was indicated in the contract.⁸⁷⁰ For mobile networks, the minimum guaranteed speed for the broadband IAS could not be lower than the lowest limit of broadband connection speed (i.e. 256 Kbit/s). This decision was amended on 5 April 2017⁸⁷¹ to require ISPs to publish a maximum speed in the contract. ISPs are required to ensure speeds in a fixed network linked to the maximum speed, so the 2017 amendment forces ISPs to always provide a minimum speed.

In December 2017, SPRK published another decision on the provision of information.⁸⁷² SPRK specified the type of information and the format in which it should be provided. A template was included in an appendix to the decision. ISPs have to fill it in to indicate the measures they have taken to ensure net neutrality.

⁸⁶⁷ SPRK (2015), *Vispārējās atļaujas noteikumu pārkāpumu novēršanas noteikumi elektronisko sakaru nozarē* = SPRK Decision on Regulations for the prevention of violations of general authorisations in the electronic communications sector, no. 1/3.

⁸⁶⁸ SPRK (2017), *Elektronisko sakaru pakalpojumu kvalitātes prasību, kvalitātes pārskatu iesniegšanas un publiskošanas noteikumi* = SPRK Decision on regulations regarding quality requirements of electronic communications services, submission and publishing of quality reports, no. 1/31.

⁸⁶⁹ The declared values can be found on the following website:
<https://www.sprk.gov.lv/lapas/kvalitates-deklaracija-un-parskats> (accessed 17 July 2018).

⁸⁷⁰ SPRK (2011), *Decision on General licence terms*, no. 1/19 as amended by no. 1/8.

⁸⁷¹ SPRK (2017), *Grozījumi Sabiedrisko pakalpojumu regulēšanas komisijas 2015.gada 4.jūnija lēmumā nr.1/8 "Vispārējās atļaujas noteikumi elektronisko sakaru nozarē"* = SPRK Decision amendments to the resolution of the Public Utilities Commission of 4 June 2015 no. 1/8 "Regulations of the general licence in the electronic communications sector", no. 1/14.

⁸⁷² SPRK (2017), *Informācijas iesniegšanas noteikumi elektronisko sakaru nozarē* = SPRK Decision on the provision of information in the field of electronic communications, no. 1/40.

17.2. Monitoring, supervision and enforcement

General information and reports

SPRK supervises and enforces the Regulation by conducting research studies of the websites of electronic communication service providers, evaluating customer complaints and engaging in the general monitoring and supervision of electronic communications network infrastructure.

In the **NN-report SPRK 2017**, consisting of eight pages, SPRK found that overall ISPs complied with the Regulation and that there were no significant problems during the reporting period. SPRK concluded on the basis of an assessment of the online presence of ISPs, that ISPs publish information regarding the accessibility of IASs, prices, data caps and the influence of external circumstances in relation to the QoS and the average speed of the internet connection. SPRK concluded that most ISPs provide information regarding available connection speed values in accordance with the 2011 SPRK decision and provide the information on the minimum guaranteed speed, which may not be less than 20 % of the connection speed stipulated in the agreement. The NN-report does not identify which ISPs did or did not meet the quality standards set by SPRK, nor whether any ISP failed to provide information to SPRK.

In the **NN-report SPRK 2018**, consisting of 41 pages, SPRK noted that it engaged in a wide range of activities to monitor compliance with the Regulation: QoS measurements, including latency and packet loss, speed measurements and the evaluation of trends by using historical data on connection speeds and general internet service quality. Furthermore, SPRK engaged in internet service quality control, end-user complaint reviews and it periodically informed end-users on the results of its quality control activities and measurements in order to allow end-users to compare ISPs. SPRK also described that it introduced a new monitoring activity by conducting surveys amongst ISPs to examine compliance with the net neutrality obligations.

Complaints

SPRK is competent to settle complaints related to the Regulation from consumers and other end-users against ISPs. SPRK does not, however, have the power to settle complaints related to the Regulation between competing ISPs. SPRK can order both financial compensation and the termination of the contract as remedy for consumers and other end-users. SPRK is not competent for disputes regarding charges and bills; these cases are subject to legal proceedings.

In the NN-report SPRK 2017, SPRK noted that it received 71 complaints in 2016; only 4 % of them (i.e. three complaints) were related to the general quality of IAS provided by ISPs. The complaints were settled by SPRK. All complaints related to insufficient connection speed: in two cases for fixed internet, and one for mobile internet. All complaints were submitted to SPRK after an end-user withdrew from the contract with the ISP. Therefore, SPRK could not perform quality measurements to detect non-compliance with the contract. SPRK did not receive any complaints regarding traffic management measures.

In the NN-report SPRK 2018, SPRK describes that it received 92 complaints in 2017 of which 19 related to internet. SPRK did not receive any complaint directly related to net neutrality. However, six complaints related to QoS. SPRK examined all of them. In two of the investigations, SPRK did not have to measure the service quality of the relevant IAS because there was merely a misunderstanding on the end-users' part. One of the ISPs proposed the end-user to keep using the IAS under modified conditions and the other ISP explained the reason for the misunderstanding to the end-user. In the other four investigations, SPRK measured the QoS of the relevant IASs at the end-users' premises.

SPRK detected quality discrepancies in two cases. SPRK indicated to those ISPs that they should reach a compromise with the end-user: one ISP provided compensation to the end-user, the other allowed the end-user to terminate the contract without an additional fee. SPRK did not have to publish a formal decision because ISPs reached a compromise with the end-users after SPRK sent a letter to ISPs noting the quality discrepancies.

Monitoring and supervision measures

The generic monitoring measures are set out in the NN-report SPRK 2017 and 2018.

SPRK's main areas of interests are described in the NN-report SPRK 2018: (i) services offered; (ii) traffic management measures; and (iii) information that ISPs provide in their standard IAS agreement. SPRK noted that only one ISP (*Bitē Latvija*) offers a plan that zero-rates certain applications, such as social media and navigation apps. SPRK described that 19 % of all ISPs use some form of traffic management. SPRK's survey showed that the primary traffic management measure is port-blocking. Of the 19 % that use traffic management:

- 54 % block ports 135 – 139 (to prevent malware from being transmitted);
- 12 % block port 445 (to prevent malicious applications from being installed without the end-user's knowledge or consent);
- 10 % of block port 25 (to prevent spam); and
- the remaining 24 % block other ports.

In the survey mentioned in the NN-report 2018, SPRK found that, with regard to contract information, 63 % of all ISPs provide the required information in their service agreements. SPRK is examining the contract samples of ISPs that did not provide the required information. A majority of those ISPs only started providing the required information in service agreements signed after the Regulation came into force without changing agreements signed before the Regulation. Almost 25 % of the responding ISPs indicated the pre-existing service agreements were modified to reflect the requirements set out in the Regulation. SPRK noted that many of the requirements set forth in the Regulation were already imposed on ISPs pursuant to national legislation; so many IAS agreements already complied with the Regulation when it entered into force.

Furthermore, SPRK provides interactive maps on its website, which indicate mobile internet speeds in the areas where it has conducted measurements.⁸⁷³ SPRK regularly measures mobile internet speeds and checks whether these speeds correspond to the mobile internet coverage maps of mobile ISPs. Also, SPRK provides a monitoring mechanism for users to check their internet speeds. During the reporting period of the NN-report SPRK 2017, SPRK carried out a total of 17 600 measurements concerning internet access quality in 740 locations throughout Latvia. SPRK found that 96 % of the mobile internet speeds measured corresponded with the mobile internet coverage maps.

The information in the NN-report SPRK 2018 shows that the internet access coverage maps provided by ISPs in Latvia mostly matched the coverage measured by SPRK. SPRK specified that the coverage information provided by ISPs was not consistent with SPRK's measurements of mobile internet access coverage in 14 % of all measurements relating to *Bitē Latvija*, 4.54 % of all measurements relating to LMT, and 4.63 % of all measurements relating to Tele2. For fixed IAS, SPRK did not detect any quality mismatches in 2017.

⁸⁷³ The maps and mechanism can be found at: <https://itestn.sprk.gov.lv/> (accessed 29 June 2018).

SPRK reported that end-users used the aforementioned monitoring mechanism 2 213 times from April 2016 to June 2018.⁸⁷⁴

Decisions and court cases

There have been no decisions and/or court cases related to net neutrality in Latvia.

17.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation with regard to net neutrality in Latvia.

17.4. Compliance with transparency obligations

The table below⁸⁷⁵ provides an overview of desk research of public information provided on the websites and in the contracts of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 48: Overview of desk research on transparency obligations

ISP #	(a) 876	(b) 877	(c) 878	(d) 879	(e) 880	Comments
ISP 1	✓	✓	N/A	✓	✓	-
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	✓	✓	N/A	✓	✓	-
ISP 5	✓	✓	N/A	✓	✓	-
ISP 6	✓	✓	N/A	✓	✓	-

⁸⁷⁴ Survey completed by SPRK in the context of this Study.

⁸⁷⁵ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁸⁷⁶ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁸⁷⁷ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁸⁷⁸ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁸⁷⁹ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁸⁸⁰ Remedies, as further set out in Article 4(1)(e) of the Regulation.

17.5. Overview of relevant net neutrality themes in Latvia

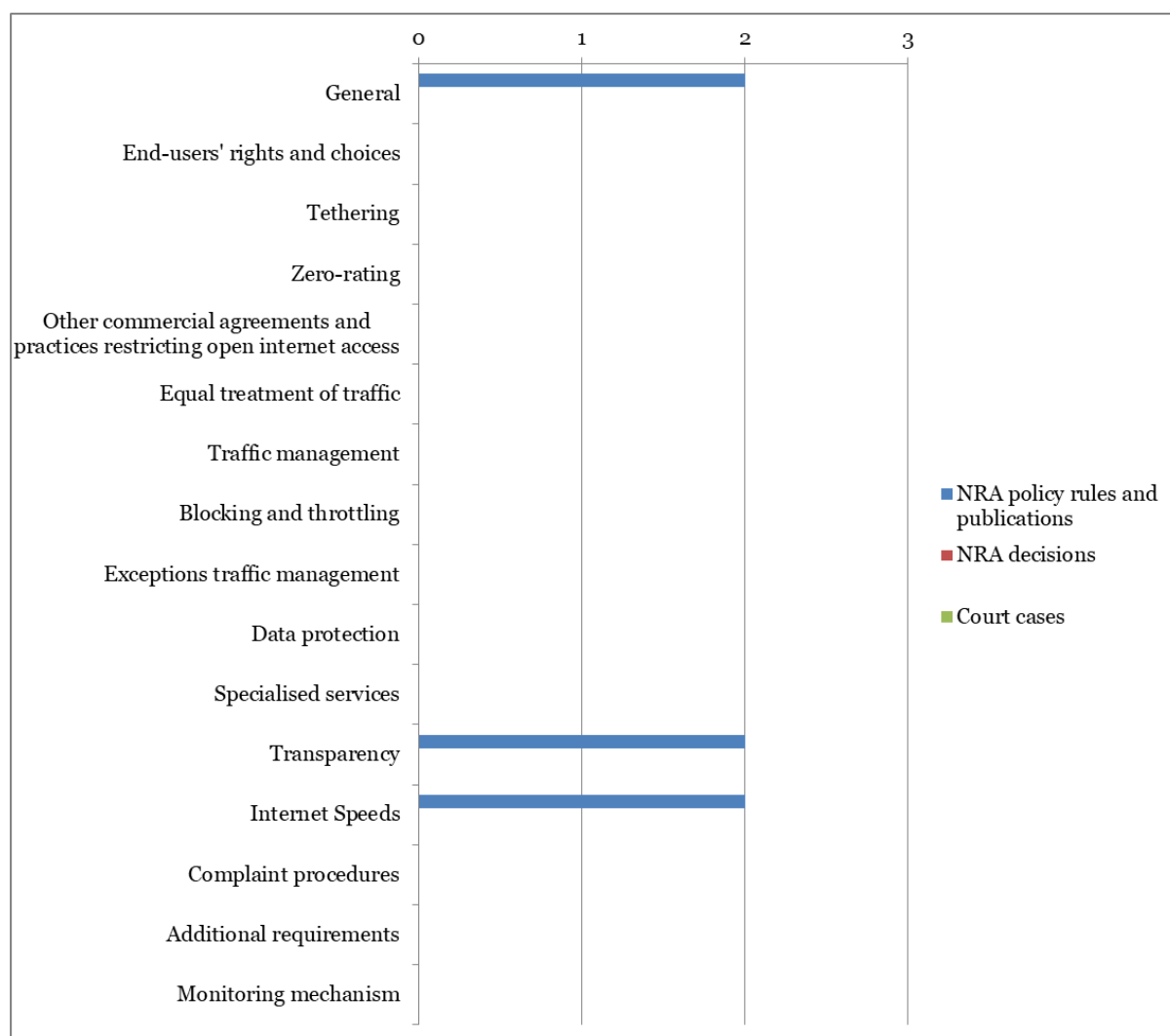


Figure 30: Blue: NN-report SPRK 2017, NN-report SPRK 2018 and SPRK Policy rules of 4 June 2015, 30 March 2017, 30 November 2017 and 21 December 2017.

17.6. Summary of key topics and noteworthy findings

SPRK has a relatively strong focus on transparency obligations in the form of generic instructions for ISPs. Instructions were already published prior to the Regulation, but they have been amended and extended after the Regulation entered into force.

The decision of December 2006, as amended in November 2017, relates to quality parameters that should be applied and submitted to SPRK by ISPs, which are made public on the SPRK website.

A decision of August 2011, as amended in June 2015 and April 2017, sets out the minimum guaranteed upload and download speeds in fixed networks (not less than 20 % of the network speed in the contract), the minimum guaranteed speed for mobile networks (not lower than 256 Kbit/s) and obliges ISPs to publish maximum speeds in the contracts.

A decision in December 2017 specified the type of information that should be provided and the applicable format, including a template that ISPs have to use to indicate the measures taken to ensure net neutrality.

These decisions with generic instructions are complemented by a relatively strong focus on monitoring compliance with these instructions.

Additionally another area of interest is traffic management measures including specific research regarding port-blocking.

Apart from the investigation, handling of complaints and the aforementioned monitoring activities, no individual enforcement actions were reported.

The table below provides an overview of the results in Latvia for some of the key topics.

Key topic	Result Latvia
Pre-existing legislation	Yes, transparency legislation (amended)
Maximum fine	€700 for natural persons, €14 000 for legal persons
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, authority to settle complaints of consumers & other end-users
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	9 complaints on QoS
Number/percentage of complaints that were settled by the NRA	All complaints were settled
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Transparency (contract information), internet speeds, monitoring mechanisms (to test non-conformity of performance), traffic management (including port-blocking)
Monitoring mechanism (certified yes/no)	Yes (not certified)
Self-regulation and/or co-regulation	No

18. Lithuania

18.1. Implementation

Pre-existing legislation

There was no net neutrality legislation in Lithuania prior to the adoption of the Regulation.

Competent authority and penalty rules

Existing national legislation was adjusted to comply with the Regulation. Amendments related to Articles 4 and 5 of the Regulation.⁸⁸¹ No amendments were needed in relation to Article 3 of the Regulation. Furthermore, additional amendments to national legislation laid down rules on penalties for infringements of the Regulation.⁸⁸²

Ryšiu Reguliavimo Tarnyba ("**RRT**") is the competent Lithuanian NRA. RRT is entitled to use its general enforcement powers based on the Law on Electronic Communications to enforce the obligations laid down in the Regulation.⁸⁸³ RRT can order ISPs to cease unlawful behaviour immediately or within a reasonable time.⁸⁸⁴ Furthermore, RRT is entitled to impose effective, proportionate and dissuasive economic sanctions, even if the infringement has stopped. Finally, in cases of serious or repeated violations of the legal requirements, RRT has the right to prohibit ISPs from continuing to provide electronic communications networks and/or services for a period of up to three years, suspend the right to use electronic communications resources for a period of up to three years or withdraw access to such resources.

RRT has the power to impose: (i) a fine of up to 3 % of the annual gross income from activities associated with electronic communications and if it is difficult or impossible to calculate the volume of such activity – a fine of up to €86 886; and (ii) in case of a repeated or serious infringements, a fine of up to 5 % of the annual gross income from activities associated with electronic communications and if it is difficult or impossible to calculate the volume of such activity – a fine of up to €144 810.⁸⁸⁵

Where the annual gross income referred to in (i) and (ii) is less than €86 886, a fine up to €2 896 could be imposed or in case of repeated or serious infringements – a fine up to €5 792. If an undertaking fails to comply with the obligation imposed by RRT to discontinue illegal activities, does not submit information in accordance with the procedure and conditions set out in the Lithuanian Law on Electronic Communications (submission of incorrect information is considered as failure to submit information),

⁸⁸¹ Isakymas dėl Lietuvos respublikos ryšių reguliavimo tarnybos direktoriaus 2005 m. gruodžio 23 d. įsakymo nr. 1v-1160 "dėl elektroninių ryšių paslaugų teikimo taisyklių patvirtinimo" pakeitimo = Order no. 1V-461 of the Director of the Communications Regulatory Authority of the Republic of Lithuania (RRT) of 20 April 2016 "On amendment of Order No 1V-1160 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 23 December 2005 "On approval of the rules for provision of electronic communication services".

⁸⁸² Isakymas dėl Lietuvos respublikos ryšių reguliavimo tarnybos direktoriaus 2004 m. rugsėjo 16 d. įsakymo nr. 1v-293 "dėl Ekonominių sankcijų skyrimo taisyklių patvirtinimo" pakeitimo = Order no. 1V-462 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 20 April 2016 "On amendment of Order No 1V-293 of the Director of the Communications Regulatory Authority of the Republic of Lithuania of 16 September 2004 "On approval of the rules for imposition of economic sanctions".

⁸⁸³ Law on Electronic Communications, no. IX-2135 as last amended on 26 November 2015, No XII-2086.

⁸⁸⁴ Law on Electronic Communications, Article 72.

⁸⁸⁵ Law on Electronic Communications, Article 74.

impedes officials authorised by RRT to perform their duties or does not comply with the requirements of RRT (including provisional protection measures), RRT has the right to impose a fine of up to €14 481 and in the event of continuous infringements – periodic penalties up to €1 448 per day the infringement continues.

Additional legislation and regulations

In Lithuania no additional (net neutrality) legislation and/or regulations are in force.

18.2. Monitoring, supervision and enforcement

General information and reports

Except from the annual net neutrality reports, RRT published no other documents or reports specifically focused on net neutrality. In RRT's general annual reports on its activities and operations limited parts relate to the topic of net neutrality.⁸⁸⁶ According to RRT, five employees are involved in net neutrality corresponding with on average three FTEs on an annual basis.⁸⁸⁷

The **NN-report RRT 2017**, consisting of five pages, provides an overview of the actions taken by RRT for safeguarding open internet access in the period between 1 May 2016 and 30 April 2017.⁸⁸⁸ RRT did not observe major concerns or restrictions for end-users to distribute information and content. However, some traffic management practices by ISPs were observed that could be adapted to safeguard open internet access. RRT observed that ISPs applied different port-blocking measures in order to preserve the integrity and security of the network. Some ISPs do not block any ports, others permanent block ports and the ports that are blocked differ amongst ISPs.⁸⁸⁹

In the **NN-report RRT 2018**, consisting of seven pages, no major concerns or restrictions for end-users' rights to distribute information and content are observed. However, RRT recognises an increase in zero-rated offers compared to the previous year.⁸⁹⁰ RRT states that currently, in August 2018, all ISPs operating in Lithuania offer some sort of zero-rating or price differentiation of specific apps or content. Types of zero-rated services are: (i) music streaming; (ii) video streaming/IPTV; (iii) social media; (iv) voice and short messages; (v) navigation apps; (vi) e-book subscriptions; and (vii) news apps.⁸⁹¹ Furthermore, the NN-report RRT 2018 states that the analyses of contractual terms applied by ISPs for the provision of electronic services to end-users was a priority for the reporting year. RRT found that most ISPs provided the required transparency information in their contracts informed their customers with regard to changes in the terms and conditions.⁸⁹²

Complaints

RRT is competent to settle complaints related to the Regulation from consumers, other end-users and competitors. Most complaints among end-users and ISPs are only

⁸⁸⁶ RRT (2016), 2015 Metų veiklos ataskaita = Annual activity report 2015, p. 59-63. RRT, 2016 Metų veiklos ataskaita = Annual activity report 2016, p. 27, 51 and 64. RRT (2018), 2017 Metų veiklos ataskaita = Annual activity report 2017, p. 53 and 56.

⁸⁸⁷ Survey completed by RRT in the context of this Study.

⁸⁸⁸ RRT (2017), Monitoring of network neutrality and implementation of the regulation (EU) 2015/2120 in Lithuania: Report to the European Commission (hereafter: NN-report RRT 2017).

⁸⁸⁹ NN-report RRT 2017, p. 3.

⁸⁹⁰ RRT (2018), Monitoring of network neutrality and implementation of the regulation (EU) 2015/2120 in Lithuania: Report to the European Commission (hereafter: NN-report RRT 2018).

⁸⁹¹ NN-report RRT 2018, p. 3.

⁸⁹² NN-report RRT 2018, p. 4.

mediated by RRT. This results in an agreement to settle the case by both parties and does not require a formal decision by RRT. In its NN-report RRT 2017, RRT stated that it received 19 complaints concerning IASs.⁸⁹³ RRT examined all complaints and resolved the majority of those complaints. One complaint concerned permanent port-blocking, which prohibited end-users from using SMTP email services via port 25. All the other complaints concerned transparency measures as laid down in Article 4 of the Regulation. One of these complaints regarding non-compliance with transparency requirements led to an enforcement case.⁸⁹⁴

According to the NN-report RRT 2018, RRT received 23 complaints concerning the quality of IASs.⁸⁹⁵ More information on the content of these complaints is not provided in the report apart from the aforementioned complaint from an end-user that could not use SMTP email services via port 25. In the investigation of this complaint by RRT, the ISP claimed that blocking port 25 was necessary to preserve the integrity and security of the network. However, RRT considered that the ISP could not provide sufficient evidence to substantiate its claim that unblocking port 25 would compromise the security of its network. As a result, the exception for port-blocking traffic management practices of Article 3(3)(b) of the Regulation did not apply. RRT concluded that blocking port 25 infringed end-users' right to free access, free distribution of content and the freedom of using the terminal equipment of its choice in the meaning of Article 3(1) of the Regulation. RRT ordered the ISP to unblock port 25.⁸⁹⁶

Monitoring and supervision measures

RRT provides an online mechanism where end-users can measure their internet speeds and compare them with the values stated in their IAS contracts.⁸⁹⁷ Until July 2018, RRT did not impose any minimum QoS requirements on ISPs and the measurement results acquired with the online mechanism are not legally binding, although end-users could use this mechanism as a basis to file a complaint. The online measurement mechanism was upgraded in 2017 so end-users are now able to measure internet speeds with their mobile device.⁸⁹⁸ The online measurement mechanism was used 240 000 times since 30 April 2016 and led to ten complaints concerning non-conformity of internet access performance.⁸⁹⁹ RRT is awaiting BEREC's monitoring mechanism and intends to implement it in Lithuania.

In order to ensure end-users' rights to open IASs, RRT relied from 1 May 2016 to 30 April 2017 on: (i) market surveys without requesting information from ISPs; (ii) information requests from ISPs; (iii) analyses of complaints and end-users' reporting; (iv) technical network monitoring; and (v) analysis of contract terms. The assessment of collected data indicated no major concerns or restrictions for end-users' rights to distribute information and content, to use and provide applications and services, to use the terminal equipment of their choice, irrespective of the end-users' or provider's location or the location, origin or destination of the information, content, application or service via their IAS.⁹⁰⁰ Nevertheless, RRT found traffic management practices that could be improved to safeguard open internet access (in particular regarding the

⁸⁹³ NN-report RRT 2017, p. 5.

⁸⁹⁴ NN-report RRT 2017, p. 5. This case is discussed in more detail below in this paragraph, under heading *Complaints*.

⁸⁹⁵ NN-report RRT 2018, p. 6.

⁸⁹⁶ NN-report RRT 2018, p. 6-7.

⁸⁹⁷ The maps regarding internet speeds can be found at: www.matuok.lt (accessed 2 July 2018).

⁸⁹⁸ NN-report RRT 2018, p. 5.

⁸⁹⁹ Survey completed by RRT in the context of this Study.

⁹⁰⁰ NN-report RRT 2017, p. 3.

aforementioned blocking of ports).⁹⁰¹ Moreover, in two complaint cases, ISPs were asked by RRT to provide information concerning traffic management.⁹⁰²

Furthermore, RRT analysed in the period from 1 May 2016 to 30 April 2017 the contractual terms of IAS contracts, held several meetings with ISPs to inform them about the information that should be included in contracts in order to comply with the Regulation and later on monitored the implementation of such amendments. After the assessment of the data, RRT asked some ISPs to amend their contracts in order to comply with the transparency obligations as laid down in Article 4(1) of the Regulation. Most ISPs acted accordingly and provided the required information in their contracts, plus informed customers about the changes. In the subsequent reporting period running from 1 May 2017 to 30 April 2018, RRT focused on the analysis of contractual terms. RRT held several meetings with ISPs to inform them what is expected to be included into contracts with end-users in order to fully comply with the Regulation and the implementation of the amendments to some of the contracts were monitored.⁹⁰³

In addition to the measures taken in 2017, RRT focused its monitoring and supervision activities in the latest reporting period on contacting ISPs (via meetings and email consultations) regarding the correct accounting of zero-rating traffic while roaming in other MS. Furthermore, RRT conducted in the period 1 May 2017 until 30 April 2018 quarterly technical monitoring of zero-rated offers and checked whether ISPs blocked certain ports. As a result of these measures, RRT found two cases in which after reaching the data cap agreed upon in the contract, the zero-rated traffic was still accessible while all other internet access was blocked. RRT informally requested the involved ISPs to bring the traffic management measures in line with Article 3(3) of the Regulation and ISPs complied within a reasonable timeframe (the time necessary for reprogramming the network, approximately 30 days).⁹⁰⁴

Decisions and court cases

RRT took a decision against *AB Lietuvos radijo ir televizijos centras* on 18 January 2017.⁹⁰⁵ A consumer complained about the quality of the provided IAS and demanded the termination of his contract. RRT established that in the area where the IAS was provided the average internet speed was considerably lower than the advertised maximum speed and only a little bit higher than the minimum advertised speed. RRT concluded that the advertised maximum speed could not be achieved in the area where this end-user was located. RRT therefore determined that the ISP did not provide proper services and acknowledged the complaining party's right to terminate the agreement without having to pay a penalty for early termination. This case was not further litigated in court.

RRT has taken three enforcement decisions since the entry into force of the Regulation related to traffic management.⁹⁰⁶ These decisions are not publicly available and no further information was provided.

There have not been any court cases in Lithuania yet.

⁹⁰¹ See this paragraph, under headings Complaints and General information and reports.

⁹⁰² Survey completed by RRT in the context of this Study.

⁹⁰³ NN-report RRT 2018, p. 4.

⁹⁰⁴ NN-report RRT 2018, p. 3.

⁹⁰⁵ RRT Decision of 18 January 2017 (<https://www.infolex.lt/tp/1572701>, accessed 2 July 2018).

⁹⁰⁶ Survey completed by RRT in the context of this Study.

18.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation with regard to net neutrality in Lithuania.

18.4. Compliance with transparency obligations

The table below⁹⁰⁷ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 49: Overview of desk research on transparency obligations

ISP #	(a) 908	(b) 909	(c) 910	(d) 911	(e) 912	Comments
ISP 1	✓	✓	N/A	✓	✓	-
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	✓	✓	N/A	✓	✓	-
ISP 5	✓	✓	N/A	✓	✓	-
ISP 6	✓	✓	N/A	✓	✓	-
ISP 7	✓	✓	N/A	✓	✓	-

⁹⁰⁷ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

⁹⁰⁸ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁹⁰⁹ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁹¹⁰ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁹¹¹ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁹¹² Remedies, as further set out in Article 4(1)(e) of the Regulation.

18.5. Overview of relevant net neutrality themes in Lithuania

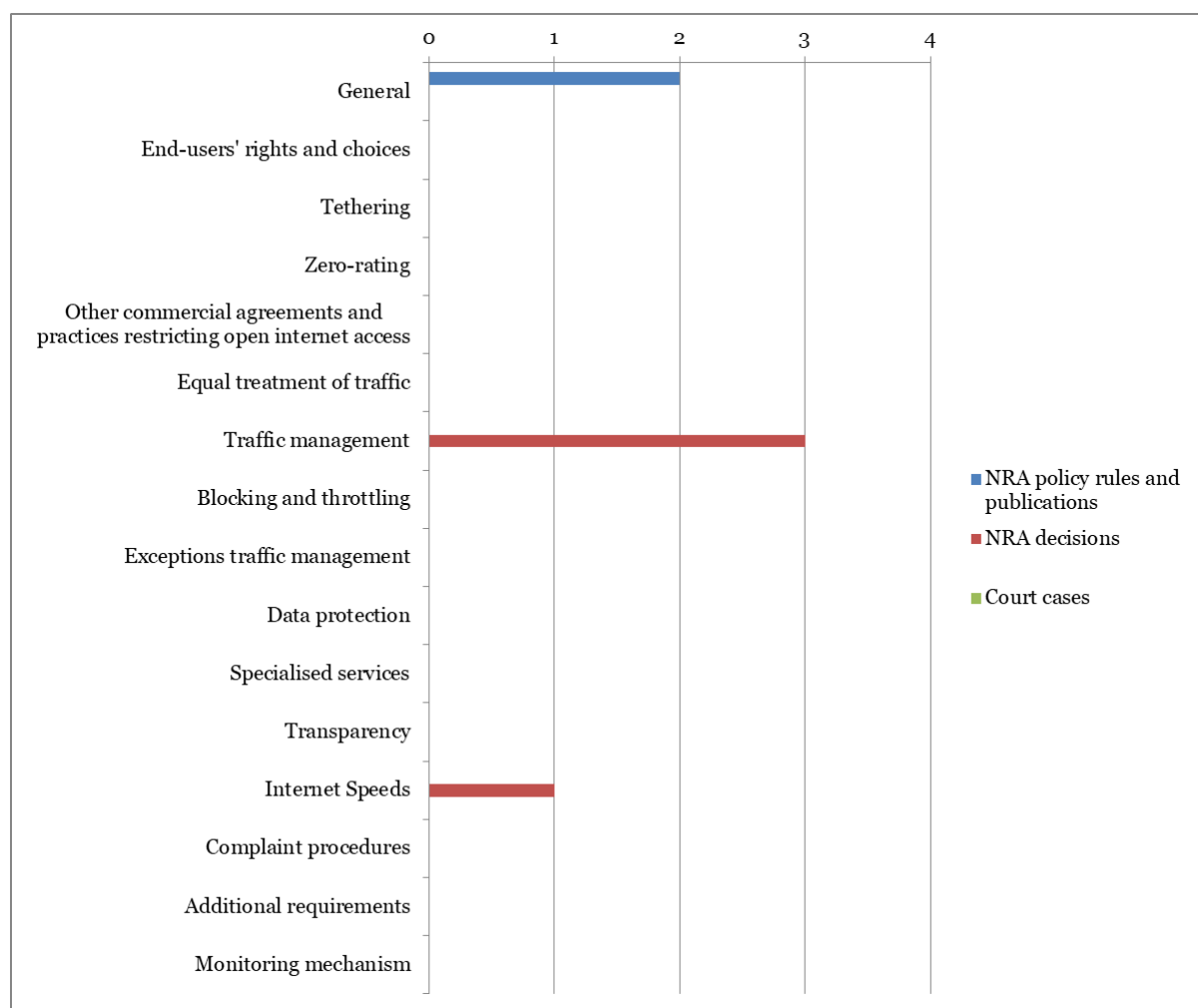


Figure 31: Blue: NN-report RTT 2017 and NN-report RTT 2018. Red: RRT Decision of 18 January 2017 and three unpublished RTT Decisions.

18.6. Summary of key topics and noteworthy findings

RRT has a specific focus on the handling of complaints. RRT has the power and the obligation to handle complaints by end-users. A monitoring mechanism pursuant to Article 4(4) is not yet available. RRT is awaiting BEREC's monitoring mechanism and intends to implement it in Lithuania.

RRT has taken some decisions on the basis of complaints that are noteworthy:

- RRT concluded that an ISP infringed end-users' rights of Article 3(1) of the Regulation by blocking port 25. According to RRT, the ISP could not provide sufficient evidence to substantiate the claim that unblocking port 25 would compromise the security of its network and accordingly the exception of Article 3(3)(b) of the Regulation did not apply. RRT ordered the ISP to unblock port 25.
- RRT took a formal decision in response to an end-user complaint based on which it established that the advertised maximum IAS speed could not be reached in the location of this end-user. RRT therefore concluded that the ISP did not provide proper services and so the end-user was entitled to terminate the agreement without having to pay a penalty for early termination.

Furthermore, RRT conducted in the period from 1 May 2017 until 30 April 2018 quarterly technical monitoring of zero-rated offers (including the correct accounting of zero-rating traffic while roaming in other MS) and checked whether ISPs blocked certain ports. As a result of this monitoring, RRT found two cases in which after reaching the data cap agreed upon in the contract, the zero-rated traffic was still accessible while other internet access was blocked. RRT requested the involved ISPs to bring traffic management on their network back in line with Article 3(3) of the Regulation.⁹¹³

The table below provides an overview of the results in Lithuania for some of the key topics.

Key topic	Result Lithuania
Pre-existing legislation	No
Maximum fine	RRT can impose: (i) a fine of up to 3 % of the annual gross income from activities associated with electronic communications, and if it is difficult or impossible to calculate the volume of such activity – a fine of up to €86 886; (ii) in case of a repeated or serious infringement, a fine of up to 5 % of the annual gross income from activities associated with electronic communications; or a fine of up to €144 810 may be imposed Where the annual gross income referred to in paragraphs (i) and (ii) is less than €86 886, a fine of up to €2 896 has to be imposed, while in the case of a repeated or serious infringement – up to €5 792
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	3
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	42
Number/percentage of complaints that were settled by the NRA.	The majority (not further specified)
Number of NRA decisions	4
Number of court cases	0
Main net neutrality themes	Traffic management measures (reasonable

⁹¹³ NN-report RRT 2018, p. 3.

	traffic management), transparency (contract information and internet speeds, zero-rating
Monitoring mechanism (certified yes/no)	Yes, not certified
Self-regulation and/or co-regulation	No

19. Luxembourg

19.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Luxembourg prior to the adoption of the Regulation.

Competent authority and penalty rules

In 2017, an amendment of the Telecommunications Law gave the *Institut Luxembourgeois de Régulation* (“**ILR**”) the competence to impose penalties provided for in Regulation.⁹¹⁴ Therefore, ILR is the competent authority for monitoring and enforcing the Regulation. Nevertheless, ILR already assumed this responsibility prior to this amendment.

In accordance with Article 83 of the Telecommunications Law, as amended, ILR can issue sanctions in accordance with Articles 3, 4 and 5(2) of the Regulation.⁹¹⁵ The maximum fine is €1 000 000. In addition, ILR may impose, instead of or in addition to the fine, one or more of the following remedies: a public warning, the prohibition to perform certain operations or to provide certain services, the temporary suspension of one or more executives of the company and the obligation to behave in a certain way together with periodic penalties in case of non-compliance. An appeal for judicial review can be lodged by the Administrative Court against any decision taken by ILR.

Additional legislation and regulations

The Telecommunications Law contains an obligation for ISPs to provide certain information, relevant to net neutrality, to end-users. ISPs are obliged to publish a data sheet on their website, which should contain *inter alia* information regarding the traffic management measures and the handling of personal data by the ISP.⁹¹⁶ ILR itself also has a database on the consumer part of its website, providing links to all these data sheets.

19.2. Monitoring, supervision and enforcement

General information and reports

ILR has focused on awareness-raising with operators, other stakeholders and consumers. It held meetings with the main stakeholders explaining and discussing the principles of the Regulation, as interpreted by the BEREC Guidelines, and the most significant changes brought about by the Regulation.⁹¹⁷ ILR also added a list of FAQ for end-users

⁹¹⁴ Loi portant modification de la loi sur les réseaux et les services de communications électroniques = Law amending the law on electronic communications networks and services, Article 3.

⁹¹⁵ Loi sur les réseaux et les services de communications électroniques = Electronic Communication Networks and Services Law (hereafter: Electronic Communication Networks and Services Law), Article 83.

⁹¹⁶ Electronic Communication Networks and Services Law, Articles 9 and 72.

⁹¹⁷ For example, presentation used by ILR (2016), Neutralité du réseau – règlement (eu) 2015/2120 («TSM») et lignes directrices de l’orece = Net Neutrality - Regulation (EU) 2015/2120 ("TSM") and BEREC Guidelines.

related to net neutrality on its website.⁹¹⁸ According to ILR there are ten employees involved in net neutrality, amounting to an average of one FTE in 2017.⁹¹⁹

The **NN-report ILR 2017**, consisting of nine pages, provides an overview of all actions undertaken by ILR regarding the implementation of the Regulation.⁹²⁰ The report describes the awareness raising initiatives of ILR: the meetings, the publication of information on the website, etc. ILR took the initiative to enable ISPs to have their contracts reviewed by ILR in order to check compatibility with the Regulation. The assessment is still ongoing. This exercise helps ILR in developing review procedures under Articles 4(1) and 4(2).

The **NN-report ILR 2018**, consisting of nine pages, focuses again on transparency issues under Article 4(1) of the Regulation and on the monitoring mechanism developed by ILR.⁹²¹ Over the past year, the authority had several additional discussions with ISPs concerning compliance with the transparency requirements of Article 4(1). The conformity check conducted by ILR following the contract review in the previous reporting period showed that there were still some instances of non-conformity. Therefore, ILR developed a list of best practices, which has been sent to all ISPs. This list has not been published. ISPs had to make sure their documents complied with the Regulation and the best practices by April 2018, before the launch of ILR's monitoring mechanism. This online monitoring mechanism is one of the other major developments. ILR introduced an internet access quality control mechanism, www.checkmynet.lu, in order to increase transparency for end-users and to increase compatibility with the Regulation. The report also indicates that ILR continuously makes use of its power to send requests for information to ISPs. They have used these requests regarding traffic management practices and certain new commercial offers. Further details have not been published.

Complaints

ILR is competent to settle complaints related to the Regulation from consumers via its dispute resolution procedure.

The NN-report ILR 2017 indicates that ILR received one request for clarification and one complaint related to upload- and download speeds.⁹²² The NN-report ILR 2018 does not provide any information on complaints, but ILR indicated that they did not receive any complaints in the period of the NN-report 2018.⁹²³

In 2017, ILR received an information request from an end-user related to a commercial practice, zero-rating in particular. ILR requested additional information from the ISP in question. The information provided by the ISP clarified the situation. So ILR did not start a formal procedure.⁹²⁴

Monitoring and supervision measures

The NN-report ILR 2017 indicates that there has been a request for information regarding a particular offer for mobile services, but it does not provide further

⁹¹⁸ https://web.ilr.lu/FR/Particuliers/Communications-electroniques/FAQ/_layouts/15/ILR.Internet/FAQ.aspx (accessed 9 October 2018).

⁹¹⁹ Survey completed by ILR in the context of this Study.

⁹²⁰ ILR (2017), Rapport Annuel portant sur les Activités en Matière de Neutralité de l'internet = Annual report regarding activities related to net neutrality (hereafter: NN-report ILR 2017).

⁹²¹ ILR (2018), Rapport Annuel portant sur les Activités en Matière de Neutralité de l'internet = Annual report regarding activities related to net neutrality (hereafter: NN-report ILR 2018).

⁹²² NN-report ILR 2017, p. 7.

⁹²³ Survey completed by ILR in the context of this Study.

⁹²⁴ Survey completed by ILR in the context of this Study.

information. Also a request for clarification and a complaint had been transmitted to the operator concerned for a position to be taken, both regarding download speeds. There have not been any formal decisions in these cases and background information was not published.

One of the main focus points of ILR is transparency. As indicated above,⁹²⁵ ISPs have the obligation to publish a data sheet on their website with detailed information on topics, such as traffic management and personal data, indicated in Article 4(1).⁹²⁶ In its NN-report 2018, ILR also mentions that it developed best practices regarding these data sheets. These best practices are not publicly available, but were sent to ISPs.

ILR recently established a quality monitoring mechanism for end-users, after extensive consultations with ISPs. It makes use of a speed measurement technology and is in line with BEREC guidance on the topic. The mechanism 'checkmynet.lu' is featured prominently on the website of ILR. End-users have used this measurement mechanism at least 40 000 times.⁹²⁷ Nevertheless, ILR indicates that it does not use the mechanism to monitor compliance with the Regulation itself.

ILR also provided guidance to ISPs concerning the implementation of Article 3(2) and it has sent two information requests to ISPs related to Article 3(2).⁹²⁸

Decisions and court cases

No formal enforcement actions have been published in relation to the net neutrality rules in Luxembourg.

ILR promotes the informal settling of disputes. It employs a mediation mechanism for disputes between consumers and operators. This is an optional and voluntary mechanism not limited to net neutrality issues.⁹²⁹

19.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Luxembourg.

19.4. Compliance with transparency obligations

The table below⁹³⁰ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

⁹²⁵ See paragraph Implementation, under heading Additional legislation and regulations.

⁹²⁶ Electronic Communication Networks and Services Law, Articles 9 and 72. See also explanation regarding the NN-report ILR 2018.

⁹²⁷ Survey completed by ILR in the context of this Study.

⁹²⁸ Survey completed by ILR in the context of this Study; see also complaints.

⁹²⁹ Règlement fixant la procédure de médiation en matière de services de communications électroniques = Regulation laying down the mediation procedure for electronic communication services, 205/16/ILR.

⁹³⁰ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 50: Overview of desk research on transparency obligations

ISP #	(a) 931	(b) 932	(c) 933	(d) 934	(e) 935	Comments
ISP 1	✓	✓	N/A	✓	✓	-
ISP 2	✓	✓	N/A	✓	✓	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	✓	✓	N/A	✓	✓	-
ISP 5	✓	✓	N/A	✓	✓	-

19.5. Overview of relevant net neutrality themes in Luxembourg

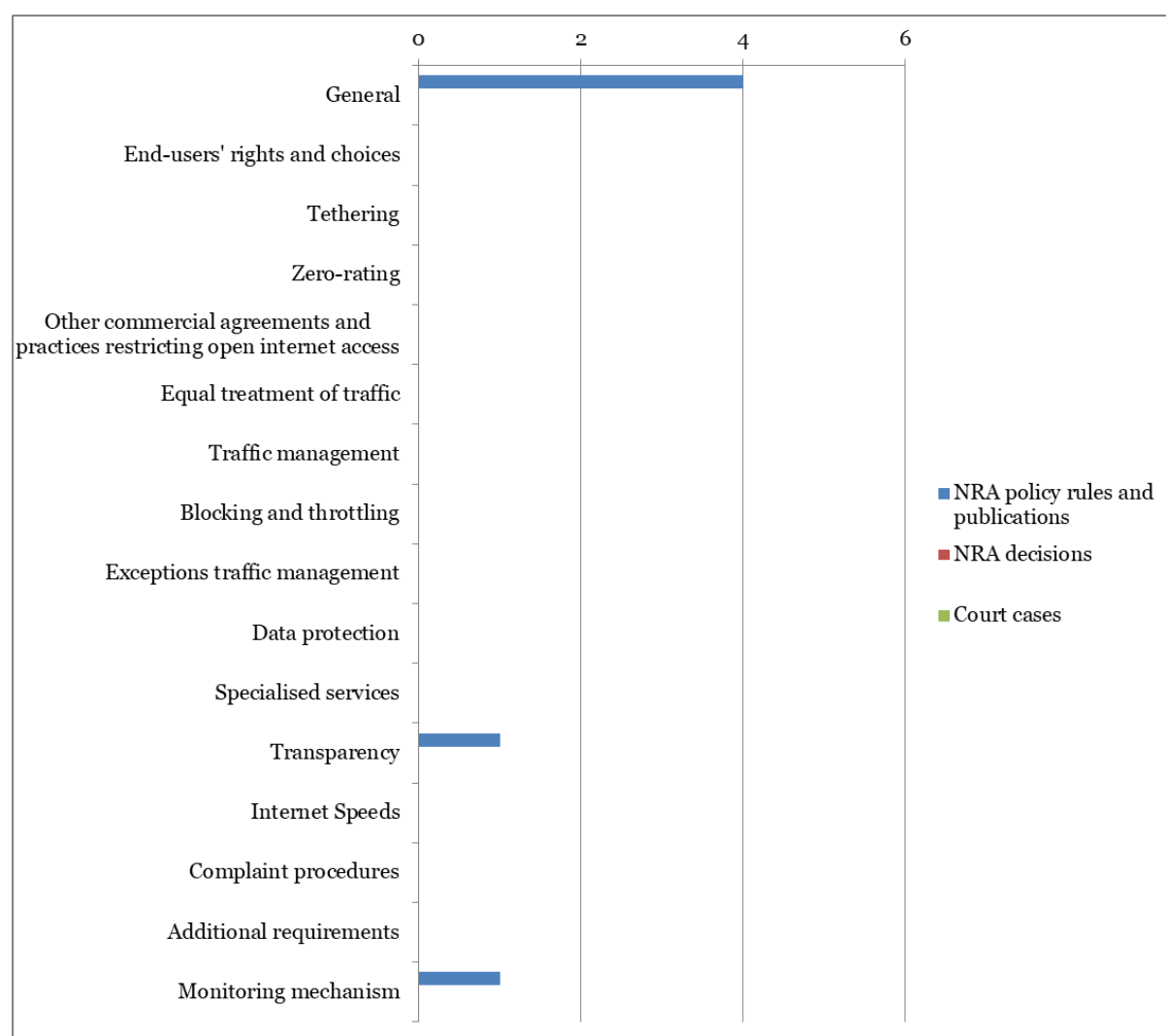


Figure 32: Blue: NN-report ILR 2017, NN-report ILR 2018, ILR presentation on 8 November 2016, FAQ for consumers on website, Best practices regarding contracts and Regulation 205/16/ILR of 25 April 2016 laying down the mediation procedure for electronic communications services.

⁹³¹ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁹³² Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁹³³ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁹³⁴ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁹³⁵ Remedies, as further set out in Article 4(1)(e) of the Regulation.

19.6. Summary of key topics and noteworthy findings

ILR has published additional transparency requirements and has taken a proactive approach by enabling ISPs to submit their contractual terms to ILR for review under the Regulation.

ILR has not started formal investigations. ILR promotes the informal settling of disputes through optional and voluntary mediation not limited to disputes related to net neutrality.

The table below provides an overview of the results in Luxembourg for some of the key topics.

Key topic	Result Luxembourg
Pre-existing legislation	No
Maximum fine	€1 000 000
Imposed fines	None
Additional legislation	Yes
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes, additional information has to be provided in a specific manner
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	1
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Authority to settle complaints of consumers.
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	Very limited
Number/percentage of complaints that were settled by the NRA	0
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Transparency (contract information)
Monitoring mechanism (certified yes/no)	Yes, checkmynet.lu, not certified
Self-regulation and/or co-regulation	No

20. Malta

20.1. Implementation

Pre-existing net neutrality legislation

In 2013, the Malta Communications Authority ("**MCA**") issued a binding decision on the information ISPs have to provide in IAS contracts. This decision required ISPs to publish the upload and download speeds and the Typical Speed Range ("**TSR**"). The TSR specifies the expected speed of an IAS connection including the minimum and maximum speeds. The TSR is calculated as the 20th and 80th percentile of speed at the access network level for fixed broadband products used. Speeds below the 20th percentile are deemed to result in a 'significant discrepancy'.

Following a consultation, on 14 November 2016, a decision notice was published extending the aforementioned decision and broadening the scope to fixed broadband services offered by ISPs in Malta. This decision is in August 2018 still in force. The decision contains an explanation of the TSR and the range of speeds achievable through a given connection. Since it is a range, specifying the maximum limit and minimum limit, the typically available speed will be anything in between. Apart from the internet speeds, ISPs must also measure other quality of service parameters e.g. the availability of internet access, latency and packet loss.

Competent authority and penalty rules

Malta did not adopt specific national legislation as a result of the Regulation. Pursuant to Article 33 of the Malta Communications Authority Act, MCA is authorised to enforce the net neutrality provisions of the Regulation.⁹³⁶ MCA may impose administrative fines up to €350 000 for infringements and a €12 000 daily fine each day the infringement or non-compliance continues.⁹³⁷ If MCA establishes that the infringement/omission has significant effects on the market, it may increase the administrative fine to maximum 5 % of the turnover of the company in the year immediately preceding the year of the infringement.

Additional legislation and regulations

Apart from the pre-existing decision regarding the interpretation of 'significant discrepancy' and transparency there is no additional legislation or regulation in Malta.

20.2. Monitoring, supervision and enforcement

General information and reports

7 Employees of MCA are involved in net neutrality, corresponding with a yearly average of approximately one FTE.

In its **NN-report MCA 2017**, consisting of 13 pages, MCA states that non-compliance with the Regulation mainly related to transparency of contracts (incomplete or non-published IAS speeds).⁹³⁸ MCA engaged with the respective stakeholders and according

⁹³⁶ Malta Communications Authority Act, Chapter 418 of the Laws of Malta (hereafter: Malta Communications Authority Act).

⁹³⁷ Malta Communications Authority Act, Article 33.

⁹³⁸ MCA (2017), Report on the Malta Communications Authority's work on the implementation of the EU net neutrality Regulation (hereafter: NN-report MCA 2017), p. 5.

to the report ISPs made changes to their terms and conditions. Therefore all ISPs fulfilled the requirement by the end of the reporting period (end of May 2017).

In the NN-report MCA 2017, MCA listed six types of non-compliance for the reporting period from 1 May 2016 to 30 April 2017:

- (i) Article 3 (traffic management policies): not all ISPs included traffic management policies in their contracts;
- (ii) Article 4(1)(a): existing traffic management policies of several ISPs were not sufficiently detailed regarding the impact of traffic management measures on end-users' privacy and the quality of their IAS;
- (iii) Article 4(1)(b): MCA noted that one ISP did not meet the requirement for a comprehensible explanation on volume limitations;
- (iv) Article 4(1)(c): MCA noted that at the time of the NN-report MCA 2017, only one ISP offered specialised services (an IPTV service). This ISP failed, according to MCA, to provide information regarding the potential impact of the specialised service on overall IAS performance;
- (v) Article 4(1)(d): MCA observed varying degrees of non-compliance: some ISPs omitted IAS speeds for mobile services, while others failed to include all speed levels); and
- (vi) Article 4(1)(e): again, MCA observed varying degrees of compliance. Some ISPs offered remedies such as service outages while others only gave examples of available remedies (e.g. pro-rate compensation).

MCA noted in its **NN-report MCA 2018**, consisting of 16 pages, that no situations required regulatory intervention in the reporting period.⁹³⁹ None of the ISPs engaged in commercial practices restricting end-users' right to choose and transmit the content of their choice.⁹⁴⁰ Moreover, MCA investigated two zero-rating cases, but that did not lead to actual enforcement measures.⁹⁴¹

Complaints

MCA is competent to settle complaints related to the Regulation from competitors, consumers and other end-users against ISPs. MCA's is limited to mediating between parties aiming to resolve the matter amicably. However, this remains without prejudice to the legal or regulatory actions MCA may take against ISPs if an infringement of the Regulation is established.

Between May 2016 and May 2017, MCA received eight complaints from end-users that claimed that they were not receiving the speeds set out in their (fixed) IAS contracts. Between 1 May 2017 and 30 April 2018, MCA received 14 complaints regarding discrepancies between the contractual speed and the actual speed of the IAS. One other complaint related to traffic management practices.⁹⁴² All complaints referred to in the NN-reports have been settled. In relation to complaints on internet speeds, MCA

⁹³⁹ MCA (2018), Report of the Malta Communications Authority on its monitoring and findings in accordance with Article 5 of Regulation (EU) 2015/2190 concerning the European net neutrality Rules (hereafter: NN-report MCA 2018), p. 6.

⁹⁴⁰ NN-report MCA 2018, p. 7.

⁹⁴¹ Please see below for more information on these cases in this paragraph, under heading *Monitoring and supervision measures*.

⁹⁴² NN-report MCA 2018, p. 8.

requests end-users to conduct internet speed tests in accordance with the guidelines provided by MCA. If these results indicate a discrepancy with the contractual speeds, MCA refers the matter to the ISP. In general, ISPs deploy their technicians to conduct further tests following which the issues are normally resolved.

Monitoring and supervision measures

In the reporting period from 1 May 2016 until 30 April 2017, MCA conducted a market wide investigation. This included: discussions with ISPs on traffic management policies to ensure that the relevant details were included in end-users' contracts, requesting information from ISPs to ensure that sufficient information is provided on the impact that traffic management may have on end-users' privacy and on the effect that speed/volume limitations have on IAS (Articles 4(1)(a) and 4(1)(b) of the Regulation).⁹⁴³ MCA examined the terms and conditions of individual products and traffic management policies of ISPs.⁹⁴⁴ MCA requested an ISP to update the information on the effect a particular specialised service had on the IAS (Article 4(1)(c) of the Regulation). Also, ISPs were requested to provide complete information on the different speed levels of IAS and the remedies available to end-users in the event of discrepancies between the actual and offered internet speeds (Articles 4(1)(d) and 4(1)(e) of the Regulation).⁹⁴⁵ MCA noted that after its interventions, all ISP complied with the Regulation.

In this first reporting period, MCA also assessed port-blocking techniques used by ISPs and concluded that they are normally used to deter the delivery of unsolicited emails and to address specific network threats.

MCA also investigated whether ISPs complied with the 2013 Decision that obliges ISPs to publish upload and download speeds in their contracts. In particular information relating to mobile speeds was found to be insufficient. In accordance with the Regulation and BEREC Guidelines, MCA requested ISPs to include the estimated maximum speed in their contracts. MCA is currently, in August 2018, working on an initiative to set up a broadband Quality of Service framework applicable to mobile services. MCA aims to define how ISPs should disclose estimated mobile IAS speeds.⁹⁴⁶ MCA did not certify a speed measurement mechanism yet, but is awaiting BEREC's initiatives on this matter to implement at a national level.⁹⁴⁷

According to the NN-report MCA 2017, there were no restrictions to end-user rights in relation to access and distribution of information and content and MCA did not identify any zero-rating or other traffic/price discrimination practices on the Maltese market that breached the Regulation.⁹⁴⁸ Upon reviewing terms and conditions, MCA concluded that specialised services are not hindering access or restricting the capacity to an open internet because the offered specialised services use ISPs own infrastructure.⁹⁴⁹

In its NN-report MCA 2018, MCA mentioned it requested all fixed and mobile ISPs to complete a self-assessment questionnaire concerning several aspects of the Regulation. Questions were asked concerning technical and commercial practices impacting IAS for end-users and traffic management practices. Furthermore, MCA frequently assesses whether the required procedures to address end-users complaints are available.⁹⁵⁰

⁹⁴³ NN-report MCA 2017, p. 6.

⁹⁴⁴ NN-report MCA 2017, p. 8-9.

⁹⁴⁵ NN-report MCA 2017, p. 7.

⁹⁴⁶ NN-report MCA 2017, p. 10.

⁹⁴⁷ Survey completed by MCA in the context of this Study.

⁹⁴⁸ NN-report MCA 2017, p. 8.

⁹⁴⁹ Survey completed by MCA in the context of this Study.

⁹⁵⁰ NN-report MCA 2018, p. 5-6.

During the last two years, MCA investigated two zero-rating cases, but it did not lead to actual enforcement measures. In the first case the data consumed by IPTV subscribers was not counted towards the subscriber's data cap. MCA applied the BEREC Guidelines in determining whether this offer complied with the Regulation. MCA concluded that in light of the limited scale and scope, it was unlikely the product could have a negative effect on either subscribers or CAPs.⁹⁵¹ The second case related to the offering of TV services. MCA concluded that no regulatory intervention was required. MCA found that although the Regulation applied to the IAS over which the product was delivered, the content was restricted to the confines of the provider's network and for that reason not considered to be available on the open internet and therefore not subject to the Regulation.⁹⁵² However, MCA notes that all zero-rating offers currently present in the market continue to be reviewed.⁹⁵³ MCA is examining three other zero-rating cases. In one offer, the ISP offers zero-rating of Spotify and Deezer to its mobile subscribers. In the other two offers, the ISP offers live TV streaming services to its mobile subscribers. The main difference between these two offers is the subset of mobile subscribers to whom the offer is made available. One is available to the ISP's fixed IPTV subscribers that are also mobile customers. They enjoy a TV channel portfolio on their mobile (zero-rated) that is similar to the TV channel portfolio offered on the fixed IPTV platform. The other is available to post-paid subscribers. They are offered a restricted TV channel portfolio on the mobile service. The findings and outcomes of these cases will be published in the NN-report MCA 2019.⁹⁵⁴

MCA is monitoring the TSR that ISPs are required to provide following the binding decision in 2013. MCA also closely follows BEREC's initiatives in the context of developing a common net neutrality monitoring mechanism for the entire EU.⁹⁵⁵

Decisions and court cases

MCA did not take any formal enforcement decisions with regard to net neutrality yet and no Maltese court cases with respect to net neutrality were reported.

20.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Malta.

20.4. Compliance with transparency obligations

The table below⁹⁵⁶ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs that has been conducted in the context of this Study. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

⁹⁵¹ NN-report MCA 2018, p. 6-8.

⁹⁵² NN-report MCA 2018, p. 8-9.

⁹⁵³ Survey completed by MCA in the context of this Study.

⁹⁵⁴ Information directly provided and confirmed by MCA.

⁹⁵⁵ NN-report MCA 2018, p. 12-13.

⁹⁵⁶ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 51: Overview of desk research on transparency obligations

ISP #	(a) 957	(b) 958	(c) 959	(d) 960	(e) 961	Comments
ISP 1	✓	✓	✓	✓	✓	-
ISP 2	✓	✓	✓	✓	✓	-
ISP 3	✓	✓	✓	✓	✓	-
ISP 4	✓	✓	✓	✓	✓	-
ISP 5	✓	✓	✓	✓	✓	-
ISP 6	✓	✓	✓	✓	✓	-

20.5. Overview of relevant net neutrality themes in Malta

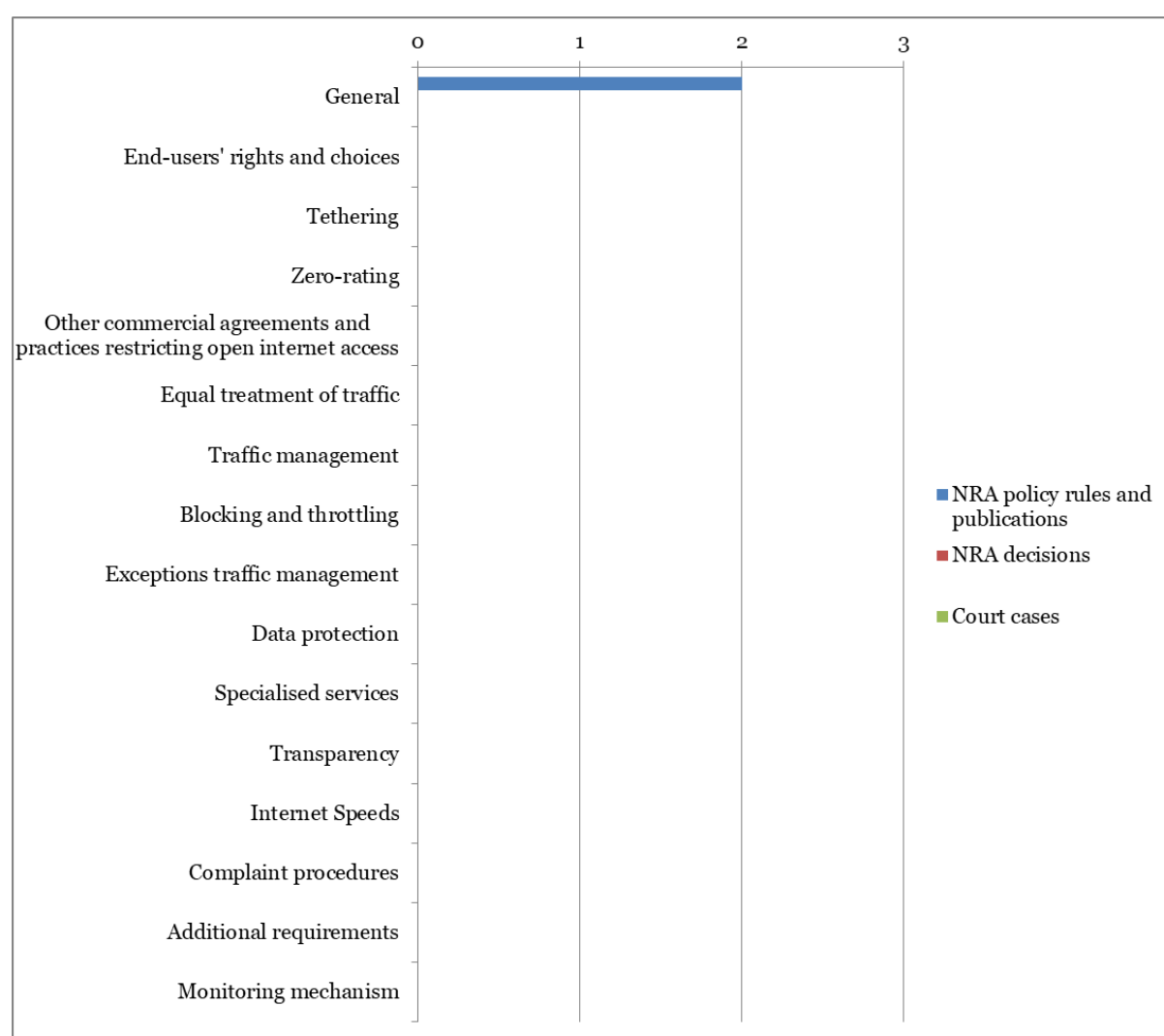


Figure 33: Blue: NN-report MCA 2017 and NN-report MCA 2018.

⁹⁵⁷ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

⁹⁵⁸ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

⁹⁵⁹ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

⁹⁶⁰ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

⁹⁶¹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

20.6. Summary of key topics and noteworthy findings

Malta is one of the few Member States, where the term 'significant discrepancy' is specified in a binding decision of MCA. According to a binding decision ISPs are required to publish the upload and download speeds and the Typical Speed Range, which is calculated as the 20th and 80th percentile of speed at access network level, for each product. All speeds below the 20th percentile are deemed to result in a 'significant discrepancy'. The decision was issued prior to the Regulation but continued to apply.

MCA initiated two investigations into zero-rating offers on the market. In both cases no formal regulatory action was taken by MCA because it was concluded that the Regulation was not infringed. In one case because of the limited scale and scope of the zero-rating offer and in the other case because it was concluded that this zero-rating offer was not available over the open internet so the Regulation did not apply. MCA is reviewing three other zero-rating cases.

The table below provides an overview of the results in Malta for some of the key topics.

Key topic	Result Malta
Pre-existing legislation	Yes, transparency legislation (still in force)
Maximum fine	MCA may impose administrative fines of up to €350 000 for each infringement of the law and a €12 000 daily fine for each day of infringement or non-compliance; in case significant effects on the market could be established, a maximum fine of 5 % of total turnover applies
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes, see under pre-existing legislation
Number of FTEs in NRA involved in net neutrality	1
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	23
Number /percentage of complaints that were settled by the NRA	All (often by ISP after referral)
Number of NRA decisions	0
Number of court cases	0

Main net neutrality themes	Transparency (internet speeds, contract information), zero-rating, specialised services
Monitoring mechanism (certified yes/no)	Yes (not certified)
Self-regulation and/or co-regulation	No

21. Netherlands

21.1. Implementation

Pre-existing net neutrality legislation

The Netherlands is one of the few Member States that had pre-existing rules on net neutrality.⁹⁶² The Dutch net neutrality rules were laid down in Article 7.4a of the Dutch Telecommunications Act ("**DTA**"). This Article contained, *inter alia*, a prohibition to hinder or slow down applications or services, unless justified, and a prohibition on zero-rating (i.e. price discrimination based on the services and applications that are offered). These rules were amended when the Regulation entered into force in order to eliminate conflicts.⁹⁶³ Nonetheless, the Dutch Government decided that the prohibition on zero-rating was in line with the Regulation and this prohibition remained in Article 7.4a, Section 3 of the DTA.

However, the District Court of Rotterdam ruled on 20 April 2017 that a categorical prohibition on zero-rating as laid down in Article 7.4a, Section 3 DTA is incompatible with the Regulation and should therefore be declared inapplicable.⁹⁶⁴ The Court ruled that Article 3 of the Regulation, without a doubt (*acte clair*), contains no categorical prohibition on price discrimination (i.e. zero-rating). Following this judgment, a law was passed in 2018 that deleted this provision.⁹⁶⁵

Competent authority and penalty rules

The Dutch Authority for Consumers and Markets ("**ACM**") is the NRA responsible for supervision and enforcement of the Regulation pursuant to Article 18.2a, Section 1 and Article 15.1, Section 3 DTA. ACM has the power to impose coercive administrative actions or orders subject to periodic penalty payments (Article 15.2, Section 2 DTA); a prohibition for providers of public electronic communication networks and services to provide public communication networks and services for a reasonable period of time after repetitive infringements (Article 15.2a, Section 2 DTA) and administrative fines up to €900 000 or, if this is higher, 10 % of the company's revenue per infringement (Article 15.4, Section 3 and under a DTA).

Additional legislation and regulations

Article 7.4a, Section 2 DTA⁹⁶⁶ provides a legal basis (with reference to Article 5(1) of the Regulation) to impose, pursuant to a governmental decree, rules for the implementation of the Regulation. More specifically, to impose requirements on minimum quality of service, preventing effects of network congestion (with reference to Article 3(3)(c) of the Regulation) and offering other services (with reference to Article 3(5) of the Regulation). The Ministry of Economic Affairs and Climate Policy is competent to issue governmental

⁹⁶² Wet tot wijziging van de Telecommunicatiewet ter implementatie van de herziene telecommunicatierichtlijnen = Dutch Telecommunications Act, Stb. 2012, 235, Article 7.4a (This Article entered into force on 1 January 2013).

⁹⁶³ Wet tot wijziging van de Telecommunicatiewet ter uitvoering van de netneutraliteitsverordening = Act amending the Telecommunications Act to implement the Net Neutrality Regulation, Stb. 2016, 409. The provisions were amended with retroactive effect from 30 April 2016.

⁹⁶⁴ District Court of Rotterdam 20 April 2017, ECLI:NL:RBROT:2017:2940, see more detailed below, paragraph *Monitoring, supervision and enforcement*, under *Decisions and court cases*.

⁹⁶⁵ Verzamelwet EZK en LNV 2018 = Collecting Act EZK and LNV 2018, Stb. 2018, 142. This bill entered into force on 1 July 2018, Stb. 2018, 207.

⁹⁶⁶ As amended and entered into force on 30 April 2016 (with retroactive effect). The Article was further amended and entered into force on 1 July 2018 pursuant to the court decision referred to above in this paragraph, under heading *Pre-existing net neutrality legislation*.

decrees (generally binding regulations) based on this provision.⁹⁶⁷ Prior to the entry into force of the Regulation a Governmental decree on net neutrality was issued specifying the definition of IAS within the meaning of Article 7.4a DTA.⁹⁶⁸ This decree is still in force.

Furthermore, the Ministry of Economic Affairs and Climate Policy published a draft Governmental decree regarding the network termination point ("**Decree NTP**") on 13 December 2017 to interpret the definition of NTP, as included in Article 1.1 DTA.⁹⁶⁹ The public consultation ran until 15 February 2018. The final Governmental decree has not been published yet. The Decree NTP clarifies the definition of NTP by explaining the separation between a public electronic communications network and a private network of the end-user.

On 27 November 2017, ACM issued an ACM Policy rule on the provision of information regarding internet speeds ("**ACM Policy rule**").⁹⁷⁰ The purpose is to clarify the various internet speeds mentioned in the Regulation. As a result, ISPs and end-users are informed on the interpretation by ACM of different concepts. ACM has specified three categories of internet speeds: minimum, normal and maximum internet speeds. The minimum speed must be met in all measurements, the normal speed in at least 8 out of 10 measurements and at least 90 % of the maximum speed in at least 1 out of 10 measurements. With this law interpreting policy rule, ACM interprets the various internet speeds mentioned in Article 4(1)(d) of the Regulation pursuant to Article 5 of the Regulation. The ACM Policy rule entered into force on 1 January 2018 for contracts concluded after the day the policy rule was published and on 1 March 2018 for contracts concluded on or before the day the policy rule was published. It relates to contracts with both consumers and professional end-users.

In the Parliamentary Papers amending the DTA following the Regulation, the Dutch Government referred to an opinion of 2012 that ISPs may offer filtering at the explicit request of the end-user (for example for the protection of minors or on ideological grounds / religious beliefs).⁹⁷¹ Filtering can be provided by using (secured) filtering software or –technology on the router, computer or mobile phone or through the use of proxy services. According to the Government, this type of filtering falls outside of the scope of the IAS and the net neutrality rules. The options the ISP has for filtering at the explicit request of the end-user may not be used to circumvent the net neutrality rules. Certain conditions to filter must be met e.g. that filtering cannot take place at the network level, the end-user should be able to choose whether or not to use the filtering service and the IAS tariff should not be affected by this choice.

In addition, discussions are ongoing between several Dutch ministries and representatives of right holders and ISPs that could lead to self- or co-regulation. The aim of the discussions is, *inter alia*, to reach an agreement on a coordinated approach on the blocking of websites that have to be blocked pursuant to a court judgment in a specific case (not addressed to all ISPs).⁹⁷²

⁹⁶⁷ Kamerstukken II = Parliamentary Papers II 2015/16, 34379, 3, p. 4.

⁹⁶⁸ Beleidsregel netneutraliteit = Governmental decree net neutrality, Stcrt. 2015, 13478.

⁹⁶⁹ Concept Beleidsregel netwerkaansluitpunt = Draft Governmental decree network termination point, 13 December 2017.

⁹⁷⁰ ACM Beleidsregel kenbaarheid van internetsnelheden = ACM Policy rule on the provision of information concerning internet speeds, Stcrt. 2017, 68591.

⁹⁷¹ Kamerstukken II = Parliamentary Papers II 2015/16, 34379, 6, p. 13. Kamerstukken I = Parliamentary Papers I 2011/12, 32549, L.

⁹⁷² Kamerstukken II = Parliamentary Papers II 2017/18, 32820, 249, p. 9. See also the court cases focusing on website blocking as initiated by Brein Foundation (Supreme Court 13 November 2015, ECLI:NL:HR:2015:3307; Supreme Court 29 June 2018, ECLI:NL:HR:2018:1046).

21.2. Monitoring, supervision and enforcement

General information and reports

ACM is active in ensuring compliance with the net neutrality rules. It informs the public on net neutrality, publishes about net neutrality, warns stakeholders if it considers a practice non-compliant, refers to net neutrality in its annual reports, issues policy rules and takes enforcement actions.⁹⁷³ According to ACM, there are 10 employees involved in net neutrality corresponding to a total of two FTEs.⁹⁷⁴ The number of resources spent on the telecommunications market stayed more or less the same after the Regulation entered into force. The slight increase was the result of ACM taking on BEREC responsibilities.⁹⁷⁵

The **NN-report ACM 2017**, consisting of four pages, contains the following topics: general introduction of the Regulation, information for ISPs about net neutrality, ACM's work within BEREC, and information on the work of ACM in relation to the zero-rating offer of T-Mobile.⁹⁷⁶ It also reflects on the previous year and states the key priorities for the following year. The key priorities consist of end-users' right to open internet access, contract choices and the freedom to choose terminal equipment. The contracts and conditions must be transparent and clear. ACM will contribute to the establishment of a measuring system together with BEREC. ACM also stated that it would develop a policy rule on the options for end-users if providers do not comply with the service level obligations in the contracts. This resulted in the above mentioned ACM Policy rule.

The **NN-report ACM 2018**, consisting of four pages, contains information on activities in the year 2017, the zero-rating offer by T-Mobile, examination of the general terms and conditions, the ACM Policy rule, knowledge on traffic management, 5G and net neutrality and the key priorities for the following year.⁹⁷⁷ ACM has examined the relationship between 5G technologies and the Regulation by participating in the steering group for a study by TNO related to 5G and net neutrality.⁹⁷⁸ This study was submitted to BEREC. ACM has not published its final position yet. The key priorities of ACM consist of: making preparations for a smooth implementation of the BEREC mechanism for measuring internet download speed; the Decree NTP,⁹⁷⁹ the appeal of Bits of Freedom⁹⁸⁰

⁹⁷³ ACM, Netneutraliteit voor internetaanbieders = Net neutrality for internet providers (<https://www.acm.nl/nl/onderwerpen/telecommunicatie/de-telecommarkt/netneutraliteit>, accessed 13 June 2018). ConsuWijzer, Wat is netneutraliteit? = What is net neutrality? (<https://www.consuwijzer.nl/telecom-post/mobiele-telefonie/contract-voorwaarden/wat-netneutraliteit>, accessed 13 June 2018). ACM (2016), Welkom bij de bijeenkomst over de nieuwe regels rond netneutraliteit = Welcome to the meeting on the new rules for net neutrality. ACM, Netneutraliteit garandeert open en vrije toegang tot internet = Net neutrality guarantees open and free access to the internet, 29 April 2016 (<https://www.acm.nl/nl/publicaties/publicatie/15777/Netneutraliteit-garandeert-open-en-vrije-toegang-tot-internet>, accessed 13 June 2018). ACM, ACM waarschuwt telecombedrijven over netneutraliteit = ACM warns telecom companies against net neutrality, 27 July 2016 (<https://www.acm.nl/nl/publicaties/publicatie/16031/ACM-waarschuwt-telecombedrijven-over-netneutraliteit>, accessed 13 June 2018). ACM, Annual report ACM in 2016. ACM, Jaarverslag ACM in 2017 = Annual report ACM in 2017. Also see below in this paragraph, under headings *Monitoring and supervision measures* and *Decisions and court cases*.

⁹⁷⁴ Survey completed by ACM in the context of this Study.

⁹⁷⁵ Survey completed by ACM in the context of this Study and interview with ACM in the context of this Study.

⁹⁷⁶ ACM (2017), Jaarverslag netneutraliteit 2016-2017 = Annual report on net neutrality 2016-2017 (hereafter: NN-report ACM 2017).

⁹⁷⁷ ACM (2018), Jaarverslag netneutraliteit 2017-2018 = Annual report on net neutrality 2017-2018 (hereafter: NN-report ACM 2018).

⁹⁷⁸ TNO (2018), 5G and net neutrality: a functional analysis to feed the policy discussion.

⁹⁷⁹ See above, paragraph Implementation, under heading Additional legislation and regulations.

⁹⁸⁰ See below in this paragraph, under heading *Decisions and court cases*.

and to continue discussions with telecom providers on the offering of new services in relation to the net neutrality rules.

At this moment blocking and throttling of content, ports and/or websites is not high on ACM's list of priorities since there have been no signals regarding problems in the market.⁹⁸¹ In principle, it is the Dutch court that has authority to require ISPs to block websites and/or content, not ACM.⁹⁸² However, the question was raised whether ISPs that are not a party to the proceedings, may rely on such a judgment.

Complaints

ACM is competent to act on complaints related to the Regulation from consumers (however, no dispute settlement), other end-users and competitors against ISPs. The NN-reports do not provide information on the number of complaints related to net neutrality issues. The ACM annual report 2017 states that ACM received five formal complaints that led to a decision within the area of telecommunications.⁹⁸³ ACM indicated that it has received one complaint by a consumer and one complaint by another end-user in relation to the Regulation. Bits of Freedom filed a formal complaint (an enforcement request) in relation to net neutrality.⁹⁸⁴

Monitoring and supervision measures

ACM stated in its interview that it prefers informal measures when enforcing the Regulation. This is influenced by the fact that ACM has not encountered any severely reprehensible infringements of the net neutrality provisions as laid down in the Regulation yet. The main enforcement mechanism consists of informal discussions with ISPs where information can be exchanged freely. ACM believes that providers have an incentive to avoid bad publicity and are therefore willing to adjust their behaviour.

According to the NN-report ACM 2018, ACM examined, among other things, whether the general terms and conditions of ISPs provide information on how traffic management measures could influence the quality of IAS. According to the report, several ISPs adjusted the information in their general terms and conditions. The report also states that, following the ACM Policy rule, ACM contacted 12 ISPs and checked whether they included the internet speeds in their contracts. At least 11 of them did. ACM also assessed the contracts and terms and conditions of ISPs, e.g. in relation to the contractual complaints procedure. ACM is not planning to impose additional transparency requirements.⁹⁸⁵

ACM provided guidance to ISPs on the implementation of: Article 3(1) of the Regulation concerning free use of terminal equipment and tethering (specifically to T-Mobile and Tele2⁹⁸⁶), Article 3(2) of the Regulation in relation to commercial agreements and

⁹⁸¹ Survey completed by ACM in the context of this Study and interview with ACM in the context of this Study.

⁹⁸² See e.g. the ongoing case resulting from Brein Foundation's (the Dutch joint anti-piracy program) request to a District Court to order ISPs Ziggo and XS4ALL to block access to several IP-addresses and domain names of The Pirate Bay, on the basis of the Dutch Copyright Act (Auteurswet) and the Neighbouring Rights Act (Wet Naburige Rechten). The case is still ongoing. The Supreme Court referred the case back to a lower court in its 29 June 2018 decision, ECLI:NL:HR:2018:1046. We note that it is not in question whether the court can impose such an order, the (main) focus is on the circumstances under which such blocking should be ordered.

⁹⁸³ ACM, Jaarverslag: ACM in 2017 = Annual report: ACM in 2017

⁹⁸⁴ See below in this paragraph, under heading *Decisions and court cases*.

⁹⁸⁵ Survey completed by ACM in the context of this Study and interview with ACM in the context of this Study.

⁹⁸⁶ See below under this heading.

practices such as zero-rating (to numerous ISPs) and Article 3(3) of the Regulation in relation to equal treatment of traffic, reasonable traffic management, blocking specific ports, content or websites and traffic management measures (to several ISPs, TNO and the Dutch Ministry of Justice and Security).⁹⁸⁷ ACM also held informal discussions with ISPs in relation to infringements of Article 3(2) of the Regulation and the transparency requirements of Article 4(1) of the Regulation.

Information was requested from ISPs on traffic management (20 times), justifications for traffic management measures (five times) and transparency obligations on IAS speeds (20 times).⁹⁸⁸ ISPs generally answer requests by ACM without a need to issue a formal request based on Article 5(2) of the Regulation.⁹⁸⁹

Supervision measures that did not result in a formal decision by ACM, but which are published with limited substantiation, are the guidance and requests for amending the terms and conditions to T-Mobile and Tele2. ACM preliminary responded to questions from the press regarding T-Mobile's unlimited mobile 4G plan, which would compress streamed videos and prohibit tethering. They stated that it appeared to infringe the Regulation.⁹⁹⁰ T-Mobile removed the restrictions from the terms and conditions and instead published a fair use policy. This policy now states that the plan is 'intended specifically for individual use of mobile internet on smartphones and tablets in the Netherlands'. Tele2 implemented conditions on accessing internet through a smartphone connected to other devices such as laptops and tablets (tethering).⁹⁹¹ It had included restrictions in its fair use policy in order to be able to take action against 'abuse'. According to ACM, these conditions conflicted with the Regulation. Consequently, Tele2 amended its terms and conditions.

In the Netherlands, there are at least two online monitoring mechanisms available for end-users to test conformity of performance of ISPs (Measurement Lab and Speedtest). ACM started a preliminary collaboration with Measurement Lab,⁹⁹² but is awaiting the monitoring mechanism developed by BEREC for a certified monitoring mechanism within the meaning of Article 4(4) of the Regulation.

Decisions and court cases⁹⁹³

T-Mobile launched a data free music service '*Datavrije Muziek*' in the Netherlands on 10 October 2016. This service can be used by T-Mobile customers that purchase a data bundle of 6GB or more. Data used by the connected music streaming services did not count towards the data cap. By decision of 9 December 2016, ACM ordered T-Mobile to cease its zero-rated service *Datavrije Muziek* within a certain period of time subject to penalty payments of €50 000 for each day the infringement continued with a maximum

⁹⁸⁷ Survey completed by ACM in the context of this Study.

⁹⁸⁸ Survey completed by ACM in the context of this Study.

⁹⁸⁹ Survey completed by ACM in the context of this Study and interview with ACM in the context of this Study.

⁹⁹⁰ Kraan (2016), ACM: Nieuwe T-Mobile-bundel 'op gespannen voet' met netneutraliteit = ACM: New T-Mobile bundle 'not in line with' with net neutrality (<https://www.nu.nl/internet/4268619/acm-nieuwe-t-mobile-bundel-op-gespannen-voet-met-netneutraliteit.html>, accessed 13 June 2018).

⁹⁹¹ Tele2 past voorwaarden op verzoek van ACM aan = Tele2 adjusts conditions at the request of ACM (<https://www.acm.nl/nl/publicaties/publicatie/17298/Tele2-past-voorwaarden-op-verzoek-van-ACM-aan>, accessed 13 June 2018).

⁹⁹² ACM laat consument zijn eigen internetsnelheid meten = ACM allows consumers to measure their own internet speed (<https://www.acm.nl/nl/publicaties/publicatie/16039/ACM-laat-consument-zijn-eigen-internetsnelheid-meten>, accessed 18 July 2018). See also <http://speed.measurementlab.net/nl/#/> (accessed 13 June 2018).

⁹⁹³ Lawyers from the law firm that is part of the Consortium are representing T-Mobile in the zero-rating cases referred to in this paragraph.

of €500 000. ACM found that the zero-rated service infringed Articles 3(2) and 3(3) of the Regulation and Article 7.4a, Section 3 DTA (old).⁹⁹⁴ T-Mobile appealed this decision at the District Court of Rotterdam.⁹⁹⁵ The main question in this case was whether a categorical prohibition on rate differentiation as laid down in Article 7.4a, Section 3 DTA was compatible with the Regulation. As mentioned above, the Court decided that the provision in the DTA was incompatible with the Regulation and should therefore be declared inapplicable.⁹⁹⁶ The Court found that Article 3 of the Regulation, without a doubt, contains no categorical prohibition on price discrimination. For this reason, the contested decision of ACM was annulled.

After the decision by the Court on 20 April 2017, Bits of Freedom filed an enforcement request with ACM stating that the data-free music service of T-Mobile violated Articles 3(1), 3(2) and 3(3) of the Regulation. ACM ruled in its primary decision of 26 September 2017 and in its decision on an objection of 29 January 2018 that the zero-rated service *Datavrije Muziek* is compatible with Article 3 of the Regulation.⁹⁹⁷ ACM decided that the service did not violate the net neutrality rules since it is offered in a non-discriminatory manner and the service does not reduce end-users' rights and choices. ACM considered the service *Datavrije Muziek* to be non-discriminatory for the following reasons:

- the same access conditions and procedural rules apply to all (candidate) providers of music streaming services; and
- the category of zero-rated music streaming services is determined by the conditions that a music streaming service should be publicly accessible and that T-Mobile should be able to recognise the IP-address of the music streaming service. These conditions are considered proportionate and non-discriminatory.

Providers of music streaming services and users of the service *Datavrije Muziek* are both considered as end-users. ACM considers that the rights of these end-users are not affected. Users can choose from a wide range of music streaming services. Moreover, users can request T-Mobile to invite music streaming services to join the platform. The notification procedure is available in Dutch, the contract is available in English (Dutch law applies) and T-Mobile reserves the right to implement changes in the technical requirements. According to ACM, these conditions do not qualify as restrictions of the rights of end-users. Finally, T-Mobile is not monitoring or examining the content.

Consequently, the request of Bits of Freedom was rejected. Bits of Freedom appealed this decision. The case is pending before the District Court of Rotterdam.⁹⁹⁸

21.3. Self-regulation and/or co-regulation

Several ISPs agreed on a code of conduct regarding transparency of internet speeds before the Regulation came into force.⁹⁹⁹ The code of conduct entered into force on

⁹⁹⁴ This decision is not publicly available (anymore).

⁹⁹⁵ District Court of Rotterdam 20 April 2017, ECLI:NL:RBROT:2017:2940.

⁹⁹⁶ See paragraph Implementation, under heading Pre-existing net neutrality legislation.

⁹⁹⁷ ACM Decision of 26 September 2017, ACM/DTVP/2017/205487_OV, case number: 17.0475.53. ACM Decision on an objection of 29 January 2018, ACM/UIT/454099, case number: ACM/17/019856.

⁹⁹⁸ Korteweg (2018), Wij zetten de strijd tegen zero rating door bij de rechter = We continue the battle against zero-rating in court (<https://www.bof.nl/2018/05/17/wij-zetten-de-strijd-tegen-zero-rating-door-bij-de-rechter/>, accessed 13 June 2018).

⁹⁹⁹ Gedragscode Transparantie Internetsnelheden = Dutch Code of Conduct on Transparency of Internet Speeds, Published on ISP websites (link to Ziggo's: <https://www.ziggo.nl/pdf/voorwaarden/gedragscode-transparantie-internet.pdf>, accessed 13 June 2018).

1 January 2013 and was not amended or deviated from when the Regulation came into force. The code of conduct contains guidelines on the way ISPs will provide end-users with information related to the speed of their internet connection before, during and after the conclusion of a contract. Topics covered include normally available internet speeds, QoS parameters that can influence the speed and the applicable complaints procedure.

21.4. Compliance with transparency obligations

The table below¹⁰⁰⁰ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 52: Overview of desk research on transparency obligations

ISP #	(a) 1001	(b) 1002	(c) 1003	(d) 1004	(e) 1005	Comments
ISP 1	✓	N/A	N/A	✓	≈	(e): The ISP has not specified that consumers can also go to the court if they are unsatisfied with the IAS. The ISP only specified that consumers can go to the Consumer Complaints Boards.
ISP 2	✓	N/A	N/A	✓	N/A	-
ISP 3	✓	✓	N/A	✓	✓	-
ISP 4	✓	N/A	N/A	✓	≈	(e): Same comments as for ISP 1.
ISP 5	✓	N/A	N/A	✓	✓	-
ISP 6	✓	✓	N/A	✓	✓	-
ISP 7	✓	✓	N/A	✓	✓	-
ISP 8	N/A	N/A	N/A	✓	≈	(e): Same comments as for ISP 1.
ISP 9	✓	✓	N/A	≈	≈	(d): The ISP does not specify a maximum or advertised <u>upload</u> speed. (e): Same comments as for ISP 1.

¹⁰⁰⁰ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹⁰⁰¹ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹⁰⁰² Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹⁰⁰³ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹⁰⁰⁴ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹⁰⁰⁵ Remedies, as further set out in Article 4(1)(e) of the Regulation.

21.5. Overview of relevant net neutrality themes in the Netherlands

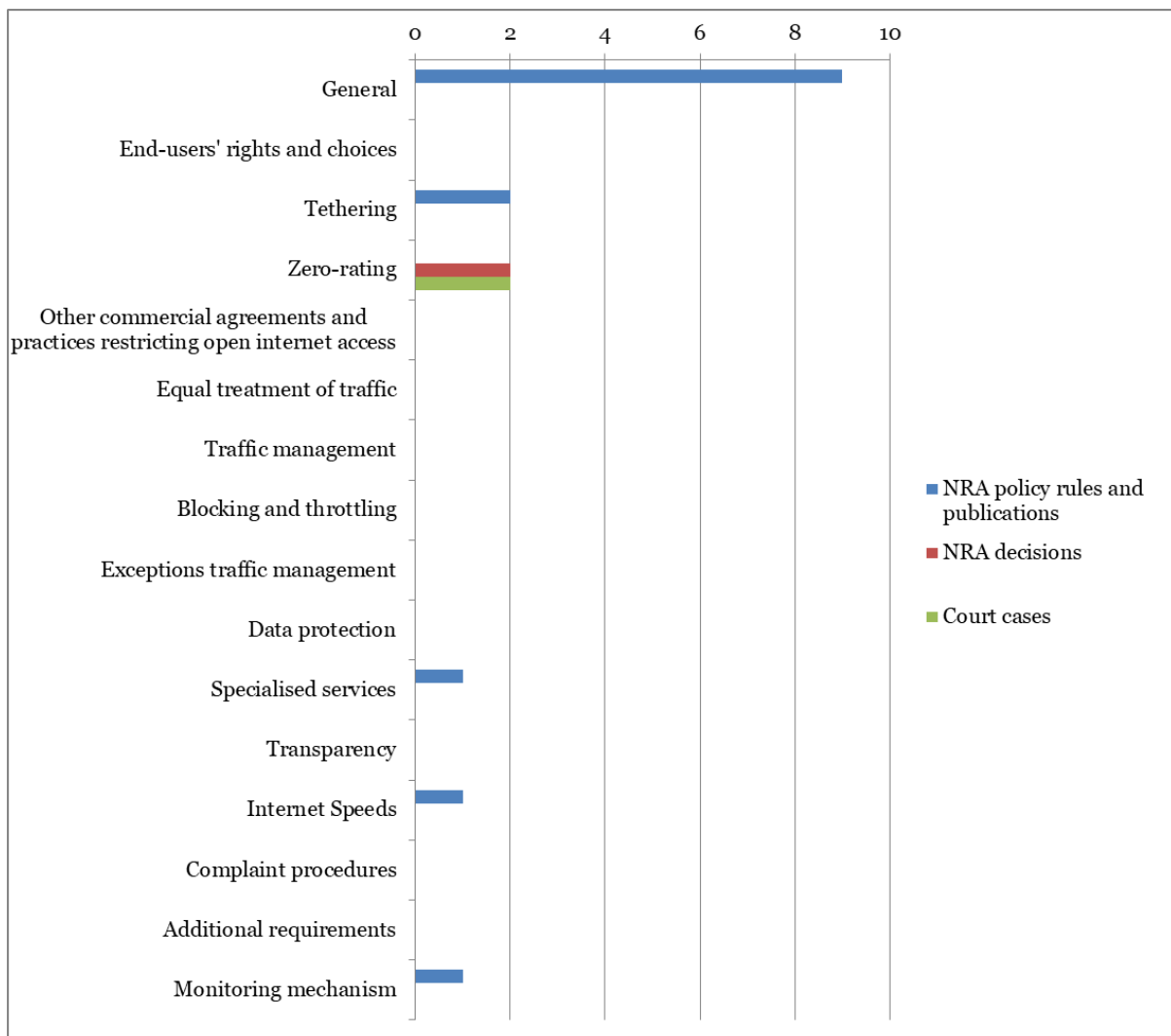


Figure 34: **Blue:** NN-report ACM 2017, NN-report ACM 2018, ACM publications on net neutrality (4x), ACM presentation on net neutrality, Annual report ACM 2016, Annual report ACM 2017, ACM guidance to Tele2 (tethering), ACM guidance to T-Mobile (tethering), ACM Policy rule and Measurement Lab. **Red:** NRA Decision of 9 December 2016 and NRA Decisions of 26 September 2017 and 29 January 2018 (1x). **Green:** District Court of Rotterdam 20 April 2017 and pending court case.

21.6. Summary of key topics and noteworthy findings

The Netherlands had net neutrality legislation before the entry into force of the Regulation. The rules, laid down in Article 7.4a DTA, contained *inter alia* a prohibition of zero-rating (price discrimination). In legal proceedings relating to the data free music streaming service *Datavrije Muziek* of T-Mobile, this categorical prohibition was found to be incompatible with the Regulation by the District Court of Rotterdam which resulted in the amendment of the DTA.

After this court-judgment, Bits of Freedom submitted an enforcement request stating that the service *Datavrije Muziek* violated Articles 3(1), 3(2) and 3(3) of the Regulation. However, ACM considered this offer non-discriminatory because the category of music streaming services that are zero-rated is determined on the basis of non-discriminatory criteria (the service should be publicly available and the IP-address should be recognisable) and the access and procedural conditions applied to music streaming

services are non-discriminatory. Both the users and providers of music streaming services are considered end-users under the Regulation. ACM considers that their rights under the Regulation are not affected. This decision was appealed and is now pending before court.

There is additional legislation in relation to net neutrality. Article 7.4a, Section 2 DTA (new), provides a legal basis for the Ministry of Economic Affairs and Climate Policy to issue general rules on the implementation of the Regulation. Moreover, a Governmental decree on net neutrality (including a description of IAS) is still in force.

Finally, the Ministry of Economic Affairs and Climate Policy is preparing a draft Decree clarifying the definition of NTP.

The table below provides an overview of the results in the Netherlands for some of the key topics.

Key topic	Result the Netherlands
Pre-existing legislation	Yes, net neutrality legislation (withdrawn)
Maximum fine	€900 000 or, if this is higher, 10 % of the company's revenue
Imposed fines	None
Additional legislation	Yes, Article 7.4a DTA, Governmental decree on net neutrality
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes, ACM Policy rule
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all (however for consumers no dispute settlement)
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	2
Number/percentage of complaints that were settled by the NRA	<i>Not applicable</i>
Number of NRA decisions	2 (In one decision an order subject to penalty payments of €50 000 for each day the infringement continued, to a maximum of €500 000 was imposed. In the other decision no penalty measures were imposed)
Number of court cases	2 (1 pending)
Main net neutrality themes	Zero-rating, transparency (contract information), traffic management
Monitoring mechanism (certified yes/no)	Monitoring mechanisms available, however not certified
Self-regulation and/or co-regulation	Yes, Code of Conduct on transparency of internet speeds

22. Norway

22.1. Implementation

Pre-existing net neutrality legislation

In Norway, there were pre-existing rules on net neutrality. However, the rules were not laid down in legislation, a type of co-regulation was established between the Norwegian Communications Authority ("**Nkom**") and the industry.¹⁰⁰⁶

Competent authority and penalty rules

Norway incorporated the Regulation in Norwegian law. The entry into force in Norway was delayed because of constitutional requirements in accordance with European Economic Area ("**EEA**") Law.¹⁰⁰⁷ The net neutrality provisions in the Norwegian Electronic Communications Act ("**NECA**") were unanimously adopted by the Norwegian Parliament on 17 March 2017 and became applicable on 20 March 2017. These rules replaced the aforementioned co-regulation, which had been in force since 24 February 2009.

Section 2-16 of the NECA provides the legal basis for incorporating the Regulation in Norwegian law. Furthermore, Section 1-12 of the Norwegian Electronic Communications Regulations ("**NECR**"), national regulations statutorily based on the NECA, implement the provisions of Regulation 2015/2120 as Norwegian legislation from 20 March 2017 onwards.¹⁰⁰⁸

For infringements of Articles 3, 4 and 5 of the Regulation Nkom may impose orders to correct or cease unlawful activities and/or service requirements. In addition, Nkom may also impose fines or recurring penalty payments on a case-by-case basis. The legal basis is Section 2-16 NECA jo. Sections 10-6 and 10-7 NECA.¹⁰⁰⁹ National law does not specify a minimum or maximum fine, sanctions are considered on a case-by-case basis and further specified based on a concrete overall assessment. These generic sanctions are considered to be adequate to ensure compliance with the Regulation. However, additional sanctions specifically related to net neutrality could be introduced at a later stage.

Additional legislation and regulations

There is no additional legislation or regulation, besides the implementing legislation on net neutrality in Norway, which explicitly incorporates the Regulation in national law but does not include any additional rules.

22.2. Monitoring, supervision and enforcement

General information and reports

The **NN-report Nkom 2017**, consisting of 11 pages, covers the status of Norwegian net neutrality legislation, an overview of Nkom's net neutrality activities, the current net neutrality issues in Norway, data collection on providers' traffic management,

¹⁰⁰⁶ See below in paragraph Self-regulation and/or co-regulation.

¹⁰⁰⁷ Baur (2016), "Decision-Making Procedure and Implementation of New Law", The Handbook of EEA Law, Springer, 2016, p. 45-67.

¹⁰⁰⁸ The Electronic Communications Act, ACT no. 83/2003 (hereafter: The Electronic Communications Act), para 2-16. The Electronic Communications Regulations, REG no. 401/2004, para 1-12.

¹⁰⁰⁹ The Electronic Communications Act, para 2-16, 10-6 and 10-7.

measurement of the quality of Norwegian internet access and an overall assessment of the status of and developments in net neutrality in Norway.¹⁰¹⁰ As a result of the late introduction of the new legislation in Norway compared with other European countries, the Norwegian report mainly describes the status on 30 April 2017 and to a lesser extent the status during the previous year.

The **NN-report Nkom 2018**, consisting of 17 pages, follows the provisions of the Regulation.¹⁰¹¹ First, it describes access to an open internet via Norwegian providers and it reports on existing zero-rating offers in the market. It goes on describing topics related to technical traffic management and specialised services. It reports on the implementation of the transparency requirements. Lastly, it describes the quality of IAS in Norway and it provides an overall assessment of the status of net neutrality in Norway.¹⁰¹²

Complaints

Nkom is competent to settle complaints related to the Regulation from consumers or other end-users.

Nkom has received a few inquiries expressing concerns regarding zero-rating in the market, but Nkom has not received inquiries related to technical measures such as traffic management or specialised services. In Norway, there is a specific complaint body where end-users can complain regarding the electronic communications services received ('The Consumer Complaints Board (*Brukerklagenemnda*) for Electronic Communications').

Monitoring and supervision measures

Nkom has focused on dialogue with stakeholders in the industry to ensure a common understanding of the net neutrality rules, for example, through the Norwegian Net Neutrality Forum (NEF).¹⁰¹³ These dialogues were part of the previous net neutrality system in Norway and have been continued after the entry into force of the Regulation.

The main monitoring activity of Nkom relates to zero-rating. While the co-regulation regime was in force, there were no zero-rating offers in Norway.¹⁰¹⁴ Nkom observed a general shift from technical to economic discrimination of applications and content on the internet in the European market. However, under the co-regulation regime neither technical nor economic discrimination was observed in the Norwegian market. Various different types of IASs with zero-rating components were introduced after the entry into force of the Regulation.¹⁰¹⁵

The first provider to introduce this kind of offer was Telia (OneCall), which launched the zero-rated offer '*Fri nettradio*' (free internet radio) in January 2017. Nkom discontinued its investigation once the offer was withdrawn from the market in May 2017.¹⁰¹⁶

In March 2017, Telenor introduced a mobile subscription called '*Yng*' [Young], exclusively for customers between the ages of 18 and 28. The zero-rated component 'Music

¹⁰¹⁰ Nkom (2017), Net Neutrality in Norway – Annual report 2017 (hereafter: NN-report Nkom 2017).

¹⁰¹¹ Nkom (2018), Net Neutrality in Norway – Annual report 2018 (hereafter: NN-report Nkom 2018).

¹⁰¹² More information on the supervision and monitoring activities is provided below in this paragraph, under heading Monitoring and supervision measures. Additional legislation and regulations. Pre-existing net neutrality legislation. Decisions and court cases.

¹⁰¹³ NN-report Nkom 2017, p. 5.

¹⁰¹⁴ NN-report Nkom 2017, p. 4.

¹⁰¹⁵ NN-report Nkom 2017, p. 6.

¹⁰¹⁶ NN-report Nkom 2017, p. 6.

Freedom' was part of this offer. Shortly thereafter, Telia launched a zero-rated offer also called 'Music Freedom' for a wide selection of their mobile internet access subscriptions. Both offers zero-rated more or less the same music streaming applications.¹⁰¹⁷

Nkom published two reports assessing the zero-rating offers from Telenor¹⁰¹⁸ and Telia.¹⁰¹⁹ Nkom assessed both offers as commercial practices, because the offers did not entail any technical traffic management measures contrary to the Regulation. Nkom applied the criteria-based approach in the BEREC Guidelines when examining both offers, assessing the criteria of paragraph 46 of the BEREC Guidelines, in particular: (i) the market position of ISPs and CAPs; (ii) the openness of the offer towards other CAPs; (iii) the impact on end-users (e.g.) the size of the data cap; and (iv) the scale of the practices.

The two companies, the incumbent Telenor and the number two in the market Telia, had by the end of the first half of 2017 about 90 % of all mobile IAS subscriptions in Norway. In both cases, Nkom criticised several factors considered in the regulatory assessment based on paragraph 46 of the BEREC Guidelines, e.g. that the offer may have negative effects, due to the significant market position of the two ISPs, that a limited number of CAPs were included in the zero-rating schemes, that relatively small data caps were offered in proportion to the price and the increasing scale of zero-rating in the market.

However, it was found that the scale of the commercial practice in the market was limited for the time being. Based on an overall assessment, Nkom found that there was no basis to take corrective action. Nevertheless, Nkom recommended some modifications to the Telenor product in order to open it up to other CAPs belonging to the same category. Telenor complied with these recommendations and also Telia followed these recommendations when introducing its zero-rated product.

For both cases, Nkom emphasised that if the zero-rating schemes in the market are not functioning as anticipated, especially if the scale increases significantly, it is likely to reconsider its analysis. Apart from the reports assessing these two offers, there are no additional guidelines.¹⁰²⁰ Nkom considers these reports as guidance for other ISPs on Nkom's approach towards zero-rating practices.

In the NN-report Nkom 2018, Nkom describes some developments regarding the four criteria used to assess these zero-rating offers.¹⁰²¹ Nkom notes that (i) Telenor and Telia have maintained their significant positions in the market; (ii) the number of CAPs included in the offer has increased somewhat over the last year, but the offers are still dominated by large, well-established providers; (iii) Norwegian end-users are still provided with smaller and more expensive data allowances compared to other similar countries; and (iv) there is an increase in the number of subscribers using the offers.

Additionally, in order to monitor compliance with the Regulation, Nkom has requested information regarding traffic management measures and specialised services from ISPs. It found examples of blocking for network security reasons and of general application-agnostic bandwidth throttling. Moreover, it found that ISPs offer VoIP, IPTV and VoLTE as specialised services. Nkom has not conducted a detailed assessment of these measures and services, but considers that these are provided in accordance with the

¹⁰¹⁷ NN-report Nkom 2017, p. 6.

¹⁰¹⁸ Nkom (2017), Assessment of the zero-rating offer Telenor Yng «Music Freedom».

¹⁰¹⁹ Nkom (2017), Regulatory assessment of Telia's zero-rating offer Music Freedom.

¹⁰²⁰ Nkom (2017), Assessment of the zero-rating offer Telenor Yng «Music Freedom». Nkom (2017), Regulatory assessment of Telia's zero-rating offer Music Freedom. NN-report Nkom 2018, p. 4.

¹⁰²¹ NN-report Nkom 2018, p. 5-6.

Regulation, since the measures seem to be in line with the BEREC Guidelines. In the future, they may undertake more thorough investigations if necessary.¹⁰²²

For the purpose of monitoring compliance with Article 4(1) of the Regulation, Nkom requested ISPs to report on the information they provide to end-users about the IAS. The results were reported in the NN-report Nkom 2018. Nkom's overall conclusion is that ISPs provide information to end-users, but the clarity and extent varies significantly. Nkom focused on information about traffic management, about the normally available speed and about the complaints procedure.

The majority of ISPs provide general information on traffic management in the published terms and conditions, but the information provided is not always easily accessible and understandable for end-users. Some ISPs also provide examples of traffic management measures and explain the impact on their IAS. Nkom recommends that providers create a specific webpage with information on net neutrality in order to improve transparency.

Nkom developed a table comparing the information provided by ISPs regarding the speed of fixed IASs. Nkom did not conduct any formal investigation of specific contracts, but they concluded that information on the normally available speed is rarely given by ISPs providing fixed IASs. Also for mobile IASs, they consider the information to be inadequate.

Concerning complaint procedures, Nkom notes that none of ISPs have specific procedures for net neutrality complaints, but that the general complaints procedures are considered sufficient for the time being.

Nkom has its own broadband speed measurement system, *Nettfart*.¹⁰²³ This mechanism is extensively used by end-users, operators and Nkom itself.¹⁰²⁴ The measurement mechanism is not considered to be formally certified according to Article 4(4). Nkom also recently launched an application for end-users' measurement of mobile internet speeds. These mechanisms are also used to provide the annual regulatory analysis of the level of quality of IASs in the Norwegian market.

Decisions and court cases

Nkom did not take any formal decisions regarding net neutrality yet. There have also been no court cases on the matter (until July 2018).

22.3. Self-regulation and/or co-regulation

The Norwegian model for net neutrality can be described as a co-regulatory approach. Co-regulation is a form of self-regulation under the active leadership of the NRA (in this case Nkom). The regulator is thereby able to set clear goals for the guidelines that are developed, while at the same time various players in the industry can balance out each other's views. There are typically three main types of industry players: (i) ISPs, (ii) CAPs, and (iii) consumers, represented by COs.

Nkom and the Norwegian internet industry jointly formulated guidelines for net neutrality in 2009.¹⁰²⁵ These national guidelines described overall principles on how net neutrality should be ensured by industry players. This approach has functioned well to achieve

¹⁰²² NN-report Nkom 2017, p. 7. NN-report Nkom 2018, p. 7.

¹⁰²³ <http://nettfart.no/> (accessed 9 October 2018).

¹⁰²⁴ 400 000 measurements since 30 April 2016, according to the survey completed by Nkom in the context of this Study.

¹⁰²⁵ Nkom (2009), Network neutrality: Guidelines for Internet neutrality.

neutral IASs for Norwegian users and rendered it unnecessary to adopt national net neutrality legislation. Moreover, industry players that did not formally agree to the guidelines also appeared to be following them in practice. The working group that developed the national guidelines subsequently functioned as a reference group that met once a year to discuss the developments in the industry and whether the guidelines were still functioning as intended.

These national guidelines no longer apply after the entry into force of the Regulation in Norway. Nevertheless, it is stated in the bill by which the Regulation was transposed that *'the Ministry nevertheless wants, insofar as it is possible within the framework of the Regulation, to maintain the Norwegian net neutrality policy established through many years' experience.'* According to the Ministry and Nkom, there are clear similarities between the European rules on net neutrality and the previous Norwegian guidelines, which facilitate such maintenance of the Norwegian net neutrality policy.

22.4. Compliance with transparency obligations

Norway was not part of the original data collection that was conducted in the context of this Study. However, Nkom provided information to the Study on request of Bird & Bird.

Nkom carried out an assessment on transparency of traffic management measures, normally available internet speed and the handling of complaints related to net neutrality.¹⁰²⁶ Nkom concluded that there is room for improvement and made recommendations to ISPs. Nkom did not conduct investigations into specific contracts.

¹⁰²⁶ See above, Monitoring, supervision and enforcement, under heading Monitoring and supervision measures.

22.5. Overview of relevant net neutrality themes in Norway

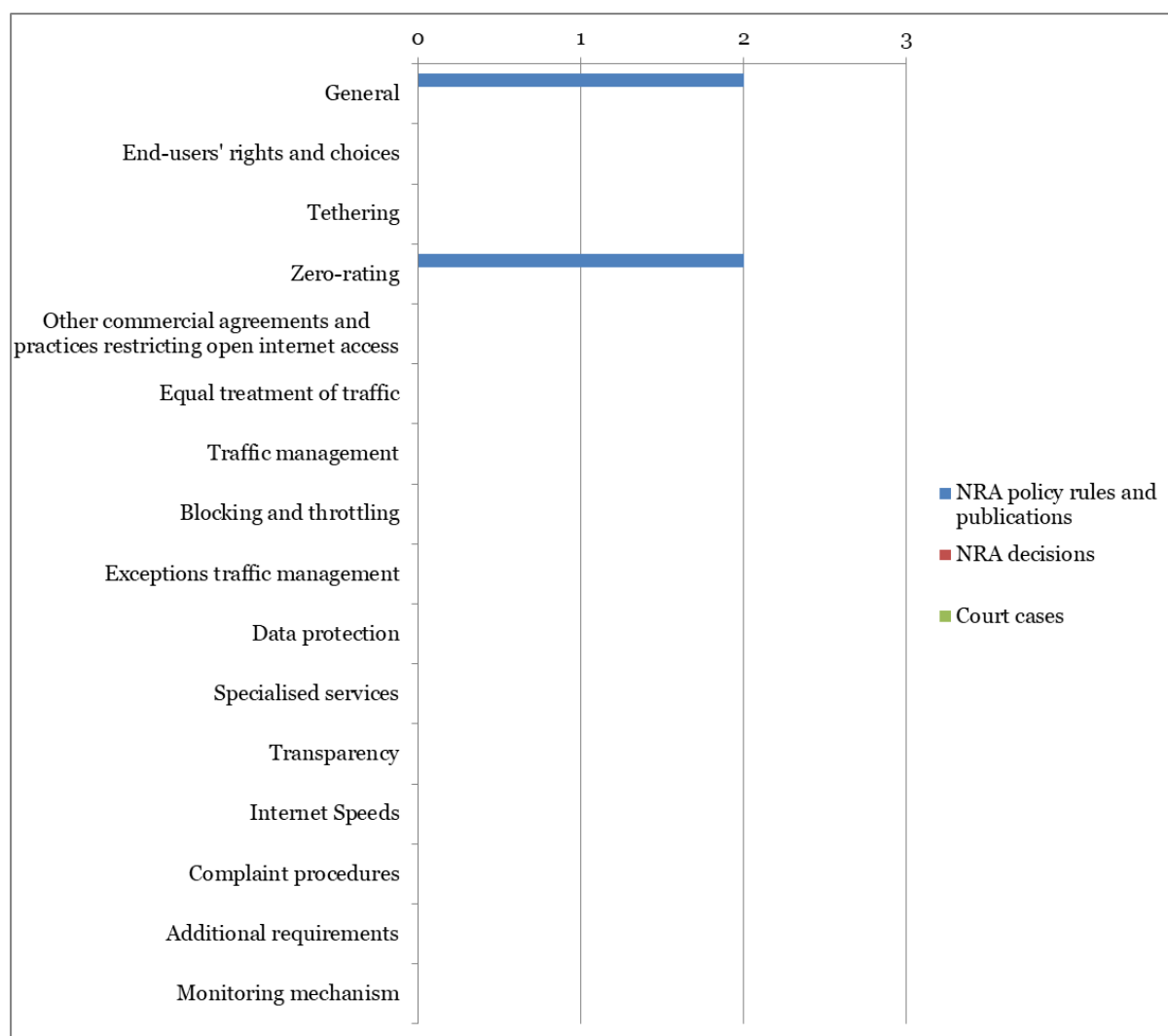


Figure 35: Blue: NN-report Nkom 2017, NN-report Nkom 2018, Nkom assessment of Telenor Yng «Music Freedom» and Nkom assessment of Telia's «Music Freedom».

22.6. Summary of key topics and noteworthy findings

Norway traditionally followed a model of co-regulation under the active leadership of Nkom. Nkom and the Norwegian internet industry jointly formulated national guidelines for net neutrality in 2009. These guidelines no longer formally apply after the entry into force of the Regulation in Norway. However, according to Nkom and the responsible Ministry there are clear similarities between the European rules on net neutrality and the previous Norwegian guidelines.

While the co-regulation regime was in force, there were no zero-rating offers in Norway. Various different types of IASs with zero-rating components were introduced after the entry into force of the Regulation. Nkom published its assessment of the zero-rating offers from Telia and Telenor pursuant to paragraph 46 of the BEREC Guidelines. These offers did not entail technical traffic management measures in breach of the Regulation. No infringement of the Regulation was found for the time being because the commercial practice had a limited scale in the market. However, in the Telenor case, Nkom recommended modifications to open up the offers to other CAPs belonging to the same category, which was also adhered to by Telia. Nkom will continue to monitor the offers in view of the significant market position of the two ISPs, the limited number of CAPs that

were included in the zero-rating schemes, the relatively small data caps that were offered in proportion to the price and the increasing scale of zero-rating in the market.

Nkom considers these reports on the zero-rating schemes of Telia and Telenor as guidance for other ISPs on Nkom's approach towards zero-rating practices.

Nkom monitored compliance with Article 4(1) of the Regulation and considers that the information regarding traffic management is not always easily accessible and understandable for end-users while the contractual information is also not considered fully adequate. Nkom issued recommendations and developed a table comparing the information provided regarding the speed of fixed IASs of different ISPs. No formal investigations were started and no corrective decisions were taken for the time being.

The table below provides an overview of the results in Norway for some of the key topics.

Key topic	Result Norway
Pre-existing legislation	No (pre-existing co-regulation)
Maximum fine	<i>Not available</i>
Imposed fines	None
Additional legislation	No
Additional requirements imposed by Norway pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	1,5
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Authority to settle complaints of consumers & other end-users
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Zero-rating, transparency, internet speeds, monitoring systems
Monitoring mechanism (certified yes/no)	Yes, not certified
Self-regulation and/or co-regulation	Yes, co-regulation

23. Poland

23.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Poland prior to the adoption of the Regulation apart from the legislation on the blocking of websites in the Gambling Act.¹⁰²⁷

Competent authority and penalty rules

Pursuant to Articles 192(1)(5aa) and 209(1)(29a) of the Polish Telecommunications Act ("**PTA**") that entered into force on 1 July 2016, the President of the Office of Electronic Communications ("**UKE**") is entrusted with the power to enforce the Regulation and impose fines.¹⁰²⁸

The President of UKE may impose fines up to an amount of 3 % of the turnover of the company in the previous calendar year if an infringement of Articles 3, 4 or 5(2) of the Regulation is established.¹⁰²⁹ In determining the amount of a financial penalty, the President of UKE takes into account the scope of the violation, the past record of an entity and its financial potential.¹⁰³⁰ In the justification of the decision imposing the penalty, the President of UKE should specify the provisions to which decision refers, and indicate how the punished entity should (or how it should not) act. It is not possible to impose periodic penalty payments.

Additional legislation and regulations

Pursuant to Article 15f(5) of the Gambling Act of 19 November 2009, ISPs are required to block access to websites using internet domain names registered in the 'Register of domains' that are used to offer online gambling services in violation of Polish gambling laws. The original Gambling Act was amended to include an obligation to block access to illegal gambling websites, which entered into force on 1 July 2017.¹⁰³¹

No other additional net neutrality legislation and regulations are in place in Poland. For a brief period (between 29 March 2016 and 31 December 2016) a form of self-regulation was in place in Poland.¹⁰³²

¹⁰²⁷ See below in this paragraph, under heading *Additional legislation and regulations*.

¹⁰²⁸ Ustawa r. o zmianie ustawy o wspieraniu rozwoju usług i sieci telekomunikacyjnych oraz niektórych innych ustaw = Telecommunications Act, Dz.U. 2016 poz. 903. (hereafter: Telecommunications Act), Article 192(1)(5aa).

¹⁰²⁹ Telecommunications Act, Articles 209(1)(29a) and 210.

¹⁰³⁰ UKE (2018), Report on monitoring the implementation of Regulation 2015/2120 in relation to open internet access in Poland (hereafter: NN-report UKE 2018), p. 7.

¹⁰³¹ Ustawa r. o zmianie ustawy o grach hazardowych oraz niektórych innych ustaw = Gambling Act, Dz.U. z 2017 r. poz. 88, Article 15f(5), amendment to the Gambling Act entered into force on 1 April 2017. The obligation to block access to illegal gambling websites entered into force on 1 July 2017.

¹⁰³² Ministerstwo Cyfryzacji (2016), Memorandum na rzecz podejmowania świadomych wyborów przez użytkowników końcowych usługi dostępu do Internetu w publicznych sieciach telekomunikacyjnych = Memorandum for making informed choices by end-users of Internet access services in public telecommunications networks. This form of self-regulation is discussed in more detail in paragraph *Self-regulation and/or co-regulation*.

23.2. Monitoring, supervision and enforcement

General information and reports

At UKE, a total number of 15 persons are involved in the monitoring, supervision and enforcement of the Regulation, corresponding to a yearly average of around 2.5 FTE.¹⁰³³

In the **NN-report UKE 2017**, consisting of 22 pages, the activities of UKE in the period from 1 May 2016 until 30 April 2017 related to the implementation and monitoring of the net neutrality rules are discussed.¹⁰³⁴ The report refers to traffic management, zero-rating offers and complaints. In general, UKE observed an increase in data transmission speed across Poland (both downloading and uploading speeds) and a decrease in packet delay in this reporting period. However, UKE notes that still in 77 % of the cases speeds were below 30 Mb/s with an average value of 25 Mb/s.

The **NN-report UKE 2018** consists of 21 pages and reports on the monitoring activities of UKE, the overall quality of IAS in Poland and ISPs' compliance with the obligations under the Regulation in the reporting period from 1 May 2017 until 30 April 2018.¹⁰³⁵ UKE reports on complaints that were received, whether or not UKE initiated any formal proceedings and the monitoring activities that UKE conducted such as sending a questionnaire to ISPs that are active on the Polish market. Furthermore, UKE plans to make a certified IAS quality monitoring mechanism available for end-users at the end of 2018.¹⁰³⁶

UKE also analysed the provision of specialised services on the Polish market in the NN-report UKE 2018. UKE concludes that 9 out of 24 ISPs offer specialised services including VoLTE, linear IPTV (both listed in the BEREC Guidelines) and VoIP services. UKE notices that there are doubts among market participants as to how to assess compliance with the Regulation if the specialised service is solely offered to businesses and characterised by higher QoS than if the same services would be offered to consumers. According to UKE, it 'seems' that such differentiation between services offered to businesses and to consumers is not allowed under the Regulation. UKE states that such differentiation could only be applied in situations where certain content, applications or services cannot be offered at the IAS parameters in the network of a given ISP.¹⁰³⁷ UKE states it will continue to monitor ISPs' offers, especially with regard to services designed for businesses.

With respect to the quality of IASs in Poland, UKE considers that measurements in the reporting period suggest that the speed of data transmission increased. This is demonstrated by a higher number of measurements in which the download speed was higher than 30 Mb/s.¹⁰³⁸

UKE is planning to put a certified monitoring system in place. In 2017 UKE gave a presentation during an external conference about several scenarios under which a certified monitoring mechanism could be introduced in Poland.¹⁰³⁹ Subsequently, on 26 February 2018 UKE published the tender documentation for a future certified IAS

¹⁰³³ Survey completed by UKE in the context of this Study.

¹⁰³⁴ UKE (2017), Sprawozdanie dotyczące monitorowania wdrożenia regulacji Rozporządzenia 2015/2120 w zakresie otwartego internetu w Polsce = Report on monitoring the implementation of Regulation 2015/2120 in relation to open internet access in Poland (hereafter: NN-report UKE 2017).

¹⁰³⁵ NN-report UKE 2018.

¹⁰³⁶ NN-report UKE 2018, p. 9.

¹⁰³⁷ NN-report UKE 2018, p. 13.

¹⁰³⁸ NN-report UKE 2018, p. 15.

¹⁰³⁹ UKE (2017), Certyfikowany mechanizm monitorowania możliwości wprowadzenia w Polsce = Certified monitoring mechanism: opportunities to introduce in Poland.

measurement system for monitoring IAS in Poland.¹⁰⁴⁰ On 6 April 2018, UKE announced that V-Speed had won the competition for a certified mechanism monitoring the quality of internet access.¹⁰⁴¹ Once finalised, this mechanism can be used by end-users to prove significant discrepancies between contractual and actual speeds of fixed-line internet offers only. The mechanism will consist of an internet website and an application for PCs. V-Speed will also make available a measuring application for mobile internet speed testing but these measurements will be for information purposes only.

Complaints

UKE does not have the competence to settle complaints from consumers, other end-users or competitors against ISPs and cannot impose remedies for such complaints. However, the President of UKE conducts alternative dispute resolution proceedings between consumers and ISPs, but only very few of them concerned net neutrality issues.

During the reporting period from 1 May 2016 until 30 April 2017, end-users' complaints related to: (1) the blocking of access to websites as a result of a blocked IP address; (2) improper performance of the contract, as a result of the offering of lower speed IAS than specified in the contract; and (3) incorrect performance of the contract by ISPs as a result of for instance preventing access to online gambling websites.

In the subsequent reporting period, end-users' complaints related to the same topics as in the previous year. In addition, complaints were received related to port-blocking and limitations on the use of IAS as a result of traffic management measures. Complaints regarding violations of end-user rights (open access to the internet) constituted only about 1 % of the total number of complaints received by UKE in the reporting period.¹⁰⁴²

Since the entry into force of the Regulation, no complaints were received with respect to specialised services.¹⁰⁴³

Monitoring and supervision measures

During the period 1 May 2016 until 30 April 2017, UKE sent 20 ISPs a questionnaire with the request to provide information on traffic management measures, the transparency of ISPs' offerings, the complaint procedures that ISPs put in place and on specialised services and their influence on traffic. Furthermore, UKE observed the presence of zero-rating offers on the Polish market and mentions more information and understanding is needed in order to establish whether these services comply with Article 3 of the Regulation. UKE also mentions in its NN-report UKE 2017 that it needs additional information in order to assess whether certain traffic management measures implemented by ISPs and offered specialised services comply with the Regulation. UKE found ISPs made changes to their IAS contracts following the entry into force of the Regulation. However, UKE will further analyse this as the methodology of speed measurement and wording in the contract was not applied in a uniform manner so that it may be difficult for end-users to compare the various offers of ISPs.¹⁰⁴⁴

¹⁰⁴⁰ UKE (2018), Konkurs na system pomiarowy jakości dostępu do internetu = Tender for the internet access quality measurement system, (<https://bip.uke.gov.pl/konkursy/konkurs-na-system-pomiarowy-jakosci-dostepu-do-internetu,1.html>, accessed 8 August 2018).

¹⁰⁴¹ UKE (2018), V-Speed won competition for a certified mechanism monitoring the quality of internet access (<https://uke.gov.pl/en/newsroom/v-speed-won-competition-for-a-certified-mechanism-monitoring-the-quality-of-internet-access,50.html>, accessed 11 September 2018).

¹⁰⁴² NN-report UKE 2018, p. 6-7.

¹⁰⁴³ Survey completed by UKE in the context of this Study.

¹⁰⁴⁴ NN-report UKE 2017.

In the 2018 reporting period, UKE sent out a similar questionnaire as in 2017 to 24 ISPs. UKE received additional information concerning zero-rating offers on the Polish market. Seven ISPs, both MNO's and MVNO's, indicated they have been offering zero-rating services applied to a broad range of content and applications (i.e. music-streaming services, internet radio, video-streaming services and applications enabling navigation services or access to e-books).¹⁰⁴⁵ UKE noted in its NN-report UKE 2018 that a more detailed analysis of some of the zero-rating offers is required. Specifically in the event that the zero-rate is applied also if the data allowance in the IAS contract is exceeded and with respect to zero-rating offers that involve the use of traffic management measures in the case of access to contents covered by the zero-rate.¹⁰⁴⁶ Currently, in August 2018, UKE is currently investigating traffic management measures involving limitation of bandwidth and reducing the quality of video content in relation to zero-rated services (throttling).

In reply to the 2018 UKE questionnaire, ISPs indicated they apply various kinds of traffic management measures. Especially measures to block internet traffic in order to comply with legal obligations such as the obligation to prevent access to certain gambling websites and the obligation to ensure the security and integrity of the network. Until July 2018, UKE did not identify any traffic management practices of ISPs which would constitute an infringement of the Regulation. However, UKE mentioned it is currently, in August 2018, assessing the conformity of traffic prioritisation practices with the Regulation.¹⁰⁴⁷

In the reporting period 1 May 2017 until 30 April 2018, UKE further assessed whether IAS contracts of ISPs complied with the transparency requirements of Article 4(1)(a)-(d) of the Regulation. On the basis of an assessment of several contracts, including in some cases at the request of end-users, UKE found no IAS contracts that did not comply with the transparency requirements in the Regulation.¹⁰⁴⁸

In the NN-report UKE 2018, UKE states it plans to make a certified IAS quality monitoring mechanism available for end-users at the end of 2018. This mechanism allows end-users to measure the speed of data transmission through a dedicated website or computer application in both directions for the IAS offered in public fixed-line telecommunication networks. The certified monitoring mechanism aims to help end-users in demonstrating constant and regular discrepancies between the actual quality of the service and the quality stated in the contract with the ISP. Only the results of the certified measurements obtained through the computer application will be a reliable basis for establishing non-conformity with the IAS contract, in accordance with Article 4(4) of the Regulation.¹⁰⁴⁹

Following the entry into force of the Regulation, UKE conducted a total number of 48 investigations of which 46 were started *ex-officio* and 2 investigations were started on the basis of complaints submitted by OTT players. One of the OTT players complained that access to its gambling service was blocked before the relevant provisions of Polish Gambling Act came into force.¹⁰⁵⁰ The other complaint concerned the possible limiting or blocking of volume and speeds of e-mail traffic. These two investigations are still ongoing since 2017.

¹⁰⁴⁵ NN-report UKE 2018, p. 10.

¹⁰⁴⁶ NN-report UKE 2018, p. 10.

¹⁰⁴⁷ NN-report UKE 2018, p. 12.

¹⁰⁴⁸ NN-report UKE 2018, p. 14.

¹⁰⁴⁹ NN-report UKE 2018, p. 9.

¹⁰⁵⁰ See above, paragraph Implementation, under headings Pre-existing net neutrality legislation and Additional legislation and regulations.

The 46 investigations that were started *ex officio* by UKE related to potential violations of Article 3(2) of the Regulation (commercial and technical conditions that limit end-users' rights). In all of these cases, UKE requested ISPs for information. UKE is still analysing the responses to these information requests. So far, UKE has not found offers which could violate Article 3(2).

UKE did not issue any enforcement actions related to potential filtering infringements.¹⁰⁵¹ Since the entry into force of the Regulation, UKE requested ISPs two times for information in relation to the management of network traffic and also two times in relation to justifications for any traffic management measures. No information was requested relating to the management of network capacity.¹⁰⁵²

Decisions and court cases

UKE did not publish any formal decisions. Until August 2018, there has also not been any publicly known court case in Poland with respect to the Regulation.

23.3. Self-regulation and/or co-regulation

From 29 March 2016 until 31 December 2016, self-regulation was in place in Poland on the basis of the *'Memorandum for making informed choices by end-users of internet access services in public telecommunications networks'* that was initiated by the Polish Ministry of Digitisation. The memorandum aims at enabling end-users to have a wider choice of IAS offerings. In particular, ISPs that signed the memorandum accepted the obligation to have at least one IAS offering that would be available for end-users in the form of a 14 day trial. According to UKE, the involved companies were not interested in extending the term of the self-regulation memorandum beyond 31 December 2016.

23.4. Compliance with transparency obligations

The table below¹⁰⁵³ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 53: Overview of desk research on transparency obligations

ISP #	(a) 1054	(b) 1055	(c) 1056	(d) 1057	(e) 1058	Comments
ISP 1	✓	✓	✓	✓	✓	-
ISP 2	✓	✓	✓	✓	✓	-
ISP 3	✓	✓	✓	✓	✓	-
ISP 4	✓	✓	✓	✓	✓	-
ISP 5	✓	✓	N/A	✓	✓	-

¹⁰⁵¹ Survey completed by UKE in the context of this Study.

¹⁰⁵² Survey completed by UKE in the context of this Study.

¹⁰⁵³ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹⁰⁵⁴ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹⁰⁵⁵ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹⁰⁵⁶ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹⁰⁵⁷ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹⁰⁵⁸ Remedies, as further set out in Article 4(1)(e) of the Regulation.

ISP 6	✓	✓	N/A	✓	✓	-
ISP 7	✓	✓	N/A	✓	≈	(e) : the ISP refers to the certified monitoring system, which has not been yet implemented by UKE. The process of choosing a supplier of certification mechanism has just recently started.
ISP 8	✓	✓	N/A	✓	N/A	-
ISP 9	✓	✓	N/A	✓	N/A	-
ISP 10	≈	X	N/A	✓	N/A	(a) : the ISP does not specify how the measures could impact the quality of the IAS / users' privacy. (b) : the ISP seems not to publish any parameters regarding the quality of the IAS offered.

23.5. Overview of relevant net neutrality themes in Poland

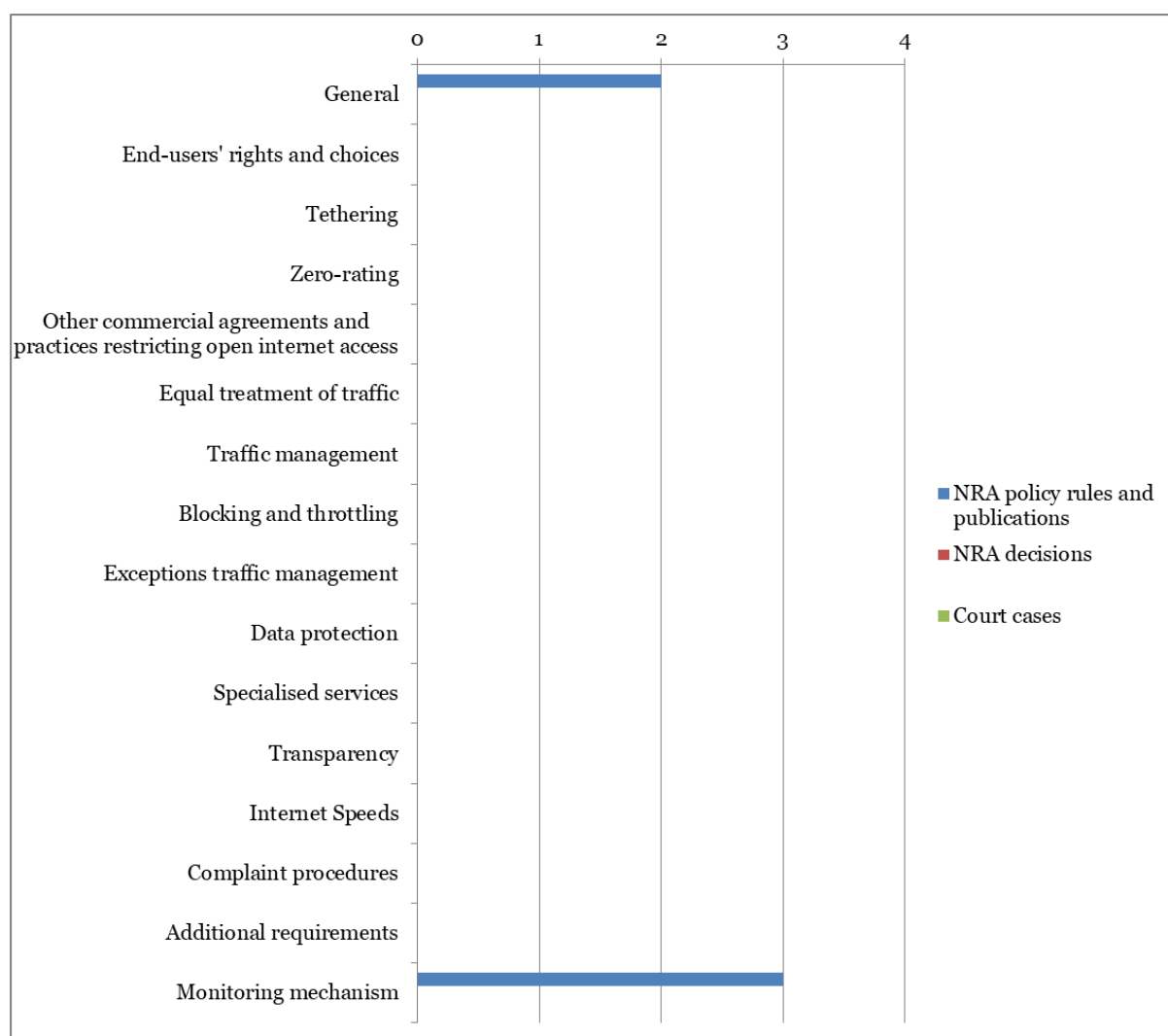


Figure 36: Blue: NN-report UKE 2017, NN-report UKE 2018, UKE presentation on certified monitoring mechanism, UKE tender documentation for a certified monitoring mechanism and UKE designating the winner of the tender.

23.6. Summary of key topics and noteworthy findings

On the basis of market wide questionnaires and information requests, UKE analysed the provision of specialised services, the presence of zero-rating offerings and the

application of traffic management measures on the market. This related to the application of the zero-rate if the data allowance in the IAS contract is exceeded and zero-rating offers that involve the use of traffic management measures in the case of access to contents covered by the zero-rate. UKE is currently, in August 2018, also investigating traffic management measures involving limitation of bandwidth and reducing the quality of video content in relation to zero-rated services (throttling).

In relation to the analysis of the provision of specialised services, UKE concluded that market participants have doubts on how to assess compliance with the Regulation if the specialised service is solely offered to businesses and characterised by higher QoS than if the same services would be offered to consumers. According to UKE, it seems that such differentiation between services offered to businesses and to consumers is not allowed under the Regulation. UKE concluded with respect to all of these matters that further investigation is needed before an infringement of the Regulation could be established. UKE states that it will continue to monitor ISPs' offers, especially with regard to services designed for businesses.

In Poland, ISPs are required to block certain gambling websites – pursuant to the exception of Article 3(3)(a) of the Regulation – on the basis of the national Gambling Act. Furthermore, UKE observed that traffic management measures are also often applied on the basis of the exception in Article 3(3)(b) of the Regulation to ensure the security and integrity of the network.

The table below provides an overview of the results in Poland for some of the key topics.

Key topic	Result Poland
Pre-existing legislation	No
Maximum fine	UKE may impose fines up to an amount of 3 % of the entities turnover in the previous calendar year
Imposed fines	None
Additional legislation	Yes, certain gambling websites must be blocked
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	2.5
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	No, however, the President of UKE conducts alternative dispute resolution proceedings between consumers and ISPs
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	34 ¹⁰⁵⁹
Number/percentage of complaints that were settled by the NRA	<i>Not applicable</i> UKE is not entitled to enforce the settlement of disputes between consumers and ISPs. Therefore, the President of UKE only

¹⁰⁵⁹ These complaints were received between 1 May 2017 and 30 April 2018.

	requested ISPs for explanation after complaints were received
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Specialised services (business customers), zero-rating, traffic management
Monitoring mechanism (certified yes/no)	A certified monitoring mechanism is expected to be put in place at the end of 2018
Self-regulation and/or co-regulation	There was self-regulation in place for a brief period (29 March 2016 until 31 December 2016)

24. Portugal

24.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Portugal prior to the adoption of the Regulation. In 2010 a bill was drafted aiming to introduce the principle of net neutrality in Portuguese law. However, this bill was not adopted and never entered into force. The proposal was dropped due to the entry into force of the Regulation.¹⁰⁶⁰

The Portuguese NRA, the *Autoridade Nacional de Comunicações* ("**ANACOM**") approved, on 19 June 2014, a decision to prohibit providers from using the term 'unlimited' to refer to voice calls/SMS or internet offers, which are in fact subject to restrictions or limits.¹⁰⁶¹ On the basis of this decision providers may only use terms such as 'unlimited traffic' or 'unlimited calls/SMS' to refer to offers that are free from limits or restrictions throughout the duration of the contract.

The same decision stipulated that the application in unlimited offers of restrictive measures or limits to internet traffic could only be allowed in exceptional circumstances - i.e. to prevent overcapacity on a network segment. The duration of such measures should be limited and normal service must be restored as soon as the exceptional circumstances justifying the application of restrictions are resolved. Any restrictions should be applied fairly in terms of the equitable treatment of different users using the same tariff or bundle.

Lastly, in the terms and conditions governing offers, providers should provide clear and transparent information on any measures that could be applied so that consumers were aware of their existence, and must provide indication of the impact of measures on quality of service.

The Regulation does not require transposition into national law in Member States, but overlaps with the above mentioned decision of ANACOM from 2014, which is still effective with regard to the use of the term 'unlimited' to describe a commercial offer.

Competent authority and penalty rules

ANACOM is entrusted with the powers to enforce infringements of the transparency obligations that are set out in the Portuguese Electronic Communications Act ("**PECA**"). The general sanction regime of the PECA applies if these obligations are infringed, which allows ANACOM to impose amongst others a fine in case of a serious infringement of the national transparency rules (ANACOM does not have powers to impose fines in case of an infringement of the Regulation).¹⁰⁶² A total number of 12 employees are involved with net neutrality at ANACOM, translating to a yearly average of 2,8 FTE that work on net neutrality.¹⁰⁶³

¹⁰⁶⁰ Projecto de lei Estabelece o princípio da Neutralidade da Rede nas Comunicações Electrónicas = Draft law Establishes the principle of Network Neutrality in Electronic Communications Statement of reasons, no. 418 / XI – 2A.

¹⁰⁶¹ ANACOM (2014), Decision of 19 June 2014, Use of the term 'unlimited' to describe offers of electronic communications services.

¹⁰⁶² Electronic Communications Law, no. 46/2011 (hereafter: PECA), Article 113(2)(r-v) juncto Article 47, Article 470A.

¹⁰⁶³ Survey completed by ANACOM in the context of this Study.

Pursuant to Article 5(1) of the Regulation ANACOM is entitled with the powers to enforce the Regulation. ANACOM does not have powers to impose a fine for infringements of the Regulation. ANACOM notified the Portuguese government to apply the full PECA sanctioning regime in case of infringements of the Regulation. Currently, in August 2018, an amendment is being drafted introducing fining powers for ANACOM in case of an infringement of the Regulation. However, this amendment has not yet been adopted.¹⁰⁶⁴

ANACOM can intervene by carrying out supervision, applying determinations or recommendations or sanctioning providers for irregular practices. In particular, in the context of Article 48-A PECA, which determines the procedure for handling complaints from end-users, ANACOM may order corrective measures to be taken, in cases of non-compliance. However, the intervention of ANACOM is generic, not involving a specific complaint or end-user.

Additional legislation and regulations

On 17 June 2016 amongst others¹⁰⁶⁵ Articles 47, 48, 112 and 113 PECA were amended with the reinforcement of transparency obligations for electronic communications services (including ISPs) and powers for ANACOM to enforce these obligations.¹⁰⁶⁶ The provisions in PECA and the Regulation partly overlap. While the scope of the Regulation is narrower i.e. applying only to IAS instead of to all electronic communications services as defined in PECA, the transparency obligations in the Regulation are more strict than the obligations set out in PECA. Article 47 PECA sets out obligations for electronic communications service providers such as ISPs to publish certain information on ISPs websites, ISPs points of sale and obliges ISPs to provide end-users that intend to conclude a contract for the provision of electronic communication services, including IAS, with the same information. Article 48 PECA sets out elements that should be included by electronic communications service providers such as ISPs in contracts for the provision of electronic communication services, such as IAS. Furthermore, Article 112 PECA provides for a general obligation for electronic communications service providers to cooperate with ANACOM and Article 113 PECA was amended in order to establish powers to impose fines in case of infringements of the newly introduced obligations. Please note that this fining power does not apply in case of an infringement of (only) the Regulation.¹⁰⁶⁷

On 23 August 2016 Regulation 829/2016 was published that aims to introduce (additional) transparency obligations regarding the information that should be provided by electronic communications providers such as ISPs in pre-contractual and contractual

¹⁰⁶⁴ Information directly provided and confirmed by ANACOM. See also public sources: ANACOM (2017), Relatório relativo à aplicação dos artigos 3.º e 4.º do Regulamento (UE) 2015/2120 do Parlamento Europeu e do Conselho de 25 de novembro de 2015: Abril 2016 – Abril 2017 = Report on the application of Articles 3 and 4 of Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015: April 2016 - April 2017 (hereafter: NN-report ANACOM 2017), p. 45. ANACOM (2018), Relatório relativo à neutralidade da rede Aplicação dos artigos 3 e 4 do Regulamento (UE) 2015/2120 do Parlamento Europeu e do Conselho, de 25 de novembro de 2015: maio de 2017 a abril de 2018 = Report on net neutrality Application of Articles 3 and 4 of Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015: May 2017 to April 2018 (hereafter: NN-report ANACOM 2018), p. 66.

¹⁰⁶⁵ Articles 3, 7 and 116 PECA were also amended.

¹⁰⁶⁶ Lei Reforça a proteção dos consumidores nos contratos de prestação de serviços de comunicações eletrónicas com período de fidelização (décima segunda alteração à Lei n.º 5/2004, Lei das Comunicações Eletrónicas) = Act amending the Electronic Communications Act, Law no. 5/2004, reinforcing consumers' protection in the contracts of electronic communication services with retention period, Law no. 15/2016.

¹⁰⁶⁷ See below, paragraph Monitoring, supervision and enforcement, under heading General information and reports and paragraph Summary of key topics and noteworthy findings.

offers of electronic communications services (such as IAS).¹⁰⁶⁸ This is an additional requirement pursuant to Article 4(3) of the Regulation. In June 2017 the draft Regulation amending Regulation 829/2016 was approved by ANACOM and a public consultation was launched. This consultation ended on 28 August 2017.¹⁰⁶⁹ This Regulation is however currently, August 2018, temporarily suspended, because of the difficulties related to the implementation.¹⁰⁷⁰ Therefore, this Regulation is currently not applied by ISPs. On the basis of this Regulation the required information needs to be presented in a 'Simplified Information Sheet' ("**SIS**") in order to allow end-users to fully understand the quality and conditions under which IAS is provided and to allow end-users to compare IAS offers by different suppliers. In the SIS information on speed, quality and price of the IAS service has to be provided. After the contract between an end-user and an ISP has been agreed, the SIS should serve as a management instrument of the contractual relationship between end-user and ISP.

As a result of difficulties ISPs had with implementing the SIS, ANACOM proposed in its Notice 7984/2017 to amend the suspended Regulation 829/2016.¹⁰⁷¹ The draft amendment of the Regulation 829/2016 was prepared following a request made by *Associação dos Operadores de Comunicações Eletrónicas* (Association of Electronic Communications Operators) ("**APRITEL**"). This request was made on the basis of facts which, in APRITEL's view, would justify a different approach to the legal regime and the model of the SIS, approved by Regulation no. 829/2016.

In this context, the draft Regulation amending Regulation no. 829/2016 aims to give some flexibility to the obligations established as regards the supporting means to be used in providing the SIS in pre-contractual and contractual situations, to allow end-users to choose. In addition, the approved SIS models were reformulated and the corresponding provisions adapted, in order to incorporate two specific types, which warrant particular treatment at the various stages of interaction with service providers. As such, the SIS will be available in two complementary formats: the 'product SIS' and the 'customer SIS'. The product SIS is defined as the information medium, which sets out the general conditions of each offer that is addressed to end-users; the customer SIS is defined as the information medium, which sets out the particular conditions or contractual conditions governing each end-user's subscription - the customer SIS will tend to give specific detail as compared to the optional conditions of the offer described in the product SIS.

24.2. Monitoring, supervision and enforcement

General information and reports

In its **NN-report ANACOM 2017** and its **NN-report ANACOM 2018**, consisting of 48 and 68 pages respectively, ANACOM reflects on the previous year and provides an outlook on further monitoring activities related to the Regulation that are planned for the following reporting year.¹⁰⁷²

The NN-report ANACOM 2017 focused on the analysis of the answers IAS providers to the request for information sent by the Portuguese authority and as a result of the

¹⁰⁶⁸ Regulation on provision of statistical information, no. 829/2016.

¹⁰⁶⁹ ANACOM (2017), Decision of 20 February 2017, Commencement of procedure to amend the Regulation on pre-contractual and contractual information.

¹⁰⁷⁰ See below under this heading.

¹⁰⁷¹ Autoridade Nacional de Comunicações, Projeto de Regulamento de alteração ao Regulamento nº. 829/2016, de 23 de agosto, retificado pela Declaração de retificação nº. 878/2016, de 1 de setembro = Draft Regulation amending Regulation 829/2016 of 23 August, rectified by Declaration of Rectification no. 878/2016 of 1 September, Aviso nº. 7984/2017.

¹⁰⁷² NN-report ANACOM 2017. NN-report ANACOM 2018.

received information, a more detailed investigation related to zero-rating offers was initiated.¹⁰⁷³ After analysing the information provided by ISPs on their website with regard to traffic management practices, ANACOM also stated it would further analyse these practices to see if these were in line with the Regulation.¹⁰⁷⁴ ANACOM further mentions that the SIS will be revised and underlines the necessity of the creation of a sanction regime.¹⁰⁷⁵

In turn the NN-report ANACOM 2018, following the draft decision with respect to the zero-rating offers of 23 February 2018, goes into more detail with respect to the assessment of zero-rating cases.¹⁰⁷⁶ The report finished once more mentioning the necessity for ANACOM to obtain powers to impose a fine in case of an infringement of the Regulation.¹⁰⁷⁷

Complaints

ANACOM is competent to settle complaints related to the Regulation only from competitors against ISPs.¹⁰⁷⁸ In case of potential infringements, ANACOM has the powers to carry out supervision, provide recommendations or sanction ISPs. In particular, in the context of Article 48-A PECA, which determines the procedure for handling complaints from end-users, ANACOM may order corrective measures in cases of non-compliance. However, no complaint of an end-user is required for ANACOM to intervene.

The number of complaints ANACOM received with respect to the obligations in the Regulation are not available. However, the NN-report ANACOM 2017 states that between 1 May 2016 and 30 April 2017 approximately 5 000 complaints were received by ANACOM with respect to internet access in general. In the period of 1 May 2016 to 30 April 2018, the complaints are related to: internet speed (22 %), service malfunction (18 %), contract conditions (16 %), marketing and the way the service is sold (13 %), billing (9 %), contract termination (8 %), terminal equipment (4 %), service connection (3 %), customer care (2 %) and others complaints (5 %).

Also the NN-report ANACOM 2018 does not provide the total number of complaints that were received in the reporting period. Some ISPs reported to ANACOM that they had received more complaints concerning zero-rating and similar offers. As not all ISPs subdivided their complaints in specific categories, ANACOM stated that it did not have sufficient information to substantially analyse the complaints.¹⁰⁷⁹ In addition to the complaints ISPs received regarding zero-rating, ANACOM itself also identified and analysed complaints with regard to zero-rated offers in Portugal.¹⁰⁸⁰ The complaints related to zero-rating offers of '*Smart Net*' and '*Moche Legend*' of MEO, '*WTF*' of NOS and '*YORN*' of Vodafone Portugal. Most of the complaints were requests for information, following the press release, as a result of the approval of the draft decision on zero-rating and similar offers.

¹⁰⁷³ NN-report ANACOM 2017, p. 17.

¹⁰⁷⁴ NN-report ANACOM 2017, p. 28.

¹⁰⁷⁵ NN-report ANACOM 2017, p. 44-45.

¹⁰⁷⁶ See below in this paragraph, under heading Complaints and Monitoring and supervision measures.

¹⁰⁷⁷ NN-report ANACOM 2018, p. 66.

¹⁰⁷⁸ Survey completed by ANACOM in the context of this Study.

¹⁰⁷⁹ NN-report ANACOM 2018, p. 39.

¹⁰⁸⁰ NN-report ANACOM 2018, p. 38.

No complaints were received or enforcement measures were taken by ANACOM with respect to specialised services.¹⁰⁸¹

Monitoring and supervision measures

In the reporting period 1 May 2016 until 30 April 2017 the monitoring activities of ANACOM focused on zero-rating offers, traffic management, specialised services, quality of service and transparency of contractual terms between ISPs and end-users.¹⁰⁸² ANACOM developed in this period a mechanism ('NET.mede') that allows end-users to measure on a voluntary basis relevant parameters (e.g. download and upload speed, latency) of their internet connection. End-users have used (until July 2018) this monitoring mechanism a total number of 787 000 times since 30 April 2016. During this period there were 2 105 complaints based on the use of these type of monitoring mechanisms.¹⁰⁸³

Furthermore, ANACOM requested ISPs for more information pursuant to Article 5(2) concerning certain traffic management practices. ANACOM intends to investigate these practices further in order to monitor and ensure compliance with the Regulation.¹⁰⁸⁴

In the reporting period 1 May 2017 until 30 April 2018 the monitoring and supervision activities of ANACOM were mainly focused on zero-rating. This led to a decision with respect to the zero-rating practices of most of ISPs that are active on the Portuguese market. Furthermore, monitoring activities were focused on the provided information in contracts between ISPs and end-users and information was requested in two cases with respect to certain traffic management practices (some of which related to the zero-rating investigation).¹⁰⁸⁵ Since the moment that the Regulation entered into force ANACOM launched one investigation into end-users' rights and choices.¹⁰⁸⁶

Following its monitoring of end-users' contracts, ANACOM has verified that ISPs have not adopted harmonised definitions nor definitions completely aligned with the Guidelines concerning normally available speeds, maximum speeds and minimum speeds and that some information published in the websites should be improved or completed, in particular with regard to minimum data transmission speeds, which is not published for all mobile tariff plans, and to traffic management practices by ISPs and its impact in the quality of service. Moreover, the term 'traffic management' is rarely used and practical examples of such impact are rarely provided on the websites. ANACOM also concluded that the information in many cases is not easy to find when consulting the pages where the commercial offers are described or announced. Furthermore, the information is sometimes dispersed in several different webpages. However, ANACOM did not yet take a formal decision on this.

On 2 June 2017 ANACOM initiated a procedure to regulate the requirements that electronic communications service providers, including ISPs, should comply with when handling end-users' complaints. This regulation has not been published yet and it is expected to be submitted for public consultation by the end of 2018.¹⁰⁸⁷ On 7 June 2018,

¹⁰⁸¹ Survey completed by ANACOM in the context of this Study.

¹⁰⁸² NN-report ANACOM 2017, p. 15.

¹⁰⁸³ Survey completed by ANACOM in the context of this Study.

¹⁰⁸⁴ NN-report ANACOM 2017, p. 19-20.

¹⁰⁸⁵ NN-report ANACOM 2018, p. 36-37.

¹⁰⁸⁶ Survey completed by ANACOM in the context of this Study.

¹⁰⁸⁷ ANACOM (2017), Aprovação do início do procedimento regulamentar relativo aos requisitos a observar pelos prestadores de serviços de comunicações nos seus procedimentos de tratamento de reclamações de consumidores e demais utilizadores finais = Approval of the commencement of a regulatory procedure on requirements to be observed by providers of communications services in their procedures for handling complaints from consumers and other end-users.

ANACOM issued a determination setting the requirements that service providers should comply with regarding answers to end-users' complaints, as well as establishing a mandatory electronic procedure to receive and handle the complaints that are submitted to service providers and received by ANACOM ('complaints book', which is available to the public).¹⁰⁸⁸ This determination is only applicable to service providers most complained about, including ISPs.

Decisions and court cases

In the context of the preparation of the NN-reports, ANACOM sent out requests for information to several ISPs (MEO, NOS, Vodafone and NOWO) with regard to several issues covered by the Regulation, including offerings on the Portuguese market that could amount to illegal zero-rating offers. On the basis of these requests for information, ANACOM assessed a wide range of mobile offerings. ANACOM found that several product offerings of Vodafone, MEO and NOS included zero-rating of music streaming services, social media applications and other categories of content. ANACOM published on 23 February 2018 its draft decision.¹⁰⁸⁹ Until 19 April 2018 interested parties could submit their input regarding the draft decision during a consultation period. On 3 July 2018 the final decision was approved and it was published on 9 July 2018.¹⁰⁹⁰

In its decision ANACOM found that the traffic associated with the applications/content included in specific data allowances was not subject to any traffic limit and was treated in some cases differently than general traffic, covered by general data allowances. This resulted in situations in which ISPs, on their own initiative or at the request of the end-user, implemented traffic management measures to block all traffic of applications after the general data cap was exceeded, except for the traffic associated with applications covered by the specific data cap or traffic that was not subject to traffic limits.¹⁰⁹¹ ANACOM concluded that these practices infringed Article 3(3) of the Regulation, since the criterion of reasonableness that would allow the adoption of traffic management measures were not met and the exceptions provided for in Article 3(3)(a)-(c) of the Regulation did not apply. In addition, ANACOM concluded that some of the offerings also infringed the Roaming Regulation 2012,¹⁰⁹² because end-users could not use the zero-rated applications under the same conditions abroad.¹⁰⁹³ ANACOM also investigated the effect on end-users' rights. It found that there were several situations in which the allowance provided for general use is up to 30 times less than the allowance provided for specific applications. ANACOM stressed however the lack of objective data and the inherent subjectivity related to this assessment. Therefore, it only recommended ISPs to bring the traffic volumes included in the general data caps closer in line with traffic volumes under the specific data caps, thereby ensuring users have a free choice between the various content range, applications and services available through internet access, preferably by raising the general data caps.¹⁰⁹⁴ ANACOM ordered all ISPs on the Portuguese market to align their zero-rating offerings with the Regulation and the Roaming Regulation 2012 within 50 working days. Furthermore, ANACOM ordered ISPs

¹⁰⁸⁸ ANACOM (2018), Decision of 7 June 2018, Dematerialisation of the process of transmitting information and documentation related to the handling of complaints presented using complaint books, and new requirements governing responses.

¹⁰⁸⁹ ANACOM (2018), Decision of 23 February 2018, Sentido provável de decisão relativo a práticas comerciais de zero-rating e similares em Portugal = ANACOM draft decision concerning zero-rating and similar practices in Portugal.

¹⁰⁹⁰ ANACOM (2018), Decision of 3 July 2018, Approval of final decision on zero-rating and similar commercial practices in Portugal.

¹⁰⁹¹ ANACOM (2018), Decision of 9 July 2018, Decision on zero-rating and similar commercial practices in Portugal (hereafter: ANACOM Decision of 9 July 2018), p. 47-48.

¹⁰⁹² Regulation (EU) 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union.

¹⁰⁹³ ANACOM Decision of 9 July 2018, p. 50.

¹⁰⁹⁴ ANACOM Decision of 9 July 2018, p. 50.

to adapt the respective contractual conditions as well as all the information made available to end-users on the relevant websites and at points of sale, as well as in the customer support services and other relevant channels made available to end-users within fifty working days. Finally, within 30 working days after the decision providers of mobile IAS on the Portuguese market were obliged to provide ANACOM with detailed information on how they propose to accomplish compliance with the decision. On the basis of the publicly available information in August 2018, no appeal has been lodged against this decision.

24.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Portugal.

24.4. Compliance with transparency obligations

The table below¹⁰⁹⁵ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 54: Overview of desk research on transparency obligations

ISP #	(a) 1096	(b) 1097	(c) 1098	(d) 1099	(e) 1100	Comments
ISP 1	≈	✓	N/A	✓	≈	(a) : only states it can restrict the internet speed. (e) : does not mention the complaints book.
ISP 2	✓	✓	✓	✓	≈	(e) : do not mention the complaints book.
ISP 3	✓	✓	✓	✓	≈	(e) : do not mention the complaints book, neither the Consumers' Arbitration Centre.
ISP 4	✓	✓	N/A	X	≈	(e) : do not mention the complaints book. (d) : neither a specific information regarding internet speed is provided, nor is a link for reference.
ISP 5	≈	X	N/A	✓	≈	Same comment as for ISP 1
ISP 6	✓	✓	✓	✓	≈	Same comment as for ISP 2
ISP 7	✓	✓	✓	✓	≈	Same comment as for ISP 2

¹⁰⁹⁵ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹⁰⁹⁶ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹⁰⁹⁷ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹⁰⁹⁸ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹⁰⁹⁹ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹¹⁰⁰ Remedies, as further set out in Article 4(1)(e) of the Regulation.

24.5. Overview of relevant net neutrality themes in Portugal

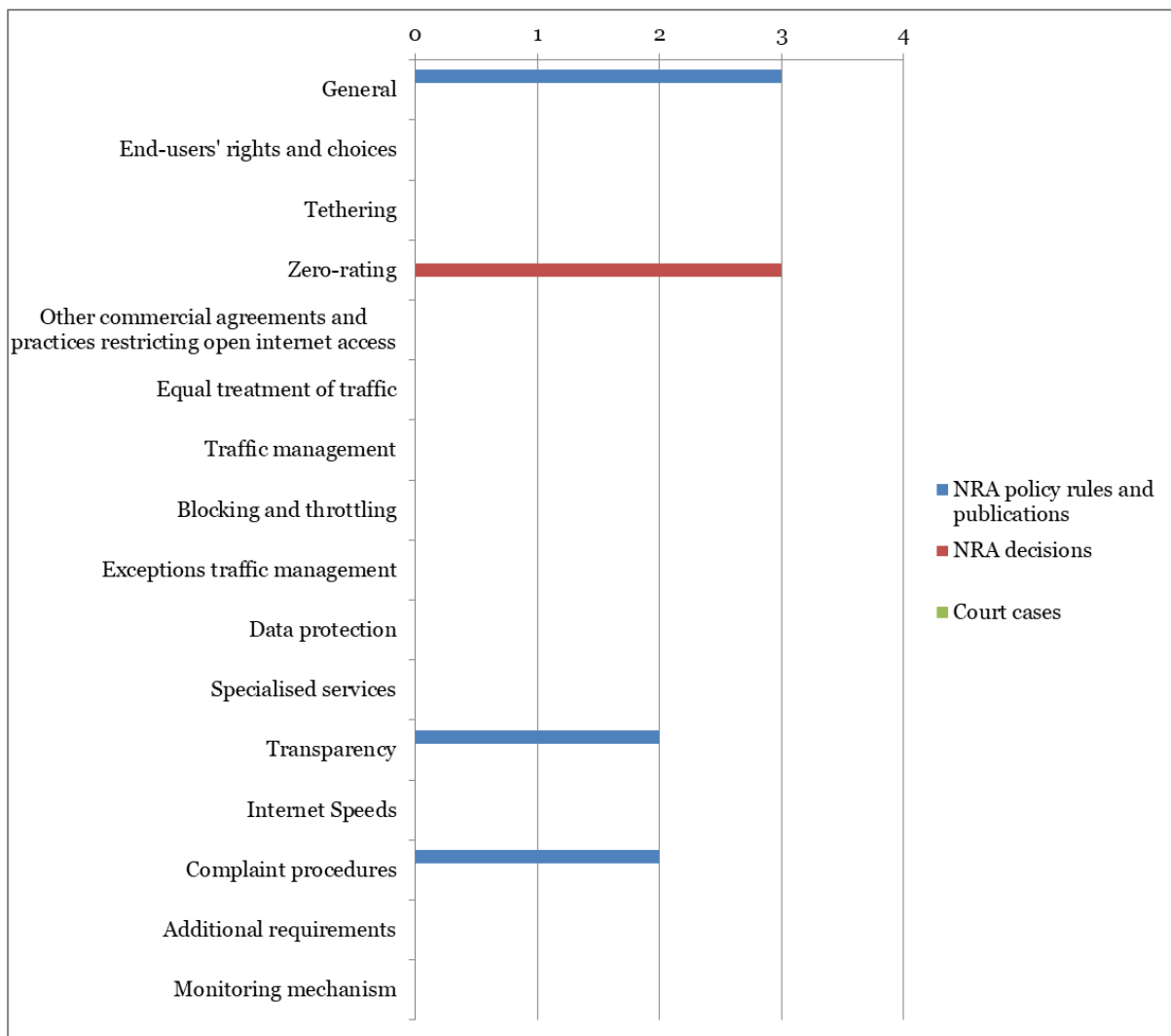


Figure 37: **Blue:** NN-report ANACOM 2017, NN-report ANACOM 2018, ANACOM Decision of 19 June 2014, ANACOM Regulation 829/2016 and the related ANACOM 2017 Notice 7984/2017, ANACOM Decision of 7 June 2018 and ANACOM initiation of establishing a Decision 2 June 2017. **Red:** ANACOM Decision of 3 July 2018 (the zero-rating offerings of three ISPs were assessed in the zero-rating decision, although the initial information request was sent to four ISPs).

24.6. Summary of key topics and noteworthy findings

National legislation lays down transparency obligations that partly overlap with, but are less strict than the Regulation. Those obligations apply not only to ISPs but to all electronic communications services in the meaning of the applicable national telecommunication law.

Furthermore, ANACOM took a binding decision to prohibit providers from using the term 'unlimited' to refer to voice calls/SMS or internet offers which are in fact subject to restrictions or limits. The same decision only allows restrictive measures to limit internet traffic in exceptional circumstances and providers are obliged to provide clear information on all traffic management measures that are or could be applied.

ANACOM focuses its monitoring and enforcement activities on the compliance by ISPs with the transparency obligations and on zero-rating practices. ANACOM took a formal

decision with respect to zero-rating offerings on the Portuguese market. ANACOM concluded that ISPs (either on their own initiative or at the request of the end-user) implemented traffic management measures to block all data after the general data cap was exceeded, except for the traffic associated with applications covered by the specific data cap or traffic that was not subject to traffic limits, therewith infringing Article 3(3) of the Regulation. Furthermore, ANACOM concluded that some of the zero-rating offers also infringed the Roaming Regulation 2012 as end-users were not able to use the zero-rated offers in the EEA countries under the same conditions as in Portugal. ANACOM ordered all mobile ISPs on the Portuguese market to bring their zero-rating offers in line with the findings of the decision and to adapt the information provided to end-users accordingly as well as their contractual conditions. This decision has not been appealed in August 2018. There are no court cases on net neutrality in Portugal.

ANACOM is entitled to impose fines if national transparency obligations are infringed. However, ANACOM is currently, in August 2018, not empowered to impose fines for infringements of the transparency obligations, the net neutrality rules or other obligations set out in the Regulation. Currently a draft bill is pending -but not yet adopted- that aims to provide ANACOM with the power to impose fines in case of an infringement of the Regulation.

The table below provides an overview of the results in Portugal for some of the key topics.

Key topic	Result Portugal
Pre-existing legislation	Yes, transparency (still in force)
Maximum fine	ANACOM does not have powers to impose a fine for infringements of the Regulation; in the context of Article 48-A PECA, which determines the procedure for handling complaints from end-users, ANACOM may order corrective measures to be taken, in cases of non-compliance
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	2.8
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Authority to settle complaints of competitors
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	≈ 5 000 (first reporting period) Second reporting period not available
Number/percentage of complaints that were settled by the NRA	<i>Not applicable</i>
Number of NRA decisions	1 (against 3 different ISPs)

Number of court cases	0
Main net neutrality themes	Zero-rating, transparency (contract information), traffic management
Monitoring mechanism (certified yes/no)	Yes, not certified
Self-regulation and/or co-regulation	No

25. Romania

25.1. Implementation

Pre-existing net neutrality legislation

Before the entry into force of the Regulation, there was no national law imposing net neutrality obligations in Romania.

ANCOM took a binding decision on 23 February 2015 that stipulated which information ISPs are obliged to provide to end-users.¹¹⁰¹ This decision was later supplemented by Decision 1112/2017 with specific transparency obligations applying to ISPs.¹¹⁰² Both decisions are discussed in more detail below.¹¹⁰³

Competent authority and penalty rules

The National Authority for Management and Regulation in Communications of Romania ("**ANCOM**") is the competent authority in Romania with respect to the enforcement of the Regulation. No specific penalties were established by national legislation for violations of the Regulation. The sanctioning provisions set out by the general framework in electronic communications, GEO no. 111/2011, apply. Pursuant to this framework, ANCOM has the authority to sanction any non-observance of the provisions of the Regulation, except those related to the competence of the National Consumer Protection Authority (which can sanction the non-conformity of performance for the purpose of triggering the remedies available to the consumer in accordance with national law) and the National Data Protection Authority. In case of a breach of the obligations set out in the Regulation, ANCOM is entitled to impose:

1. Fines ranging from RON 5 000 (approx. €1 100) up to RON 60 000 (approx. €13 000) and, in case of repeated breach, up to RON 100 000 (approx. €22 000);
2. Fines of up to 2 % of the annual turnover or 5 % in case of repeated breach, for the providers with an annual turnover of more than RON 3 000 000 (approx. €660 000); and
3. ANCOM may also require the termination of the infringement and the remediation of the occurred situation.

Additional legislation and regulations

In 2015 ANCOM took binding Decision 158/2015 that stipulated which information ECS providers are obliged to provide to end-users with respect to their offers.¹¹⁰⁴ This decision was later supplemented by Decision 1112/2017 with specific transparency obligations regarding IASs.¹¹⁰⁵ According to the former decision, ISPs were required to provide end-users information on maximum download and upload speed and on guaranteed minimum speed - if such a speed was offered. Decision 1112/2017 changed

¹¹⁰¹ ANCOM (2015), Decizie privind obligațiile de informare a utilizatorilor finali = Decision on the obligations to inform the final users, no. 158/2015 (hereafter: Decision no. 158/2015).

¹¹⁰² ANCOM (2017), Decizie privind stabilirea indicatorilor de calitate pentru furnizarea serviciului de acces la internet și publicarea parametrilor aferenți = Decision on establishing the quality indicators for the provision of the internet access service and the publishing of the relevant parameters, no. 1112/2017 (hereafter: Decision no. 1112/2017).

¹¹⁰³ See this paragraph, under heading Additional legislation and regulations.

¹¹⁰⁴ Decision no. 158/2015.

¹¹⁰⁵ Decision no. 1112/2017.

the former Decision 158/2015, obliging ISPs to communicate to end-users, prior to the conclusion of the IAS contract, information on the values for each speed established by the Regulation. They must also make publicly available the remedies end-users have recourse to in case of any significant, permanent or regularly repeated discrepancy between the actual performance of the IAS and the indicated performance in the contract. They also make available the procedure the end-user has to follow in order to measure the speeds indicated by the Regulation.

Decision 1112/2017 also established the (i) administrative indicators (e.g. supply time, frequency end-users' complaints, and fault repair time) and (ii) technical quality indicators (e.g. speed, delay and jitter) for the provision of IAS. Furthermore, on the basis of this decision, ISPs are obliged to connect with the test server (*Netograf*)¹¹⁰⁶ in order to allow customers the opportunity to monitor the conformity of the contract provisions regarding the quality of service, by comparing the performance results obtained by using the application with those specified in their contracts. This decision is fully applicable as of 1 May 2018.

25.2. Monitoring, supervision and enforcement

General information and reports

In August 2016 the 'ANCOM strategy on digital communications 2020' was published in which ANCOM identified the most important elements for developing its strategy for the electronic communications sector. A separate chapter of this report was dedicated to net neutrality.¹¹⁰⁷ Furthermore, ANCOM also annually publishes its report on the quality of IASs in the previous year.¹¹⁰⁸ These reports address the monitoring obligations of ANCOM, but are not specifically focused on the application of the Regulation. In these reports comparative statistics on the quality of IASs are presented with respect to the reporting year.

Within ANCOM, there are no employees dealing exclusively with net neutrality, but on average five FTEs are involved in the compliance of the Regulation.¹¹⁰⁹

The **NN-report ANCOM 2017** consists of 15 pages and discusses the institutional implications of the Regulation, the internal and external organisation of ANCOM, the monitoring activities, the measures taken in relation to the transparency obligations for ensuring open internet access and the procedure to manage end-users' complaints. ANCOM mentions in its report that it paid special attention to end-users' complaints concerning traffic management practices.¹¹¹⁰ Furthermore, ANCOM reports that in April 2017 it requested all mobile operators in Romania to provide information concerning zero-rating practices that were present on the market.¹¹¹¹

¹¹⁰⁶ See <http://www.netograf.ro/> (accessed 3 September 2018).

¹¹⁰⁷ ANCOM (2016), *Strategia ANCOM pentru comunicațiile digitale 2020* = Strategy ANCOM on digital communications 2020.

¹¹⁰⁸ ANCOM (2016), *Raport privind calitatea serviciului de acces la internet pentru anul 2015: parametrii administrative* = Report on the quality of the internet access service for the year 2015. ANCOM (2017), *Raport privind calitatea serviciului de acces la internet pentru anul 2016* = Report on the quality of the internet access service for the year 2016.

¹¹⁰⁹ Survey completed by ANCOM in the context of this Study.

¹¹¹⁰ This aspect is discussed in more detail under the subparagraph '*Complaints*'.

¹¹¹¹ ANCOM (2017), *Monitorizarea respectării prevederilor Regulamentului (EU) 2015/2120 privind accesul la internetul deschis: 30 aprilie 2016 - 30 aprilie 2017* = Monitoring compliance with the provisions of the Regulation (EU) 2015/2120 on open internet access: 30 April 2016 - 30 April 2017 (hereafter: NN-report ANCOM 2017).

In its **NN-report ANCOM 2018**, consisting of 17 pages, ANCOM reports on the applicable legal framework, its internal organisation, the cooperation with the Romanian Consumer Authority and the Romanian Data Protection Authority, the monitoring obligations of ANCOM and the transparency measures it took for ensuring open internet access. In addition, ANCOM reported on the quality of IASs offered in Romania.¹¹¹² The NN-report ANCOM 2018 specifically focuses on the binding ANCOM decisions on transparency obligations for ISPs that were discussed above.¹¹¹³

Complaints

ANCOM is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs. In order to settle a complaint, ANCOM has the powers to terminate and remedy any infringement. Examples of interventions ANCOM might consider include obliging an ISP to publish mandatory information and terminating or amending an IAS contract.

The NN-report ANCOM 2017 states that until December 2016 no complaints were received with regard to commercial practices. In December 2016 a petition was submitted to ANCOM from an NGO¹¹¹⁴ related to a potential zero-rating practice of a mobile operator. At the beginning of 2017 ANCOM started an investigation into this case, but this investigation was not pursued because the ISP amended its practice.

Over the same reporting period from 1 May 2016 until 30 April 2017 ANCOM received 37 complaints regarding the performance of the IAS (fixed and mobile), which represented about 1.5 % of the total complaints with respect to electronic communication services. ANCOM sent ISPs formal information requests so that all cases could be analysed on a case-by-case basis. Most cases have been clarified or solved by ISPs themselves and in some cases ISPs accepted the termination of the end-users' contracts without a penalty.

In its NN-report ANCOM 2018 with respect to the period from 1 May 2017 to 30 April 2018, ANCOM stated it received 36 complaints on the performance of (fixed and mobile) IAS. These cases represented approximately 1.15 % of the total number of electronic communication service complaints received in the reporting period and were resolved in the same way as in the previous reporting period. ANCOM further states that it received no complaints in this period with respect to traffic management practices by ISPs.¹¹¹⁵

Monitoring and supervision measures

In 2016 a monitoring campaign was launched and 71 warnings were issued on matters related to transparency requirements in ISP contracts with end-users, including on information regarding IAS speeds. These warnings were not published.¹¹¹⁶

At the beginning of April 2017 ANCOM formally requested information concerning zero-rating and traffic management practices from all mobile operators in Romania.¹¹¹⁷ Out of a total of eight ISPs (including MVNOs) that provided services in Romania, three informed ANCOM that they offer zero-rated services. Further investigations were started relating to these three zero-rated offers. Two of these investigations were started by

¹¹¹² ANCOM (2018), Monitorizarea respectarii prevederilor Regulamentului (EU) 2015/2120 privind accesul la internetul deschis: 1 mai 2017 – 30 aprilie 2018 = Monitoring compliance with the provisions of the Regulation (EU) 2015/2120 on open internet access: 1 May 2017 - 30 April 2018 (hereafter: NN-report ANCOM 2018).

¹¹¹³ See paragraph Implementation, under heading Additional legislation and regulations.

¹¹¹⁴ ApTI, <https://www.apti.ro/apti-english>, (accessed 3 September 2018).

¹¹¹⁵ NN-report ANCOM 2018, p. 3.

¹¹¹⁶ Information directly provided by ANCOM in the context of this Study.

¹¹¹⁷ NN-report ANCOM 2017.

ANCOM *ex officio* and one investigation was based on a complaint.¹¹¹⁸ The three ISPs involved in zero-rating in Romania are Telekom Romania Mobile Communications, Vodafone Romania and Orange Romania. ANCOM states in its NN-report ANCOM 2018 it requested additional detailed information in order to carry out an in-depth analysis of the zero-rated services on the basis of the BEREC Guidelines. By August 2018 two of these assessments are still ongoing and in one case ANCOM took a decision obliging Telekom Romania Mobile Communications to eliminate discriminatory traffic management practices it applies to video traffic.¹¹¹⁹

ANCOM did not request information on traffic management from ISPs on a stand-alone basis, but only requested information concerning traffic management practices in the context of the general zero-rating investigations mentioned above under this heading. No complaints, issues or enforcement actions in Romania related to specialised services.¹¹²⁰

At the end of 2014 ANCOM introduced the aforementioned certified monitoring mechanism '*Netograf.ro*', which is an online mechanism for end-users to measure in real-time the performance of IAS in terms of quality and the evolution of the performance over time. On a yearly basis, using the information provided via *Netograf*, ANCOM prepares a report comprising statistics on the quality of the fixed and mobile IAS in Romania. ANCOM is running a project in August 2018 aimed at introducing new features to *Netograf* that are focused on simplifying the measuring process for end-users.¹¹²¹

Decisions and court cases

In August 2018 ANCOM issued a sanctioning decision in which it established that Telekom Romania Mobile Communications infringed Article 3(3)(1st) and (3rd) of the Regulation by discriminating against video traffic on its mobile network. Telekom Romania Mobile Communications applied a speed limitation to the video traffic on its mobile network when the subscriber activated a certain bonus called 'unlimited internet'. After activating this offering video traffic was throttled, while other types of traffic could still be used at the maximum traffic speed of the end-user's contract. ANCOM obliged Telekom Romania Mobile Communications Telekom Romania Mobile to bring its practices within 60 days in line with the Regulation. If the ISP will not comply within this period, penalties will apply for each day of non-compliance. In September 2018 this 60 day-period is still running. The ANCOM decision was not published, as national Romanian law does not require the publication of individual decisions.¹¹²² This decision has been appealed and the court proceeding is still pending.

25.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Romania.

¹¹¹⁸ Survey completed by ANCOM in the context of this Study.

¹¹¹⁹ NN-report ANCOM 2018, p. 4. Further information provided by ANCOM in the context of this Study. Also see below in this paragraph, *Decisions and court cases*.

¹¹²⁰ Survey completed by ANCOM in the context of this Study.

¹¹²¹ NN-report ANCOM 2018, p. 7.

¹¹²² Information on this decision was directly provided by ANCOM in the context of this Study.

25.4. Compliance with transparency obligations

The table below¹¹²³ provides an overview of desk research of public information provided on the websites of ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 55: Overview of desk research on transparency obligations

ISP #	(a) 1124	(b) 1125	(c) 1126	(d) 1127	(e) 1128	Comments
ISP 1	N/A	✓	N/A	✓	✓	General comment: The right to apply traffic management measures is provided for in the contract for security / fraud reasons (not commercial).
ISP 2	N/A	✓	N/A	✓	✓	
ISP 3	N/A	✓	N/A	N/A	N/A	
ISP 4	N/A	✓	N/A	✓	✓	
ISP 5	N/A	✓	N/A	✓	✓	
ISP 6	N/A	✓	N/A	✓	✓	
ISP 7	N/A	✓	N/A	N/A	N/A	
ISP 8	N/A	✓	N/A	✓	✓	
ISP 9	N/A	✓	N/A	✓	✓	

¹¹²³ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹¹²⁴ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹¹²⁵ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹¹²⁶ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹¹²⁷ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹¹²⁸ Remedies, as further set out in Article 4(1)(e) of the Regulation.

25.5. Overview of relevant net neutrality themes in Romania

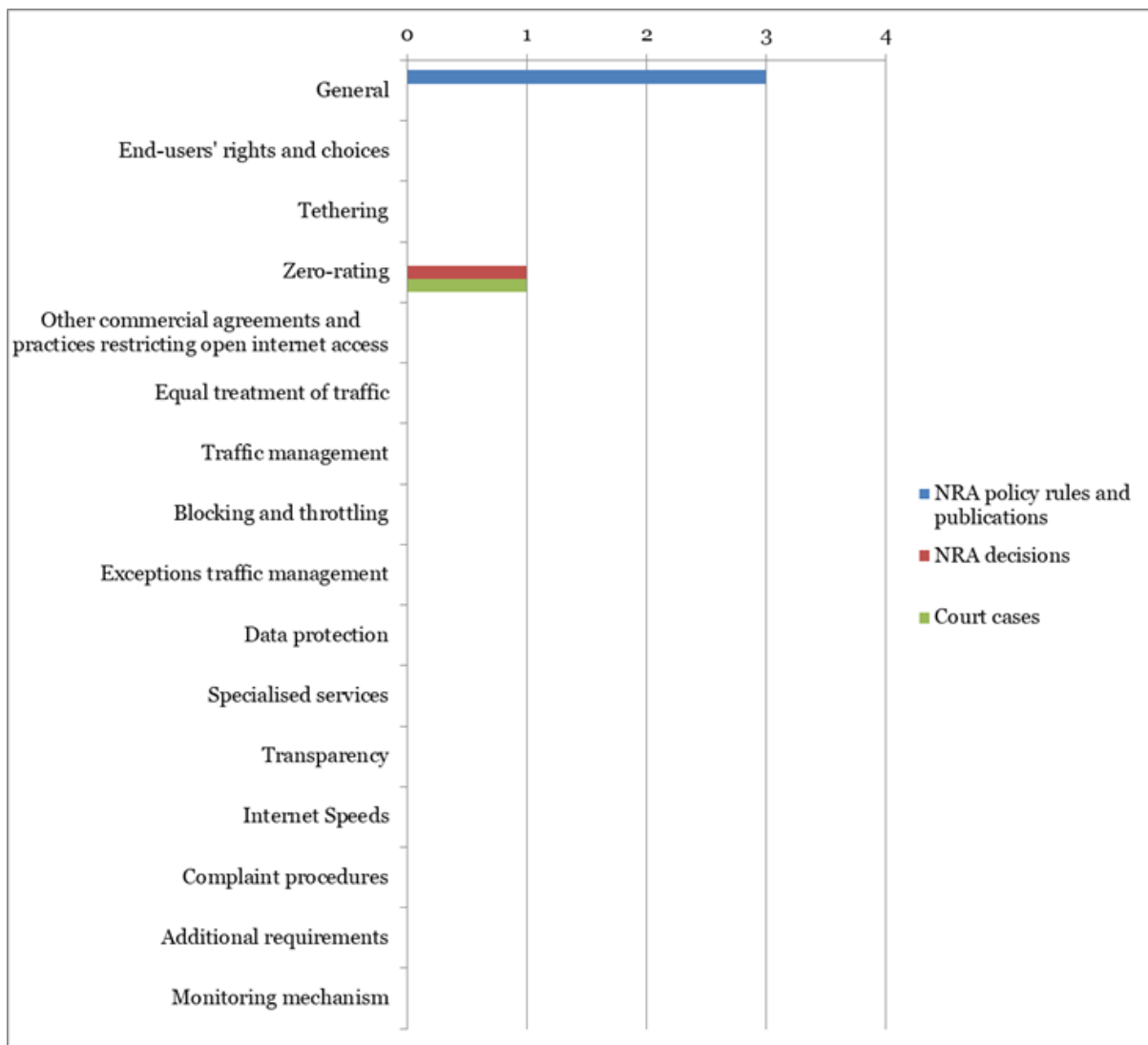


Figure 38: Blue: NN-report ANCOM 2017, NN-report ANCOM 2018 and ANCOM Strategy on digital communications 2020. Red: ANCOM Decision August 2018 (not published). Green: pending appeal against ANCOM decision (not published).

25.6. Summary of key topics and noteworthy findings

ANCOM imposed requirements on all ISPs in relation to IAS contracts and end-users' information in the sense of Article 5(1) of the Regulation (Decision 1112/2017 amending Decision 158/2015). Pursuant this generic decision ISPs are e.g. required to comply with additional transparency obligations, provide information on IAS speeds, connect with the certified monitoring mechanism *Netograf* in order for end-users to monitor whether the IAS performance conforms with the stipulated performance in the IAS contract and make remedies available to the public in case of a discrepancy between actual and indicated IAS performance. Decision 1112/2017 was taken after a monitoring campaign in 2016 which resulted in 71 warnings.

In August 2018 ANCOM took a formal decision against Telekom Romania Mobile Communications in which an infringement of Article 3(3)(1st) and (3rd) of the Regulation was established on the basis that Telekom Romania Mobile Communications discriminated video traffic (and still allowed other traffic at normal speed) on its mobile

network once 'unlimited internet' was activated by a subscriber. This case has been appealed and is pending in court.

The table below provides an overview of the results in Romania for some of the key topics.

Key topic	Result Romania
Pre-existing legislation	Yes (transparency), still in force
Maximum fine	<ul style="list-style-type: none"> • Monetary fines ranging from RON 5 000 (approx. €1 100) up to RON 60 000 (approx. €13 000) and, in case of repeated breach, up to RON 100 000 (approx. €22 000); • Turnover based fines of up to 2 % of the annual turnover or 5 % in case of repeated breach, for the providers with an annual turnover of more than RON 3 000 000 (approx. €660 000);
Imposed fines	None ¹¹²⁹
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes, Binding Decision concerning the commercial characteristics of the offer imposing additional transparency obligations on ISPs
Number of FTEs in NRA involved in net neutrality	5
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	73 and a petition was submitted with respect to zero-rating practices
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	1
Number of court cases	1 (pending)
Main net neutrality themes	Transparency (contract information), monitoring mechanism, zero-rating
Monitoring mechanism (certified yes/no)	Netograf, certified
Self-regulation and/or co-regulation	No

¹¹²⁹ ANCOM Decision of August 2018 in which an ISP was ordered to bring its practices in line with the Regulation within 60 days under the threat of incremental penalties is not counted as an imposed fine.

26. Slovakia

26.1. Implementation

Pre-existing net neutrality legislation

The Slovak Electronic Communications Act ("**ECA SK**") entered into force on 14 November 2011 and its scope is wider than just net neutrality.¹¹³⁰ Prior to entering into force of the Regulation, the ECA SK included some provisions on transparency and a general provision on non-discrimination of internet services. There was no specific net neutrality legislation. The ECA SK was amended several times, also to implement the Regulation.¹¹³¹

The pre-existing Slovak Gambling Act provides a restriction on access to unauthorised (unlicensed) gambling websites based on a court order, which continued to apply after the Regulation entered into force.¹¹³² Furthermore, according to Section 369 of the Slovak Criminal Code ISPs are obliged to block pages with dangerous content such as child pornography.¹¹³³ This provision continued to apply. Both the Slovak Gambling Act and Section 369 of the Criminal Code are deemed exceptions within the meaning of Article 3(3) of the Regulation.

Competent authority and penalty rules

Penalties applicable to infringements of Articles 3, 4 and 5 of the Regulation were introduced in the ECA SK on 29 November 2016.¹¹³⁴ The Slovak NRA *Úrad pre reguláciu elektronických komunikácií a poštových služieb* ("**RÚ**") shall impose penalties ranging from €200 up to 5 % of the undertaking's turnover of the previous accounting period. When imposing penalties, RÚ shall in particular consider the severity, manner, duration and impacts of the failure to fulfil the obligation. In case of repeated breach of an obligation, a penalty may also be imposed repeatedly. It is not possible to impose periodic penalty payments. RÚ may impose the penalties directly. In case a severe or repeated breach has not been remedied by imposing a fine, RÚ also has the authority to prohibit an undertaking from providing networks or services, up to a period of 24 months, depending on the gravity and duration of such breach.¹¹³⁵

Additional legislation and regulations

The Slovak Gambling Act and Section 369 of the Slovak Criminal Code mentioned above remained in force after the adoption of the Regulation.

RÚ published the Recommendation on the transmission speed specifications in end-user contracts ("**RÚ Recommendation**").¹¹³⁶ The RÚ Recommendation envisages harmonising the publishing of information of IAS speeds. The normally available speed

¹¹³⁰ Zákon o elektronických komunikáciách = Electronic Communications Act, no. 351/2011 Z.z., § 11, § 19, § 20, § 46 (hereafter: Electronic Communications Act).

¹¹³¹ See below in this paragraph, under heading *Competent authority and penalty rules*.

¹¹³² Zákon o hazardných hrách a o zmene a doplnení niektorých zákonov = Gambling Act, 171/2005 Z.z., § 15b.

¹¹³³ Criminal Code, no. 300/2005 Coll.

¹¹³⁴ Zákon ktorým sa mení a dopĺňa zákon č. 351/2011 Z. z. o elektronických komunikáciách v znení neskorších predpisov = Law amending Act no. 351/2011 Coll. Electronic Communications Act, no. 353/2016, § 73(1)(b).

¹¹³⁵ Electronic Communications Act, § 73.

¹¹³⁶ RÚ, Odporúčanie špecifikácií prenosových rýchlostí v zmluvách s koncovým užívateľom = Recommendation on the Transmission Speed Specifications in End-Users' Contracts. The NN-report RÚ 2017 shows that it was issued after December 2016.

should be at least 90 % of the maximum speed and available at least 90 % of the time during each continuous 4-hour interval. The minimum speed should be at least 40 % of the maximum speed. The advertised speed is the speed used by the ISP in its commercial communication. The RÚ Recommendation specifies the criteria of maximum, minimum and normally available speed for (i) fixed connections and (ii) mobile connections. Additionally, RÚ included general recommendations with respect to the advertised speed and upload and download speeds.

26.2. Monitoring, supervision and enforcement

General information and reports

RÚ participates in the BEREC Net Neutrality Expert Working Group and publishes general information about net neutrality on its website.¹¹³⁷ RÚ published several reports relating to net neutrality and internet access, such as 'Mobile internet is actively used by 68 % of Slovaks', 'Internet access on trains in Slovakia' and 'Fast internet will be in every district, even in smaller villages'.¹¹³⁸ RÚ has a total number of two FTEs involved in net neutrality topics (annual average in 2017).¹¹³⁹

The **NN-report RÚ 2017** consists of 16 pages.¹¹⁴⁰ RÚ focused on raising awareness on net neutrality amongst ISPs and the public. RÚ issued a survey, requested information, published information on its website and organised an information day on net neutrality for ISPs.¹¹⁴¹ In general RÚ did not identify any major issues of non-compliance with the Regulation. However, some issues came up during the monitoring of compliance with the provisions of Article 4 of the Regulation, as described below.¹¹⁴² RÚ announced that its focus for the following reporting period would be on transparency.

The **NN-report RÚ 2018** consists of 24 pages and in this reporting period a monitoring mechanism was introduced by RÚ.¹¹⁴³ RÚ focused on Article 4 of the Regulation and, according to the report, the steps taken by RÚ contributed to increased awareness of net neutrality issues amongst stakeholders. RÚ carried out monitoring and supervision measures.¹¹⁴⁴ In the following reporting period, RÚ will again verify the compliance with obligations following from Articles 4(1) and 4(2) of the Regulation by ISPs with the highest number of subscribers.

¹¹³⁷ RÚ, Sieťová neutralita = Net neutrality (<https://www.teleoff.gov.sk/sietova-neutralita/>, accessed 3 August 2018).

¹¹³⁸ RÚ, Mobilný internet aktívne využíva 68 % obyvateľov Slovenska = Mobile internet is actively used by 68 % of Slovaks (<https://www.teleoff.gov.sk/mobilny-internet-aktivne-vyuziva-68-obyvateľov-slovenska/>). RÚ, Dostupnosť internetu vo vlakoch na Slovensku = Internet access on trains in Slovakia (<https://www.teleoff.gov.sk/dostupnost-internetu-vo-vlakoch-na-slovensku/>). RÚ, Rýchly internet bude v každom okrese, aj v menších obciach = Fast internet will be in every district, even in smaller villages (<https://www.teleoff.gov.sk/rychly-internet-bude-v-kazdom-okrese-aj-v-mensich-obciach/>). All accessed 2 August 2018.

¹¹³⁹ Survey completed by RÚ in the context of this Study.

¹¹⁴⁰ RÚ (2017), Annual report on monitoring the Regulation (EU) 2015/2120 of the European Parliament and of the Council: reference period: 30 April 2016 - 30 April 2017 (hereafter: NN-report RÚ 2017).

¹¹⁴¹ NN-report RÚ 2017.

¹¹⁴² See this paragraph, under heading *Monitoring and supervision measures*.

¹¹⁴³ RÚ (2018), Annual report on monitoring the Regulation (EU) 2015/2120 of the European Parliament and of the Council, reference period: 1 May 2017 - 30 April 2018 (hereafter: NN-report RÚ 2018). This monitoring mechanism is further discussed in this paragraph, under heading *Monitoring and supervision measures*.

¹¹⁴⁴ These measures are discussed in more detail in this paragraph, under heading *Monitoring and supervision measures*.

Complaints

RÚ is competent to settle complaints related to the Regulation from consumers and other end-users against ISPs. However, RÚ cannot issue a formal decision or impose remedies when dealing with complaints, but it informs the relevant ISP of the outcome of its investigation and the detected shortcomings.

RÚ registered and dealt with five complaints during the reporting period of 1 May 2016 to 30 April 2017.¹¹⁴⁵ In four cases the complaints related to Article 4 of the Regulation, in particular the lack of information in contracts (for example the clear and comprehensible explanation of speeds). In dealing with this RÚ issued the above mentioned RÚ Recommendation. RÚ registered one complaint that concerned Article 3(1) of the Regulation, which referred to the right of the end-users to use terminal equipment of their choice. RÚ informed the relevant ISP of the outcome of its investigation.

In the second reporting period, RÚ received one complaint in relation to net neutrality.¹¹⁴⁶ This complaint related to a restriction of the IAS speed after exceeding the limit for the volume of transmitted data. RÚ informed the relevant ISP of the outcome of its investigation.

Monitoring and supervision measures

From April 2017, there is a certified monitoring mechanism in place in Slovakia called 'MobilTest' that end-users can use to test conformity of performance by ISPs pursuant to Article 4(4).¹¹⁴⁷ The mechanism is introduced and provided for by RÚ. RÚ considers the requirement for certification of the monitoring mechanism a matter to be agreed amongst stakeholders.¹¹⁴⁸ RÚ also carried out measurements to monitor IAS quality and will compare these results with the results gained in the following reporting periods and for analysis of trends in individual IAS quality parameters.¹¹⁴⁹ From 1 May 2017 to 20 April 2018 a total number of 39 297 measurements were carried out by users of *MobilTest*. In the future, RÚ plans to accept the monitoring mechanism that is being developed by BEREC.

During the 2017 reporting period, RÚ carried out a survey with selected ISPs of which the results are published in the report. It also requested information by sending letters to all 940 ISPs registered in Slovakia in the period from 27 March 2017 to 4 April 2017. Through the information requests RÚ monitored compliance with the obligations specified in the Regulation. Following these monitoring measures RÚ did not identify practices related to traffic management that would constitute as a compliance issue in relation to Article 3 of the Regulation.¹¹⁵⁰ However, in relation to the transparency requirements as laid down in Article 4 of the Regulation, certain shortcomings were identified. The most important findings are the following:

1. a significant number (48 %) of ISPs did not indicate in the contract the information on how the traffic management measures that are applied by the ISP could impact the quality of the IAS, end-users' privacy and protection of personal data (Article 4(1)(a));

¹¹⁴⁵ NN-report RÚ 2017.

¹¹⁴⁶ NN-report RÚ 2018.

¹¹⁴⁷ Available on: <https://www.meracinternetu.sk/sk/index> (accessed 3 September 2018).

¹¹⁴⁸ Survey completed by RÚ in the context of this Study.

¹¹⁴⁹ NN-report RÚ 2018.

¹¹⁵⁰ NN-report RÚ 2017.

2. a significant number (48 %) of ISPs did not indicate in the contract the information on how any volume limitation, speed and other QoS parameters could impact the IASs (Article 4(1)(b));
3. a substantial majority (71 %) of ISPs did not indicate in the contract the information on how specialised services could have an impact on the IASs (Article 4(1)(c));
4. some ISPs in the fixed network did not provide information about speeds (e.g. 21 % of ISPs did not indicate in the contract the minimum download speed, Article 4(1)(d)); and
5. a smaller number (19 %) of ISPs did not indicate in the contract the information on procedures to address complaints of end-users referring to Article 3(1) of the Regulation (Article 4(2)).

With the RÚ Recommendation RÚ issued specifications of different types of speeds as laid down in Article 4(1)(d) of the Regulation in order to harmonise the implementation of this section amongst ISPs.¹¹⁵¹ RÚ also entered into informal discussions with ISPs in relation to the information requirements as laid down in Article 4(1) of the Regulation.¹¹⁵²

Information was requested from ISPs on traffic management (twice), management of network capacity (twice) and justifications for any traffic management applied (twice).¹¹⁵³

During the 2018 reporting period, RÚ carried out the following monitoring and supervision measures: (i) collecting of information for the purpose of verification and fulfilment of conditions and obligations according to § 40 of the ECA SK; (ii) verification of compliance with obligations laid down in Article 4 of the Regulation by means of a survey requesting information under § 40(1) ECA SK from all ISPs registered by the NRA; (iii) requesting ISPs for information, evidenced by relevant documents, on the compliance with the obligations as laid down in the Regulation; (iv) evaluating information published by ISPs on their websites; (v) monitoring of media publications focused on electronic communications and information technologies; and (vi) monitoring of the general quality of IAS provided at the national level by means of *MobilTest*.¹¹⁵⁴

Based on the information received in the second reporting period from 712 ISPs providing IASs in Slovakia, it was concluded that approximately 20 % of ISPs are still not yet compliant with the obligations as laid down in Articles 4(1) and 4(2) of the Regulation.¹¹⁵⁵ From a survey amongst selected ISPs (nine fixed and three mobile), covering a large share of the telecommunication market related to compliance with Articles 3 and 4 of the Regulation, RÚ concluded that in relation to traffic management no practices were identified which would indicate an issue of non-compliance with Article 3. With reference to the situation in 2017, RÚ also noticed major progress concerning the transparency obligations pursuant to Article 4 of the Regulation.¹¹⁵⁶ RÚ did not identify transparency issues in relation to Article 4 following this survey. RÚ has not yet imposed any penalty for non-compliance with the obligations as laid down in Articles 4(1) and 4(2) of the Regulation.

¹¹⁵¹ Survey completed by RÚ in the context of this Study.

¹¹⁵² Survey completed by RÚ in the context of this Study.

¹¹⁵³ Survey completed by RÚ in the context of this Study.

¹¹⁵⁴ NN-report RÚ 2018.

¹¹⁵⁵ NN-report RÚ 2018, p. 7-8.

¹¹⁵⁶ NN-report RÚ 2018, p. 8.

Decisions and court cases

RÚ requested ISPs to present evidence that the requirements as laid down in Articles 4(1) and 4(2) were met, at least by submitting three contracts for the provisioning of public services / access to the internet. For non-fulfilment of the obligation to provide information, in accordance with the time-limits and level of detail as requested by the NRA pursuant to Article 5(2) of the Regulation, RÚ imposed a total of 36 one-off penalties to ISPs.¹¹⁵⁷ The imposed fines ranged from €200 to €2 000. None of ISPs have appealed these decisions by RÚ.

26.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Slovakia.

26.4. Compliance with transparency obligations

The table below¹¹⁵⁸ provides an overview of desk research of public information provided on the websites of various fixed and mobile ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 56: Overview of desk research on transparency obligations

ISP #	(a) 1159	(b) 1160	(c) 1161	(d) 1162	(e) 1163	Comments
ISP 1	✓	N/A	N/A	N/A	✓	-
ISP 2	✓	✓	N/A	N/A	✓	-
ISP 3	✓	N/A	N/A	N/A	✓	-
ISP 4	✓	✓	N/A	≈	✓	(d) : General Terms & Conditions state only the maximum internet speed.
ISP 5	✓	N/A	N/A	✓	✓	-
ISP 6	✓	✓	N/A	N/A	✓	-
ISP 7	✓	N/A	N/A	N/A	✓	-
ISP 8	N/A	N/A	N/A	N/A	✓	-
ISP 9	✓	N/A	N/A	N/A	✓	-

¹¹⁵⁷ These decisions were issued between 3 October 2017 and 27 August 2018. Information provided by RÚ in the context of this Study.

¹¹⁵⁸ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹¹⁵⁹ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹¹⁶⁰ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹¹⁶¹ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹¹⁶² Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹¹⁶³ Remedies, as further set out in Article 4(1)(e) of the Regulation.

26.5. Overview of relevant net neutrality themes in Slovakia

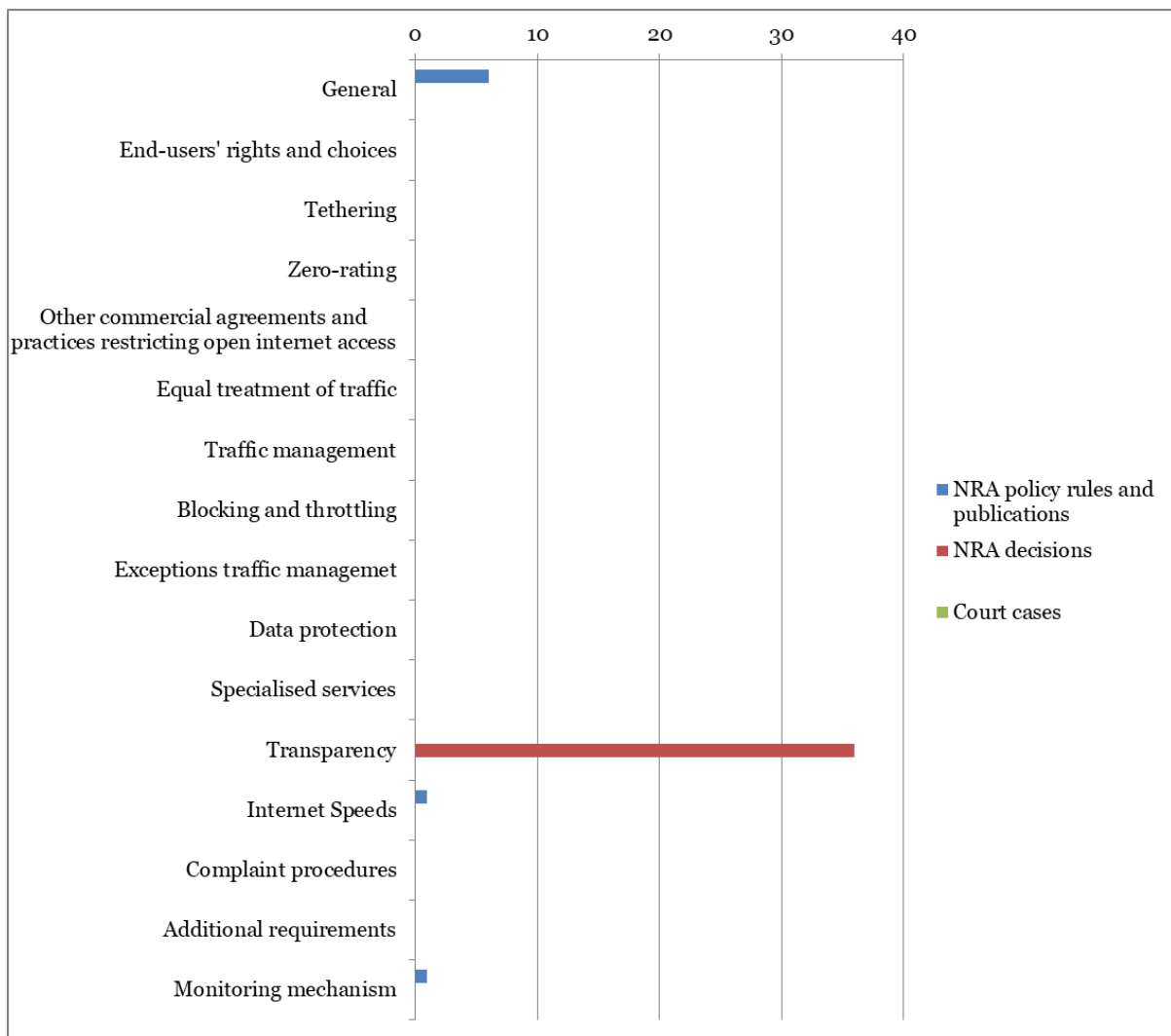


Figure 39: Blue: NN-report RÚ 2017, NN-report RÚ 2018, publications 'Sieťová neutralita', 'Mobile internet is actively used by 68 % of Slovaks', 'Internet access on trains in Slovakia' and 'Fast internet will be in every district, even in smaller villages', RÚ Recommendation and MobilTest. Red: NRA Decisions between 3 October 2017 and 27 August 2018 (36x).

26.6. Summary of key topics and noteworthy findings

In Slovakia the focus of monitoring and enforcement is on Article 4 of the Regulation.

RÚ has provided guidance on the interpretation of 'significant discrepancy, continuous or recurring' in a Recommendation that envisages harmonising the publishing of information of IAS speeds. According to the RÚ Recommendation the normally available speed should be at least 90 % of the maximum speed and available at least 90 % of the time during each continuous 4-hour interval. The minimum speed should be at least 40 % of the maximum speed. The advertised speed is the speed used by the ISP in its commercial communication. The RÚ Recommendation specifies the criteria of maximum, minimum and normally available speed for (i) fixed connections and (ii) mobile connections. Additionally, RÚ included general recommendations with respect to the advertised speed and upload and download speeds.

RÚ imposed a total of 36 fines for non-compliance with the obligation to provide information at the request of the NRA as laid down in Article 5(2) of the Regulation.

The Gambling Act and the Criminal Code, which existed prior to the entering into force of the Regulation, are deemed exceptions within the meaning of Article 3(3) of the Regulation.

The table below provides an overview of the results in Slovakia for some of the key topics.

Key topic	Result Slovakia
Pre-existing legislation	Yes, transparency and general non-discrimination of internet services (still in force)
Maximum fine	5 % of the undertaking's turnover of the previous accounting period
Imposed fines	€200 - €2 000
Additional legislation	Yes, Slovak Gambling Act and Section 369 of the Slovak Criminal Code
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes, RÚ Recommendation
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Authority to settle complaints of consumers & other end-users (no remedies available other than informing the ISP of shortcomings)
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	6
Number/percentage of complaints that were settled by the NRA	None
Number of NRA decisions	36
Number of court cases	0
Main net neutrality themes	Transparency, traffic management, internet speeds
Monitoring mechanism (certified yes/no)	Yes, certified
Self-regulation and/or co-regulation	No

27. Slovenia

27.1. Implementation

Pre-existing net neutrality legislation

Slovenia had net neutrality rules in place in national legislation before the Regulation was adopted in Article 203 of the Slovenian Electronic Communications Act ("**ECA**").¹¹⁶⁴ The pre-existing legislation required the Slovenian NRA to promote the preservation of the open and neutral character of the internet and prohibited ISPs from withholding or slowing down internet traffic, except to i) avoid network congestion; ii) preserve the integrity and security of the network and services; iii) restrict unsolicited communication or iv) based on court decisions.¹¹⁶⁵

When the Regulation entered into force, the national net neutrality provision, Article 203 ECA, was amended by removing certain traffic management measures from a list of allowed traffic management measures to prevent an overlap with the traffic management measures allowed under Article 3(3) of the Regulation.¹¹⁶⁶ Two paragraphs were deleted to avoid duplication with the Regulation. This amendment entered into force on 20 August 2017.

Competent authority and penalty rules

The 'Decree on the implementation of the Regulation (EU) laying down measures concerning open internet access' ("**SI Decree**") determines the applicable penalties and the competent national regulatory authority, the Agency for communication networks and services of the Republic of Slovenia ("**AKOS**").¹¹⁶⁷ It entered into force on 30 April 2016. AKOS is the competent authority to impose penalties. For infringements of the rules as laid down in Articles 3, 4(1), 4(2), 5(1) and 5(2) of the Regulation AKOS may impose a penalty ranging between €500 and €15 000 for a smaller undertaking and entrepreneur and between €20 000 and €50 000 for a medium or large undertaking. Additionally, the SI Decree allows AKOS to impose a penalty on individuals ranging between €200 and €2 000. Imposing periodic penalty payments on the basis of an infringement of the Regulation is not possible in Slovenia. A misdemeanour procedure needs to be conducted each time before fining the subject due to Regulation violation.

In addition, AKOS may on the basis of the ECA also adopt the following measures: i) request for the termination of the infringement and determine measures to ensure compliance; ii) order to suspend or delay the provision of services or package of services that may significantly harm competition; iii) impose a prohibition to provide electronic communication networks or services; and iv) adoption of urgent interim measures under specific circumstances.

¹¹⁶⁴ Zakon o elektronskih komunikacijah = Electronic Communications Act, Uradni list no. 109/12 (hereafter: ECA).

¹¹⁶⁵ ECA, Article 203(1-3).

¹¹⁶⁶ Zakon o spremembah in dopolnitvah Zakona o elektronskih komunikacijah = Act Amending the Electronic Communications Act, Uradni list no. 40/17.

¹¹⁶⁷ Uredba o izvajanju Uredbe (EU) o določitvi ukrepov v zvezi z dostopom do odprtega interneta = Decree on the implementation of the Regulation (EU) laying down measures concerning open internet access, Uradni list no. 29/16.

Additional legislation and regulations

With the amendment of the ECA referred to above,¹¹⁶⁸ Article 129 was also amended by regulating obligations related to the content of IAS contracts, which qualifies as an additional transparency requirement. Furthermore, on 25 July 2017 AKOS issued a recommendation ("**AKOS Recommendation**") in order to simplify and unify the implementation of the Regulation by encouraging ISPs to publish complete, understandable, comparable, transparent, easy to access and up to date information about the IAS to ensure effective protection of end-users' rights.¹¹⁶⁹ The AKOS Recommendation focuses on the publication of information on ISPs' websites, content of end-users' contracts, minimum scope of information relating to the IAS and the procedure in case of divergence between actual and contractual access parameters (e.g. legal remedies, amendment of the offer). The AKOS Recommendation holds that, in the event of a discrepancy of 20 % or more, end-users should be able to request intermediate termination of the IAS agreement at no cost or request a commercial downgrade of the offer at no cost, to an offer with a lower internet speed. AKOS also recommends ISPs to provide end-users with a free mechanism and instructions to measure the actual speed of their IAS.

With the measures laid down in the AKOS Recommendation, ISPs are obliged to provide end-users with information on the actual expected internet speed, the period of the day when this applies, the facts that can affect the speed, the minimum internet speed and other information on the quality of service. AKOS drafted secondary legislation, which will be more detailed than the AKOS Recommendation and will cover all topics of the Regulation.¹¹⁷⁰ Public consultation of this new secondary legislation started in September 2018.

27.2. Monitoring, supervision and enforcementGeneral information and reports

AKOS is actively involved in the work of the net neutrality expert working group of BEREC. It participates in three of its subgroups. AKOS is also actively involved in the preparation of documents regarding the methodology of measurements and quality of IAS.¹¹⁷¹ When the Regulation entered into force AKOS held a workshop on net neutrality on 24 June 2016.¹¹⁷² Furthermore, in 2016 AKOS organised five consultations with ISPs to inform them about the new requirements, and to identify key issues and solutions for implementation of the requirements, with a focus on Article 4 of the Regulation.¹¹⁷³ AKOS also held meetings with ISPs before the AKOS Recommendation was drafted and when AKOS presented (the technical details of) its measurement mechanism discussed in more detail below.¹¹⁷⁴ While the mechanism was still in beta-version, AKOS gave ISPs

¹¹⁶⁸ See paragraph Implementation, under heading *Pre-existing net neutrality legislation*.

¹¹⁶⁹ AKOS (2017), *Priporočilo v zvezi z izvajanjem določil Uredbe (EU) 2015/2120 glede zagotavljanja storitev dostopa do interneta* = Recommendation concerning the implementation of the provisions of Regulation (EU) 2015/2120 concerning the provision of Internet access services.

¹¹⁷⁰ Interview with AKOS in the context of this Study.

¹¹⁷¹ AKOS (2017), *Nacionalno poročilo o nevtralnosti interneta: 30.6.2016 – 30.6.2017* = National report on internet neutrality: 30.6.2016 – 30.6.2017 (hereafter: NN-report AKOS 2017), p. 1 and 5. Interview with AKOS in the context of this Study.

¹¹⁷² AKOS, *Delavnice o nevtralnosti interneta* = Workshop "European views on net neutrality" (<http://www.akos-rs.si/v-ospredju-mednarodne-delavnice-o-nevtralnosti-interneta>, accessed 30 July 2018).

¹¹⁷³ AKOS (2017), *Letno poročilo 2016* = Annual report 2016.

¹¹⁷⁴ Interview with AKOS in the context of this Study. This mechanism is discussed in more detail below in this paragraph under this heading and heading *Complaints*.

one month to test it and comment on the mechanism.¹¹⁷⁵ Finally, AKOS prepared materials to inform end-users about their rights based on the Regulation in 2016. AKOS has a total number of 92 employees of which 1 FTE is involved in net neutrality topics (annual average in 2017).¹¹⁷⁶

The **NN-report AKOS 2017** consists of nine pages and contains information on changes of the net neutrality rules following the Regulation, the dispute resolution authority of AKOS, the types of complaints, consultations and meeting, the AKOS Recommendation, monitoring mechanisms and the implementation of the Regulation.¹¹⁷⁷ AKOS states that it will systematically monitor contractual terms and general terms and conditions of ISPs. AKOS will also continue to work on its own measurement system for monitoring compliance of all ISPs with the Regulation. In order to apply proper supervision, AKOS will have its own monitoring mechanism, which will eliminate factors that could affect the results. In addition, a measuring mechanism will be provided to end-users which will serve as an indicator for detecting divergence between contractually agreed and actual internet speed at the user's connection.

The **NN-report AKOS 2018** consists of 19 pages and contains information on AKOS as dispute resolution authority, complaints from end-users, conformity of performance by ISPs, the AKOS Recommendation, integrity and security of the network, port-blocking, specialised services, monitoring mechanisms and surveys issued by AKOS.¹¹⁷⁸

Furthermore, AKOS took part in a pilot project of the Commission regarding Quality of Services crowdsourcing which aims to establish a cross-border platform for the mass transfer of data related to the quality of high-speed internet services.¹¹⁷⁹ According to publicly available information, the project involves the development of a mobile application and platform for measuring speed of internet in mobile and fixed networks. Together with other partners in the project, AKOS is supposed to perform at least 250 000 measures in the period from the beginning of 2017 until the end of 2018.

Complaints

AKOS is competent to settle complaints related to the Regulation from consumers, other end-users and competitors against ISPs. AKOS is responsible, for example in case of permanent and regular divergence between the actual and contractually agreed performance of internet speed or other quality parameters.¹¹⁸⁰ In its quarterly report of October 2017 AKOS notes that a number of end-users do not receive the contractually agreed internet speed.¹¹⁸¹ In addition, it notes that ISPs provide unclear and insufficient information on the determination of internet speeds and other data in the IAS contract.

The ISP is considered not to fulfil its contractual obligations if the actual speed is considerably different from the contractually agreed internet speed. End-users are

¹¹⁷⁵ Interview with AKOS in the context of this Study.

¹¹⁷⁶ Survey completed by AKOS in the context of this Study and interview with AKOS in the context of this Study.

¹¹⁷⁷ NN-report AKOS 2017.

¹¹⁷⁸ AKOS (2018), Nacionalno poročilo o nevtralnosti internet: 30.6.2017 – 30.6.2018 = National report on internet neutrality: 30.6.2017 – 30.6.2018 (hereafter: NN-report AKOS 2018).

¹¹⁷⁹ Measurement of quality of service (<http://moqos.eu/>, accessed 1 August 2018). Together with CTU and RÚ.

¹¹⁸⁰ NN-report AKOS 2017, p. 1 and 5.

¹¹⁸¹ AKOS (2017), Poročilo o razvoju trga elektronskih komunikacij za drugo četrtletje 2017 = Report on the development of the electronic communications market for the second quarter of 2017.

entitled to compensation if this is the case.¹¹⁸² Whether considerable deviations exist is assessed on a case-by-case basis during the dispute resolution procedure before AKOS. The self-regulation code referred to below¹¹⁸³ is an important element in this assessment. According to this code the ISP has to determine the minimum and maximum internet speed provided in a certain package and it has to ensure this speed during at least 80 % of the time in one billing period.

AKOS started keeping a record of disputes arising from non-fulfilment of the contractual obligations regarding IASs from 1 January 2017. In the first reporting period AKOS received 13 complaints from end-users, representing 3.88 % of all received requests for resolving a dispute.¹¹⁸⁴ On the basis of these complaints AKOS concluded that ISPs (with the exception of one case where end-users received about 70 % of the contractually agreed speed) did provide less than 50 % (in some cases even significantly less than 50 %) of the contractually agreed internet speed.¹¹⁸⁵

AKOS received 30 complaints during the second reporting period of 1 May 2017 – 30 April 2018 from end-users related to the contractually agreed performance of internet speed (2.75 % of all received user complaints).¹¹⁸⁶ In resolving the complaints, AKOS identified that some ISPs do not provide contractually agreed speeds to end-users.¹¹⁸⁷ In the event that there was a major discrepancy between the contractually agreed speeds and the actual speeds that end-users received, the ISP had to conclude a new contract with the end-user free of charge, and minor adjustments (deviations of up to 20 %) were resolved by ISPs through an amendment of the existing contract.¹¹⁸⁸

AKOS also received some complaints related to port-blocking concerning the failure to access the desired content or to use a certain service: fixed wireless broadband access.¹¹⁸⁹ This is an alternative for fixed access via mobile networks where fixed broadband access is not available. For fixed wireless broadband access, ISPs provide a router with a 3G/4G module, a SIM card with a dedicated user profile and an antenna oriented to the nearest base station. AKOS received some complaints from end-users who use similar hardware but have a SIM card intended for use in mobile phones from an ordinary subscription. All Slovenian mobile ISPs that provide ordinary SIM cards intended for use in mobile phones block all incoming traffic towards mobile phones due to security reasons and the possibility of high bills in case of abuse.

At the time of the NN-report AKOS 2017, AKOS had an end-user-oriented measuring mechanism that enables monitoring of quality and permeability of the current broadband connection, 'AKOS Test Net'.¹¹⁹⁰ Discrepancies between the actual and contractually agreed internet speeds can be checked by end-users either by using a free online speed measuring mechanism (e.g. *Ookla*)¹¹⁹¹ or by the measuring mechanism provided by AKOS (Test Net). AKOS has not explicitly certified the monitoring system but the monitoring mechanism will be used for proving significant discrepancies in AKOS' dispute resolution process in accordance with Article 4(4) of the Regulation once the aforementioned secondary legislation enters into effect and then the monitoring

¹¹⁸² AKOS has provided information for end-users on what to do if they do not receive the contractually agreed-upon internet speed at: <http://www.akos-rs.si/hitrost-povezave> (accessed 1 August 2018).

¹¹⁸³ See paragraph Self-regulation and/or co-regulation.

¹¹⁸⁴ NN-report AKOS 2017, p. 8.

¹¹⁸⁵ NN-report AKOS 2017, p. 8.

¹¹⁸⁶ NN-report AKOS 2018, p. 4-5.

¹¹⁸⁷ NN-report AKOS 2018, p. 5.

¹¹⁸⁸ NN-report AKOS 2018, p. 5.

¹¹⁸⁹ NN-report AKOS 2018, p. 12-15.

¹¹⁹⁰ AKOS Test Net can be accessed at: <https://www.akostest.net/en/> (accessed 1 August 2018).

¹¹⁹¹ <http://www.speedtest.net/global-index/slovenia> (accessed 1 August 2018).

mechanism will be considered to be certified.¹¹⁹² The results will be used in end-user dispute resolution processes. In the inspection procedures where AKOS will investigate the possibility of violation of the Regulation, other measurement equipment and technics will be used.

AKOS intends to promote AKOS Test Net to end-users as the information collected with this measuring mechanism is used by AKOS for analysing the status of internet in Slovenia.¹¹⁹³ The data generated with AKOS Test Net is stored by AKOS for this purpose. AKOS also plans to develop a methodology for carrying out measurements to be used in dispute resolution procedures between end-users and ISPs. ISPs will be involved in the preparation of such methodology. AKOS envisages the upgrade and alignment of the mechanism with the BEREC recommendations, presumably by the end of 2018.¹¹⁹⁴

Monitoring and supervision measures

In 2016 AKOS reviewed the compliance of contracts and general terms and conditions of the largest ISPs with ECA and Article 4 of the Regulation.¹¹⁹⁵ From September 2016 to May 2017, AKOS organised the aforementioned group consultations with ISPs and eight individual meetings in preparation of the AKOS Recommendation.¹¹⁹⁶ The purpose of these consultations and meetings was to find optimal solutions to meet the requirements of the Regulation, to comply with relevant national legislation and to protect the rights of end-users, but at the same time represent the lowest costs for ISPs and to find optimal solutions.

In March 2017, AKOS published on its website a consultation regarding the implementation of Article 4 of the Regulation for operators of fixed and mobile services of broadband access.¹¹⁹⁷ The main purpose is to establish good practices, which are in line with the Regulation and will not impose an excessive burden on operators.

In the reporting period of the NN-report AKOS 2018, AKOS monitored ISPs with respect to the provision of network and service security and impact on end-users' internet access. Special attention was given to port-blocking used by specific services or applications as AKOS received some complaints by end-users, as referred to above in this paragraph, under heading *Complaints*.

Moreover, AKOS issued a survey related to measures applied by ISPs to ensure the integrity and security of their networks.¹¹⁹⁸ Certain types of security measures are carried out on a permanent basis, while others are only temporary. The types of security measures used by ISPs are for example: access lists, blocking certain ports, blocking certain IP addresses, blocking certain websites, DDoS mitigation, blocking packets from certain domains or addresses and spam filters. The most frequent reasons mentioned to use such security measures are: automatic detection and protection of certain risks, end-users' complaints, court orders and requirements of the Slovenian Computer Emergency Response Team.

For example, safety measures that are related to certain situations and anomalies in the networks – and that may only be applied when necessary – are blocking of DDoS

¹¹⁹² BEREC Guidelines (2016), para 161.

¹¹⁹³ NN-report AKOS 2018, p. 4, 16 and 19.

¹¹⁹⁴ NN-report AKOS 2017, p. 7-8.

¹¹⁹⁵ AKOS (2017), Letno poročilo 2016 = Annual report 2016.

¹¹⁹⁶ NN-report AKOS 2017, p. 6.

¹¹⁹⁷ AKOS (2017), Vabilo operaterjem fiksnih in mobilnih storitev širokopasovnega dostopa za končne uporabnike = Consultation of operators of fixed and mobile broadband access services for end-users.

¹¹⁹⁸ NN-report AKOS 2018, p. 12-15.

attacks, blocking certain DNS redirecting as a result of court orders and blocking of individual ports that are known to be used by various viruses. Some of these measures are only applied for specific end-users (mitigation of DDoS attacks), while others are used for the entire network (DNS redirecting, blocking of individual ports). Most of these security measures are implemented primarily to ensure the integrity and security of the network, and a few are implemented to ensure the security of end-users' terminal equipment. The security measures relating to terminal equipment are used in particular for: DDoS and DNS attacks, spreading of spam via SMTP protocol or spreading of malware and damaging exploitation of NetBios services.

Most ISPs inform the end-users of their security policies in the general terms for the offered services in questions or with special notices on their website. For some business customers, measures are specified in service agreements. All major ISPs have appointed contacts for reporting security incidents and the effects of security measures. Some ISPs allow their end-users to disable certain security measures at their own risk (some allow this to everyone, others only to business users). The latter applies only to security measures that are not necessary for the integrity and security of the entire network, but are intended only to protect the end-user. AKOS has not formally approved or endorsed these security measures.

In relation to port-blocking, the results of AKOS show that ISPs most often block the following ports: 25, 53, 123, 135, 137, 139, and 445.¹¹⁹⁹ Alternative measures consist for example of the use of an internal SMTP server, IPS on external WAN connections, filtering devices, raising awareness and educating end-users. Some of these options are not used due to high prices and complexity. ISPs measure the efficiency of the implemented measures with, for example, network analytics, number of end-users' complaints, the amount of blocked traffic, number of addresses on SMTP spam lists and the stability of the network.¹²⁰⁰ According to ISPs, they follow the relevant established best practices and guidelines. Before the actual implementation of the measures, ISPs conduct an internal check and follow international standards (e.g. ISO 27001). ISPs also closely cooperate with Slovenian Computer Emergency Response Team.

With regard to specialised services the NN-report AKOS 2018 notes that some ISPs offer specialised services to their end-users, such as IP television and IP telephony. These specialised services in the xDSL network or optical network result in a decrease of the available capacity for the IAS. In cable networks, there is no such issue. The AKOS Recommendation states that ISPs should explain how the use of specialised services could affect the speed of the IAS in the contract or general terms and conditions in a clear and understandable manner.

Decisions and court cases

Before the Regulation entered into force, AKOS issued five decisions that relate to net neutrality. Two decisions on 22 January 2015¹²⁰¹ (*Telekom Slovenije – Deezer service was zero-rated and Si.mobil – free access to cloud service application 'Hangar mapa'*), one decision on 16 February 2015¹²⁰² (*Amis – Amis' MobiaTV service was zero-rated*), one decision on 18 February 2015¹²⁰³ (*Tušmobil, now Telemach, – free access to platform Tuškabina*) and one decision on 18 August 2015 (*Telekom Slovenije – free access to several applications*).¹²⁰⁴ All cases related to a possible violation of the prohibition of zero-rating (as was laid down in the old Article 203 ECA) by offering

¹¹⁹⁹ NN-report AKOS 2018, p. 12-15.

¹²⁰⁰ NN-report AKOS 2018, p. 12-15.

¹²⁰¹ AKOS Decision of 22 January 2015, 06101-813 / 2014-4.

¹²⁰² AKOS Decision of 16 February 2015, 06101-1412 / 2014/4.

¹²⁰³ AKOS Decision of 18 February 2015, 06101-1413 / 2014/4.

¹²⁰⁴ AKOS Decision of 18 August 2015, 06101-37 / 2015/7.

internet access to specific services free of charge. AKOS established that ISPs treated internet traffic unequally. In all decisions, AKOS ordered to cease the violation within 60 days, whereby the offender was free to choose in which manner. It was AKOS' opinion that stricter measures were not required as the violation was established for the first time.

The offending parties challenged the decisions by AKOS and on 5 and 12 July 2016 the Administrative Court annulled five decisions and returned the matter to AKOS.¹²⁰⁵ The Court confirmed that there are no grounds for interpreting the pre-existing net neutrality rule as prohibiting an economic limitation of the treatment of internet traffic. Equal treatment of internet traffic does not include an obligation of 'equal billing'. The Court found no violation under the pre-existing net neutrality legislation. The Court ruled that AKOS's understanding that price discrimination of internet traffic was prohibited under Article 2o3 ECA was not a correct interpretation. The Court stated that AKOS had to apply the principle of legality as laid down in Article 6 of the Slovenian Administrative Act and should take the Regulation into consideration (which entered into force during the court proceedings) in the repeated procedure. In the repeated procedure, AKOS issued new decisions on 14 November 2016 (*Telekom Slovenije* – zero-rated service Deezer –, *Telemach* – zero-rated access to platform Tušmobil –, *Si.mobil* – free access to service application 'Hangar mapa' – and *Telekom Slovenije* – zero-rated services TViN and TViN *Shramba*). The case against Amis was dropped by AKOS because it did not have the documentation to prove technical discrimination. All cases relate to a possible violation of equal treatment of traffic, regardless of the used applications or services in relation to Articles 3(1) and 3(3) of the Regulation. The offers of ISPs involved had in common, that the ISP slowed down internet traffic as soon as the end-users reached or exceeded the monthly data cap, except for the internet traffic that was related to the zero-rated service. Slowing down the internet traffic depended exclusively on the used services or applications. Since the pre-existing net neutrality legislation in Slovenia already prohibited technical discrimination, the fact that AKOS had to take the Regulation into account did not influence AKOS' decision very much. According to AKOS, such limitation of internet traffic does not fall under any exemption as provided for by ECA or the Regulation and thus presents a violation of net neutrality rules. AKOS again ordered to cease the violation. ISPs had already withdrawn their offerings before the new decisions were adopted and had ceased the zero-rated services in 2015 following the first decisions by AKOS.¹²⁰⁶ The new decisions were again challenged by ISPs in the appeal proceedings were, however, still related to the zero-rated offers that had been withdrawn by ISPs at the time of the appeal. In these proceedings, AKOS only argued that the offers discriminated traffic. ISPs argued that their zero-rated offers which still allowed the use of zero-rated services after the data cap was reached did not infringe the pre-existing net neutrality legislation in Slovenia. A judgment is expected in autumn 2018.¹²⁰⁷

27.3. Self-regulation and/or co-regulation

In March 2014 national ISPs signed a Self-Regulation Code¹²⁰⁸ on compensation for non-performance of services which aims to determine the minimum level of quality of public

¹²⁰⁵ Administrative Court of the Republic of Slovenia 5 July 2016, ECLI:SI:UPRS:2016:I.U.295.2015. Administrative Court of the Republic of Slovenia 12 July 2016, ECLI:SI:UPRS:2016:I.U.1350.2015, ECLI:SI:UPRS:2016:I.U.495.2015, ECLI:SI:UPRS:2016:I.U.346.2015 and ECLI:SI:UPRS:2016:I.U.482.2015.

¹²⁰⁶ Interview with AKOS in the context of this Study.

¹²⁰⁷ Interview with AKOS in the context of this Study.

¹²⁰⁸ Samoregulacijski kodeks o nadomestilih za nedelovanje ali slabše delovanje javnih komunikacijskih storitev operaterjev javnih komunikacijskih storitev v Republiki Sloveniji = Self-Regulation Code on compensation for a failure to operate or poor performance of public communication services of public communications operators in the Republic of Slovenia, 2014.

communication services and guidelines for signatories on how to act when the agreed quality levels are not met. The Self-Regulation Code remained applicable after the Regulation entered into force.

On 21 February 2018 the Council for Electronic Communications of the Republic of Slovenia ("**Slovenian Council**") issued a proposal for the modernisation of the Code. The Slovenian Council proposes, amongst other things, the following updates of the Self-regulation Code:

- the information on speed of the IAS shall be amended in line with Article 4 of the Regulation;
- mobile services offered on the market may entirely replace services via fixed networks which requires amendment of the rules on transmission speeds in mobile networks currently determined as "fair usage". The Slovenian Council suggests that speed monitoring should follow Article 4 of the Regulation;
- amendment of the rules regarding the amount of the compensation in relation to the duration of non-compliance with the agreed QoS; and
- that ISPs would automatically pay appropriate compensation since they constantly monitor the performance of the network.¹²⁰⁹

Also in the AKOS Recommendation, AKOS recommends ISPs to adopt self-regulation and co-regulation measures to increase transparency.

27.4. Compliance with transparency obligations

The table below¹²¹⁰ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 57: Overview of desk research on transparency obligations

ISP #	(a) 1211	(b) 1212	(c) 1213	(d) 1214	(e) 1215	Comments
ISP 1	✓	✓	✓	N/A	✓	-
ISP 2	✓	✓	✓	✓	✓	-
ISP 3	X	✓	≈	✓	≈	General comment: The relevant information is contained in several documents and not easy to access for the end-user. (c): Contains only a statement that other services subscribed by the end-user may impact internet speed, without any other details.

¹²⁰⁹ SEK (2018), Predlog posodobitve Samoregulacijskega kodeksa o nadomestilih za nedelovanje ali slabše delovanje javnih komunikacijskih storitev operaterjev javnih komunikacijskih storitev v RS = Proposal for the modernisation of the Self-Regulation Code, The Council for Electronic Communications of the Republic of Slovenia, no. 0131-2/2018/10.

¹²¹⁰ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹²¹¹ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹²¹² Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹²¹³ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹²¹⁴ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹²¹⁵ Remedies, as further set out in Article 4(1)(e) of the Regulation.

						(e): Explanation in the separate document is very general, no information on the procedure (address, manner of filing a complaint), only determination of available remedy; no reference to the Self-regulation Code, however, the Self-regulation Code is published on the ISP's website.
ISP 4	✓	✓	✓	✓	✓	-
ISP 5	✓	✓	≈	≈	✓	(c): No concrete information, only a reference to find more detailed information in T&Cs of individual specialised service. (d): Only information about the download speed is specified.
ISP 6	X	✓	✓	≈	≈	General comment: Same comment as for ISP 3. (d): Unclear terminology - "theoretical speed" instead of advertised speed. (e): Same comment as for ISP 3.
ISP 7	✓	✓	≈	≈	≈	General comment: Same comment as for ISP 3. (c): Same comment as for ISP 5. (d): No concrete information, only definitions and scarce explanation that speed may differ with respect to used technology, location and other factors. Concrete advertised speeds are supposed to be determined in communication to end-users and in the ISP's offers. (e): Very general, no explicit provisions regarding the discrepancies in internet speed; no reference to the Self-regulation Code.

27.5. Overview of relevant net neutrality themes in Slovenia

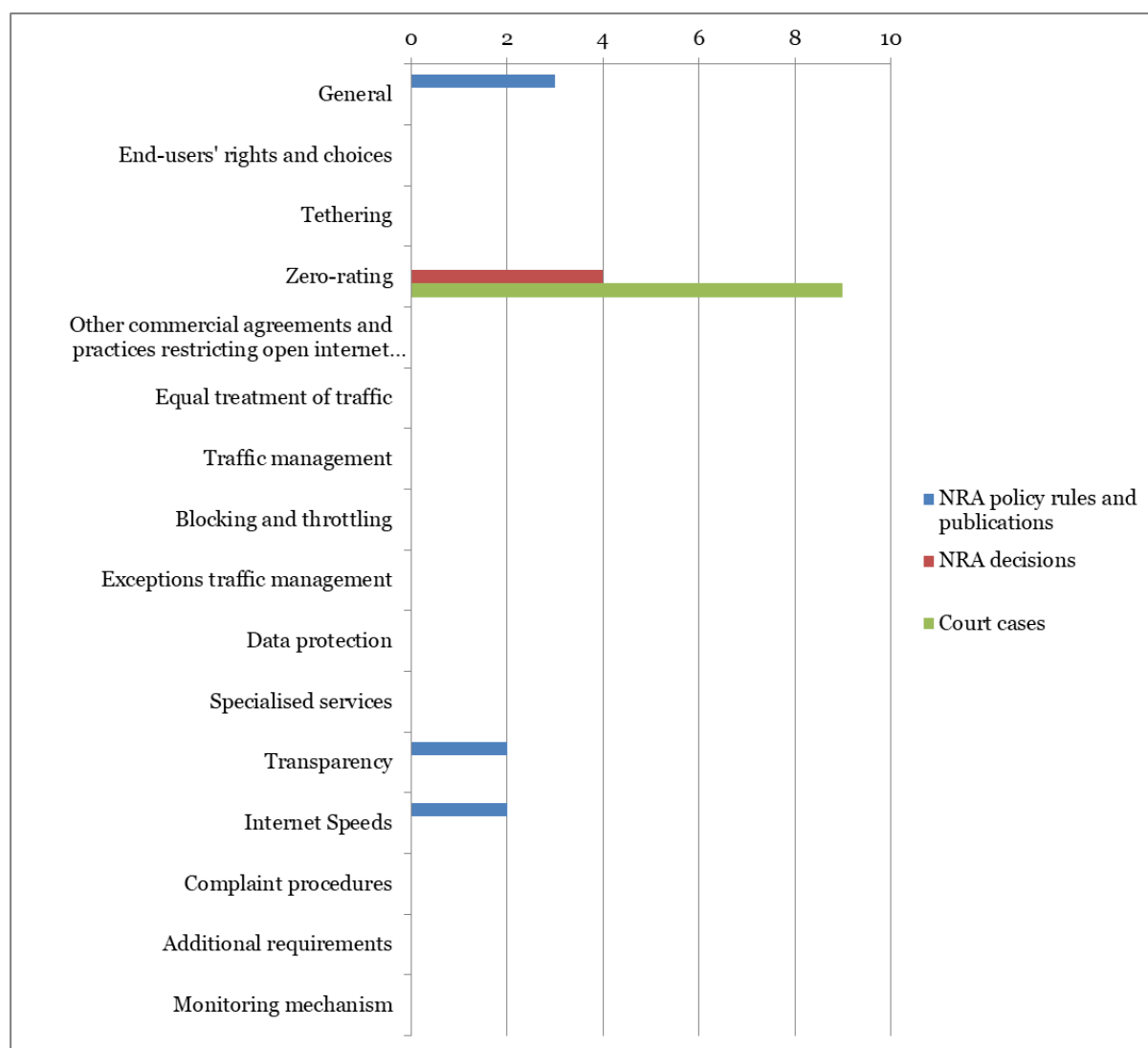


Figure 40: **Blue:** NN-report AKOS 2017, NN-report AKOS 2018, AKOS Report on telecommunications developments, AKOS Annual report 2016, AKOS Transparency obligations consultation, AKOS Quarterly report of October 2017 and AKOS' FAQ for end-users. **Red:** NRA Decisions of 22 January 2015, 16 February 2015, 18 February 2015 and 18 August 2015, see also NRA Decisions after the Regulation went into force referred to above in paragraph *Monitoring, supervision and enforcement* under heading *Decisions and court cases*. **Green:** Court decisions resulting from the five NRA Decisions from 2015 (in which decisions the court refers to the Regulation) and four pending appeals resulting from the four newer NRA decisions referred to above.

27.6. Summary of key topics and noteworthy findings

Slovenia had extensive pre-existing net neutrality legislation which required AKOS to promote the preservation of the open and neutral character of the internet and prohibited ISPs from withholding or slowing down internet traffic. On the basis of this pre-existing legislation, five decisions were issued ordering the termination of zero-rating offers because these offers slowed down internet traffic as soon as end-users reached or exceeded the monthly data cap, except for the internet traffic that was related to the zero-rated service. The decisions were annulled in appeal proceedings because the court ruled that price discrimination of internet traffic was not prohibited under the pre-existing net neutrality legislation in Slovenia.

The new decisions following the court judgments were also based on the Regulation, again ordering the termination of the offers as the Regulation and the pre-existing net neutrality legislation both prohibit technical discrimination. The decisions were again challenged by ISPs stating that the offers, which allowed the use of zero-rated services after the data cap was reached, did not infringe the pre-existing net neutrality legislation in Slovenia. A judgment is expected in the autumn of 2018.

No decisions or policy guidelines relating to an assessment of commercial and technical conditions of zero-rating offers pursuant to Article 3(2) of the Regulation were issued.

AKOS is responsible for dispute resolution between ISPs on the one hand and consumers, other end-users and the competitors of the ISP on the other hand. AKOS is responsible, for example in case of permanent and regular divergence between the actual and contractually agreed performance of internet speed or other quality parameters. Between May 2016 and April 2018, AKOS has dealt with 42 complaints from end-users. In case of major discrepancies, ISPs were required to conclude new contracts with end-users free of charge. AKOS has an end-user-oriented measuring mechanism, AKOS Test Net, which will be used as input for these proceedings in accordance with Article 4(4) of the Regulation once the secondary legislation enters into effect.

In March 2014, national ISPs signed a Self-Regulation Code on compensation for non-performance of services which aims to determine the minimum level of quality of public communication services and guidelines for signatories on how to act when the agreed quality levels are not met. The Self-Regulation Code is still in place but a proposal for its modernisation has been issued.

AKOS has a relatively heavy focus on the examination of measures in order to secure integrity and security of the networks. AKOS is seeking a balance between blocking of traffic and alternative measures which are less intrusive but more complex and more costly.

The table below provides an overview of the results in Slovenia for some of the key topics.

Key topic	Result Slovenia
Pre-existing net neutrality legislation	Yes, net neutrality legislation (amended)
Maximum fine	€50 000
Imposed fines	None
Additional legislation	No
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes, Articles 129 and 203 ECA
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes
Number of FTEs in NRA involved in net neutrality	1
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes all
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	At least 42 complaints, around 3 % of all received end-users' complaints

Number/percentage of complaints that were settled by the NRA.	<i>Not available</i>
Number of NRA decisions	4 (5 prior to the entering into force of the Regulation)
Number of court cases	9 (4 pending)
Main net neutrality themes	Zero-rating, exception traffic management – integrity and security of the network, blocking and throttling (of content, ports and/or websites; IP4/IP6), transparency
Monitoring mechanism (certified yes/no)	Yes (not certified)
Self-regulation and/or co-regulation	Yes, the Self-regulation Code on compensation for non-performance of services

28. Spain

28.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in Spain prior to the adoption of the Regulation.

Spain did have legislation in place on the conditions of transparency in contracts, between end-users and operators that operate networks or provide electronic communications services available to the public, prior to the Regulation following from the Telecommunications General Act ("**TGA**") and Royal Decree 899/2009.¹²¹⁶ According to national legislation, these contracts and their modifications must be communicated to the Secretary of State for Digital Advancement¹²¹⁷ ("**Secretary of State**"). The IAS contract must contain information on: (i) possible restrictions to the usage of the services; (ii) possible restrictions to the usage of the provided terminal equipment; (iii) any conditions that limit the access or usage of services and applications; (iv) the procedure established by the ISP to measure and manage traffic in order to prevent congestion and how this can affect the service quality; and (v) measures the ISP could adopt in incidents concerning security, integrity, threats or vulnerability. These obligations are based on Article 53 TGA and entered into force on 11 May 2014. The provisions were not amended or withdrawn when the Regulation entered into force. Article 16 of the Royal Decree 899/2009 relates to compensation for end-users in the event of service interruption of the IAS.

Furthermore, on 28 June 2014 Order IET/1090/2014 entered into force concerning the quality of service with regard to the provision of electronic communication services.¹²¹⁸ The order requires major ISPs (with a turnover of more than €20 000 000) to perform tests regarding the download and upload connection rate for the main services offered for fixed technology and mobile. The Ministry of Economy and Business¹²¹⁹ ("**Ministry**") coordinates the collection of this data, which is published on a trimestral basis.¹²²⁰ This order was not amended or withdrawn when the Regulation entered into force.

Competent authority and penalty rules

The Ministry (and within its internal division of competences, the Secretary of State) is empowered to supervise and enforce the rights of the users of electronic communications services based on its specific competence concerning users' protection within the electronic communications sector, Article 69(f) TGA. This provision was not

¹²¹⁶ Ley General de Telecomunicaciones = Telecommunications General Act, no. 9/2014 (hereafter: Telecommunications General Act). Real Decreto por el que se aprueba la carta de derechos del usuario de los servicios de comunicaciones electrónicas = Royal Decree which approves the charter of rights of users of electronic communications services, no. 899/2009.

¹²¹⁷ Secretaría de Estado para el Avance Digital, previously known as Secretaría de Estado para la Sociedad de la Información y la Agenda Digital = Secretary of State for Information Society and Digital Agenda due to the restructuring of ministerial departments (Royal Decree 355/2018).

¹²¹⁸ Orden por la que se regulan las condiciones relativas a la calidad de servicio en la prestación de los servicios de comunicaciones electrónicas = Order concerning the quality of service with regard to the provision of electronic communication services, IET/1090/2014.

¹²¹⁹ Following the restructuring of ministerial departments (Royal Decree 355/2018) the Ministerio de Energía, Turismo y Agenda Digital = Ministry for Energy, Tourism and Digital Agenda is now the Ministerio de Economía y Empresa = Ministry of Economy and Business.

¹²²⁰ The results are published on the following website:
<http://www.mincotur.gob.es/telecomunicaciones/es-ES/Servicios/CalidadServicio/informes/Paginas/Informes09.aspx> (accessed 3 July 2018).

amended following the Regulation, but also applies to the supervision and enforcement of the net neutrality provisions as laid down in the Regulation. No new legislation or amendments were therefore deemed necessary.

The Ministry has the competence to impose fines in relation to infringements of the net neutrality provisions based on the general rules provided for in the TGA.¹²²¹ Potential fines range from €50 000 to €2 000 000. The height of the fine depends on the seriousness of the breach, the number of end-users involved and any other relevant circumstances. Moreover, the Ministry has the competence to issue orders to cease or amend practices subject to periodic penalty payments in the event of infringement of the provisions of the Regulation.

The independent *Comisión Nacional de los Mercados y la Competencia* (National Commission on Markets and Competition, the Spanish regulator; "**CNMC**") is the competent authority with respect to disputes between ISPs in relation to the Regulation. CNMC has similar competences to impose penalties as the Ministry.

Additional legislation and regulations

In Spain, no additional legislation or regulations related to net neutrality entered into force after the adoption of the Regulation. However, the relevant provisions in the TGA, Royal Decree 899/2009 and Order IET/1090/2014, which impose transparency obligations on ISPs, continue to apply.

28.2. Monitoring, supervision and enforcement

General information and reports

The Ministry published information on the principle of net neutrality on its website.¹²²² This publication outlines what 'net neutrality' entails and introduces the Regulation as the instrument establishing net neutrality in the EU. Within the Ministry (Secretary of State) there are 10 employees involved in net neutrality topics corresponding to a total of 2 FTE.¹²²³

In its **NN-report Ministry 2017**, consisting of 29 pages, the Ministry sets out its goals regarding the supervision of the Regulation, the methodology adopted so far, the period analysed and the competent authority for the purposes of the Regulation.¹²²⁴ The Ministry concluded that issues regarding compliance with the Regulation were not significant because of the limited number of complaints.¹²²⁵

The **NN-report Ministry 2018**, consisting of 26 pages, describes the supervision of the provisions as laid down in the Regulation.¹²²⁶ It provides the methodology adopted, the

¹²²¹ Telecommunications General Act, Articles 77(17), 77(37), 78(8) and 78(11).

¹²²² Ministerio de Economía y Empresa, El principio de "Neutralidad de la Red" = The principle of net neutrality (<http://www.minetad.gob.es/telecomunicaciones/banda-ancha/Paginas/neutralidad-Red.aspx>, accessed 31 July 2018).

¹²²³ Survey completed by Secretary of State in the context of this Study.

¹²²⁴ Ministerio de Economía y Empresa (2017), Informe sobre supervisión en España de normativa europea en materia de acceso a una Internet abierta (Neutralidad de la red) 2016 = Report on supervision in Spain of European regulations on access to an open internet (Net Neutrality) 2016 (hereafter: NN-report Ministry 2017).

¹²²⁵ See below in this paragraph, under heading *Complaints*.

¹²²⁶ Ministerio de Economía y Empresa (2018), Informe sobre supervisión en España de normativa europea en materia de acceso a una Internet abierta (Neutralidad de la red) = Report on supervision in Spain of European regulations on access to an open Internet (Net Neutrality) 2017 (hereafter: NN-report Ministry 2018).

period analysed and information on the competent authority. The Ministry concludes again that issues regarding the compliance with the principle of net neutrality are not significant because of the limited number of complaints.¹²²⁷

Complaints

Consumers can address their complaints (claims) to the Telecommunication Users Office¹²²⁸, which is the specific body within the Secretary of State (and part of the Ministry) responsible for resolving disputes related to electronic communication services between end-users and ISPs (this is not limited to net neutrality issues).¹²²⁹ The Telecommunication Users Office has the authority to settle disputes between ISPs and consumers, such as by financial compensation or termination of the contract, and its resolutions are binding for ISPs.

The Secretary of State is competent to investigate alleged violations of the net neutrality rules and to adopt the appropriate measures. As indicated above, the CNMC is the competent authority for net neutrality disputes between ISPs.¹²³⁰

The NN-report Ministry 2017 states that 0.91 % of the complaints handled by the Telecommunication Users Office in 2016 related to the Regulation, which comes to a total of 183 complaints.¹²³¹ Most of these complaints concerned poor internet speed and no complaints were received that related to Article 3 of the Regulation.¹²³² According to the NN-report Ministry 2018, the Ministry analysed the inquiries or complaints submitted to the Telecommunication Users Office. In 2017 0.5 % of the complaints handled by the Telecommunication Users Office related to the Regulation, which comes to a total of 99 complaints. Most of these complaints concerned poor internet speed. The Ministry indicated that when analysing these complaints, it was observed that the conditions of ISPs were fulfilled in almost all cases.¹²³³ In years 2016-2017, complaints received were handled upon the basis of maximum speeds published by operators. Thus, the assessment was performed by the Telecommunication Users Office, taking into account contracts and offers. Complaints based on minimum and normally available speeds were still not handled in these years.

Monitoring and supervision measures

The Ministry assessed information provided by ISPs and the relevant contracts during the first reporting period. It summarised the results in the NN-report Ministry 2017. The information on plans and tariffs that operators must send to the Secretary of State was assessed, as well as the information published on ISPs' websites. An evaluation of the content of the contracts was performed in order to analyse compliance with Article 4 of the Regulation. The contracts generally:

- did not include traffic management measures. However, this was addressed by ISPs after the intervention by the Ministry;
- included clear explanations of data volume limits;

¹²²⁷ See below in this paragraph, under heading *Complaints*.

¹²²⁸ La Oficina de Atención al Usuario de Telecomunicaciones del Ministerio de Energía, Turismo y Agenda Digital (<http://www.usuariostelego.gob.es/Paginas/Index.aspx>, accessed 1 August 2018).

¹²²⁹ Telecommunications General Act, Article 55.

¹²³⁰ See paragraph Implementation, under heading Competent authority and penalty rules.

¹²³¹ NN-report Ministry 2017, p. 10.

¹²³² NN-report Ministry 2017, p. 5.

¹²³³ Information provided by the Spanish Ministry.

- started containing the required information regarding internet speeds in the last quarter of 2016; and
- specified that consumers could turn to the Telecommunication Users Office in case of complaints.

In relation to the transparency requirements as laid down in Article 4(1), the Secretary of State entered into discussions with ISPs and formally requested information.¹²³⁴ The Secretary of State also requested information from ISPs concerning management of network capacity (ten times), management of network traffic (ten times) and justifications for any traffic management applied (ten times).¹²³⁵

A Member of the Congress raised an inquiry to the Government on the enforcement of the net neutrality provisions by reporting a traffic management measure of Movistar towards the streaming service of Netflix.¹²³⁶ According to the general response from the Government on 19 January 2017, no complaints were received regarding this issue and therefore no further action was deemed necessary.

The NN-report Ministry 2018 mentions that the Ministry sent information requests to ISPs. It (again) analysed the information that ISPs must send to the Secretary of State (contracts, offers, amendments) as well as information published on ISPs' websites. Following this analysis, the Secretary of State concluded that some ISPs are now including traffic management measures in their contracts as well as an explanation relating to data volume limits. Also, the relevant speed is reflected in the contract, through a voluntary summary chart in most cases.

After the evaluation of the information, some zero-rating offers were identified in mobile broadband internet access offers.¹²³⁷ The Secretary of State analysed the offers on the basis of Article 3(2) and considered that so far none of them infringed the Regulation. The assessment of the Secretary of State is not published.

According to the NN-report Ministry 2018 no formal investigations were initiated pursuant to Article 3 of the Regulation (the right to access information and content, commercial agreements between ISPs and end-users, traffic management and specialised services).¹²³⁸

In the last quarter of 2017, the Secretary of State has started an analysis of internet speeds in relation to mobile and fixed services. This analysis is based on mandatory tests performed by ISPs. It is the authority's understanding that there are no relevant issues relating to the advertised and the maximum speed of fixed IASs. The evaluation focused on the normally available and minimum speeds since these speeds are considered as most relevant for end-users. The Secretary of State sent several letters to ISPs requiring the amendment of their contracts in order to include a clear and comprehensible explanation of the internet speeds pursuant to Article 4(1)(d) of the Regulation.¹²³⁹ The Secretary of State also analysed the available remedies in case of failure to comply with the normally available or minimum speed. The authority is evaluating if specific remedies are needed in case of non-compliance with the normally available or minimum speed, apart from remedies already established in the TGA and the Royal Decree 899/2009 (such as withdrawal from a contract without penalties in case of a breach of the

¹²³⁴ Survey completed by Secretary of State in the context of this Study.

¹²³⁵ Survey completed by Secretary of State in the context of this Study.

¹²³⁶ Respuesta del gobierno pregunta escrita congreso = Response of the government to written question congress, 184/1484, 3420, 19 January 2017.

¹²³⁷ NN-report Ministry 2018.

¹²³⁸ NN-report Ministry 2018, p. 5-6.

¹²³⁹ NN-report Ministry 2018, p. 10-11.

contract). The Secretary of State is still analysing internet speeds related to mobile IAS, but has not yet received complaints on this topic.

In Spain there is no certified monitoring mechanism available within the meaning of Article 4(4) of the Regulation for end-users to test conformity of performance by the ISP, taking into account that it is not obligatory under that Article.

Decisions and court cases

There have been no formal enforcement decisions or court cases regarding net neutrality in Spain.

28.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Spain.

28.4. Compliance with transparency obligations

The table below¹²⁴⁰ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 58: Overview of desk research on transparency obligations

ISP #	(a) 1241	(b) 1242	(c) 1243	(d) 1244	(e) 1245	Comments
ISP 1	≈	✓	N/A	✓	✓	(a): This is not included in the contract; it only states that the service can be restricted for cybersecurity reasons.
ISP 2	≈	✓	≈	✓	✓	(a): The contract states that there are procedures in place that can restrict the service. (c): The contract states it might affect the connection speed.
ISP 3	✓	✓	✓	✓	✓	-
ISP 4	≈	✓	N/A	✓	✓	(a): The contract states it can be affected by network maintenance.
ISP 5	≈	✓	N/A	✓	✓	(a): Same comment as for ISP 4.
ISP 6	≈	✓	N/A	✓	✓	(a): The contract states the speed can be limited for reasons of congestion.
ISP 7	≈	✓	✓	✓	✓	(a): The contract states that there are procedures in place that can restrict the service.
ISP 8	≈	✓	N/A	≈	✓	(a): The contract states that it can use traffic management measures that can restrict the service.
ISP 9	N/A	✓	N/A	✓	✓	-

¹²⁴⁰ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹²⁴¹ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹²⁴² Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹²⁴³ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹²⁴⁴ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹²⁴⁵ Remedies, as further set out in Article 4(1)(e) of the Regulation.

28.5. Overview of relevant net neutrality themes in Spain

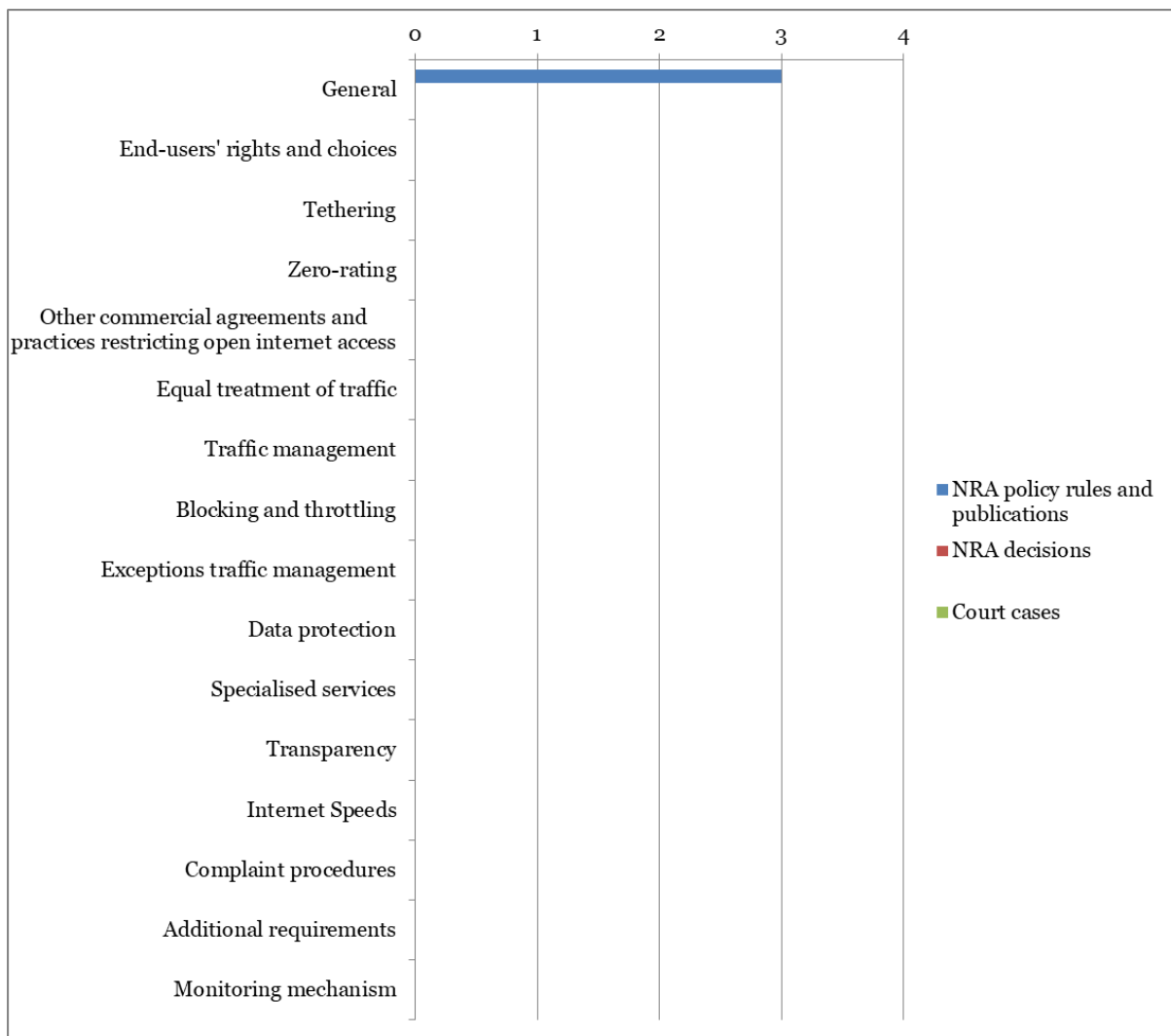


Figure 41: Blue: NN-report Ministry 2017, NN-report Ministry 2018 and publication 'Neutralidad de la Red'.

28.6. Summary of key topics and noteworthy findings

Spain had pre-existing transparency legislation related to net neutrality. This legislation was maintained after the Regulation entered into force. On the basis of this pre-existing legislation IAS contracts and any changes thereof must be communicated to the Secretary of State.

Further, major ISPs (with a turnover of more than €20 000 000) are required to perform mandatory tests regarding the download and upload connection rate for the main services offered for fixed technology and mobile. The Ministry coordinates the collection of this data, which is published on a trimestral basis.

In Spain the Ministry of Economy and Business (and within the Ministry, the Secretary of State) is empowered to supervise and enforce the rights of users on the basis of the Regulation. Consumers can address their complaints to the Telecommunication Users Office (part of the Ministry) which is empowered to resolve disputes regarding electronic communication services between end-users and ISPs (this is not limited to net neutrality

issues). However, until now no remedies have been imposed by the Telecommunication Users Office.

So far, the Ministry (the Secretary of State) chose informal measures to achieve conformity with the obligations as laid down in Article 4 of the Regulation. The Ministry has not found any violations in relation to Article 3 of the Regulation.

The table below provides an overview of the results in Spain for some of the key topics.

Key topic	Result Spain
Pre-existing legislation	Yes, transparency legislation (still in force)
Maximum fine	€2 000 000
Imposed fines	None
Additional legislation	The transparency requirements existed prior to the entering into force of the Regulation
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	2
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	Yes, the Telecommunication Users Office has the authority to settle complaints of consumers; the CNMC is competent to settle disputes between ISPs
Number of complaints on net neutrality in 2016 and 2017	282 (1.41 % of the) complaints handled by the Telecommunication Users Office
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Traffic management, transparency
Monitoring mechanism (certified yes/no)	No
Self-regulation and/or co-regulation	No

29. Sweden

29.1. Implementation

Pre-existing net neutrality legislation

The Swedish Electronic Communications Act entered into force prior to the adoption of the Regulation and contains certain provisions that related to net neutrality.¹²⁴⁶ These provisions partly correspond to Article 4(1) of the Regulation and set out the information that an agreement between a consumer and a provider of a public communications network or publicly available electronic communications services must contain.¹²⁴⁷ The preparatory works regarding the implementation of the Regulation state that these provisions will continue to apply in parallel with the Regulation (with reference to Article 4(3) of the Regulation).¹²⁴⁸

Only two amendments were made to the Swedish Electronic Communications Act when the Regulation entered into force. Article 6 of the Regulation was implemented and the Swedish Post and Telecom Authority ("**PTS**") was given the authority to issue injunctions and prohibitions in accordance with the Regulation.¹²⁴⁹ No other amendments were deemed necessary in order to comply with the Regulation.

PTS had its own regulations and instructions prior to the adoption of the Regulation, which also contained provisions corresponding to Article 4(1) of the Regulation.¹²⁵⁰ PTS however decided to amend its regulations and instructions during 2017 in order to avoid overlap with the Regulation. The new amended regulations entered into force on 1 January 2018.¹²⁵¹

Competent authority and penalty rules

PTS is the NRA responsible for the supervision and enforcement of the Regulation.¹²⁵² PTS has the authority to issue injunctions and prohibitions necessary for ensuring the fulfilment of the Regulation.¹²⁵³ Such measures may be combined with a fine. PTS may determine the amount of a possible fine in connection with an injunction or prohibition; it is however the relevant Administrative Court that has the authority to impose a fine.¹²⁵⁴ PTS can also issue an injunction with imposition of a conditional fine or periodic penalty. There is no maximum fine that may be imposed; the amount is decided based on what is known about the economic circumstances of the ISP and also other circumstances are taken into account. The amount shall be as high as required in order to ensure that the ISP will follow the injunction/prohibition imposed by PTS.

¹²⁴⁶ Lag om elektronisk kommunikation = Electronic Communications Act, 2003:389 (hereafter: Electronic Communications Act).

¹²⁴⁷ Electronic Communications Act, Section 15 and 17 of Chapter 5.

¹²⁴⁸ Tillsynsbestämmelser till följd av TSM-förordningen = Supervisory provisions as a result of the Regulation, Prop. 2015/16:92.

¹²⁴⁹ Electronic Communications Act, Chapter 7. Also see below in this paragraph, under heading *Competent authority and penalty rules*.

¹²⁵⁰ PTS (2017), Föreskrifter om ändring i PTS's föreskrifter och allmänna råd (PTSFS 2013:3) om innehåll i datum = Regulations regarding amendment of PTS's regulations and instructions (PTSFS 2013:3) on content in agreements, PTSFS 2017:4.

¹²⁵¹ These regulations are described in more detail below, in this paragraph under heading *Additional legislation and regulations*.

¹²⁵² Förordning om elektronisk kommunikation = Regulation on Electronic Communications, 2003:396, Section 2.

¹²⁵³ Electronic Communications Act, Section 3a § of Chapter 7.

¹²⁵⁴ General rules regarding fines can be found in the Swedish Act on Fines, 1985:206.

Additional legislation and regulations

Additional legislation and regulations are applicable both on the basis of Article 4(3) as on the basis of Article 5(1) of the Regulation.

As indicated above, the Swedish Electronic Communications Act contains additional requirements pursuant to Article 4(3) of the Regulation.¹²⁵⁵ The provision includes a list of information that has to be included in all contracts between a consumer and a provider of a public communications network or publicly available electronic communication services. The information has to be clear, complete and easily available and shall include the following: 1) supplier's name and address; 2) which services are provided; availability of emergency calls and the provision of localisation information; 3) terms that restrict the access to or the use of other services than the services provided; 4) the lowest quality levels; 5) delivery times; 6) the measures taken in order to measure and manage traffic in order to avoid overload of the network and how the measures may impact the quality of the service; 7) the service and consumer support services available; 8) restrictions on use of the terminal equipment; 9) the choices available to the consumer on what personal data shall be registered; 10) detailed price and tariff information; 11) payment options and any price differences between them and how information about the tariffs can be obtained; 12) duration of the contract; 13) conditions for prolonging and ending the service/contract; 14) measures which may be taken in case of security breaches; 15) conditions for reimbursement if the service does not live up to the contract; and 16) how a dispute resolution process for consumers is started outside of the court system. The provision also authorises the government to delegate to an authority the option to regulate the contents of the contracts further. In addition, there are provisions on the notice periods and changes to the terms.

The regulations and instructions of PTS referred to above,¹²⁵⁶ as amended following the Regulation, include requirements and guidance on agreements between consumers and providers of a public communications network or publicly available electronic communication services. These requirements cover provisions on the content and the form of the contracts. The agreements should include information about the technology that is being used when providing the services, any need for specific equipment to be able to use the service and examples on appropriate purposes for the use of the services. The agreement should be in a form that is easy to reproduce and should be in a form that can be read by consumers with a disability on common software. The agreement should include a summary of the consumer-specific clauses and the clauses that can be expected to be of most importance to the consumer, and shall include at least the following information:

1. name and contact information of the service provider;
2. all services included in the contract;
3. any restrictions on use, e.g. sim-lock;
4. the minimum price payable under the contract time; and
5. contract time, including any mandatory notice period.

The agreement shall include information about the factors that may impact the lowest provided quality level, such as how the services are affected by the weather, inside use, distance to stations, several users using the service in a same place and the use of several services at the same time.

¹²⁵⁵ Electronic Communications Act, Section 15 of Chapter 5. See for more information on these additional requirements above, paragraph *Implementation*, under heading *Pre-existing net neutrality legislation*.

¹²⁵⁶ See paragraph *Implementation*, under heading *Pre-existing net neutrality legislation*.

Further, the Swedish Regulation (2018:20) on support for measures providing access to telephony and functional internet access entered into force on 1 March 2018. PTS has, pursuant to this Swedish regulation, the responsibility to ensure that individuals and companies have access to a network connection at a fixed location which is designed to receive data with a speed of at least 10 Mbit/S.

29.2. Monitoring, supervision and enforcement

General information and reports

PTS works proactively in order to ensure compliance with the Regulation. PTS conducts surveys, questionnaires and provides information on the Regulation to both industry players and consumers. PTS has initiated investigations *ex officio* of operators' offers and activities on the market in general. PTS aims to be transparent in its supervision by way of uploading decisions and press releases on its website. On average four FTEs have been working on net neutrality topics in 2017.¹²⁵⁷

The **NN-report PTS 2017**, consisting of 26 pages, contains general information on the Swedish market for IASs and PTS' conclusions on how to continuously ensure net neutrality.¹²⁵⁸ PTS concludes that the Swedish market is characterised by good accessibility for end-users and that a continuously competitive market is important for ensuring net neutrality. It is also important to further increase awareness and knowledge of the Regulation, which PTS will ensure through gathering information and transparent supervision. The report further focuses on the monitoring and supervision measures taken by PTS, especially related to zero-rating offers and other monitoring/supervision measures which are discussed in more detail below.¹²⁵⁹ The report further contains information on the results of its survey *Svensk Telekommarknad*,¹²⁶⁰ how PTS measures the performance of IASs through a third party service called *Bredbandskollen*¹²⁶¹ as well as PTS' work in BEREC. The report also includes information on activities conducted after the reporting period, for example initiated supervision on the basis of Article 3 of the Regulation¹²⁶² and PTS' review of its own regulations and instructions on content in agreements that was ongoing at the time.

The **NN-report PTS 2018**, consisting of 19 pages, contains updated information on the Swedish market for IASs.¹²⁶³ The report focuses on completed and on-going supervision conducted by PTS.¹²⁶⁴ PTS further mentions that it has amended its own regulations and instructions in order to avoid overlap with the Regulation. The report also summarises PTS' work in BEREC.

Complaints

PTS does not have the competence to settle complaints related to the Regulation from consumers, other end-users or competitors against ISPs and cannot impose remedies for such complaints. PTS does not record which consumer complaints that it receives relate specifically to net neutrality issues. The NN-report PTS 2017 states that PTS received 369 consumer complaints and five complaints from the industry players. These complaints are generally categorised as pertaining to limitations imposed by ISPs. A

¹²⁵⁷ Survey completed by PTS in the context of this Study.

¹²⁵⁸ PTS (2017), Net neutrality report 2016/2017 (hereafter: NN-report PTS 2017).

¹²⁵⁹ See this paragraph, under heading *Monitoring and supervision measures*.

¹²⁶⁰ <http://www.statistik.pts.se/svensk-telekommarknad/> (accessed 26 September 2018).

¹²⁶¹ <http://www.bredbandskollen.se/> (accessed 26 September 2018). See further below in this paragraph, under heading *Monitoring and supervision measures*.

¹²⁶² See below in this paragraph, under heading *Monitoring and supervision measures*.

¹²⁶³ PTS (2018), Net neutrality report 2017/2018 (hereafter: NN-report PTS 2018).

¹²⁶⁴ See below in this paragraph, under heading *Monitoring and supervision measures*.

majority of the complaints related to the application of the Regulation and commercial practices (in more general terms and related to zero-rating offers). In addition to complaints by consumers and industry players, PTS received hundreds of complaints from the 'Save the internet' group, which consists of different types of stakeholders in the net neutrality area. These complaints focused in particular on the preparation of the BEREC Guidelines with specific focus on the rules regulating commercial practices. PTS received eight complaints pertaining to limitations imposed by ISPs during the period of April 2017 to April 2018.¹²⁶⁵

PTS has issued a report summarising consumer complaints relating to telephony and broadband during 2017.¹²⁶⁶ Complaints relating to restrictions and speed are mentioned amongst the 20 most common forms of complaints.

Monitoring and supervision measures

Based on the information provided in the NN-reports PTS 2017 and 2018, PTS uses different types of measures in order to ensure compliance with the Regulation. According to the NN-report PTS 2017, PTS improves awareness and knowledge of net neutrality and the Regulation by publishing relevant information on its website, blog and in a brochure.¹²⁶⁷ PTS included questions on traffic management in its annual survey *Svensk Telekommarknad* relating to the last two years and monitors the performance of IASs by using measurements made by consumers via the third party service called *Bredbandskollen*. This service is a tool by the Internet Foundation in Sweden for any user to measure their internet connection speed. It provides the opportunity to compare the measured speed with the maximum available speed indicated by the ISP and to ensure that technical equipment works properly.¹²⁶⁸ *Bredbandskollen* is developed in collaboration with PTS and the Consumer Agency.¹²⁶⁹

PTS' supervision has mainly focused on activities by mobile operators. Two examples are the supervision of the traffic management measures connected to the zero-rating offers by Telia Company AB ("**Telia**") and Hi3G Access AB ("**Tre**") that were initiated in 2016 on the basis of Article 3(3) of the Regulation.¹²⁷⁰

In addition to supervision of specific offers and operators, PTS has conducted supervision on a larger scale that covers several operators on the Swedish market. In February 2017, PTS concluded a market wide enquiry regarding transparency and content in agreements between operators and consumers.¹²⁷¹ The purpose of this enquiry was to ensure operators' compliance with the regulations and instructions of PTS (PTSFS 2013:3) regarding content in agreements, based on Section 15 of Chapter 5 of the

¹²⁶⁵ Survey completed by PTS in the context of this Study.

¹²⁶⁶ PTS (2017), Konsumentklagomål på telefoni och bredband: Årsrapport 2017 = Consumer complaints on telephony and broadband: Annual report 2017. Please note that this report does not only cover complaints related to net neutrality. A report summarising consumer complaints relating to telephony and broadband during 2018 will be available at the beginning of 2019.

¹²⁶⁷ See for example: PTS, Öppet internet (Nätneutralitet) = Open internet (net neutrality), <https://pts.se/sv/bransch/internet/natneutralitet/> (accessed 26 September 2018). PTS, Vad innebär EU:s regler om ett öppet internet för dig som internetleverantör = How does the EU open internet rules concern you as an ISP?, PTS-F-2017:7. PTS, Öppet internet = Open internet, <https://pts.se/sv/privat/internet/oppet-internet/> (accessed 26 September 2018).

¹²⁶⁸ <http://www.bredbandskollen.se/en/about/> (accessed 26 September 2018).

¹²⁶⁹ <https://pts.se/sv/privat/internet/bredband/mat-din-surfastighet/> (accessed 26 September 2018).

¹²⁷⁰ The supervision against Telia resulted in a decision where PTS instructed Telia to discontinue the activities. PTS did not issue a formal decision regarding Tre's offer since Tre informed PTS that it would adjust its offer. See further below in this paragraph, under the heading *Monitoring and supervision measures*.

¹²⁷¹ PTS supervision of ISPs, ref. no. 14-11855 - 14-11861. NN-report PTS 2017, para 3.2.

Swedish Electronic Communications Act. As mentioned above,¹²⁷² these provisions partially cover the same areas as Article 4(1) of the Regulation. PTS also initiated an enquiry during the autumn of 2016 regarding information in agreements and information on prices, tariffs and general terms and conditions. This was based on complaints received by PTS. This monitoring has now been concluded by PTS, as new offers and actors have emerged on the market and consumer complaints have shifted to new operators.

Furthermore, in May 2017, PTS conducted an investigation into traffic management measures and the provision of specialised services optimised for specific content of a number of ISPs.¹²⁷³ The purpose of this monitoring measure was mainly to receive an overall view of applied traffic management measures and specialised services, and to establish the extent of and the basis for such measures on the Swedish market. PTS collected information through questionnaires addressed to ten ISPs, representing approximately 90 % of the fixed and mobile IASs. According to PTS, the information collected did not indicate any breach of Articles 3(3) or 3(5) of the Regulation and the monitoring/supervision activity was therefore discontinued. All cases were dismissed by PTS based on the information provided by ISPs.¹²⁷⁴

PTS also initiated investigations, *ex officio*, pursuant to Article 3(2) of the Regulation in January 2018 concerning offers by Tre and Telenor Sverige AB ("**Telenor**").¹²⁷⁵ The terms and conditions offered by Tre, which were under investigation, included an additional fee for certain data transfers to function on BlackBerry mobiles. This was due to a licence fee that Tre had to pay, in order for a specific encryption feature to function in the older BlackBerry operating systems. However, consumers had full access to the internet without the additional feature, meaning that access to the internet was not restricted. Telenor was investigated due to a clause in their terms and conditions stating that prepaid contracts could not be used for VoIP or internet tethering unless otherwise agreed. This had been an oversight and the clause was removed from the terms and conditions. Both cases were dismissed by PTS.¹²⁷⁶

In Sweden, the dismissed cases are laid down in decisions which are published for the purpose of transparency. Dismissed cases are not subject to appeal.

Decisions and court cases

PTS has taken two enforcement decisions related to traffic management measures connected to the zero-rating offers provided by Telia.¹²⁷⁷ One decision regarding 'Free surf on social media' (Social) and the other regarding 'Free surf listening' (Listen). Both offers were launched on 18 April 2016. The subscribers of 'Social' get 'free surf' on a number of social media apps/services. Use of the specified social media services does not count towards the data allowance. Moreover, the social media services included in 'Social' are always available, even if the end-user consumed the data allowance included in the subscription. With 'Listen' the subscribers are able to stream selected services and applications for music, radio and audio books free of charge. The services included in 'Listen' are always available, also if the data allowance of the subscription is exceeded. PTS concluded that Telia in relation to these two offers conducts traffic management measures in breach of Article 3(3) of the Regulation. Telia was instructed, in two

¹²⁷² See paragraph Implementation, under heading Pre-existing net neutrality legislation.

¹²⁷³ PTS supervision of ISPs, ref. no. 17-5686 - 17-5695. NN-report PTS 2018, para 3.1.6.

¹²⁷⁴ PTS, decisions with ref. no. 17-5686---17-5695.

¹²⁷⁵ NN-report PTS 2018, para 3.1.4 and 3.1.5.

¹²⁷⁶ PTS Decisions of 12 March 2018, ref. no. 18-963 and 18-964.

¹²⁷⁷ PTS found that both Telia's and Tre's offers were traffic management in breach of Article 3(3) of the Regulation. However, Tre informed PTS that it would voluntarily adjust its offer. PTS did therefore not notify a formal decision regarding Tre.

decisions on 24 January 2017, by PTS to discontinue the traffic management practices within 30 days.¹²⁷⁸ No incremental penalties or fines were imposed.

Telia appealed the decisions at the Stockholm Administrative Court and called for the Court to repeal the decisions by PTS. Telia also claimed that the Court should decide for the appealed decisions not to apply until the final judgment of the case (suspension). The Stockholm Administrative Court decided on 22 February 2017 that there were no grounds for suspension.¹²⁷⁹ Telia appealed the decision of 22 February 2017 to the Stockholm Administrative Court of Appeal. The Stockholm Administrative Court of Appeal honoured the appeal relating to the requested suspension in a judgment on 8 March 2017.¹²⁸⁰ The Court of Appeal accepted Telia's request for suspension since the decisions would have significant impact for Telia, such as immediate and irreparable costs and loss of goodwill, and since the outcome of the case is uncertain because there is no guiding case-law yet on the interpretation of the Regulation. Furthermore, Telia requested the Administrative Court to obtain a preliminary ruling from the European Court of Justice. This related to the question whether the traffic management measures taken by Telia were in fact in breach of Article 3(3) of the Regulation. The request of Telia was rejected by the Administrative Court because it saw no need for a preliminary ruling (without further substantiation).¹²⁸¹

On 28 September 2018, the Stockholm Administrative Court rejected Telia's appeal.¹²⁸² The Court found that the technical measure taken by Telia under the current offerings, when end-users have used their contracted data volume, constitutes as a traffic management measure covered by Article 3(3) of the Regulation. The traffic management measures occur when the end-user is only given access to certain applications and services on the internet, but is prevented from gaining access to the rest. Telia thus blocks certain services and applications and therefore, does not treat all traffic equally. The Court further considers that such a traffic management measure goes beyond those set out in Article 3(3)(2nd) and the admissibility therefore is to be examined in accordance with the third paragraph. However, Telia does not claim that the measure is due to any circumstance which, according to Article 3(3)(3rd), may constitute grounds for applying more far-reaching traffic management measures. The Court therefore finds that the traffic management measure violates Article 3(3) of the Regulation. The Court is also of the view that traffic management applied by Telia to its 'Social' and 'Listen' offers in principle constitutes the same practice: i.e. blocking of selected services and applications. Therefore, the Court rejected Telia's argument that the two offers should have been assessed separately.

Furthermore, Telia argued that the Court should annul PTS's decisions, due to lack of investigation undertaken by PTS by not taking into account Recital 7 of the Regulation (*'National regulatory and other competent authorities should be empowered to intervene against agreements or commercial practices which, by reason of their scale, lead to situations where end-users' choice is materially reduced in practice'*). However, the Court found that the wording of Recital 7 aims at Article 3(2) of the Regulation not Article 3(3). The Court also found that there is no obligation for PTS – according to Article 5 or Article 3(3) – to consider Recital 7 of the Regulation in the investigation. Therefore, the Court found that there is no reason to annul the decision, thus PTS did not violate its obligation to investigate. The court decision on 28 September 2018 has not been appealed by Telia and is now legally binding.

¹²⁷⁸ PTS Decisions of 24 January 2017, ref. no. 16-5475 and 16-5476.

¹²⁷⁹ Stockholm Administrative Court 22 February 2017, case no. 4207-17.

¹²⁸⁰ Stockholm Administrative Court of Appeal 8 March 2017, case no. 1178-17.

¹²⁸¹ Stockholm Administrative Court 7 March 2018, case no. 4207-17.

¹²⁸² Stockholm Administrative Court 28 September 2018, case no. 4207-17.

Another decision by PTS relates to Tre's zero-rating offer 3Musiksurf. In order to provide the offer, Tre analyses and processes data traffic in order to distinguish traffic for streaming music so that it will not be counted towards the data allowance pursuant to the subscription. PTS found that Tre's processing of data traffic required consent from the users according to Section 17 of Chapter 6 of the Swedish Electronic Communications Act. Since Tre had not retrieved consent from the users of the offer, PTS notified Tre that it had to seek their consent to process such data traffic by 1 July 2018.¹²⁸³ Although no reference was made to the Regulation in this decision, it can be regarded as a case related to the Regulation since there is a zero-rating offer involved and although not based on Article 3(4) of the Regulation, it relates to the processing of personal data when traffic management measures are undertaken.

29.3. Self-regulation and/or co-regulation

There is no self-regulation and/or co-regulation in Sweden.

29.4. Compliance with transparency obligations

The table below¹²⁸⁴ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

Table 59: Overview of desk research on transparency obligations

ISP #	(a) 1285	(b) 1286	(c) 1287	(d) 1288	(e) 1289	Comments
ISP 1	✓	N/A	N/A	N/A	✓	-
ISP 2	✓	N/A	N/A	N/A	✓	-
ISP 3	✓	✓	N/A	N/A	✓	-
ISP 4	✓	N/A	N/A	N/A	✓	-
ISP 5	✓	✓	N/A	✓	✓	-
ISP 6	✓	✓	N/A	N/A	✓	-
ISP 7	✓	N/A	N/A	N/A	✓	-
ISP 8	✓	✓	N/A	✓	✓	-

¹²⁸³ PTS Decision of 25 January 2018, ref.no. 15-9830. This decision cannot be appealed.

¹²⁸⁴ The table has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

¹²⁸⁵ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹²⁸⁶ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹²⁸⁷ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹²⁸⁸ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹²⁸⁹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

29.5. Overview of relevant net neutrality themes in Sweden

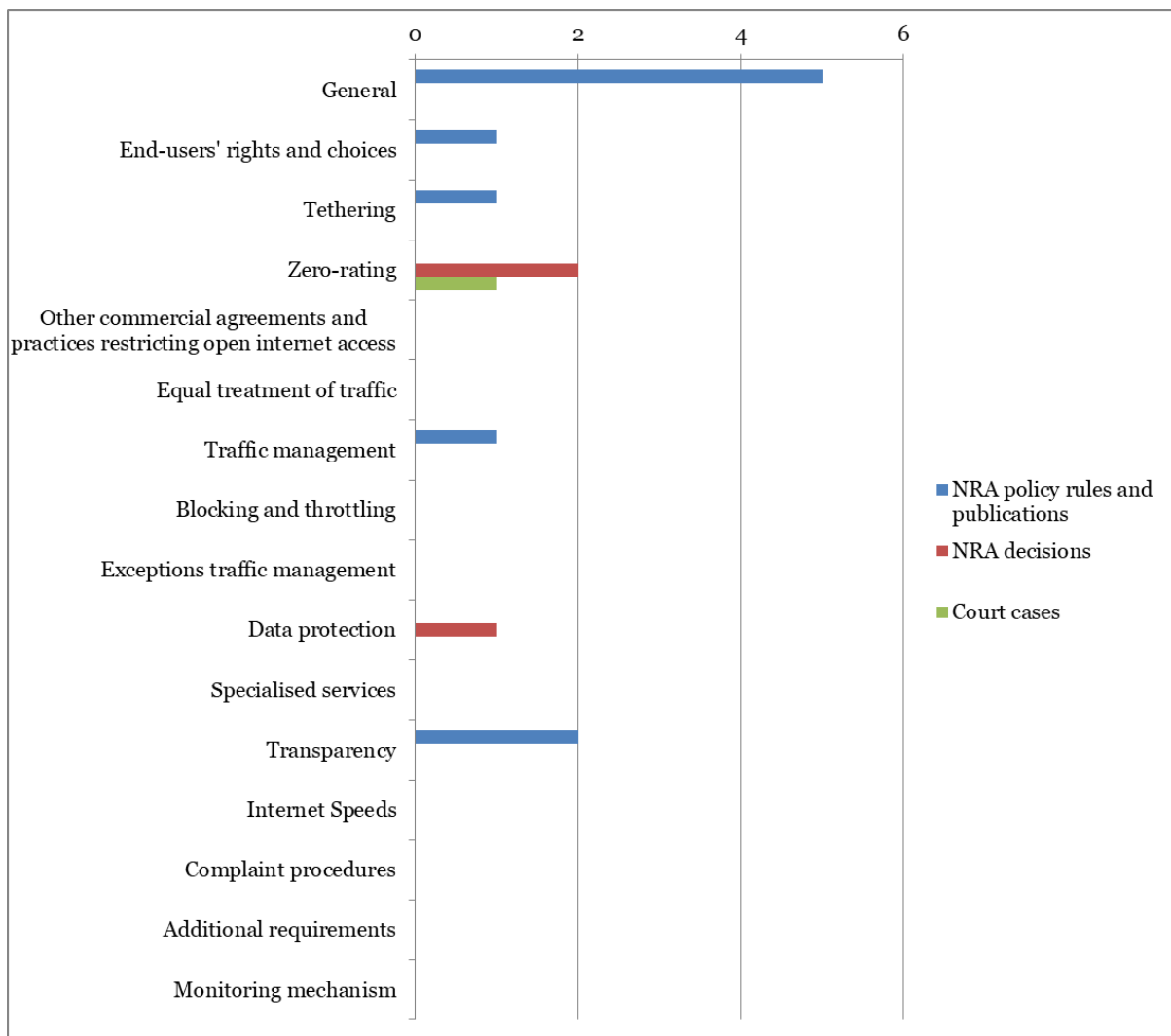


Figure 42: **Blue:** NN-report PTS 2017, NN-report PTS 2018, publications 'Öppet internet (Nätneutralitet)', 'Faktablad' and 'Öppet internet', PTS investigations into Tre (Blackberry) and Telenor Sverige AB (VoIP and tethering), PTS supervision of ISPs ref. no. 17-5686 - 17-5695 (1x), PTS supervision of ISPs ref. no. 14-11855 - 14-11861 (1x) and PTSFS 2017:4. **Red:** NRA Decisions of 24 January 2017 (2x) and 25 January 2018. **Green:** Court case of 28 September 2018.¹²⁹⁰

29.6. Summary of key topics and noteworthy findings

In Sweden, extensive additional legal requirements are applicable in relation to the content and transparency of IAS contracts. These additional requirements are in part laid down in the Swedish Communications Act on the basis of Article 4(3) and in part in regulations and instructions by PTS on the basis of Article 5(1) of the Regulation.

PTS may issue injunctions and prohibitions, but it may not directly impose a penalty. It is the relevant Administrative Court that may decide to impose a penalty in connection to the injunction or prohibition pursuant to a proposal of PTS. PTS not only publishes

¹²⁹⁰ Zero rating NRA decisions and court case are counted in the 'zero-rating' category since these are connected to zero-rating offers. The investigation however was focused on the traffic management measures applied.

enforcement decisions but also decisions on the basis of the Regulation in which cases are dismissed.

In two enforcement decisions, PTS found an infringement of Article 3(3) of the Regulation. The traffic management measures implemented by Telia for the zero-rated services 'Social' and 'Listen' meant that these services remained available, also after the data allowance of the subscription was exceeded. The **applied traffic management measures connected to the zero-rated offers** were considered to be in breach of Article 3(3) of the Regulation. The zero-rated offers have not been assessed on the basis of Article 3(2) of the Regulation. The decisions were appealed by Telia and both were suspended until a final decision was reached on the merits. A request by Telia to obtain a preliminary ruling by the European Court of Justice on the interpretation of Article 3(3) of the Regulation was rejected by the Administrative Court. The Administrative Court settled the case in question on the merits and rejected the appeal. Telia blocks certain applications and services after the end-users have reached their data cap and therefore does not treat all traffic equally. The Court concluded that the traffic management measure conducted by Telia violates Article 3(3) of the Regulation and none of the exceptions apply.

The decision on Tre's zero-rating offer 3Musiksurf in relation to the requirement of consent for analysing and processing data traffic, was not based on Article 3(4) of the Regulation but PTS based it on national law.

The table below provides an overview of the results in Sweden for some of the key topics.

Key topic	Result Sweden
Pre-existing legislation	Yes, transparency legislation (still in force)
Maximum fine	No maximum fine
Imposed fines	None
Additional legislation	Yes, the Swedish Regulation (2018:20) on support for measures providing access to telephony and functional internet access
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	Yes, the Swedish Electronic Communications Act
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	Yes, the PTS regulations and instructions.
Number of FTEs in NRA involved in net neutrality	4
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	None
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	377 consumer complaints and 5 complaints from the industry players in relation to general limitations imposed by ISPs, as well as hundreds of complaints from the 'Save the internet' group
Number/percentage of complaints that were settled by the NRA	<i>Not available</i>
Number of NRA decisions	3 enforcement decisions

Number of court cases	1 (two decisions consolidated in one proceeding)
Main net neutrality themes	Zero-rating offers, traffic management, transparency
Monitoring mechanism (certified yes/no)	Yes (third party, not certified)
Self-regulation and/or co-regulation	No

30. United Kingdom

30.1. Implementation

Pre-existing net neutrality legislation

There was no net neutrality legislation in the United Kingdom prior to the adoption of the Regulation. There was, however, pre-existing soft law which took the form of voluntary codes of practice for ISPs, which are described below.¹²⁹¹

Competent authority and penalty rules

The United Kingdom's communications regulator ("**Ofcom**") is the NRA responsible for the supervision and enforcement of the Regulation pursuant to Regulation 4(1) of the Open Internet Access (EU Regulation) Regulations 2016 ("**OIA Regulations**"), which entered into force on 17 June 2016.¹²⁹²

Ofcom has the power to impose penalties for a breach of the obligations under Articles 3, 4 and 5(2) of the Regulation or the Regulations of the OIA Regulations.¹²⁹³ For breach of the obligation not to restrict end-users' rights and the traffic management and transparency obligations of the Regulation (Articles 3 and 4) a fine may be imposed of up to 10 % of the turnover of the relevant business for the relevant period, and for breach of a requirement to provide information to Ofcom (Article 5(2) of the Regulation) a fine may be imposed of up to £2 000 000.¹²⁹⁴ The amount of any periodic penalty must be appropriate and proportionate to the breach in respect of which it is imposed, but it must not exceed £500 per day for a breach of an information requirement and £20 000 per day for any other breach.

Additional legislation and regulations

Pursuant to Section 104 of the Digital Economy Act 2017, ISPs are allowed to use parental/adult filtering if it is provided for in their own terms and conditions.¹²⁹⁵ This provision does not require ISPs to restrict access for e.g. child protection purposes, rather, it enables ISPs to block or filter access for such purposes where this is in accordance with the ISP's terms of service. The operation of this provision in relation to the requirements of the Regulation has been subject to debate in online publications.¹²⁹⁶

As part of Ofcom's recent review of its General Conditions of Entitlement ("**GCs**"), Ofcom reviewed its complaint handling procedures for providers of all electronic communications services, including IASs. Pursuant to the applicable GC, all ISPs are required to have and comply with procedures that conform to Ofcom's Approved Code of Practice for Complaints Handling.¹²⁹⁷ Under the updated rules, end-users must be

¹²⁹¹ Existing Codes of Practice: <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/codes-of-practice> (accessed 27 August 2018). See paragraph *Self-regulation and/or co-regulation*.

¹²⁹² The Open Internet Access (EU Regulation) Regulations 2016, 2016 no. 607 (hereafter: OIA Regulations).

¹²⁹³ OIA Regulations, Regulation 19.

¹²⁹⁴ OIA Regulations, Regulations 20 and 21.

¹²⁹⁵ Digital Economy Act 2017, Chapter 30.

¹²⁹⁶ See, for example:

https://wiki.openrightsgroup.org/wiki/Internet_filters_in_the_Digital_Economy_Act_and_EU_Net_Neutrality_Regulation and
https://wiki.openrightsgroup.org/wiki/Content_filtering_by_UK_ISPs (both accessed 1 August 2018).

¹²⁹⁷ Ofcom, The Ofcom Approved Code of Practice for Complaints Handling.

allowed to make use of alternative dispute mechanisms if their complaint concludes without resolution. The updated rules came into effect on 1 October 2018.

30.2. Monitoring, supervision and enforcement

General information and reports

Ofcom is active in ensuring compliance with the net neutrality rules and in improving consumers' awareness of their rights under the Regulation. Ofcom informs the public on net neutrality (e.g. via videos on its website); monitors customer complaints; conducts market surveys (e.g. using Ofcom branded apps); requests information from ISPs; reviews publicly available information from ISPs (e.g. terms and conditions of offers, traffic management measures published on ISPs' websites etc.); conducts technical network monitoring; and has recently undertaken formal investigations.¹²⁹⁸

Ofcom's first annual **NN-report Ofcom 2017** monitoring compliance with the Regulation, consisting of 17 pages, was published on 23 June 2017.¹²⁹⁹ It contains information on the Regulation and Ofcom's enforcement responsibilities and summarises Ofcom's monitoring of the overall quality of IAS and ISPs' compliance with their obligations under the Regulation. The report also provides details of two informal reviews into zero-rating practices conducted by Ofcom (which resulted in the decision not to open formal investigations in both cases). The report also states that, at the time, Ofcom was looking into two other practices it had come across in its reviews, one of which involved end-users' right to open internet access (and ensuring such right is not limited through discriminatory traffic management etc.) and the other involved the use of terminal equipment of end-users' choice.

Ofcom's second annual **NN-report Ofcom 2018**, consisting of 22 pages, was published on 29 June 2018.¹³⁰⁰ It contains a summary of Ofcom's activities since the previous report, including further details of the two initial reviews into zero-rating practices (mentioned in the NN-report Ofcom 2017) and brief summaries of the two formal investigations it has opened in the last year.¹³⁰¹ Ofcom's key priorities are broadly the same as the previous year.

Complaints

Ofcom does not have the competence to settle complaints related to the Regulation from consumers, other end-users or competitors against ISPs and cannot impose remedies for such complaints. Consumers, competitors and third parties could however file complaints related to net neutrality or other issues to Ofcom. Ofcom will not adjudicate them individually, but utilises them to determine how it uses its enforcement resources. Ofcom's NN-reports do not provide information on the number of complaints received that relate to net neutrality issues. Ofcom indicated that it has received one complaint in relation to Article 3(1) of the Regulation, which led to a formal investigation.¹³⁰²

¹²⁹⁸ See for example: Ofcom (2017), What is net neutrality? (<https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/advice/net-neutrality>, accessed 1 September 2018). Also see below in this paragraph, under heading *Monitoring and supervision measures*.

¹²⁹⁹ Ofcom (2017), Monitoring compliance with the EU Net Neutrality Regulation: A report to the European Commission (hereafter: NN-report Ofcom 2017).

¹³⁰⁰ Ofcom (2018), Monitoring compliance with the EU Net Neutrality Regulation: A report to the European Commission (hereafter: NN-report Ofcom 2018).

¹³⁰¹ See below in this paragraph, under heading *Monitoring and supervision measures*.

¹³⁰² Survey completed by Ofcom in the context of this Study.

All ISPs are required to put in place complaints procedures that conform to the Ofcom's Approved Code of Practice for Complaints Handling mentioned above.¹³⁰³ Ofcom is keen to improve the quality of complaints handling. Furthermore, it has accepted an industry-led scheme to automatically compensate residential broadband consumers affected by service quality issues.¹³⁰⁴ The voluntary scheme will come into force in early 2019.

Monitoring and supervision measures

The main enforcement mechanism used by Ofcom consists of monitoring end-user complaints, reviewing publicly available information from ISPs and sending information requests to (and reviewing responses from) ISPs. Overall, Ofcom has found that end-users of both fixed and mobile broadband IASs achieved higher quality IAS than in the previous year, and the vast majority of end-users are satisfied with their IAS overall.¹³⁰⁵

According to the NN-report Ofcom 2018, Ofcom has completed an initial review of two zero-rated offerings from Vodafone and Three.¹³⁰⁶ Ofcom opened a formal enforcement programme to gather more detailed information about the traffic management practices of the United Kingdom's largest ISPs. Information was requested from ISPs on traffic management (two times) and network capacity management (one time).¹³⁰⁷ Following a review of the information received, Ofcom opened two formal investigations into traffic management issues.¹³⁰⁸ Ofcom has also reviewed information received (on request) from the United Kingdom's eight largest fixed and mobile ISPs and secured key changes to end-user contracts relating to transparency, its impact on privacy and data protection and the remedies available to end-users experiencing IAS performance issues. Ofcom is committed to continuing to monitor ISP practices to ensure compliance and intervene to enforce such compliance as necessary.

Ofcom has not yet certified any quality of service monitoring mechanism pursuant to Article 4(4) of the Regulation. However, it has released a checker mechanism which allows end-users to measure the performance of the internet connection they receive on their mobile and fixed networks.¹³⁰⁹ The mechanism is available as a smartphone app for iOS and Android devices or can be used directly on the Ofcom website. Ofcom intends to review the effectiveness of the checker mechanism and consider whether to develop a certified monitoring mechanism for end-users to measure the quality of their IAS.

In 2018, Ofcom completed an initial, informal review of zero-rating offerings in the UK by Three ('GoBinge') and Vodafone ('VOXI' and 'Passes'). The NN-report Ofcom 2018 summarises Ofcom's main findings from these initial reviews. Ofcom answered two questions:

- 1) Does the zero-rated offer appear to technically limit and/or exclude the way in which end-users' access certain content or applications? and

¹³⁰³ See above, paragraph Implementation, under heading Additional legislation and regulations.

¹³⁰⁴ Ofcom (2017), Automatic compensation for broadband and landline users (due to complexity there is a 15-month implementation period for the automatic compensation scheme, <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/automatic-compensation2>, accessed 1 September 2018).

¹³⁰⁵ NN-report Ofcom 2018, para 2.3.

¹³⁰⁶ See below under this heading and in paragraph *Summary of key topics and noteworthy findings*.

¹³⁰⁷ Survey completed by Ofcom in the context of this Study.

¹³⁰⁸ Investigations described in more detail below, under this heading.

¹³⁰⁹ Ofcom (2016), Ofcom broadband and mobile checker app (<https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/advice/ofcom-checker>, accessed 27 August 2018). Ofcom (2018), Ofcom Mobile and broadband checker (<https://checker.ofcom.org.uk/>, accessed 27 August 2018).

- 2) Does the zero-rated offer potentially create a situation where end-users' choice may be materially reduced (or otherwise adversely affected) in practice?

Ofcom found that the zero-rating practices at issue did not appear to materially reduce/affect end-users' choice in practice and so it took the view that further investigation was not warranted as to competition issues. Specifically, in accordance with the BEREC Guidelines, Ofcom considered: (i) the relative market positions of Three and Vodafone; (ii) the extent to which end-users may be incentivised to use the GoBinge, VOXI and Passes offerings; (iii) the potential scale of the zero-rating practice and whether end-users could switch to alternative offers/competing providers; (iv) the likely effect of the offer on the market for the service; and (v) the extent to which the service seeks to circumvent the goals of the Regulation. Ofcom identified the following elements as key to its determination that the zero-rated offers did not materially reduce end-users' choice:

- a) the fact that the Three and Vodafone offers had 'open' platforms that allowed other CAPs to request applications/services to be included in the zero-rated offer; and
- b) there were a number of zero-rating offers on the market with different providers, each including a range of different CAPs' applications/services, meaning end-users had alternative offers to choose from.

However, Ofcom did acknowledge that zero-rating offers are relatively new and it is committed to keeping the services under review, monitoring their impact on the market and end-users as necessary.

Furthermore, as mentioned above under this heading, the request for information from the United Kingdom's largest ISPs raised some traffic management concerns and led to Ofcom opening two formal investigations. One of these involved Three's practice of prohibiting tethering on some tariffs and slowing down certain kinds of traffic for customers while they are roaming. The other was concerned with Vodafone's practice of restricting the resolution of video traffic in its 'Passes' offer. On 2 August 2018 Ofcom announced it has closed both investigations.¹³¹⁰ Ofcom has closed its investigation into Three on the basis of written assurances that Three has made changes to its tethering and traffic management practices to address Ofcom's concerns with its compliance with the Regulation.¹³¹¹ In relation to Vodafone, Ofcom has accepted written assurances that Vodafone has stopped restricting video quality to Standard Definition (SD) in its Passes products.¹³¹² Further, in order to address Ofcom's transparency concerns, Vodafone has agreed to maintain accurate information on zero-rating exceptions and will provide more information to subscribers. These investigations were closed before reaching the stage of a formal decision by Ofcom.

¹³¹⁰ Ofcom, Own-initiative enforcement programme into fixed and mobile Internet Service Provider traffic management measures, and other practices covered by the EU Open Internet Access Regulation, 2 August 2018 (https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01210, accessed 27 August 2018).

¹³¹¹ Ofcom (2018), Own initiative investigation into Hutchison 3G UK Limited (Three)'s compliance with the net neutrality and roaming regulations (https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01218, accessed 27 August 2018).

¹³¹² Ofcom (2018), Own-initiative investigation into Vodafone's traffic management practices, and other practices covered by the EU Open Internet Access Regulation (https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01219, accessed 27 August 2018).

Decisions and court cases

Up to August 2018, Ofcom did not take any formal enforcement decisions with regard to the Regulation and there were no court cases reported.

30.3. Self-regulation and/or co-regulation

Ofcom issued voluntary codes of practice for ISPs which relate to the Regulation.¹³¹³ Ofcom's Broadband Speeds Codes relating to broadband speeds for residential and business customers have recently been revised in order to align with the Regulation. Both codes require signatories to provide clear and accurate speed information both at point of sale and in a durable format after sale. The codes also require signatories to help customers with speed issues and enable them to exit the contract without penalty where they do not receive a minimum guaranteed speed. The key changes in the revised Broadband Speeds Codes are: (i) improved relevancy of speed estimates by reflecting peak time speeds; (ii) providing a minimum guaranteed download speed at the point of sale; (iii) improving the right to exit process; and (iv) widening the scope of the codes to cover all fixed technologies. This review has resulted in the strengthening of the codes' requirements on transparency, accessibility and effectiveness for IASs. The revised codes will apply to broadband purchases from 1 March 2019 (services bought before this date will still be subject to the existing codes). A number of major ISPs, including Virgin Media, BT, EE and Sky have indicated they will sign up to the new codes when they come into force.¹³¹⁴

Furthermore, the Broadband Stakeholder Group issued an Open Internet Code of Practice, which was originally adopted in 2014 but then revised and adopted on 8 June 2016.¹³¹⁵ The current code was signed off by all major ISPs, representing over 90 % of UK subscribers on both fixed and mobile contracts. The code of practice commits signatory ISPs to neutrality and transparency in traffic management on their networks. Topics covered include ensuring that traffic management measures are transparent, non-discriminatory, proportionate and not based on commercial considerations and that clear and transparent information is provided on such traffic management, including publishing a consistent Key Facts Indicator table.

30.4. Compliance with transparency obligations

The table below¹³¹⁶ provides an overview of desk research of public information provided on the websites of various mobile and fixed ISPs. The contract information requirements pursuant to Article 4(1) of the Regulation were checked in order to, as far as possible, test compliance with these requirements.

¹³¹³ Existing Codes of Practice: <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/codes-of-practice> (accessed 27 August 2018).

¹³¹⁴ Existing Codes of Practice: <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/codes-of-practice> (accessed 27 August 2018).

¹³¹⁵ Open Internet Code of Practice: <http://www.broadbanduk.org/wp-content/uploads/2016/06/BSG-Open-Internet-Code-2016.pdf> (accessed 3 July 2018).

¹³¹⁶ The table below has not been reviewed by the NRA and is only based on desk research that was performed in Q2 2018. A combination of fixed and mobile ISPs have been reviewed. This could also be more ISPs belonging to the same group of companies.

Table 60: Overview of desk research on transparency obligations

ISP #	(a) 1317	(b) 1318	(c) 1319	(d) 1320	(e) 1321	Comments
ISP 1	✓	✓	✓	N/A	≈	(e): The ISP only specifies the jurisdiction of the court but does not mention complaint procedure and/or alternative dispute resolution mechanisms.
ISP 2	≈	N/A	X	≈	≈	(a): The ISP only states that traffic management measures may be taken without clearly explaining the consequences for the IAS. The ISP simply states that it may control or restrict the end-users' online activities. (c): The T&Cs imply that specialised services are offered, but do not provide details. (d): The minimum speeds are not specified (regarding both download and upload). (e): The ISP only specifies the jurisdiction of the court but does not mention complaint procedure and/or alternative dispute resolution mechanisms.
ISP 3	✓	N/A	N/A	≈	≈	(d): The ISP only provides average speeds. (e): Same comment as for ISP 2.
ISP 4	✓	✓	N/A	≈	✓	(d): Only the advertised download speed is shown which only specifies the average download and upload speeds.
ISP 5	✓	N/A	X	N/A	✓	(e): Same comment as for ISP 2.
ISP 6	✓	✓	N/A	N/A	✓	-
ISP 7	✓	✓	✓	N/A	✓	-
ISP 8	✓	✓	N/A	N/A	✓	-

¹³¹⁷ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹³¹⁸ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹³¹⁹ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹³²⁰ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹³²¹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

30.5. Overview of relevant net neutrality themes in the United Kingdom

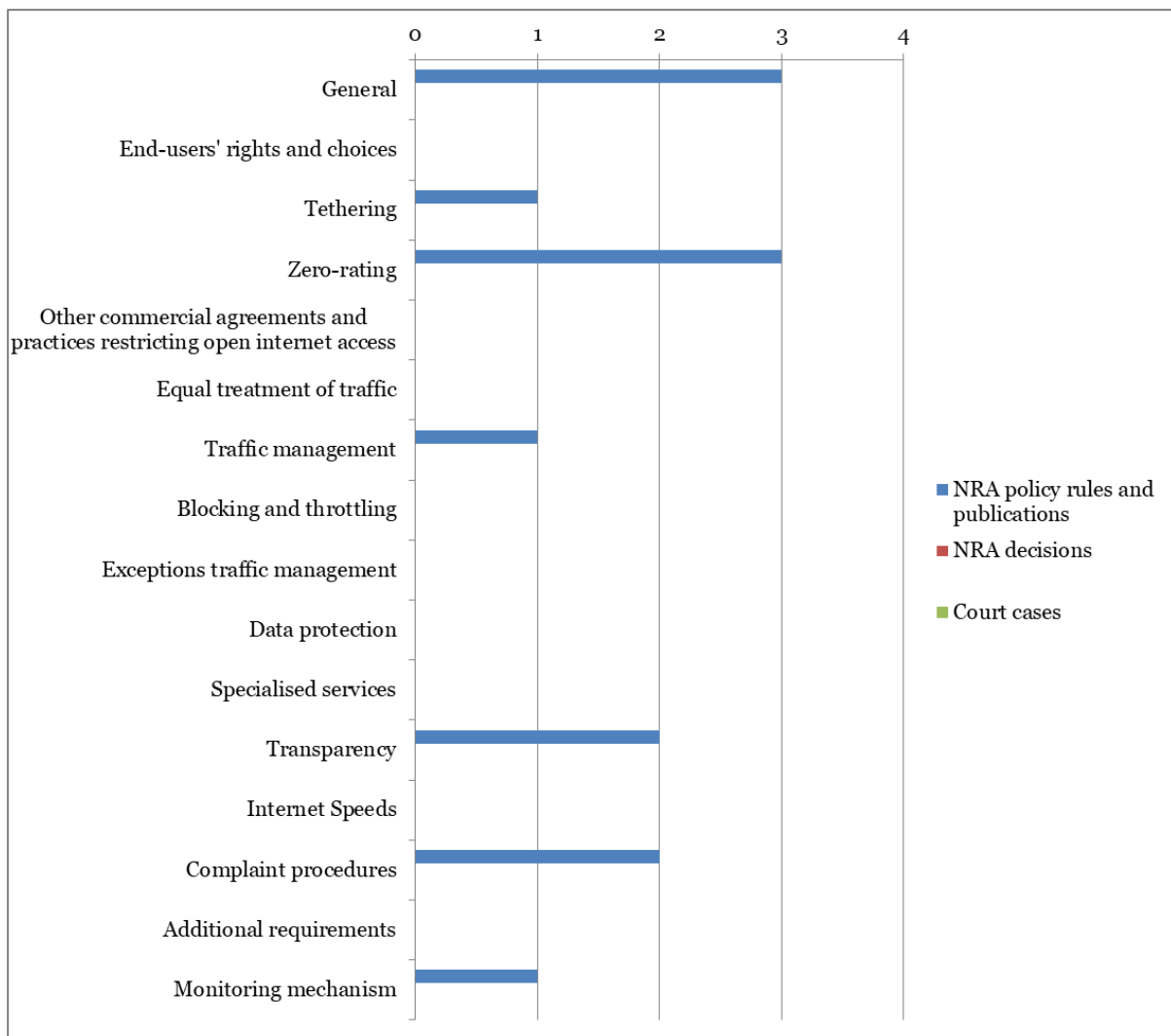


Figure 43: Blue: NN-report Ofcom 2017, NN-report Ofcom 2018, Information page on net neutrality, Investigation into Three's compliance with the Regulation, Informal review of Three (GoBinge), Informal review of Vodafone (VOXI), Informal review of Vodafone (Passes), Investigation into Vodafone's traffic management practices, Broadband Speeds Codes (2x), Code of Practice for Complaints Handling, Automatic compensation for broadband and landline users and Ofcom broadband and mobile checker app.

30.6. Summary of key topics and noteworthy findings

In the United Kingdom there was pre-existing soft law in the form of voluntary codes of practice for ISPs. These codes have been revised in order to align with the Regulation. The codes require signatories to provide clear and accurate speed information and contractual remedies for customers with speed issues. The revised codes will apply to broadband purchases from 1 March 2019. A number of major ISPs have indicated they will sign up to the new codes when they come into force. Furthermore, the Broadband Stakeholder Group issued an Open Internet Code of Practice, which was revised and adopted on 8 June 2016 and signed off by all major ISPs (fixed and mobile). The code of practice commits signatory ISPs to neutrality and transparency in traffic management on their networks, including publishing a consistent Key Facts Indicator table.

The United Kingdom has adopted national legislation allowing ISPs to use parental/adult filtering if it is provided for in their own terms and conditions.

Ofcom prescribes mandatory complaint handling procedures for all providers of electronic communications services, including ISPs, which were recently updated. Under the updated rules, end-users must be allowed to make use of alternative dispute mechanisms if their complaint concludes without resolution. The updated rules will come into effect on 1 October 2018. Further, Ofcom has accepted an industry-led scheme to automatically compensate residential broadband consumers affected by service quality issues. The voluntary scheme will come into force in early 2019.

Ofcom investigated the zero-rating offerings of Three ('GoBinge') and Vodafone ('VOXI' and 'Passes') including detailed assessments regarding the commercial and technical conditions of the offer referred to in paragraph 46 of the BEREC Guidelines. It found that these zero-rating practices did not materially reduce end-users' choice, because the offers had open platforms allowing other applications/services to be included in the offers and because there are a number of zero-rating offers on the market as alternatives for end-users to choose between. Further investigation was therefore not necessary. However, Ofcom has indicated that it will keep the offers under review, monitoring their impact on the market and end-users as necessary.

Ofcom also formally investigated the traffic management practices of Vodafone in relation to its Passes offer and Three's practice of prohibiting tethering on some tariffs and slowing down certain kinds of traffic. Both investigations were closed following written assurances of Vodafone and Three to amend their practices and conditions. There have been no formal decisions or court cases in the UK in relation to the Regulation.

The table below provides an overview of the results in the UK for some of the key topics.

Key topic	Result United Kingdom
Pre-existing legislation	No (except some soft law)
Maximum fine	£2 000 000 for breach of an information requirement 10 % of the turnover of the relevant business of all other breaches of the Regulation or the OIA Regulations
Imposed fines	None
Additional legislation	Yes, Digital Economy Act 2017 regarding parental/adult control filtering
Additional requirements imposed by the MS pursuant to Article 4(3) of the Regulation (on monitoring, information and transparency)	No
Requirements imposed by the NRA pursuant to Article 5(1) of the Regulation (technical characteristics, minimum QoS, other appropriate and necessary measures)	No
Number of FTEs in NRA involved in net neutrality	<i>Not available</i>
Formal role NRA relating to the settlement of complaints of consumers, other end-users and/or competitors	None
Number of complaints on net neutrality between 1 May 2016 – 30 April 2018	<i>Not available</i>

30. United Kingdom

Number/percentage of complaints that were settled by the NRA	<i>Not applicable</i>
Number of NRA decisions	0
Number of court cases	0
Main net neutrality themes	Zero-rating, transparency (contract information), traffic management
Monitoring mechanism (certified yes/no)	Yes (not certified), Ofcom has released a checker mechanism
Self-regulation and/or co-regulation	Yes, Ofcom's voluntary Codes of Practice and the Open Internet Code of Practice

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Latvia

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information and documentation related to the handling of complaints presented using complaint books, and new requirements governing responses

ANACOM (2018), Decision of 23 February 2018, Sentido provável de decisão relativo a práticas comerciais de zero-rating e similares em Portugal = ANACOM draft decision concerning zero-rating and similar practices in Portugal

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ANCOM (2016), Raport privind calitatea serviciului de acces la internet pentru anul 2015: parametrii administrative = Report on the quality of the internet access service for the year 2015

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ANCOM (2017), Monitorizarea respectării prevederilor Regulamentului (EU) 2015/2120 privind accesul la internetul deschis: 30 Aprilie 2016 – 30 Aprilie 2017 = Monitoring compliance with the provisions of the Regulation (EU) 2015/2120 on open internet access: 30 April 2016 - 30 April 2017

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Slovakia

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AKOS (2016), Delavnice o nevtralnosti interneta = Workshop "European views on net neutrality"

AKOS (2017), Letno poročilo 2016 = Annual Report 2016

AKOS (2017), Nacionalno poročilo o nevtralnosti internet: 30.6.2016 – 30.6.2017 = National report on Internet Neutrality: 30.6.2016 – 30.6.2017

AKOS (2017), Poročilo o razvoju trga elektronskih komunikacij za drugo četrtletje 2017 = Report on the development of the electronic communications market for the second quarter of 2017

AKOS (2017), Priporočilo v zvezi z izvajanjem določil Uredbe (EU) 2015/2120 Evropskega parlamenta in Sveta z dne 25.11.2015 glede zagotavljanja storitev dostopa do odprtega interneta = Recommendation in relation to implementation of Regulation 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access

AKOS (2017), Vabilo operaterjem fiksnih in mobilnih storitev širokopasovnega dostopa za končne uporabnike = Consultation of operators of fixed and mobile broadband access services for end-users

AKOS (2018), Nacionalno poročilo o nevtralnosti internet: 30.6.2017 – 30.6.2018 = National report on Internet Neutrality: 30.6.2017 – 30.6.2018

SEK (2018), Predlog posodobitve Samoregulacijskega kodeksa o nadomestilih za nedelovanje ali slabše delovanje javnih komunikacijskih storitev operaterjev javnih komunikacijskih storitev v RS = Proposal for the modernization of the Self-regulation Code, The Council for Electronic Communications of the Republic of Slovenia, no. 0131-2/2018/10

Spain

Ministerio de Economía y Empresa (2017), Informe sobre supervisión en España de normativa europea en materia de acceso a una Internet abierta (Neutralidad de la red) 2016 = Report on supervision in Spain of European regulations on access to an open Internet (Net Neutrality) 2016

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Sweden

PTS (2017), Föreskrifter om ändring i PTS's föreskrifter och allmänna råd (PTSFS 2013:3) om innehåll i datum = Regulations regarding amendment of PTS's regulations and instructions

(PTSFS 2013:3) on content in agreements, PTSFS 2017:4

PTS (2017), Konsumentklagomål på telefoni och bredband: Årsrapport 2017 = Consumer complaints on telephony and broadband: Annual Report 2017

PTS (2017), Vad innebär EU:s regler om ett öppet internet för dig som internetleverantör = How does the EU open internet rules concern you as an ISP?, PTS-F-2017:7

PTS (2017), Net neutrality report 2016/2017

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Ofcom (2017), What is net neutrality?

Ofcom (2017), Monitoring compliance with the EU Net Neutrality regulation: A report to the European Commission

Ofcom (2018), Monitoring compliance with the EU Net Neutrality regulation: A report to the European Commission

Note: During the data collection phase of the Study much more information was collected. This list of References is limited to the sources that were used for the assessment. The collected information was provided to the Commission separately.



Study on the implementation of the net neutrality provisions of the Telecoms Single Market Regulation

PART III - ANNEXES

A study prepared for the European Commission
DG Communications Networks, Content & Technology
by:



Table of Contents

Annex A: Data Collection Methodology	428
1.1. Data Collection Template Categories	429
1.2. General Questions.....	431
1.3. Conformity of ISP contracts with transparency obligations.....	432
Annex B: Survey Methodology	434
Survey preparation	435
Survey distribution	436
Annex C: Survey Questionnaires	437
Survey questionnaire for National Regulatory Authorities.....	438
Survey questionnaire for Consumer Protection Authorities	453
Survey questionnaire for Content, Applications and Services Providers.....	459
Survey questionnaire for Consumer Organisations	472
Survey questionnaire for Civil Society Organisations	479
Survey questionnaire for Data Protection Authorities.....	486
Survey questionnaire for Internet Access Providers.....	489
Annex D: Survey Results	503
Survey results for National Regulatory Authorities	504
Survey results for Consumer Protection Authorities.....	570
Survey results for Content, Applications and Services Providers	579
Survey results for Consumer Organisations.....	601
Survey under Consumer Organisations.....	601
Survey results for Civil Society Organisations.....	616
Survey results for Data Protection Authorities	631
Survey under Data Protection Authorities (DPA)	631
Survey results for Internet Access Providers	635

Annex A:

Data Collection Methodology

Data Collection Methodology

To structure the data collection throughout the EU, a Data Collection Template was created. All the data that the national teams collected were categorised and filed in this Data Collection Template.

The Data Collection Template consisted of five categories of documents: 1. Legislation; 2. NRA policy; 3. NRA enforcement; 4. Court cases; and 5. Other sources.

Furthermore, the Data Collection Template contained a list of general questions regarding the implementation of the Regulation in a Member State.

1.1. Data Collection Template Categories

The Data Collection Template consisted of the five aforementioned categories of data to be collected. We detailed a non-exhaustive list of types of documents per category:

Category	Types of documents
1. Legislation;	National legislation, regional legislation, decrees, resolution, etc. Include legislative proposals regarding the Regulation that were not formally implemented.
2. NRA policy;	Policy documents & publications such as annual reports, policy rules, guidelines, explanatory notes and information requests, etc.
3. NRA enforcement;	NRA enforcement cases, investigations and complaints.
4. Court cases; and	Court cases on enforcement, investigations, complaints or others.
5. Other sources.	Any other sources such as examples of self-regulation, codes of conduct, press statements, reports, academic papers, relevant articles etc. NOT to be collected: <ul style="list-style-type: none"> • economic papers; • documents and legal debates in the period prior to the Regulation; • consultation documents and consultation reactions; and • opinions that do not address pressing issues or gaps.

Several fields had to be filled in per category. Unless specified otherwise, all fields should be filled in in English. Below, we set out the fields asked per category:

1. Legislation	2. NRA policy
<ul style="list-style-type: none"> - Description of relevant national legislation (in force or proposed) - Reference to national law (section, article) - Document language - Status of legislation (date of (proposed) entry into force, date of withdrawal) - Relation to Regulation - Relevant article(s) from Regulation 	<ul style="list-style-type: none"> - Type of document - Document title in original language - Document title in English - Name issuer - Issuing date - Document language - Summary of the document - Status of the document

<ul style="list-style-type: none"> - Direct hyperlink to legislation or document (if available) - Additional remarks (if any) 	<ul style="list-style-type: none"> - Relevant article(s) from Regulation - Direct hyperlink to document (if available) - Additional remarks (if any)
3. NRA enforcement	4. Court cases
<ul style="list-style-type: none"> - Case Date - Source Reference - Name of enforcing party - i) Name of offending party; and ii) does it involve an incumbent? - Name of complaining party (if applicable) - Name of any other relevant parties - Document language - Description of infringement - Description of applied penalty rules and penalty imposed - Description of procedural steps so far, and ahead - Summary of the case - Cross reference to other relevant cases - Relevant article(s) from Regulation - Direct hyperlink to document (if available) - Additional remarks (if any) 	<ul style="list-style-type: none"> - Case date - Source reference - Case number - Claimant - Defendant - Name of any other relevant parties - Document language - Description procedure (court of first instance, higher courts, other comments, etc) - Description of infringement or other conflict - Description of applied penalty rules, if applicable - Summary of the case (if the case involves an NRA decision, specify whether the NRA decision was confirmed) - Cross reference to related cases - Relevant article(s) from Regulation - Direct hyperlink to document (if available) - Additional remarks (if any)
5. Other sources	
<ul style="list-style-type: none"> - Type of document - Author - Title in original language - Title in English - Issuer - Date of the document - Additional citation information - Document language - Main topic and summary of the document - Relevant article(s) from Regulation - Direct hyperlink to document (if available) - Additional remarks (if any) 	

To help the national teams identify which Articles of the Regulation might be relevant for the document, some examples of topics that often come up per Article were provided:

Relevant Articles:	Topics:
- 3.1	<ul style="list-style-type: none"> • Open internet access • Tethering
- 3.2	<ul style="list-style-type: none"> • Internet access service contract limiting open internet access
- 3.3	<ul style="list-style-type: none"> • Equal treatment of traffic • Tariff discrimination • Zero rating

	<ul style="list-style-type: none"> • Traffic management measures
- 3.4	<ul style="list-style-type: none"> • Data protection issues
- 3.5	<ul style="list-style-type: none"> • Specialised services
- 4.1	<ul style="list-style-type: none"> • Internet access service contract information
- 4.2	<ul style="list-style-type: none"> • Internet access service contract information complaint procedures
- 4.3	<ul style="list-style-type: none"> • Additional national monitoring, information and transparency requirements
- 4.4	<ul style="list-style-type: none"> • Certified internet access monitoring mechanisms
- 5.1	<ul style="list-style-type: none"> • General supervision
	<ul style="list-style-type: none"> • Additional monitoring tools
	<ul style="list-style-type: none"> • Minimum service requirements
	<ul style="list-style-type: none"> • Annual NRA report
- 5.2	<ul style="list-style-type: none"> • Requests for information concerning network capacity and traffic
- 5.3	<ul style="list-style-type: none"> • (Deviations from) BEREC guidelines
- 6	<ul style="list-style-type: none"> • Penalties

1.2. General Questions

To get a better understanding of the general situation regarding net neutrality in a country, the final spreadsheet of the Data Collection Template contained general questions. The list of general questions was as follows:

Themes
What are the predominant net neutrality themes in your country?
Definitions (Article 2)
To what extent have there been issues in your country regarding the definitions in Article 2 (e.g. 'public' v. 'non-public' or definition of Internet Access Services; "IAS")?
Transparency (Article 4)
Please describe the approach of your NRA with regard to transparency, by detailing: To what extent your NRA has introduced or maintained additional transparency requirements (Article 4 (1))?
To what extent has your NRA supervised and/or enforced compliance with the transparency requirements of Article 4 (1), broken down in the following categories: o impact of traffic management on IAS, privacy and data protection; o impact of Quality of Services ("QoS") on IAS; o explanation of internet speeds (minimal, maximal, normally available, advertised); and o information on remedies 'non-conformity'.
o impact of traffic management on IAS, privacy and data protection; o impact of Quality of Services ("QoS") on IAS; o explanation of internet speeds (minimal, maximal, normally available, advertised); and o information on remedies 'non-conformity'.
Did the NRA in your country make use of the possibility to certify a monitoring mechanism as described in Article 4 (4)? If the answer is no, is it planning to do so?
Have there been successful complaints from end-users in case of non-conformity (Article 4 (4))?

Supervision and enforcement (Article 5) and penalties (Article 6)
To what extent has your NRA introduced or will it introduce: i) additional monitoring tools (Article 4 (3)), ii) technical characteristics requirements and/or iii) minimal service requirements and other appropriate and necessary measures (and if so, which criteria are used to assess appropriateness/necessity?) (Article 5 (1))?
To what extent do your NRA's policies, decisions, etc. conform to the BEREC guidelines?
Briefly describe the penalty rules that have been implemented in your jurisdiction with regard to net neutrality; incl. the maximum fines (Article. 6).
Legislation
Was or is there in your country any pre-existing net neutrality legislation or proposals for legislation? If yes, please briefly describe to what extent such legislation was in line with the Regulation and the BEREC Guidelines and/or whether it needed to be modified or withdrawn.
Did the NRA in your country publish an annual report in 2017 that covered net neutrality? If the answer is yes, i) does the report solely focus on net neutrality (or is it a section in a report with a wider scope)? ii) what were the main topics covered related to net neutrality? iii) how many pages does the report have/deal with net neutrality? iv) does the report (or other sources) provide any information on the allocated resources for net neutrality (if SO, please briefly explain)?
What would best describe the overall attitude of your NRA with regard to supervision and enforcement of net neutrality provisions (Unresponsive; Reactive; Neutral; Pro-active; Activist; or Unknown)? Please explain briefly.

1.3. Conformity of ISP contracts with transparency obligations

Furthermore, the national teams collected information on contracts from ISPs. The purpose was to better compare and confirm compliance with the transparency obligations stipulated in Article 4(1) of the Regulation.

The national teams were asked to complete a table. The national teams were instructed to only look at contracts or information that is publicly available. It is also valuable to know that there is no information publicly available.

With regard to (major) ISPs that provide **fixed** internet services, the national teams were asked to review 3 contracts for the smaller countries and 5 contracts for the bigger countries.

With regard to ISPs that provide **mobile** internet services, the national teams were asked to review the contracts of all Mobile Network Operators (**MNOs**) in a member state. MNOs are the mobile operators that have their own complete wireless communication network in a member state. There was no need to include parties that offer mobile internet services under their own name while using an MNO's network (also known as MVNOs). Furthermore, the teams were asked to limit this part of the data collection to the main company of an MNO, and not to include subsidiaries of MNOs.

The national teams performed a legal quick scan of the contracts. The third to seventh columns of the tables below (Traffic Management Measures column – Remedies column) were filled in with one of the following responses:

- ✓ if the ISP has met the transparency obligation for that specific subject;
- X if the ISP has not met the transparency obligation for that specific subject) (e.g., an ISP states that it is "entitled to impose traffic management measures", such a broad statement will not suffice;
- ≈ if the ISP could improve the contract to meet the transparency obligation for that specific subject, please specify why in the comments;
- N/A if the ISP does not mention any information regarding that specific subject or no public information is available regarding the ISP's contract with regard to that specific subject; and
- NRA approval if the NRA has specified that the ISPs in your member state meet the transparency obligation for that specific subject, please refer to the relevant NRA policy document or the page in the NN-report in the comments

Fixed ISPs

#	ISP Name	(a) 1322	(b) 1323	(c) 1324	(d) 1325	(e) 1326	Comments
1							
2							
3							
(4)							
(5)							

MNOs (main company)

#	ISP Name	(a) 1327	(b) 1328	(c) 1329	(d) 1330	(e) 1331	Comments
1							
2							
3							
(4)							
(5)							

The quick scan of the ISPs' contracts in the EU Member States was performed in April 2018.

¹³²² Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹³²³ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹³²⁴ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹³²⁵ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹³²⁶ Remedies, as further set out in Article 4(1)(e) of the Regulation.

¹³²⁷ Traffic management measures, as further set out in Article 4(1)(a) of the Regulation.

¹³²⁸ Quality of service parameters, as further set out in Article 4(1)(b) of the Regulation.

¹³²⁹ Specialised services, as further set out in Article 4(1)(c) of the Regulation.

¹³³⁰ Internet speeds, as further set out in Article 4(1)(d) of the Regulation.

¹³³¹ Remedies, as further set out in Article 4(1)(e) of the Regulation.

Annex B:

Survey Methodology

Survey methodology

Surveys were used as a means of additional data collection and had as their main objective to fill the gaps in and complement the data on the implementation of the TSM Regulation gathered under Task 1 by country experts.

Survey preparation

The **selection of stakeholder groups** to be targeted by surveys was based on the outcomes of subtask 2.1 and was coordinated with the Commission. The criteria used for the selection of stakeholder groups were as follows:

- Coverage of main stakeholder groups, specifically NRAs, Internet access providers, content providers, end-users;
- Coverage of EU-28, i.e. a representative organisation, a provider and NRA in each EU Member State has to be surveyed;
- The ability to clarify or complement the collected data or to fill in gaps in data.

Based on these criteria, we identified the following target groups of respondents for the survey:

1. National regulatory authority for electronic communications (NRA);
2. Internet access provider (IAS);
3. Content, applications and services provider (CAP);
4. For end-users: Consumer protection authority (CA), Consumer organisation (CO), Data protection authority (DPA), Civil society organisations (CSO).

The **preparation of the survey questionnaires** was guided by the need to clarify or complement the collected data or to fill in gaps in data. We have conducted a preliminary analysis of the data collected during the desk-research phase (under Task 1) by our country experts and identified the topics and issues that were not addressed at all or on which the data was not conclusive (i.e. was gathered only on one stakeholder group or was contradictory). The analysis of this data was thematic, meaning that it was structured according to relevant articles of the TSM Regulation.

After identifying the topics and issues to be addressed, we attributed them to a specific stakeholder group that is best placed to supply the necessary data and information and developed questions accordingly. This means that some questions were directed at several stakeholder groups (e.g. background questions and general questions on the TSM Regulation) and some only at one. Based on this, we developed an individual questionnaire for each stakeholder group. For each type of organisations representing/ protecting interests of end-users, we had to develop slightly different questionnaire due to the difference in their competence.

As a result, seven different questionnaires were prepared for the following stakeholder groups:

1. National regulatory authority for electronic communications (NRA)
2. Data protection authority
3. Internet access provider (IAS)
4. Content, applications and services provider (CAP)
5. Consumer protection authority (CA)
6. Consumer organisation (CO)
7. Civil society organisation (CSO)

All questionnaires were prepared in English. The questionnaires are attached as **Annex C**. The raw answers given to the surveys are attached as **Annex D**.

Survey distribution

The first six surveys were launched on 05 June 2018, and CSO survey was added and launched on 25 June 2018.

All surveys were distributed via two channels:

- 1) Invitations sent by the survey software (further – by email), and
- 2) Invitations sent on our behalf (further – via weblink; by the European Commission, DG JUST, to the consumer protection authorities).

We chose the distribution channel based on what data and input we had received from the Commission and stakeholders and found via desk research. CA were approached on our behalf by DG JUST and NRA by DG CNECT. IAS, CAP, CO, CSO and DPA were approached exclusively via email. The table below provides the exact numbers of those approached by email. We are not able to present the numbers on those who were approached the survey via the web link.

After 7 days, to those who was approached by us via email, we also sent reminders about the participation in the survey. We sent two types of reminders:

- 1) To complete the survey where only a partial response was given, and
- 2) To participate in the survey where no response was given.

The data were further cleaned; meaning that some of the answers were removed, which is necessary to avoid that the data is flawed due to:

- Complete lack of responses in the survey (i.e. the respondent simply clicked through skipping all questions); or
- Only a few (2-3) questions were answered; or
- Wrong target group (i.e. if by mistake a respondent answered to a questionnaire that was intended for a different stakeholder group, it would be cut out after the first question, but the response is registered); or
- Duplication of responses (e.g. the respondent answered twice because it was approached via email and via web).

In addition, in a few cases responses via email were provided. These have been added manually to the survey answers.

Annex C:

Survey Questionnaires

Survey questionnaires

Survey questionnaire for National Regulatory Authorities

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. None of the above

2. What country are you from?

Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Resources

3. Please provide an estimate on the number of all employees and FTEs (full time employees) in your organisation involved in net neutrality issues (annual average in 2017). *[please provide numbers]*

	Annual average in 2017
Number of all persons	
Number of FTEs	

4. Please provide an estimate on the amount of operating cost (non-employee) spent on the net-neutrality issues, annual average in 2017 (in local currency). *[please provide numbers and currency]*

Section 3 – End user rights (TSM Regulation, Article 3(1))

5. Please provide the following information regarding investigations into Article 3(1) violations since 30.04.2016: *[please provide numbers]*

	Number
Total number of investigations since 30.04.2016	
Number of investigations started ex-officio	
Number of investigations were based on complaint	

6. Out of investigations based on complaint, please estimate a share for each type of complainant: *[please provide percentages]*

	%
An Individual consumer	
A consumer organization	
A competitor	
Other, please specify [...]	

7. Which issues concerning article 3(1) were a topic of investigation? *[multiple answers possible]*

- a. Open internet access
- b. Access and distribution of information and content
- c. Use and provision of applications and services
- d. Free use of terminal equipment/tethering: Consumers could only make use of an Internet access service by using the router of the Internet access provider
- e. Free use of terminal equipment/tethering: Internet access providers limited the type(s) of devices, through which end-users could make use of the Internet access service
- f. Free use of terminal equipment/tethering: Other
- g. Other, please specify [...]

8. What complaints have you received? *[please provide numbers]*

	Number of complaints
Open internet access	
Access and distribution of information and content	
Use and provision of applications and services	
Free use of terminal equipment/tethering: Consumers could only make use of an Internet access service by using the router of the Internet access provider	
Free use of terminal equipment/tethering: Internet access providers limited the type(s) of devices, through which end-users could make use of the Internet access service	
Free use of terminal equipment/tethering: Other	
Other [as in question 7]	

9. Have these issues been resolved? *[please tick the appropriate box]*

	Yes, fully	Yes, partially	No	Not applicable
Open internet access				
Access and distribution of information and content				
Use and provision of applications and services				
Free use of terminal equipment/tethering: Consumers could only make use of an Internet access service by using the router of the Internet access provider				

Free use of terminal equipment/tethering: Internet access providers limited the type(s) of devices, through which end-users could make use of the Internet access service				
Free use of terminal equipment/tethering: Other				
Other [as in question 7]				

10. How have these issues been resolved? *[open question; please describe]*

11. What restrictions are imposed by the IASs? *[multiple answers possible]*

- a. End-users can use only IAS' equipment (technical restrictions).
- b. End-users can use only certified equipment (technical restrictions).
- c. Other technical restrictions
- d. Other, please specify [...]
- e. There are no restrictions imposed

12. Please provide information on restrictions on the use of end-users' equipment: *[please provide numbers]*

	Number
The number of Internet access providers that restrict the ability of end-users to use their own equipment in any way	
The share of end-users that is affected (in percentages)	

13. Did you provide additional guidance related to the implementation of article 3(1)?

- a. Yes, the guidance was provided to individual organisations
- b. Yes, guidance of general nature was provided
- c. Yes, other guidance was provided, please specify [...]
- d. No

14. To which organisations have you provided guidance?

Please specify name and type of organisation. *[open fields; please provide information]*

- a. Internet access providers
- b. Content, applications and services providers
- c. Consumers
- d. Consumer organisations

15. What was the topic of the guidance? *[multiple answers possible]*

- a. Open internet access
- b. Free use of terminal equipment/tethering
- c. Access and distribution of information and content
- d. Use and provision of applications and services
- e. Other, please specify [...]

16. Is the additional guidance related to the implementation of article 3(1) publicly available?

- a. Yes
- b. No

Section 4 – Commercial and technical conditions that limit end-user rights (TSM Regulation, Article 3(2))

17. Please provide the following information regarding investigations into Article 3(2) violations since 30.04.2016:

[please provide numbers]

	Number
Total number of investigations since 30.04.2016	
Number of investigations started ex-officio	
Number of investigations were based on complaint	

18. Out of investigations based on complaint, please estimate a share for each type of complainant:

[please provide numbers]

	%
An Individual consumer	
A consumer organization	
A competitor	
Other, please specify [...]	

19. Which issues concerning article 3(2) were a topic of investigation? *[please provide numbers]*

	Number of investigations	Number of enforcement actions
IAS contracts that limited open internet access		
Commercial practices (e.g. zero rating)		
Commercial agreements		
Price of internet access services		
Data volumes or speed		
Other, please specify [...]		

20. What types of enforcement actions against infringements of Article 3(2) of the TSM Regulation did you take?

[Please provide the number (estimate) how many times the different types of enforcement actions have been employed since 30 April 2016]

	Number of times
a. Informal discussion with the IAS	
b. Still ongoing investigation into the infringement	
c. Formally requested the IAS to stop the infringement	
d. Imposed a fine on the IAS	
e. Other, please specify [...]	

21. Please indicate how many times (estimate) since 30 April 2016 your enforcement actions resulted in the following: *[please provide numbers]*

	Number of times
a. The Internet access provider (IAS) stopped infringing Article 3(2)	
b. The IAS appealed the decision	
c. Other, please specify [...]	

22. If you investigated any zero-rating practices, what legal basis did you use?

- a. Article 3(2) of the TSM Regulation
- b. Article 3(3), first paragraph, of the TSM Regulation

- b. Content, applications and services providers
- c. Consumers
- d. Consumer organisations

29. What was the topic of the guidance? *[multiple answers possible]*

- a. IAS contracts that limited open internet access
- b. Commercial agreements and practices (e.g. zero rating)
- c. Price of internet access services
- d. Data volumes or speed
- e. Other, please specify [...]

30. Have there been issues regarding IASs contractually banning the use of specific content or applications? *[multiple answers possible]*

Please summarize the issues. *[open fields; please describe]*

- a. IASs ban specific illegal content, please specify
- b. IASs ban other content, please specify
- c. IASs ban certain applications, please specify
- d. Other, please specify [...]
- e. None of the above

Section 5 – Traffic management (TSM Regulation, Article 3(3))

31. Are IASs required to block any of the following? *[multiple answers possible]*

- a. Specific content
- b. Specific websites
- c. Apps
- d. Ports
- e. Other, please specify [...]
- f. None of the above

32. What are the reasons for the required blocking? *[multiple answers possible]*

- a. The blocking is required by law
- b. To protect consumers from spam and other harmful content
- c. To protect the integrity of the general internet infrastructure
- d. I don't know
- e. Other, please specify [...]

33. Which ports, content or websites are IASs required to block? *[multiple answers possible]*

- a. Specific content *[open question; please specify]*
- b. Specific websites *[open question; please specify]*
- c. Apps *[open question; please specify]*
- d. Ports *[open question; please specify]*
- e. Other, please specify [...]*[open question; please specify]*

34. Do you allow Internet access providers in your country to block certain ports (without being obliged to do so on your request)?

- a. Yes
- b. No

35. What are the reasons to allow IASs blocking of certain ports?
- To protect consumers from spam and other unwanted content
 - To protect the integrity of the general internet infrastructure
 - Other, please specify [...]

On traffic management

36. How many enforcement actions have you taken related to traffic management, filtering or content differentiation/discrimination? *[please provide a number]*

NOTE: The next set of questions [Q37-40] refers to the last case related to traffic management that you handled.

37. What were the reasons for the enforcement action? *[multiple answers possible]*
- We received a complaint
 - We were informed of the infringement during informal discussions with IASs
 - We heard about the infringement through our network or in the press
 - Other, please specify [...]

38. What were the enforcement actions taken?
- Informal discussions
 - Informal warnings
 - Formal warnings
 - Request for information
 - formal investigations
 - Threat of publication on non-conformity
 - Requests for amending practices and/or conditions
 - Prohibition of conducting business
 - Order to bring the infringement to an end
 - Coercive administrative action
 - Order subject to an incremental penalty or other measure
 - Conditional or unconditional fine
 - I am not aware of any such measures.
 - There are no such measures in place.
 - Other, please specify [...]

39. Has the case related to traffic management infringement been resolved?
- Yes
 - No

40. How was it resolved? *[open question; please describe]*

On filtering

41. How many enforcement actions have you taken related to filtering infringements since 30 April 2016? *[please provide a number]*

NOTE: The next set of questions [Q42-45] refers to the last case related to filtering that you handled.

42. What were the grounds for the enforcement action you have taken in the case related to filtering?
- We received a complaint
 - We were informed of the infringement during informal discussions with Internet access providers
 - We heard about the infringement through our network or in the press
 - Other, please specify [...]
43. What was/were the enforcement action(s) taken in the last case related to filtering? *[multiple answers possible]*
- Informal discussions
 - Informal warnings
 - Formal warnings
 - Request for information
 - formal investigations
 - Threat of publication on non-conformity
 - Requests for amending practices and/or conditions
 - Prohibition of conducting business
 - Order to bring the infringement to an end
 - Coercive administrative action
 - Order subject to an incremental penalty or other measure
 - Conditional or unconditional fine
 - Other, please specify [...]
 -
44. Has the case related to filtering been resolved?
- Yes
 - No
45. How was it resolved? *[open question; please describe]*

On content differentiation/ discrimination

46. How many enforcement actions have you taken related to content differentiation/ discrimination infringements since 30 April 2016?

NOTE: The next set of questions [Q47-50] refers to the last case related to content differentiation/ discrimination that you handled.

47. What were the grounds for the enforcement action you have taken in the case related to content differentiation/ discrimination?
- We received a complaint
 - We were informed of the infringement during informal discussions with Internet access providers
 - We heard about the infringement through our network or in the press
 - Other, please specify [...]

If Q46 >0, ask Q48, otherwise ask Q51.

48. What was/were the enforcement action(s) taken in the last case related to content differentiation/ discrimination?
- Informal discussions
 - Informal warnings
 - Formal warnings
 - Request for information
 - formal investigations

- f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n.
49. Has the case related to content differentiation/ discrimination been resolved?
- a. Yes
 - b. No
50. How was it resolved? *[open question; please describe]*

Continuation of the main questionnaire

51. Do you provide guidance related to the implementation of article 3(3)?
- a. Yes, the guidance was offered to individual organisations
 - b. Yes, the guidance of general nature was provided
 - c. Yes, other guidance was provided, please specify [...]
 - d. No
52. To which organisations have you provided guidance? Please specify name and type of an organisation.
- a. Internet access providers
 - b. Content, applications and services providers
 - c. Consumers
 - d. Consumer organisations
53. What was the topic of the guidance? *Multiple answers possible.*
- a. Equal treatment of traffic
 - b. Tariff discrimination
 - c. Zero rating
 - d. Traffic management measures
 - e. Reasonable traffic management
 - f. Blocking specific ports, content or websites
 - g. Other, please specify [...]

Section 5 – Traffic management (TSM Regulation, Article 3(5))

54. What IAS provide specialised services? Please provide the names of up to 10 companies and their market shares in percentages.

Company name	Market share

55. Why is the optimisation of the specialised service(s) required?

56. Have you encountered complaints about specialised services offered by IASs in your Member State?

- a. Yes, from individual consumers
- b. Yes, from consumer organisations
- c. Yes, from competitors
- d. Yes, from another organisation, please specify [...]
- e. No

57. What kind of complaints have you encountered about specialised services offered by IASs in your Member State?

[multiple answers possible]

- a. The specialised service disrupted the functioning of the IAS
- b. The specialised service was not properly optimised for the type of service offered
- c. Other, please specify [...]

58. Have you encountered any other issues regarding specialised services offered by IASs in your Member State?

- a. Yes
- b. No

59. What were the issues related to?

- a. Internet access providers were unsure what the requirements for offering specialised services were
- b. Internet access providers limited their offers to specialised services
- c. Other, please specify [...]

60. Have the issue(s) been resolved?

- a. Yes
- b. No

61. How were these issues regarding specialised services resolved? *[open question; please describe]*

62. Have you taken any enforcement measures related to specialised services?

- a. Yes
- b. No

63. What kind of action was taken? *[multiple answers possible]*

- a. Informal discussion with the IAS
- b. Still ongoing investigation into the infringement
- c. Formally requested the IAS to stop the infringement
- d. Imposed a fine on the IAS
- e. Other, please specify [...]

64. What was the result of the action? *[multiple answers possible]*

- a. The IAS stopped infringing article 3(5)
- b. The IAS appealed the action
- c. Other, please specify [...]

Section 6 – Contract information (TSM Regulation, Article 4(1))

65. Do you agree with the following statement

- a. The information required by the TSM Regulation can be found in one location (contract, terms and conditions or website).
- b. The information required by the TSM Regulation is easily understandable for consumers.

Answer categories:

- Fully agree
- Agree
- Neither agree or disagree
- Disagree
- Fully disagree

66. How many IASs did not provide easy access to the required information? *[please provide a number]*

67. Which Internet access providers did not provide easy access to the required information? *[open question; please describe]*

68. What kind of actions did you take in relation to information requirements of the TSM Regulation? *[multiple answers possible]*

- a. Informal discussion with the IAS
- b. Still ongoing investigation into the infringement
- c. Formally requested the IAS to stop the infringement
- d. Imposed a fine on the IAS
- e. Other, please specify [...]
- f. No actions were taken

Section 7 – Additional monitoring, information and transparency requirements (TSM Regulation, Article 4(3))

69. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of TSM Regulation? *[multiple answers possible]*

- a. Additional contract information must be provided
- b. The information must be provided in a specific manner
- c. End-users must be allowed to make use of alternative dispute mechanisms
- d. Other, please specify [...]
- e. There are no additional requirements.

70. When were these requirements introduced?

Requirement	Before the TSM Regulation	After the TSM Regulation	N/A
Additional contract information must be provided			
The information must be provided in a specific manner			
End-users must be allowed to make use of alternative dispute mechanisms			

Requirement	Before the TSM Regulation	After the TSM Regulation	N/A
Other <i>[answer to question 69d]</i>			

Section 8 – Monitoring mechanisms (TSM Regulation, Article 4(4))

71. Is there an online monitoring mechanism in place in your MS for end-users to test conformity of performance (for example on speeds)?

- a. Yes
- b. No

72. Do you agree with the following statements?

- a. Monitoring mechanism is necessary for consumers to test conformity of performance.
- b. It is necessary to certify the monitoring mechanism.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

73. Why is a monitoring mechanism for consumers to test conformity of performance necessary? *[multiple answers possible]*

- a. It lowers barriers for consumers to (successfully) raise non-conformity of performance claims.
- b. It is essential for end-users to raise issues regarding non-conformity of performance.
- c. It allows the NRA to monitor, supervise and enforce obligations for Internet access providers.
- d. Other, please specify [...]

74. Why is it necessary to certify the monitoring mechanism? *[open question; please describe]*

75. What do you consider to be the requirements for certification of a monitoring mechanism? *[open question; please describe]*

76. How many times have end-users used the monitoring mechanism since 30th April 2016? *[please provide a number]*

77. Do you utilise the available monitoring mechanism for monitoring, supervision and enforcement obligations?

- a. Yes
- b. No

78. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*

79. Are the data generated with the monitoring mechanism stored?

- a. Yes, all the data are stored
- b. Yes, partially
- c. No
- d. I don't know

80. What data are stored?
- The name of the user
 - The date and time of the measurement
 - The result of the measurement
 - The name of the IAS whose IAS was measured
 - Other, please specify [...]
81. Did you follow the relevant BEREC documents¹³³² when implementing or supporting a monitoring mechanism?
- Yes
 - Yes, partially
 - No
82. Does the monitoring mechanism make use of a speed measurement methodology?
- Yes
 - No

Section 9 – Supervision and enforcement (TSM Regulation, Article 5(1))

83. How do you monitor the compliance of IASs with article 3.3, in particular concerning the management of network capacity and traffic? *[open question; please describe]*
84. Did you impose requirements listed in Article 5(2)?
- Yes, concerning technical characteristics on one or more providers of electronic communications to the public, including providers of IAS
 - Yes, concerning minimum quality of service on one or more providers of electronic communications to the public, including providers of IAS
 - Yes, other, please specify
 - No requirement are imposed

85. Did you follow the structure recommended in the BEREC guidelines for your annual net neutrality monitoring report?
- Yes
 - No

86. Why did you not follow the structure recommended by BEREC?
- As it was a recommended structure, I did not feel obliged to use the structure
 - It did not fit our national circumstances
 - Other, please specify [...]
 - None of the above

Section 10 – Supervision and enforcement (TSM Regulation, Article 5(2))

87. How many times did you ask Internet access providers to provide any information concerning one of the following issues?

¹³³² BEREC Guidelines, BoR (15) 207, BoR (17) 178, BoR (14) 117, BoR (11) 53

	Number of times
Management of network capacity	
Management of network traffic	
Justifications for any traffic management applied	
Other information, please specify [...]	

88. Did the Internet access providers provide with the requested information within the time-limits and level of detail you require?

- a. Yes
- b. Partially
- c. No

89. What was the reason for not making the requested information available within the time-limits and level of detail you require?

- a. The IAS did not have the requested information.
- b. The IAS refused to provide the requested information.
- c. I don't know
- d. Other, please specify [...]

Section 11 – Supervision and enforcement (TSM Regulation, Article 5(3))

90. Do you agree with the following statements:

- a. The available enforcement measures are **effective** to achieve conformity with the Regulation.
- b. The available enforcement measures are **proportionate** to achieve conformity with the Regulation.
- c. The available enforcement measures are **dissuasive** to achieve conformity with the Regulation.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

91. Do you agree with the following statements:

- a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- c. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- d. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

End of survey

Survey questionnaire for Consumer Protection Authorities

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. None of the above

2. What country are you from?

What country are you from?	
Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Introduction

3. What powers and responsibilities do you have with regard to ensuring net neutrality (supervision, investigation, enforcement/administrative action, none, etc.)? *[open question; please describe]*
4. How involved are you with regard to ensuring net neutrality and specifically in ensuring the TSM Regulation is complied with?
 - a. Not involved
 - b. Only involved for consumer complaints
 - c. Involved for consumer complaints and transparency measures
 - d. Fully involved
5. What are the most important topics covered in the TSM Regulation? *[multiple answers possible]*
 - a. Open internet access
 - b. Use of terminal equipment / tethering
 - c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management

- g. Zero-rating
- h. Possible exceptions
- i. Transparency on quality of services
- j. Transparency on remedies in case of insufficient quality
- k. Existence of transparent, simple and efficient procedures to address complaints
- l. Supervision and enforcement guidelines
- m. Penalty guidelines
- n. Other, please specify [...]

Section 3 – End user rights (TSM Regulation, Article 3)

6. How many complaints from individual consumers on issues concerning Article 3 of the TSM Regulation have you received since 30th April 2016? *[please provide a number]*

7. On which issues have complaints been received? *[multiple answers possible]*

- a. Open internet access
- b. Use of terminal equipment / tethering
- c. Contractual limitations
- d. Equal treatment of traffic
- e. Tariff discrimination
- f. Reasonable traffic management
- g. Zero-rating
- h. Possible exceptions
- i. Other, please specify [...]
- j. We received no complaints

8. How many complaints have you received per issue? *[please provide numbers]*

Issue	Number of complaints
a. Open internet access	
b. Use of terminal equipment / tethering	
c. Contractual limitations	
d. Equal treatment of traffic	
e. Tariff discrimination	
f. Reasonable traffic management	
g. Zero-rating	
h. Possible exceptions	
i. Other	

9. How did you deal with these complaints? *[please provide numbers]*

Action	Number of complaints
a. Investigate complaint - unfounded	
b. Investigate complaint – well-founded	
c. Lodge an official complaint with NRA	
d. Start informal discussions with the NRA	
e. Lodge an (class) action with a national court	
f. Administrative action (such as an order subject to an incremental penalty or other measure)	

g. Compile a press release or other publicly available document	
h. Publish complaint	
i. Register complaint, but no further action	
j. Do nothing	

10. On all the complaints that were well-founded, please indicate the measure taken. *[please provide numbers]*

Measure	Number of complaints
a. Publication	
b. Administrative action (such as an order subject to an incremental penalty or other measure)	
c. Fine imposed	
d. Damages compensated	
e. Moral suasion measures taken (such as discussions with relevant party, warnings, request for information, request for amending practises without the threat of a fine or action)	
f. Other, please specify	

11. In how many cases did your lodging of a complaint/starting of informal discussions with the NRA of a consumer complaint have the following result: *[please provide numbers]*

Result	Number of complaints referred to NRA
The NRA started an official investigation	
The NRA rejected the complaint	
The NRA took action towards the IAS	
There was no NRA follow-up	

12. Please describe the result/status of the (class) action(s) you lodged the national court resulting from consumer complaints you received. *[open question; please describe]*

13. Please describe the result/status of the (class) administrative action(s) you undertook resulting from consumer complaints you received. *[open question; please describe]*

Section 3 - Additional monitoring, information and transparency requirements (TSM Regulation, Article 4)

14. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*

- a. Additional contract information must be provided
- b. The information must be provided in a specific manner
- c. End-users must be allowed to make use of alternative dispute mechanisms
- d. There are no additional requirements.
- e. Other, please specify [...]

15. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

- a. Yes
- b. No

16. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?
- Yes
 - No
17. What online tools do consumers utilise? *[open question; please describe]*
18. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*
19. Are the data generated with the monitoring mechanism stored?
- Yes, all the data are stored
 - Yes, partially
 - No
 - I don't know
20. What data are stored? *[multiple answers possible]*
- The name of the user
 - The date and time of the measurement
 - The result of the measurement
 - The name of the IAP whose IAS was measured
 - Other, please specify [...]
21. Are data generated used for other purposes than for end-users to test conformity of performance? *[open question; please describe]*

Section 4 – Penalties (TSM Regulation, Article 6)

22. What instruments does the NRA in your country practically and effectively use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*
- Informal discussions
 - Informal warnings
 - Formal warnings
 - Request for information
 - formal investigations
 - Threat of publication on non-conformity
 - Requests for amending practices and/or conditions
 - Prohibition of conducting business
 - Order to bring the infringement to an end
 - Coercive administrative action
 - Order subject to an incremental penalty or other measure
 - Conditional or unconditional fine
 - Other, please specify [...]
 - There are no such instruments in place
23. Which enforcement measure available in your country do you consider the most effective to achieve conformity with the TSM Regulation?
- Informal discussions
 - Informal warnings

- c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
24. Which enforcement measure available in your country do you consider the most proportionate to achieve conformity with the TSM Regulation?
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
25. Which enforcement measure available in your country do you consider the most dissuasive to achieve conformity with the TSM Regulation?
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.

Section 5 – General view on the TSM Regulation

26. Do you agree with the following statements:

- e. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- f. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- g. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- h. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

End of survey

Survey questionnaire for Content, Applications and Services Providers

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. None of the above

2. In how many EU Member States are you active?
 - a. In only one Member State.
 - b. In several Member States.
 - c. We are not active in the EU at all.

Survey questions for single country CAPS

For multi-country CAPS, please see page 9

3. In which Member State(s) are you active?

What country are you from?	
Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Safeguarding of open internet access (TSM Regulation, Article 3 (1))

4. Did you engage in informal discussions with the NRA in your country regarding Article 3?
 - a. Yes, before the entry into force of the TSM Regulation.
 - b. Yes, after the entry into force of the TSM Regulation.
 - c. Yes, before and after the entry into force of the TSM Regulation.
 - d. No, we did not engage in discussions with the NRA.

5. Which issues regarding Article 3 of the TSM Regulation "Safeguarding of open internet access" were informally discussed with the NRA? *Multiple answers possible.*
 - a. Open internet access
 - b. Use of terminal equipment / tethering

- c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management
 - g. Zero-rating
 - h. Possible exceptions
 - i. Other, please specify [...]
6. Was there any follow-up by the NRA on Open internet access?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access provider.
 - c. Other, please specify [...]
 - d. There was no follow-up.
7. Was there any follow-up by the NRA on Use of terminal equipment / tethering?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access provider.
 - c. Other, please specify [...]
 - d. There was no follow-up.
8. Was there any follow-up by the NRA on Contractual limitations?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access provider.
 - c. Other, please specify [...]
 - d. There was no follow-up.
9. Was there any follow-up by the NRA on Equal treatment of traffic?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access provider.
 - c. Other, please specify [...]
 - d. There was no follow-up.
10. Was there any follow-up by the NRA on Tariff discrimination?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access provider.
 - c. Other, please specify [...]
 - d. There was no follow-up.
11. Was there any follow-up by the NRA on Reasonable traffic management?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access providers.
 - c. Other, please specify [...]
 - d. There was no follow-up.
12. Was there any follow-up by the NRA on Zero-rating?
- a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access providers.
 - c. Other, please specify [...]
 - d. There was no follow-up.

13. Was there any follow-up by the NRA on Possible exceptions?
- The NRA started an official investigation.
 - The NRA started informal discussions with the Internet access providers.
 - Other, please specify [...]
 - There was no follow-up.
14. Was there any follow-up by the NRA on issues related to [other]? *[multiple answers possible]*
- The NRA started an official investigation.
 - The NRA gave public guidance on how to deal with this issue
 - The NRA gave informal guidance on how to deal with this issue
 - Other, please specify [...]
 - There was no follow-up
15. Did you engage in negotiations with the Internet access providers regarding zero-rating?
- Yes
 - No
16. Did you conclude any commercial agreement regarding zero-rating with the Internet access providers?
- Yes
 - No
17. Are these exclusive agreements?
- Yes, all agreements are exclusive
 - Some agreements are exclusive
 - No agreements are exclusive
18. What were the reasons that no agreement was reached with Internet service providers (IAS)? *Multiple answers possible.*
- Too expensive
 - Unsuccessful negotiation
 - Unfavourable conditions
 - Regulatory concerns
 - The IAS decided to stop the negotiations
 - Other, please specify [...]
19. Which of your services are most often zero-rated? *Multiple answers possible.*
- Audio-streaming
 - Video-streaming
 - Cloud storage
 - Communication (text)
 - Communication (VoIP)
 - IAS customer services
 - Social media
 - Navigation services
 - Information/news
 - Banking
 - Gaming
 - Other, please specify [...]

20. Did you observe any effect of zero-rating on consumer behaviour?

- a. Consumers use more data
- b. Consumers use less data
- c. Consumers switch to non zero-rated services
- d. Other, please specify [...]
- e. There was no observed effect on consumer behaviour

Section 3 – Traffic management (TSM Regulation, Article 3 (3))

21. Do any of the following Traffic Management measures affect your services? *[multiple answers possible]*

- a. Blocking
- b. Throttling/ slowing down
- c. Alteration
- d. Restriction
- e. Interference with the service
- f. Degradation
- g. Discrimination
- h. Other, please specify [...]
- i. Traffic Management measures do not affect our services

Section 4 – Specialised services (TSM Regulation, Article 3 (5))

22. Which specialised service(s) do you provide to end-users? *[multiple answers possible]*

- a. IPTV
- b. VoIP
- c. VoLTE
- d. LTE Broadcast
- e. Real-time health services
- f. Services to specific industrial sectors (eg. automotive, energy, utilities, transport)
- g. Other, please specify [...]
- h. We do not provide specialized services.

23. Why is the optimisation of specialised services, that are provided on your network, required? *[open question; please describe]*

24. Please describe any problems you experience when providing specialised service across the EU. *[open question; please describe]*

Section 5 – Monitoring mechanisms (TSM Regulation, Article 4 (4))

25. Do you agree with the following statement:

- Monitoring mechanism is necessary for consumers to test conformity of performance.

Answer categories:

- Fully agree
- Agree
- Neither agree or disagree
- Disagree
- Fully disagree

26. Why is a monitoring mechanism for consumers to test conformity of performance necessary? *Multiple answers possible.*
- It lowers barriers for consumers to (successfully) raise non-conformity of performance claims.
 - It is essential for end-users to raise issues regarding non-conformity of performance.
 - It allows the NRA to monitor, supervise and enforce IAS obligations.
 - Other, please specify [...]
27. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?
- Yes
 - No
28. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?
- Yes
 - No
29. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*

Section 6 – Supervision and enforcement (TSM Regulation, Article 5(1))

30. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of TSM Regulation? *[multiple answers possible]*
- Informal discussions
 - Requests for information
 - Surveys
 - Consultations
 - Other, please specify [...]
 - There are no monitoring measures in place.
31. What measures are taken by the NRA to ensure compliance the requirements laid down in Articles 3 and 4 of TSM Regulation? *[multiple answers possible]*
- Informal discussions
 - Informal warnings
 - Formal warnings
 - Request for information
 - formal investigations
 - Threat of publication on non-conformity
 - Requests for amending practices and/or conditions
 - Prohibition of conducting business
 - Order to bring the infringement to an end
 - Coercive administrative action
 - Order subject to an incremental penalty or other measure
 - Conditional or unconditional fine
 - Other, please specify [...]
 - There are no such measures in place.
32. What measure(s) are taken by the NRA to promote the continued availability of non-discriminatory Internet access service at levels of quality that reflect advances in technology? *[multiple answers possible]*

- a. Information on website
- b. Brochures
- c. Educational meetings
- d. Other, please specify [...]
- e. There are no such measures in place.

33. Did the NRA impose requirements concerning technical characteristics on one or more providers of electronic communications to the public, including providers of IAS?

- a. Yes
- b. No
- c. I don't know

Section 7 – Penalties (TSM Regulation, Article 6)

34. What instruments does the NRA in your country practically and effectively use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action
- k. Order subject to an incremental penalty or other measure
- l. Conditional or unconditional fine
- m. Other, please specify [...]
- n. There are no such instruments in place

35. Which enforcement measures available in your country do you consider the most effective to achieve conformity of providers of Electronic Communications Services with the TSM Regulation? *[multiple answers possible; maximum three]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action
- k. Order subject to an incremental penalty or other measure
- l. Conditional or unconditional fine
- m. Other, please specify [...]
- n. There are no such measures in place

36. Which enforcement measures available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum three]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action
- k. Order subject to an incremental penalty or other measure
- l. Conditional or unconditional fine
- m. Other, please specify [...]
- n. There are no such measures in place

37. Which enforcement measures available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum three]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action
- k. Order subject to an incremental penalty or other measure
- l. Conditional or unconditional fine
- m. Other, please specify [...]
- n. There are no such measures in place

38. What is the effect of diverging approaches to penalties across EU Member States on your business? *[multiple answers possible]*

- a. Less administrative pressure to comply
- b. More administrative pressure to comply
- c. Less room to experiment with services
- d. More room to experiment with services
- e. Other, please specify [...]
- f. Diverging approaches do not present any effect.

Section 8 – General

39. Do you agree with the following statements:

- i. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- j. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

- k. The annual net neutrality monitoring report of your NRA is of high quality.
- l. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- m. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.
- n. The NRA acts in accordance with the BEREC Guidelines.
- o. The BEREC Guidelines led to a more consistent practice across Member States.

Answer categories:

- Fully agree
- Agree
- Neither agree or disagree
- Disagree
- Fully disagree

End of survey for single country CAPs

Survey questions for multi-country CAPs

40. In which Member State(s) are you active? *[multiple answers possible]*

Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Safeguarding of open internet access (TSM Regulation, Article 3 (1))

41. In which Member States did you engage in informal discussions with the NRA's regarding the net neutrality provisions of the TSM Regulation (if any)? *[multiple answers possible]*

42. When did the majority of these informal discussions take place?

- a. Before the entry into force of the TSM Regulation.
- b. After the entry into force of the TSM Regulation.
- c. Both before and after the entry into force of the TSM Regulation.

43. Which issues regarding Article 3 of the TSM Regulation "Safeguarding of open internet access" were most often informally discussed with the NRA? *[multiple answers possible; maximum of three]*
- Open internet access
 - Use of terminal equipment / tethering
 - Contractual limitations
 - Equal treatment of traffic
 - Tariff discrimination
 - Reasonable traffic management
 - Zero-rating
 - Possible exceptions
 - Other, please specify [...]
44. Which issues regarding Article 3 of the TSM Regulation "Safeguarding of open internet access" most often lead to actions by the NRA other than informal discussions? *[multiple answers possible; maximum of three]*
- Open internet access
 - Use of terminal equipment / tethering
 - Contractual limitations
 - Equal treatment of traffic
 - Tariff discrimination
 - Reasonable traffic management
 - Zero-rating
 - Possible exceptions
 - Other, please specify [...]
 - None
45. In which Member States that you are active in, did you engage in negotiations with the Internet access providers (IAS) regarding zero-rating (if any)? *[multiple answers possible]*
46. In which Member States did you conclude any commercial agreement regarding zero-rating with the Internet access providers (if any)? *[multiple answers possible]*
47. In which Member States are these commercial agreements exclusive agreements (if any)? *[multiple answers possible]*
48. In which Member States are your services included in a zero-rated offer (if any)? *[multiple answers possible]*
49. Do you have the same zero-rated offers in multiple Member States?
- Yes
 - No
 - I don't know
50. If the zero-rated offers differ across Member States, what are the main reasons for those differences? *[open question; please describe]*
51. Which of your services are most often zero-rated? *[multiple answers possible]*
- Audio-streaming
 - Video-streaming
 - Cloud storage

- d. Communication (text)
- e. Communication (VoIP)
- f. IAS customer services
- g. Social media
- h. Navigation services
- i. Information/news
- j. Banking
- k. Gaming
- l. Other, please specify [...]

52. Do you observe any effect of zero-rating on consumer behaviour?

- a. Consumers spend more data on my services
- b. Consumers spend less data on my services
- c. Consumers switch to non zero-rated services
- d. Other, please specify [...]
- e. There was no observed effect on consumer behaviour

Section 3 – Traffic management (TSM Regulation, Article 3 (3))

53. Do any of the following Traffic Management measures affect your services? *Multiple answers possible.*

- a. Blocking
- b. Throttling/ slowing down
- c. Alteration
- d. Restriction
- e. Interference with the service
- f. Degradation
- g. Discrimination
- h. Other, please specify [...]
- i. Traffic Management measures do not affect our services

Section 4 – Specialised services (TSM Regulation, Article 3 (5))

54. Which specialised service(s) do you provide to end-users? *[multiple answers possible]*

- a. IPTV
- b. VoIP
- c. VoLTE
- d. LTE Broadcast
- e. Real-time health services
- f. Services to specific industrial sectors (eg. automotive, energy, utilities, transport)
- g. Other, please specify [...]
- h. We do not provide specialised services.

55. Why is the optimisation of specialised services, that are provided on your network, required? *[open question; please describe]*

56. Please describe any problems you experience when providing specialised services across the EU. *[open question; please describe]*

Section 5 – Monitoring mechanisms (TSM Regulation, Article 4 (4))

57. Do you agree with the following statement:

- Monitoring mechanism is necessary for consumers to test conformity of performance of internet access services.

Answer categories:

- Fully agree
- Agree
- Neither agree or disagree
- Disagree
- Fully disagree

58. Why is a monitoring mechanism for consumers to test conformity of performance necessary? *[multiple answers possible]*

- a. It lowers barriers for consumers to (successfully) raise non-conformity of performance claims.
- b. It is essential for end-users to raise issues regarding non-conformity of performance.
- c. It allows the NRA to monitor, supervise and enforce IAS obligations.
- d. Other, please specify [...]

59. Are there any cases or complaints regarding your services/application based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?

- a. Yes
- b. No
- c. I don't know

Section 6 – Supervision and enforcement (TSM Regulation, Article 5(1))

60. Please select Member States in which NRAs provide the most effective supervision and enforcement. *[multiple answers possible; maximum of three]*

61. Please select Member States in which NRAs provide the least effective supervision and enforcement, in your opinion. *[multiple answers possible; maximum of three]*

Section 7 – Penalties (TSM Regulation, Article 6)

62. Which enforcement measures do you consider the most effective to achieve conformity of providers of Electronic Communications Services with the TSM Regulation? *[multiple answers possible; maximum of three]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. Formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action

- k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
63. Which enforcement measures do you consider the most proportionate to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum of three]*
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. Formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
64. Which enforcement measures do you consider the most dissuasive to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum of three]*
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. Formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
65. What is the effect of diverging approaches to penalties across EU Member States on your business (if any)? *[multiple answers possible]*
- a. Less administrative pressure to comply
 - b. More administrative pressure to comply
 - c. Less room to experiment with services
 - d. More room to experiment with services
 - e. Other, please specify [...]
 - f. Diverging approaches do not present any effect.

Section 8 – General

66. Do you agree with the following statements:

- a. The TSM Regulation has generally positively contributed to achieving the objectives of openness of Internet.
- b. The TSM Regulation has generally ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- c. The annual net neutrality monitoring report of NRAs is generally of high quality.
- d. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- e. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.
- f. The BEREC Guidelines led to a more consistent practice across Member States.

Answer categories (for each statement):

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

67. To what extent has the entry into force of the TSM Regulation i) benefitted your business (in the different Member States you are active in) and in particular ii) strengthened your position in dealings with Internet access providers? *[open question; please describe]*

End of survey for multi-country CAPs

Survey questionnaire for Consumer Organisations

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. None of the above

2. What country are you from?

What country are you from?	
Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Safeguarding of open internet access (TSM Regulation, Article 3)

3. How many complaints from individual consumers on issues concerning Article 3 of TSM Regulation have you received since 30th April 2016? *[please provide a number]*
4. Which issues were complaints received? *[multiple answers possible]*
 - a. Open internet access
 - b. Use of terminal equipment / tethering
 - c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management
 - g. Zero-rating
 - h. Possible exceptions
 - i. Other, please specify [...]
 - j. We received no complaints
5. Please select the topic of complaint which you dealt with last (last closed file): *[selection of one of the topics of Q4]*

The next set of questions refers to the last selected topic of complaint (answer to question 5).

6. How did you deal with these complaints? *Multiple answers possible.*
 - a. Lodge an official complaint with NRA
 - b. Start informal discussions with the NRA
 - c. Contact the relevant IAS
 - d. Lodge a (class) action with a national court
 - e. Compile a press release or other publicly available document
 - f. Do nothing
 - g. Other, please specify [...]

7. What was the follow-up by the NRA?
 - a. The NRA started an official investigation.
 - b. The NRA started informal discussions with the Internet access provider (IAS).
 - c. Other, please specify [...]
 - d. There was no follow-up.

8. Which issues do you deem the most pressing in your country?
 - a. Open internet access
 - b. Use of terminal equipment / tethering
 - c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management
 - g. Zero-rating
 - h. Possible exceptions
 - i. Other, please specify [...]

9. Did you engage in informal discussions with the NRA regarding Article 3, other than following up on complaints from individual consumers?
 - a. Yes, before the entry into force of the TSM Regulation.
 - b. Yes, after the entry into force of the TSM Regulation.
 - c. Yes, before and after the entry into force of the TSM Regulation.
 - d. No, we did not engage in discussions with the NRA.

10. Which issues were discussed with the NRA regarding Article 3? *[multiple answers possible]*
 - a. Open internet access
 - b. Use of terminal equipment / tethering
 - c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management
 - g. Zero-rating
 - h. Possible exceptions
 - i. I don't know
 - j. Other, please specify [...]

11. What is the scope of zero-rated offers by Internet access provider (IAS)?

- a. Specific services
- b. Specific apps
- c. Both specific services and apps
- d. No zero-rated offers are offered by IAS

12. Which services are zero rated? *[multiple answers possible]*

- a. Audio-streaming
- b. Video-streaming
- c. Cloud storage
- d. Communication (text)
- e. Communication (VoIP)
- f. IAS customer services
- g. Social media
- h. Navigation services
- i. Information/news
- j. Banking
- k. Gaming
- l. Other, please specify [...]
- m. I don't know

13. Which categories of apps are zero-rated? *[multiple answers possible]*

- a. Audio-streaming
- b. Video-streaming
- c. Cloud storage
- d. Communication (text)
- e. Communication (VoIP)
- f. Social media
- g. Navigation services
- h. Information/news
- i. Banking
- j. Gaming
- k. Other, please specify [...]
- l. I don't know

14. Did you observe any effect of zero-rating on consumer behaviour?

- a. Consumers use more data
- b. Consumers use less data
- c. Consumers switch to non zero-rated services
- d. Other, please specify [...]
- e. There was no observed effect on consumer behaviour

Section 3 - Additional monitoring, information and transparency requirements (TSM Regulation, Article 4)

15. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*

- a. Additional contract information must be provided
- b. The information must be provided in a specific manner
- c. End-users must be allowed to make use of alternative dispute mechanisms
- d. Other, please specify [...]
- e. There are no additional requirements.

16. How many complaints from individual consumers on issues concerning additional requirements have you received between 30th April 2016 and 30th April 2018? *[please provide a number]*
17. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?
- Yes
 - No
18. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?
- Yes
 - No
19. Please list the online tools that are used by consumers to test conformity with the TSM Regulation. *[open question; please describe]*
20. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*
21. Are the data generated with the monitoring mechanism stored?
- Yes, all the data are stored
 - Yes, partially
 - No
 - I don't know
22. What data are stored? *[multiple answers possible]*
- The name of the user
 - The date and time of the measurement
 - The result of the measurement
 - The name of the IAP whose IAS was measured
 - Other, please specify [...]
23. What rules are implemented on the use of these data? *[open question; please describe]*

Section 4 - Supervision and enforcement (TSM Regulation, Article 5)

24. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*
- Informal discussions
 - Requests for information
 - Surveys
 - Consultations
 - Other, please specify [...]
 - There are no monitoring measures in place.
25. What measures are taken by the NRA to ensure compliance with the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*
- Informal discussions
 - Informal warnings

- c. Formal warnings
 - d. Request for information
 - e. Formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
26. What measures are taken by the NRA to promote the continued availability of non-discriminatory internet access service at levels of quality that reflect advances in technology? *[multiple answers possible]*
- a. Information on website
 - b. Brochures
 - c. Educational meetings
 - d. Other, please specify [...]
 - e. There are no such measures in place.

Section 5 – Penalties (TSM Regulation, Article 6)

27. What instruments does the NRA in your country in general use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. Formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such instruments in place.
28. Which enforcement measure available in your country you consider the most effective to achieve conformity with the TSM Regulation? Please select top three most effective measures.
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions

- h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
29. Which enforcement measure available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? Please select top three most proportionate measures.
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
30. Which enforcement measure available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? Please select top three most dissuasive measures.
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
31. Do you encounter one of the following difficulties as a result of diverging approaches to penalties across EU Member States? *[multiple answers possible]*
- a. There are different levels of administrative pressure to comply
 - b. There is a difference in flexibility to experiment with innovative services
 - c. Other, please specify [...]
 - d. Diverging approaches do not present any problems.

Section 6 – General view on the TSM Regulation

32. Do you agree with the following statements:

- p. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- q. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- r. The annual net neutrality monitoring report of your NRA is of high quality.
- s. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- t. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

End of survey

Survey questionnaire for Civil Society Organisations

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. Civil society organisation
 - h. None of the above

2. What country are you from?

What country are you from?	
Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Safeguarding of open internet access (TSM Regulation, Article 3)

3. How many complaints from individual consumers on issues concerning Article 3 of TSM Regulation have you received since 30th April 2016? *[please provide a number]*

4. Which issues were complaints received? *[multiple answers possible]*
 - a. Open internet access
 - b. Use of terminal equipment / tethering
 - c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management
 - g. Zero-rating
 - h. Possible exceptions
 - i. Other, please specify [...]
 - j. We received no complaints

5. Please select the topic of complaint which you dealt with last (last closed file): *[selection of one of the topics of Q4]*

The next set of questions refers to the last selected topic of complaint (answer to question 5).

6. How did you deal with these complaints? *Multiple answers possible.*
- Lodge an official complaint with NRA
 - Start informal discussions with the NRA
 - Contact the relevant IAS
 - Lodge a (class) action with a national court
 - Compile a press release or other publicly available document
 - Do nothing
 - Other, please specify [...]
7. What was the follow-up by the NRA?
- The NRA started an official investigation.
 - The NRA started informal discussions with the Internet access provider (IAS).
 - Other, please specify [...]
 - There was no follow-up.
8. Which issues do you deem the most pressing in your country?
- Open internet access
 - Use of terminal equipment / tethering
 - Contractual limitations
 - Equal treatment of traffic
 - Tariff discrimination
 - Reasonable traffic management
 - Zero-rating
 - Possible exceptions
 - Other, please specify [...]
9. Did you engage in informal discussions with the NRA regarding Article 3, other than following up on complaints from individual consumers?
- Yes, before the entry into force of the TSM Regulation.
 - Yes, after the entry into force of the TSM Regulation.
 - Yes, before and after the entry into force of the TSM Regulation.
 - No, we did not engage in discussions with the NRA.
10. Which issues were discussed with the NRA regarding Article 3? *[multiple answers possible]*
- Open internet access
 - Use of terminal equipment / tethering
 - Contractual limitations
 - Equal treatment of traffic
 - Tariff discrimination
 - Reasonable traffic management
 - Zero-rating
 - Possible exceptions
 - I don't know
 - Other, please specify [...]

11. What is the scope of zero-rated offers by Internet access provider (IAS)?

- a. Specific services
- b. Specific apps
- c. Both specific services and apps
- d. No zero-rated offers are offered by IAS

12. Which services are zero rated? *[multiple answers possible]*

- a. Audio-streaming
- b. Video-streaming
- c. Cloud storage
- d. Communication (text)
- e. Communication (VoIP)
- f. IAS customer services
- g. Social media
- h. Navigation services
- i. Information/news
- j. Banking
- k. Gaming
- l. Other, please specify [...]
- m. I don't know

13. Which categories of apps are zero-rated? *[multiple answers possible]*

- a. Audio-streaming
- b. Video-streaming
- c. Cloud storage
- d. Communication (text)
- e. Communication (VoIP)
- f. Social media
- g. Navigation services
- h. Information/news
- i. Banking
- j. Gaming
- k. Other, please specify [...]
- l. I don't know

14. Did you observe any effect of zero-rating on consumer behaviour?

- a. Consumers use more data
- b. Consumers use less data
- c. Consumers switch to non zero-rated services
- d. Other, please specify [...]
- e. There was no observed effect on consumer behaviour

Section 3 - Additional monitoring, information and transparency requirements (TSM Regulation, Article 4)

15. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*

- a. Additional contract information must be provided
- b. The information must be provided in a specific manner
- c. End-users must be allowed to make use of alternative dispute mechanisms

- d. Other, please specify [...]
 - e. There are no additional requirements.
16. How many complaints from individual consumers on issues concerning additional requirements have you received between 30th April 2016 and 30th April 2018? *[please provide a number]*
17. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?
- a. Yes
 - b. No
18. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?
- a. Yes
 - b. No
19. Please list the online tools that are used by consumers to test conformity with the TSM Regulation. *[open question; please describe]*
20. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*
21. Are the data generated with the monitoring mechanism stored?
- a. Yes, all the data are stored
 - b. Yes, partially
 - c. No
 - d. I don't know
22. What data are stored? *[multiple answers possible]*
- a. The name of the user
 - b. The date and time of the measurement
 - c. The result of the measurement
 - d. The name of the IAP whose IAS was measured
 - e. Other, please specify [...]
23. What rules are implemented on the use of these data? *[open question; please describe]*

Section 4 - Supervision and enforcement (TSM Regulation, Article 5)

24. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*
- a. Informal discussions
 - b. Requests for information
 - c. Surveys
 - d. Consultations
 - e. Other, please specify [...]
 - f. There are no monitoring measures in place.
25. What measures are taken by the NRA to ensure compliance with the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*

- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. Formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
26. What measures are taken by the NRA to promote the continued availability of non-discriminatory internet access service at levels of quality that reflect advances in technology? *[multiple answers possible]*
- a. Information on website
 - b. Brochures
 - c. Educational meetings
 - d. Other, please specify [...]
 - e. There are no such measures in place.

Section 5 – Penalties (TSM Regulation, Article 6)

27. What instruments does the NRA in your country in general use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. Formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such instruments in place.
28. Which enforcement measure available in your country you consider the most effective to achieve conformity with the TSM Regulation? Please select top three most effective measures.
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations

- f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
29. Which enforcement measure available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? Please select top three most proportionate measures.
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
30. Which enforcement measure available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? Please select top three most dissuasive measures.
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place.
31. Do you encounter one of the following difficulties as a result of diverging approaches to penalties across EU Member States? *[multiple answers possible]*
- a. There are different levels of administrative pressure to comply
 - b. There is a difference in flexibility to experiment with innovative services
 - c. Other, please specify [...]

- d. Diverging approaches do not present any problems.

Section 6 – General view on the TSM Regulation

32. Do you agree with the following statements:

- u. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- v. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- w. The annual net neutrality monitoring report of your NRA is of high quality.
- x. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- y. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

End of survey

Survey questionnaire for Data Protection Authorities

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. None of the above

2. What country are you from?

What country are you from?	
Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Traffic management and personal data (TSM Regulation, Article 3(4))

3. How many complaints with regard to privacy and data protection were raised by the data subjects in relation to net neutrality in your Member State? *[please provide a number]*
4. Regarding which issues have complaints related to privacy and data protection been raised by data subjects in relation to net neutrality in your Member State? *[multiple answers possible]*
 - a. Deep packet inspection (DPI)
 - b. Government surveillance of communications
 - c. Surveillance of communications by Internet access providers
 - d. Decreased confidentiality of communications
 - e. Other, please specify [...]
 - f. We received no complaints
5. Please identify the topic of complaint which you dealt with last (last closed file): *[selection of one of the topics of Q4]*

The next set of questions refers to the last identified topic of complaint (answer to question 5)

6. Has this issue been resolved?
 - a. Yes, completely
 - b. Yes, partially
 - c. Not at all
7. How was the issue resolved? *[open question; please describe]*
8. Why wasn't a (complete) resolution achieved (yet)? *[open question; please describe]*

Section 3 - Monitoring mechanisms (TSM Regulation, Article 4 (4))

9. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?
 - a. Yes
 - b. No
10. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?
 - a. Yes, they use it
 - b. No, they do not use it
 - c. We do not know whether they use it
11. What online tools do consumers utilise? *[open question; please describe]*
12. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*
13. Please describe the most typical case or complaint in your country that was based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance. *[open question; please describe]*
14. Are the data generated with the monitoring mechanism stored?
 - a. Yes, all data are stored
 - b. Yes, partially
 - c. No
 - d. I don't know
15. What data are stored? *[multiple answers possible]*
 - a. The name of the user
 - b. The date and time of the measurement
 - c. The result of the measurement
 - d. The name of the IAP whose IAS was measured
 - e. Other, please specify [...]
16. What rules are implemented on the use of the stored data? *[open question; please describe]*
17. Do you agree with the following statements:
 - a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.

- b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

End of survey

Survey questionnaire for Internet Access Providers

Section 1 - Verification and identification questions

1. Please choose the category of stakeholder that you represent:
 - a. National regulatory authority for electronic communications (NRA)
 - b. Data protection authority
 - c. Internet access provider (IAS)
 - d. Content, applications and services provider (CAP)
 - e. Consumer protection authority
 - f. Consumer organisation
 - g. None of the above

2. What country are you from? *[Please select one country. The remaining questions of the survey will refer only to this Member State]*

What country are you from?	
Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

Section 2 – Safeguarding of open internet access (TSM Regulation, Article 3)

3. Did you engage in informal discussions with the NRA regarding Article 3 of the TSM Regulation?
 - a. Yes, before the entry into force of the TSM Regulation.
 - b. Yes, after the entry into force of the TSM Regulation.
 - c. Yes, before and after the entry into force of the TSM Regulation.
 - d. No, we did not engage in discussions with the NRA.

4. Which issues were discussed? *[multiple answers possible]*
 - a. Open internet access
 - b. Use of terminal equipment / tethering
 - c. Contractual limitations
 - d. Equal treatment of traffic
 - e. Tariff discrimination
 - f. Reasonable traffic management
 - g. Zero-rating
 - h. Possible exceptions
 - i. Other, please specify [...]

5. Was there any follow-up by the NRA on Open internet access? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA gave public guidance on how to deal with this issue
 - c. The NRA gave informal guidance on how to deal with this issue
 - d. Other, please specify [...]
 - e. There was no follow-up.

6. Was there any follow-up by the NRA on Use of terminal equipment / tethering? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA gave public guidance on how to deal with this issue
 - c. The NRA gave informal guidance on how to deal with this issue
 - d. Other, please specify [...]
 - e. There was no follow-up.

7. Was there any follow-up by the NRA on Contractual limitations? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA gave public guidance on how to deal with this issue
 - c. The NRA gave informal guidance on how to deal with this issue
 - d. Other, please specify [...]
 - e. There was no follow-up.

8. Was there any follow-up by the NRA on Equal treatment of traffic? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA gave public guidance on how to deal with this issue
 - c. The NRA gave informal guidance on how to deal with this issue
 - d. Other, please specify [...]
 - e. There was no follow-up.

9. Was there any follow-up by the NRA on Tariff discrimination? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA gave public guidance on how to deal with this issue
 - c. The NRA gave informal guidance on how to deal with this issue
 - d. Other, please specify [...]
 - e. There was no follow-up.

10. Was there any follow-up by the NRA on Reasonable traffic management? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA gave public guidance on how to deal with this issue
 - c. The NRA gave informal guidance on how to deal with this issue
 - d. Other, please specify [...]
 - e. There was no follow-up.

11. Was there any follow-up by the NRA on Zero-rating? *[multiple answers possible]*
 - a. The NRA started an official investigation.
 - b. The NRA started informal discussions on how to deal with this issue.
 - c. Other, please specify [...]
 - d. There was no follow-up.

12. Was there any follow-up by the NRA on Possible exceptions? *[multiple answers possible]*
- The NRA started an official investigation.
 - The NRA gave public guidance on how to deal with this issue
 - The NRA gave informal guidance on how to deal with this issue
 - Other, please specify [...]
 - There was no follow-up.
13. Was there any follow-up by the NRA on issues related to [other]? *[multiple answers possible]*
- The NRA started an official investigation.
 - The NRA gave public guidance on how to deal with this issue
 - The NRA gave informal guidance on how to deal with this issue
 - Other, please specify [...]
 - There was no follow-up.
14. What restrictions do you impose on the ability of end-users to use their own equipment? *[multiple answers possible]*
- They can use only our equipment.
 - They can use only certified equipment.
 - We prohibit tethering.
 - Other, please specify [...]
 - No restrictions
15. Do you currently have zero-rated offers?
- Yes
 - No
16. When were these offers introduced? *[open question; please provide dates or best estimate of the dates]*
17. What is the scope of your zero-rated offers?
- Specific services
 - Specific apps
 - Both specific services and apps
18. Which categories of services are zero rated? *[multiple answers possible]*
- Audio-streaming
 - Video-streaming
 - Cloud storage
 - Communication (text)
 - Communication (VoIP)
 - IAS customer services
 - Social media
 - Navigation services
 - Information/news
 - Banking
 - Gaming
 - Other, please specify [...]
19. Which categories of apps are zero-rated? *[multiple answers possible]*
- Audio-streaming

- b. Video-streaming
 - c. Cloud storage
 - d. Communication (text)
 - e. Communication (VoIP)
 - f. Social media
 - g. Navigation services
 - h. Information/news
 - i. Banking
 - j. Gaming
 - k. Other, please specify [...]
20. What happens with the zero-rated apps or services once a user exceeds its general data allowance? *[multiple answers possible]*
- a. Data are transmitted without any change
 - b. Data get blocked
 - c. Data are transmitted at slower rates
 - d. Data are priced at a higher price
 - e. Other, please specify [...]
21. Did you have any zero-rating offers prior to the introduction of the TSM Regulation?
- a. Yes
 - b. No
 - c. I don't know
22. What happened to these offers with the entry into force of the TSM Regulation?
- a. They were terminated.
 - b. They were amended to comply with the TSM Regulation.
 - c. Other, please specify [..]
23. What amendments were made? *[open question; please describe]*
24. Did you engage in negotiations with Content, applications and services providers (CAPs) regarding zero-rating?
- a. Yes
 - b. No
25. How many commercial agreements regarding zero-rating did you conclude with CAPs? *[please provide a number]*
26. Are these exclusive agreements?
- a. Yes, all agreements are exclusive
 - b. Some agreements are exclusive
 - c. No agreements are exclusive
27. In how many cases was an agreement sought by a CAP, but no agreement was reached? *[please provide a number]*
28. What were the reasons that no agreement was reached? *[multiple answers possible]*
- a. Too expensive
 - b. Unsuccessful negotiation

- c. Unfavourable conditions
- d. Regulatory concerns
- e. The CAP decided to stop the negotiations
- f. Other, please specify [...]

29. Do you have the same zero-rated offers in multiple Member States?

- a. Yes
- b. No
- c. I don't know

30. In which Member States do you have the same zero-rated offer? *[multiple answers possible]*.

Austria	Italy
Belgium	Latvia
Bulgaria	Lithuania
Czech Republic	Luxembourg
Croatia	Malta
Cyprus	Netherlands
Denmark	Poland
Estonia	Portugal
Finland	Romania
France	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	United Kingdom

31. If the zero-rated offers differ across Member States, what are the reasons for the difference? *[open question; please describe]*

32. Is zero-rated bundled with mobile tariffs or do you have add-on zero-rated offers?

- a. Bundled
- b. Add-on

33. Do you have zero-rating regarding fixed services?

- a. Yes
- b. No

34. Is the transmission quality of content different for zero-rated offers compared to non zero-rated offers?

- a. Yes
- b. No

35. Did you observe any effect of zero-rating on consumer behaviour?

- a. Consumers use more data
- b. Consumers use less data
- c. Consumers switch to non zero-rated services
- d. Other, please specify [...]
- e. There was no observed effect on consumer behaviour

Section 3 – Traffic management (TSM Regulation, Article 3 (3))

36. Do you block any of the following?

	Yes, it is legally required	Yes, it is not legally required	No	Not applicable
a. Content				
b. Specific websites				
c. Apps				
d. Ports				
e. Other, please specify [...]				

37. What are the reasons for blocking?

- a. To protect consumers from spam and other harmful content.
- b. To protect the integrity of the general internet infrastructure.
- c. Other, please specify [...]

38. Do you block any following ports? *[multiple answers possible]*.

- a. TCP-25
- b. TCP-135 UDP-135
- c. TCP + UDP-139
- d. TCP-445
- e. TCP & UDP- 161 & 162
- f. Other, please specify [...]
- g. We do not block any ports.

39. What is the reason for blocking these ports? *[multiple answers possible]*

- a. To protect consumers from spam and other unwanted content
- b. To protect the integrity of the general internet infrastructure
- c. Other, please specify [...]

40. What other traffic management measures do you take? *[multiple answers possible]*

- a. Blocking certain kinds of data
- b. Throttling/ slowing down
- c. Alteration
- d. Restriction
- e. Interference with the service
- f. Degradation
- g. Discrimination
- h. Other, please specify [...]
- i. No other traffic management measures are employed.

41. What is the reason for introducing these traffic management measures? *[open question; please describe]*

Section 4 – Specialised services (TSM Regulation, Article 3(5))

42. Which specialised service(s) do you provide to end-users? *[multiple answers possible]*
- a. IPTV
 - b. VoIP
 - c. VoLTE
 - d. LTE Broadcast
 - e. Real-time health services
 - f. Services to specific industrial sectors (eg. automotive, energy, utilities, transport)
 - g. Other, please specify [...]
 - h. We do not provide specialized services.
43. Do you have a specialized service contract with one or more of the following vertical sectors? *[multiple answers possible]*
- a. Energy
 - b. Transport, Automotive or mobility
 - c. Health
 - d. Other, please specify [...]
 - e. We have no specialized service contracts.
44. Why is the optimisation of specialised services, that are provided on your network, required? *[open question; please describe]*
45. How many complaints from individual consumers on issues concerning Article 3 (5) of the TSM Regulation have you received between 30 April 2016 and 30 April 2018? *[please provide a number]*
46. How did you deal with these complaints? Multiple answers possible. *[multiple answers possible]*
- a. The complaints were granted
 - b. The complaints led to a compensational measure
 - c. No action was taken (the complaints were dismissed)
 - d. Other, please specify [...]

Section 5 – Contract information (TSM Regulation, Article 4(1))

47. In what manner do you provide the information required by the TSM Regulation to end-users?
- a. In end-user contracts only.
 - b. On our website only.
 - c. In general terms and conditions only.
 - d. Other, please specify [...]
 - e. We do not provide this information to end-users
48. Please estimate which percentage of your clients have accessed the information required by the TSM Regulation. *[please provide a percentage]*
49. Have you been contacted by the NRA of your country regarding the information requirements for end-users?
- a. We had informal contact
 - b. We received a formal request
 - c. The NRA opened an investigation

- d. Other, please specify [...]
- e. We have not been contacted by the NRA

50. What was the reason for the contact by the NRA?

- a. End-user complaint
- b. Content, applications and services providers (CAP's) complaint
- c. Ex officio
- d. Complaint by another Internet access provider
- e. Other, please specify [...]

Section 6 – Procedures for end-user complaints (TSM Regulation, Article 4(2))

51. Do you have specific complaint handling mechanisms for handling complaints related to the information required by the TSM Regulation?

- a. Yes
- b. No

52. Please summarize the complaint handling mechanism(s). *[open question; please describe]*

53. How many complaints related to the net neutrality provisions in the TSM Regulation have you received from end-users since 30th April 2016? *[please provide a number]*

54. What were the three topics subject to most complaints?

- a. Open internet access
- b. Use of terminal equipment / tethering
- c. Contractual limitations
- d. Equal treatment of traffic
- e. Tariff discrimination
- f. Reasonable traffic management
- g. Zero-rating
- h. Possible exceptions
- i. Other, please specify [...]

Section 7 – Additional monitoring, information and transparency requirements (TSM Regulation, Article 4(3))

55. What monitoring, information and/or transparency requirements for Internet access providers exist in your country that go beyond the requirement of Article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*

- a. Additional contract information must be provided
- b. The information must be provided in a specific manner
- c. End-users must be allowed to make use of alternative dispute mechanisms
- d. Other, please specify [...]
- e. There are no additional requirements.

56. When were these requirements introduced? *[please tick the appropriate box]*

Requirement	Before the TSM Regulation	After the TSM Regulation	N/A
Additional contract			

Requirement	Before the TSM Regulation	After the TSM Regulation	N/A
information must be provided			
The information must be provided in a specific manner			
End-users must be allowed to make use of alternative dispute mechanisms			
Other (answer Q58)			

Section 8 – Monitoring mechanisms (TSM Regulation, Article 4(4))

57. Do you agree with the following statement:

- Monitoring mechanism is necessary for consumers to test conformity of performance.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

58. Why is a monitoring mechanism for consumers to test conformity of performance necessary? *[multiple answers possible]*

- It lowers barriers for consumers to (successfully) raise non-conformity of performance claims.
- It is essential for end-users to raise issues regarding non-conformity of performance.
- It allows the NRA to monitor, supervise and \ IAS obligations.
- Other, please specify [...]

59. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

- Yes
- No
- I don't know

60. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?

- Yes
- No
- I don't know

61. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*

62. Does the NRA in your country utilise the available monitoring mechanism for monitoring, supervision and enforcement obligations?

- a. Yes
- b. No
- c. I don't know

63. Are the details of the speed measurement methodology of the monitoring mechanism transparent?

- a. Fully transparent
- b. Partially transparent
- c. Not transparent
- d. I don't know

64. What information is not transparent? *[multiple answers possible]*

- a. The measurement methodology is not provided at all.
- b. Only part of the measurement methodology is provided to prevent IAS from responding to the measurement methodology.
- c. The results and ensuing actions based on the results are not provided.
- d. Other, please specify

65. Do you agree with the following statements:

- z. The online monitoring mechanism available in my country should be replicated in other Member States.
- aa. The online monitoring mechanism available in another Member State should be introduced in my country.
- bb. A uniform online monitoring mechanism should be introduced in all Member States.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

66. Why would you not recommend it? *[multiple answers possible]*

- a. NRAs need to be able to implement their own monitoring mechanism.
- b. No monitoring mechanisms should be put in place in any case.
- c. A uniform mechanism would not leave room for local considerations.
- d. Other, please specify [...]

Section 9 – Supervision and enforcement (TSM Regulation, Article 5)

67. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*

- a. Informal discussions
- b. Requests for information
- c. Surveys
- d. Consultations
- e. Other, please specify [...]
- f. There are no such measures in place

68. What measures are taken by the NRA to ensure compliance the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*

- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
69. What measure(s) are taken by the NRA to promote the continued availability of non-discriminatory IAS at levels of quality that reflect advances in technology? *[multiple answers possible]*
- a. Information on website
 - b. Brochures
 - c. Educational meetings
 - d. Other, please specify [...]
 - e. There are no such measures in place
70. Did the NRA influence your compliance with the TSM Regulation?
- a. Yes
 - b. No
71. How was your compliance with the TSM Regulation influenced by the NRA? *[multiple answers possible]*
- a. Via informal discussions
 - b. Via request for information
 - c. Via request for amending practices and/or conditions
 - d. Via (threat of) publication on non-conformity
 - e. Via administrative sanctions
 - f. Via a fine
 - g. Other, please specify [...]
 - h. There was no influence from the NRA.
72. What was the reason you were approached by the NRA?
- a. Complaint by consumers
 - b. Complaint by CAP
 - c. Complaint by other IAS
 - d. On the basis of the data from the monitoring mechanism
 - e. Proactive approach NRA
 - f. Other, please specify [...]
73. What was the result of the process?
- a. We adjusted our behaviour
 - b. We continued as we did
 - c. We filed a court case

d. Other, please specify [...]

74. Did the NRA impose requirements concerning technical characteristics on one or more providers of electronic communications to the public, including Internet access providers?

- a. Yes
- b. No
- c. I don't know

75. Have you been requested by the NRA to provide information concerning one of the following issues? *[multiple answers possible]*

- a. Management of network capacity
- b. Management of network traffic
- c. Justifications for any traffic management applied
- d. Other information, please specify [...]
- e. We have not received any requests for information.

Section 10 – Penalties (TSM Regulation, Article 6)

76. What instruments does the NRA in your country practically and effectively use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action
- k. Order subject to an incremental penalty or other measure
- l. Conditional or unconditional fine
- m. Other, please specify [...]
- n. There are no such instruments in place

77. Which enforcement measure available in your country do you consider the most effective to achieve conformity of providers of Electronic Communications Services with the TSM Regulation? *[multiple answers possible; maximum 3]*

- a. Informal discussions
- b. Informal warnings
- c. Formal warnings
- d. Request for information
- e. formal investigations
- f. Threat of publication on non-conformity
- g. Requests for amending practices and/or conditions
- h. Prohibition of conducting business
- i. Order to bring the infringement to an end
- j. Coercive administrative action
- k. Order subject to an incremental penalty or other measure

- l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
78. Which enforcement measure available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum 3]*
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
79. Which enforcemen measures available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum 3]*
- a. Informal discussions
 - b. Informal warnings
 - c. Formal warnings
 - d. Request for information
 - e. formal investigations
 - f. Threat of publication on non-conformity
 - g. Requests for amending practices and/or conditions
 - h. Prohibition of conducting business
 - i. Order to bring the infringement to an end
 - j. Coercive administrative action
 - k. Order subject to an incremental penalty or other measure
 - l. Conditional or unconditional fine
 - m. Other, please specify [...]
 - n. There are no such measures in place
80. What is the effect of diverging approaches to penalties across EU Member States on your business? *[multiple answers possible]*
- a. Less administrative pressure to comply
 - b. More administrative pressure to comply
 - c. Less room to experiment with services
 - d. More room to experiment with services
 - e. Other, please specify [...]
 - f. Diverging approaches do not present any effect.
81. Do you agree with the following statements:

- a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- c. The annual net neutrality monitoring report of your NRA is of high quality.
- d. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- e. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.
- f. The NRA acts in accordance with the BEREC Guidelines.
- g. The BEREC Guidelines led to a more consistent practice across Member States.

Answer categories:

- *Fully agree*
- *Agree*
- *Neither agree or disagree*
- *Disagree*
- *Fully disagree*

End of survey

Annex D:



Survey Results

Survey results

Survey results for National Regulatory Authorities

1. Please choose the category of stakeholder that you represent:

(Each respondent could choose only ONE of the following responses.)












Response	Total	% of responses	%
National regulatory authority for electronic communications (NRA)	36		97
Data protection authority	0		0
Internet access provider (IAS)	0		0
Content, applications and services provider (CAP)	0		0
Consumer authority	0		0
Consumer organization	1		3
None of the above	0		0


















Total respondents: 37
Skipped question: 0

0% 20% 40% 60% 80%

2. What country are you from?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Austria	1		3
Belgium	1		3
Bulgaria	1		3
Czech Republic	1		3
Croatia	1		3
Cyprus	1		3
Denmark	1		3
Estonia	1		3
Finland	1		3
France	1		3
Germany	1		3


Response	Total	% of responses	%
Greece	1		3
Hungary	1		3
Ireland	1		3
Italy	1		3
Latvia	1		3
Lithuania	1		3
Luxembourg	1		3
Malta	1		3
Netherlands	1		3
Poland	1		3
Portugal	1		3
Romania	1		3
Slovakia	1		3
Slovenia	1		3
Spain	1		3
Sweden	1		3
United Kingdom	1		3

Total respondents: 28
Skipped question: 0



3.1. Please provide an estimate on the number of all employees and FTEs (full-time employees) in your organization involved in net neutrality issues (annual average in 2017):

- Number of all employees
 (Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Annual average in 2017	25		100


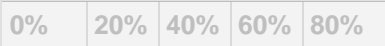
Total respondents: 25
Skipped question: 3



3.2. Please provide an estimate on the number of all employees and FTEs (full-time employees) in your organization involved in net neutrality issues (annual average in 2017):

- Number of FTEs











(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Annual average in 2017	24		100
Total respondents: 24 Skipped question: 4			

4.1. Please provide an estimate on the amount of expenses (non-employee, overhead) spent on net-neutrality issues, annual average in 2017:

- Annual average operating costs in 2017


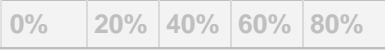
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Amount	16		94
Currency			
1 Bulgarian lev	0		0
2 British pound sterling	1		6
3 Croatian kuna	0		0
4 Czech koruna	1		6
5 Danish krone	1		6
6 Euro	10		59
7 Hungarian forint	1		6
8 Polish złoty	1		6
9 Romanian leu	1		6
10 Swedish krona	1		6
Average: 6,18 — Median: 6			
Total respondents: 17 Skipped question: 11			

The next set of questions refers to Article 3(1) of the TSM Regulation: 'End user rights'.


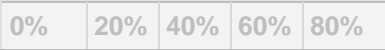
5.1. Please provide the following information regarding investigations into Article 3(1) violations since 30 April 2016:

- Total number of investigations
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	25		100
Total respondents: 25			
Skipped question: 3			


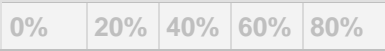
5.2. Please provide the following information regarding investigations into Article 3(1) violations since 30 April 2016:

- Number of investigations started ex-officio
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	23		100
Total respondents: 23			
Skipped question: 5			

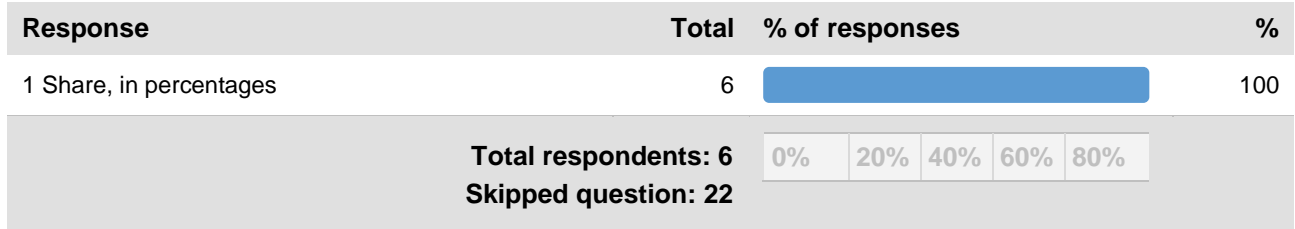
5.3. Please provide the following information regarding investigations into Article 3(1) violations since 30 April 2016:

- Number of investigations based on complaints
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	24		100
Total respondents: 24			
Skipped question: 4			

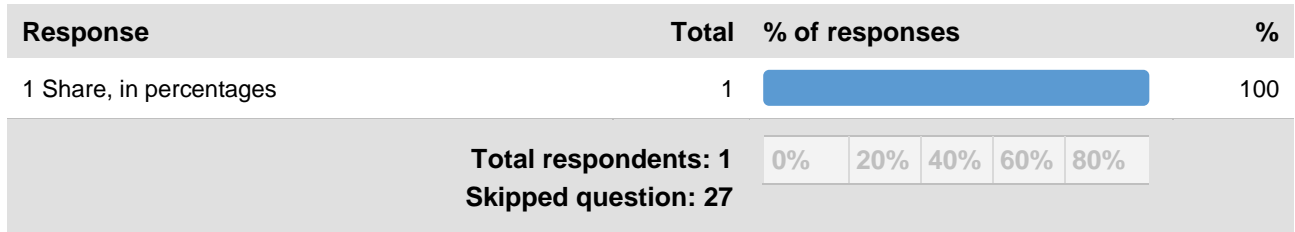
6.1. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:

- An individual consumer
(Each respondent could enter MULTIPLE responses.)



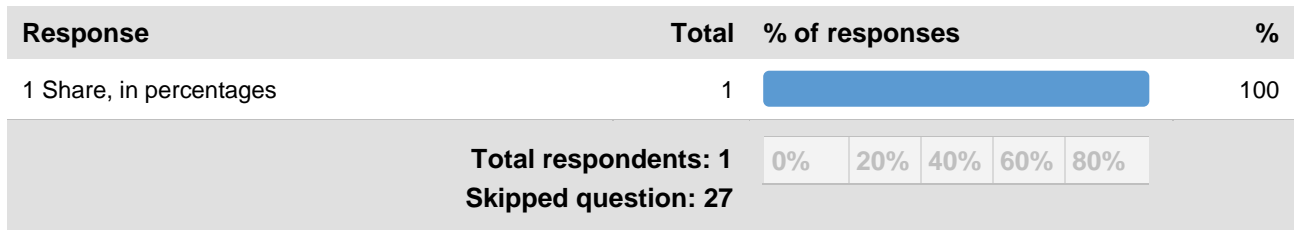
6.2. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:

- A consumer organization
(Each respondent could enter MULTIPLE responses.)



6.3. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:



- A competitor
(Each respondent could enter MULTIPLE responses.)



6.4. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:









- Other, please specify

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Share, in percentages	4		100
Total respondents: 4 Skipped question: 24			

7. Which issues concerning Article 3(1) were a topic of investigation? Multiple answers possible.



(Each respondent could choose MULTIPLE responses.)


Response	Total	% of responses	%
Open internet access	3		38
Access and distribution of information and content	3		38
Use and provision of applications and services	2		25
Free use of terminal equipment/tethering: Consumers could only make use of an Internet access service by using the router of the Internet access provider	4		50
Free use of terminal equipment/tethering: Internet access providers limited the type(s) of devices, through which end-users could make use of the Internet access service	3		38
Free use of terminal equipment/tethering: Other	3		38
Other, please specify	3		38
Total respondents: 8 Skipped question: 20			

8.1. How many complaints and investigations have you received per type of issue?

- Open internet access

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of complaints (estimate)	2		100
2 Number of investigations (estimate)	2		100


Total respondents: 2 
Skipped question: 26

8.2. How many complaints and investigations have you received per type of issue?

- Access and distribution of information and content

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of complaints (estimate)	1		50
2 Number of investigations (estimate)	2		100


Total respondents: 2 
Skipped question: 26

8.3. How many complaints and investigations have you received per type of issue?

- Use and provision of applications and services

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of complaints (estimate)	1		100
2 Number of investigations (estimate)	1		100

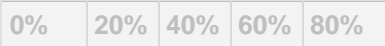
Total respondents: 1 
Skipped question: 27

8.4. How many complaints and investigations have you received per type of issue?

- Free use of terminal equipment/tethering: Consumers could only make use of an Internet access service by using the router of the Internet access provider

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of complaints (estimate)	2		67
2 Number of investigations (estimate)	3		100


Total respondents: 3 
Skipped question: 25

8.5. How many complaints and investigations have you received per type of issue?

- Free use of terminal equipment/tethering: Internet access providers limited the type(s) of devices, through which end-users could make use of the Internet access service

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of complaints (estimate)	1		50
2 Number of investigations (estimate)	2		100

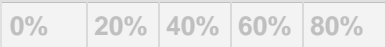
Total respondents: 2 
Skipped question: 26

8.6. How many complaints and investigations have you received per type of issue?

- Free use of terminal equipment/tethering: Other

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of complaints (estimate)	1		50
2 Number of investigations (estimate)	2		100


Total respondents: 2 
Skipped question: 26

8.7. How many complaints and investigations have you received per type of issue?

- Other (\$\$\$Quest7-7\$\$\$)

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of complaints (estimate)	3		100
2 Number of investigations (estimate)	3		100



Total respondents: 3 

Skipped question: 25


9.1. Have these issues been resolved?

- Open internet access

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	1		33
2 Yes, partially	2		67
- No	0		0

Average: 1,67 — Median: 1,50


Total respondents: 3 

Skipped question: 25

9.2. Have these issues been resolved?

- Access and distribution of information and content

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	0		0
2 Yes, partially	1		100
- No	0		0


Average: 2 — Median: 1,50

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

9.3. Have these issues been resolved?

- Use and provision of applications and services

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	0		0
2 Yes, partially	1		100
- No	0		0


Average: 2 — Median: 1,50

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

9.4. Have these issues been resolved?

- Free use of terminal equipment/tethering: Consumers could only make use of an Internet access service by using the router of the Internet access provider

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	0		0
2 Yes, partially	1		100
- No	0		0


Average: 2 — Median: 1,50

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

9.5. Have these issues been resolved?

- Free use of terminal equipment/tethering: Internet access providers limited the type(s) of devices, through which end-users could make use of the Internet access service

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	0		0
2 Yes, partially	1		100
- No	0		0

Average: 2 — Median: 1,50

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

9.6. Have these issues been resolved?

- Free use of terminal equipment/tethering: Other
(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	1		100
2 Yes, partially	0		0
- No	0		0

Average: 1 — Median: 1

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

9.7. Have these issues been resolved?

- Other (\$\$\$Quest7-7\$\$\$)
(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Yes, fully	0		0
2 Yes, partially	0		0
- No	0		0

Average: 0 — Median: 0

Total respondents: 0 0% 20% 40% 60% 80%
Skipped question: 28

10. How have these issues been resolved?






(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	2		5

Total respondents: 2 0% 20% 40% 60% 80%
Skipped question: 26

11. What restrictions are imposed by the Internet access providers (IAS)? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
End-users can use only IAS' equipment (technical restrictions)	5		19
End-users can use only certified equipment (technical restrictions)	3		12
Other technical restrictions	1		4
Other, please specify	11		42
There are no restrictions imposed	11		42


Total respondents: 26
Skipped question: 2



12.1. Please provide information on restrictions on the use of end-users' equipment:

- The number of Internet access providers that restrict the ability of end-users to use their own equipment in any way

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	4		100


Total respondents: 4
Skipped question: 24



12.2. Please provide information on restrictions on the use of end-users' equipment:

- The share of end-users that is affected (in percentages)

(Each respondent could enter MULTIPLE responses.)

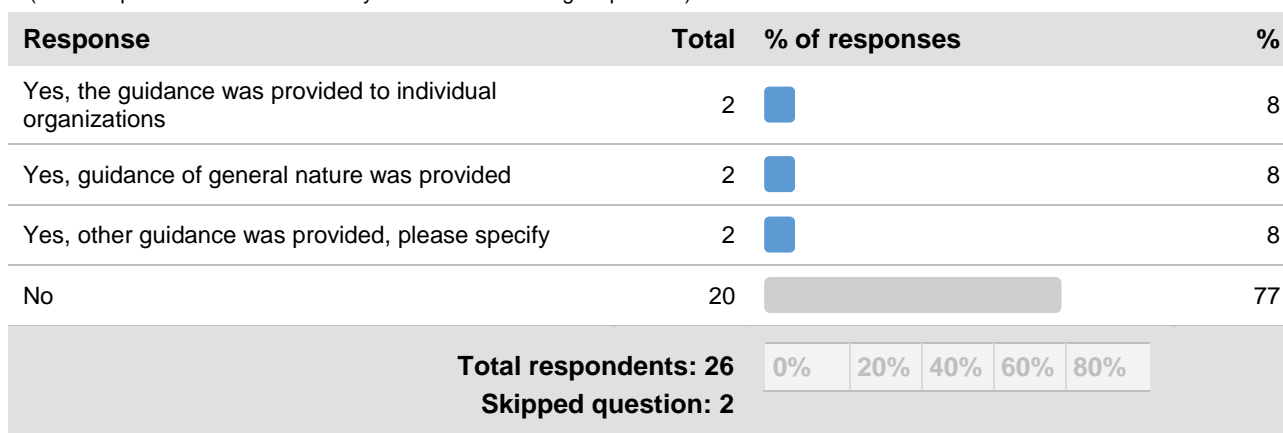
Response	Total	% of responses	%
1 Please fill in here	4		100

Total respondents: 4
Skipped question: 24



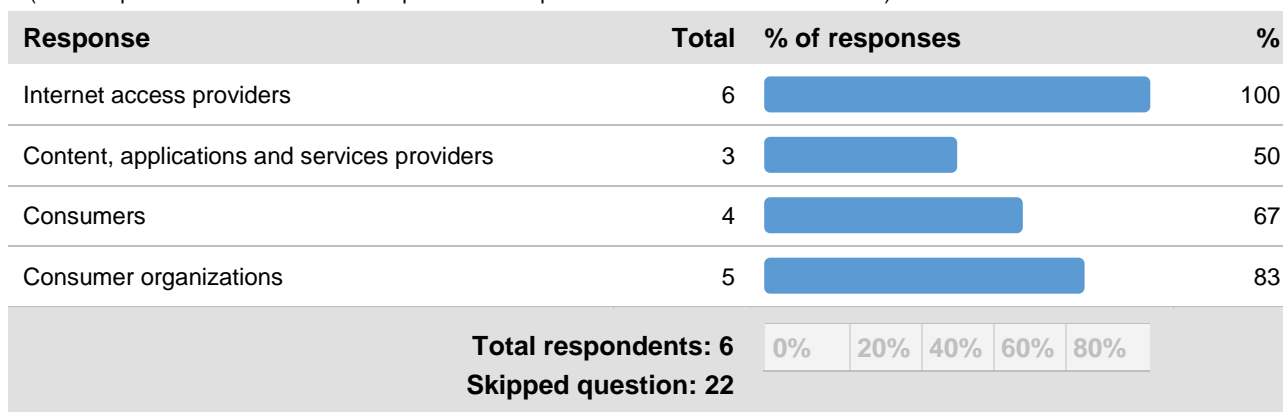
13. Did you provide additional guidance related to the implementation of Article 3(1) of the TSM Regulation?

(Each respondent could choose only ONE of the following responses.)



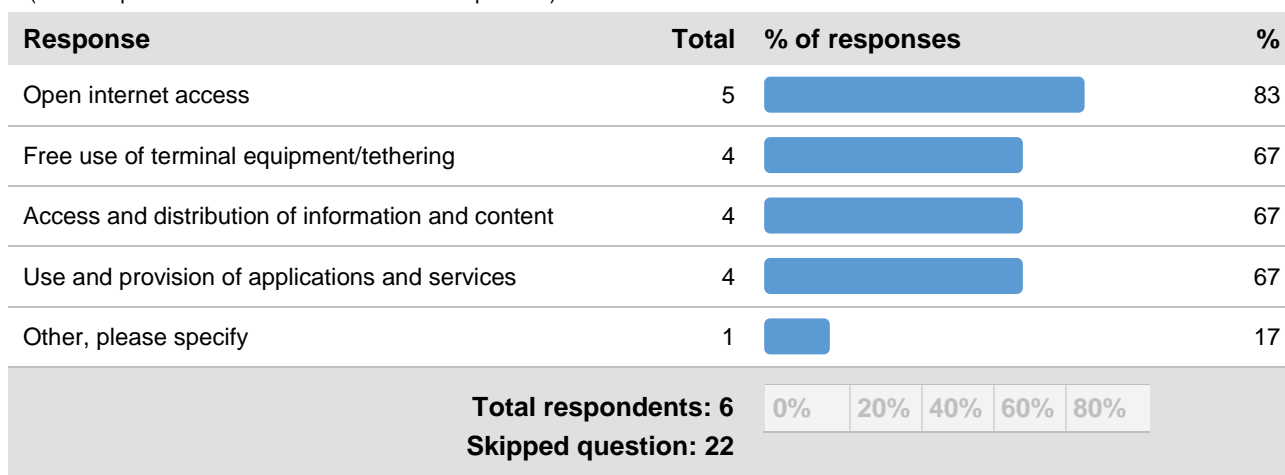
14. To which organizations have you provided guidance? Please specify the name and type of an organization.

(Each respondent could write multiple open-ended responses of maximum 255 characters.)



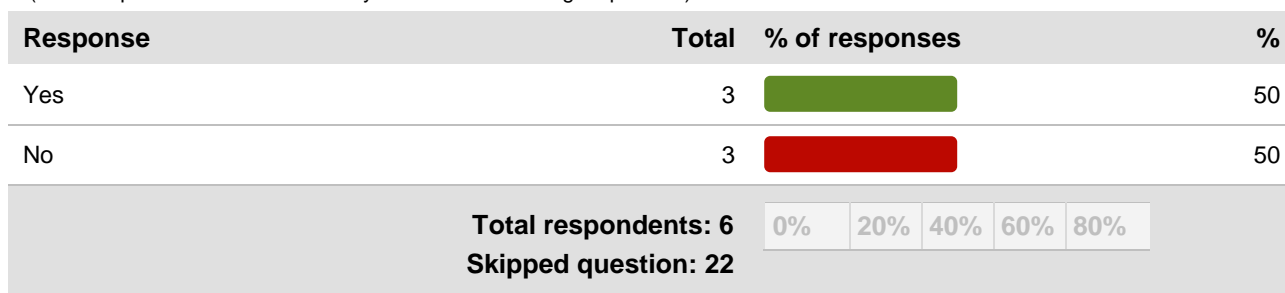
15. What was the topic of the guidance? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



16. Is the additional guidance related to the implementation of Article 3(1) publicly available?

(Each respondent could choose only ONE of the following responses.)

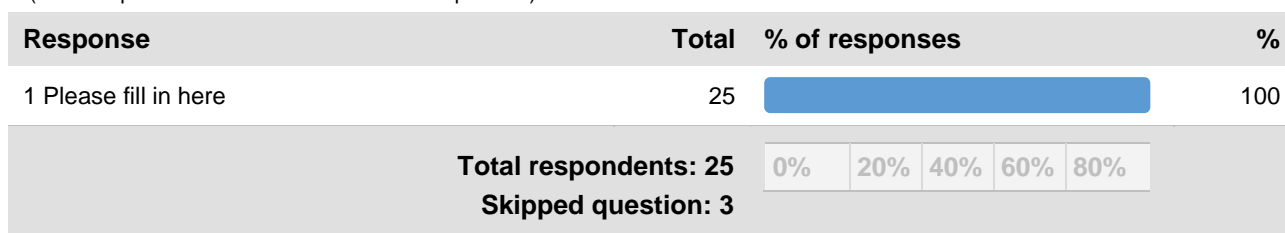


The next set of questions refers to Article 3(2) of the TSM Regulation: 'Commercial and technical conditions that limit end-user rights'.

17.1. Please provide the following information regarding investigations into Article 3(2) violations since 30 April 2016:

- Total number of investigations



(Each respondent could enter MULTIPLE responses.)



17.2. Please provide the following information regarding investigations into Article 3(2) violations since 30 April 2016:

- Number of investigations started ex-officio



(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	21		100
Total respondents: 21			
Skipped question: 7			

17.3. Please provide the following information regarding investigations into Article 3(2) violations since 30 April 2016:

- Number of investigations based on complaints



(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	22		100
Total respondents: 22			
Skipped question: 6			

18.1. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:

- An individual consumer


(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in the share in percentages	4		100
Total respondents: 4			
Skipped question: 24			

18.2. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:

- A consumer organization


(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%					
1 Please fill in the share in percentages	2		100					
Total respondents: 2 Skipped question: 26		<table border="1"> <tr> <td>0%</td> <td>20%</td> <td>40%</td> <td>60%</td> <td>80%</td> </tr> </table>		0%	20%	40%	60%	80%
0%	20%	40%	60%	80%				

18.3. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:

- A competitor


(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%					
1 Please fill in the share in percentages	3		100					
Total respondents: 3 Skipped question: 25		<table border="1"> <tr> <td>0%</td> <td>20%</td> <td>40%</td> <td>60%</td> <td>80%</td> </tr> </table>		0%	20%	40%	60%	80%
0%	20%	40%	60%	80%				

18.4. Out of the total number of investigations based on complaints, please estimate the share for each type of complaint:

- Other, please specify



(Each respondent could enter MULTIPLE responses.)


Response	Total	% of responses	%					
1 Please fill in the share in percentages	2		100					
Total respondents: 2 Skipped question: 26		<table border="1"> <tr> <td>0%</td> <td>20%</td> <td>40%</td> <td>60%</td> <td>80%</td> </tr> </table>		0%	20%	40%	60%	80%
0%	20%	40%	60%	80%				

19.1. How many investigations and enforcement actions have you taken on the following Article 3(2) topics?

- Internet access providers' contracts that limited open internet access

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of investigations	4		100
2 Number of enforcement actions	3		75


Total respondents: 4 
Skipped question: 24

19.2. How many investigations and enforcement actions have you taken on the following Article 3(2) topics?

- Commercial practices (for example, zero rating)

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of investigations	15		100
2 Number of enforcement actions	11		73


Total respondents: 15 
Skipped question: 13

19.3. How many investigations and enforcement actions have you taken on the following Article 3(2) topics?

- Commercial agreements

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of investigations	6		100
2 Number of enforcement actions	5		83


Total respondents: 6 
Skipped question: 22

19.4. How many investigations and enforcement actions have you taken on the following Article 3(2) topics?

- Price of Internet access services

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of investigations	4		100
2 Number of enforcement actions	4		100


Total respondents: 4 
Skipped question: 24

19.5. How many investigations and enforcement actions have you taken on the following Article 3(2) topics?

- Data volumes or speed

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Number of investigations	7		100
2 Number of enforcement actions	6		86


Total respondents: 7 
Skipped question: 21

19.6. How many investigations and enforcement actions have you taken on the following Article 3(2) topics?

- Other, please specify

(Each respondent could enter MULTIPLE responses.)

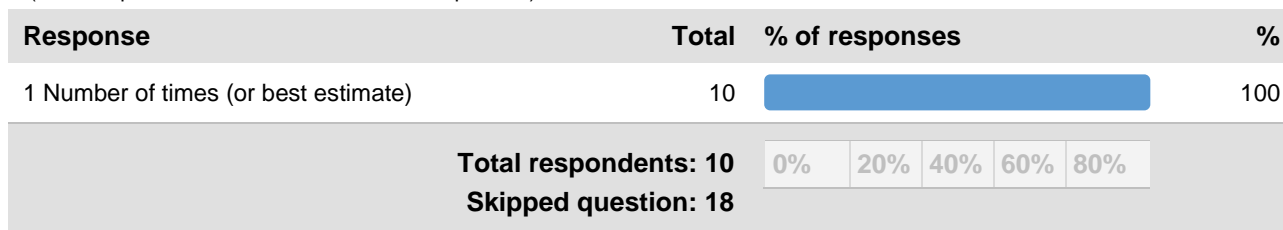
Response	Total	% of responses	%
1 Number of investigations	3		100
2 Number of enforcement actions	3		100

Total respondents: 3 
Skipped question: 25

20.1. What types of enforcement actions against infringements of Article 3(2) of the TSM Regulation did you take? Please provide the number or best estimate of the number of how many times the different types of enforcement actions have been employed since 30 April 2016:

- Informal discussion with the Internet access providers (IAS)

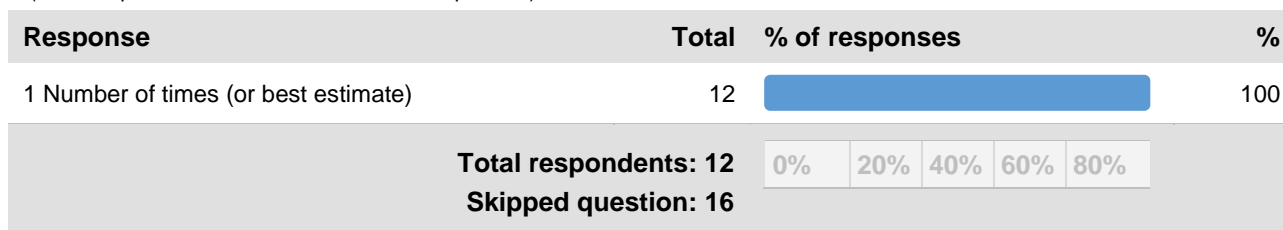
(Each respondent could enter MULTIPLE responses.)



20.2. What types of enforcement actions against infringements of Article 3(2) of the TSM Regulation did you take? Please provide the number or best estimate of the number of how many times the different types of enforcement actions have been employed since 30 April 2016:

- Still ongoing investigation into the infringement

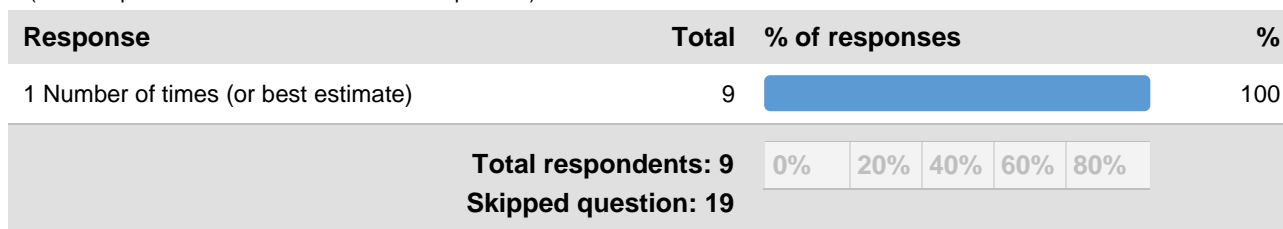
(Each respondent could enter MULTIPLE responses.)



20.3. What types of enforcement actions against infringements of Article 3(2) of the TSM Regulation did you take? Please provide the number or best estimate of the number of how many times the different types of enforcement actions have been employed since 30 April 2016:


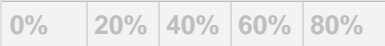
- Formally requested the IAP to stop the infringement

(Each respondent could enter MULTIPLE responses.)





20.4. What types of enforcement actions against infringements of Article 3(2) of the TSM Regulation did you take? Please provide the number or best estimate of the number of how many times the different types of enforcement actions have been employed since 30 April 2016:

- Imposed a fine on the IAS
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times (or best estimate)	7		100
Total respondents: 7 Skipped question: 21			



20.5. What types of enforcement actions against infringements of Article 3(2) of the TSM Regulation did you take? Please provide the number or best estimate of the number of how many times the different types of enforcement actions have been employed since 30 April 2016:

- Other, please specify
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times (or best estimate)	7		100
Total respondents: 7 Skipped question: 21			

21.1. Please indicate how many times since 30 April 2016 your enforcement actions resulted in the following:



- The Internet access provider (IAS) stopped infringing Article 3(2)
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times (or best estimate)	13		100
Total respondents: 13 Skipped question: 15			

21.2. Please indicate how many times since 30 April 2016 your enforcement actions resulted in the following:

- The IAS appealed the decision



(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times (or best estimate)	12		100
Total respondents: 12			
Skipped question: 16			

21.3. Please indicate how many times since 30 April 2016 your enforcement actions resulted in the following:





- Other, please specify

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times (or best estimate)	8		100
Total respondents: 8			
Skipped question: 20			


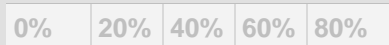
22. If you investigated any zero-rating practices, what legal basis did you use?

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Article 3(2) of the TSM Regulation	3		21
Article 3(3), first paragraph, of the TSM Regulation	1		7
Both Article 3(2) and Article 3(3), first paragraph, of the TSM Regulation	11		79
We did not investigate any zero-rating practices	0		0
Total respondents: 14			
Skipped question: 14			

23. Why did you use this legal basis?




(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	3		8
Total respondents: 3			
Skipped question: 25			

24.1. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 1



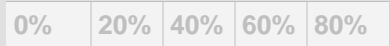
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	26		100
2 Market share, in percentages	19		73
Total respondents: 26			
Skipped question: 2			

24.2. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 2




(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	17		100
2 Market share, in percentages	11		65
Total respondents: 17			
Skipped question: 11			

24.3. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 3




(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	13		100
2 Market share, in percentages	11		85
Total respondents: 13			
Skipped question: 15			

24.4. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 4




(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	4		100
2 Market share, in percentages	4		100
Total respondents: 4			
Skipped question: 24			

24.5. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 5


(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	2		100
2 Market share, in percentages	1		50
Total respondents: 2			
Skipped question: 26			

24.6. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 6

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	1		100
2 Market share, in percentages	0		0


Total respondents: 1 0% 20% 40% 60% 80%

Skipped question: 27

24.7. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 7

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	1		100
2 Market share, in percentages	0		0


Total respondents: 1 0% 20% 40% 60% 80%

Skipped question: 27

24.8. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 8

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	1		100
2 Market share, in percentages	0		0


Total respondents: 1 0% 20% 40% 60% 80%

Skipped question: 27

24.9. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 9

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	1		100
2 Market share, in percentages	0		0

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

24.10. What Internet access providers offer any form of zero-rating? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 10

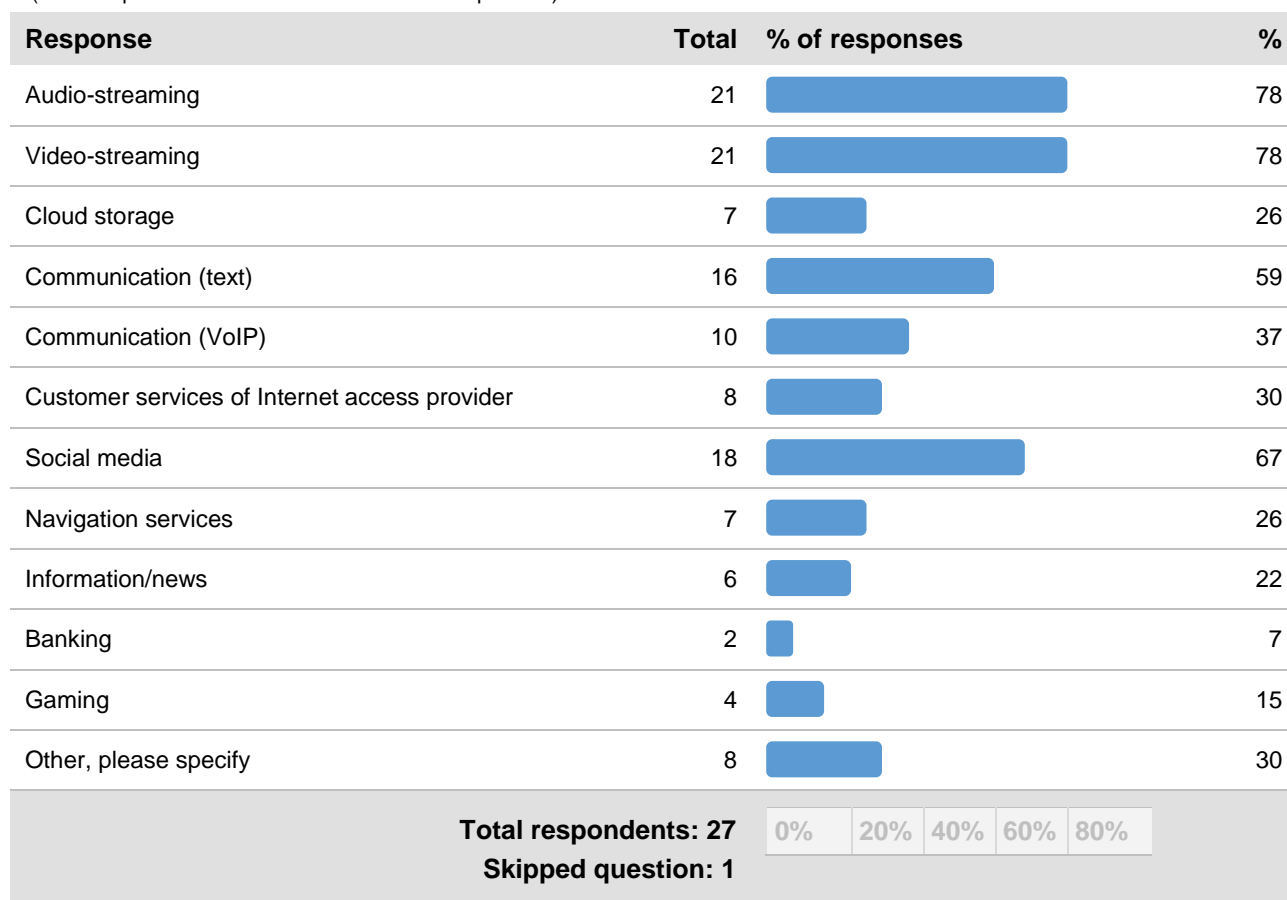
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	0		0
2 Market share, in percentages	0		0

Total respondents: 0 0% 20% 40% 60% 80%
Skipped question: 28

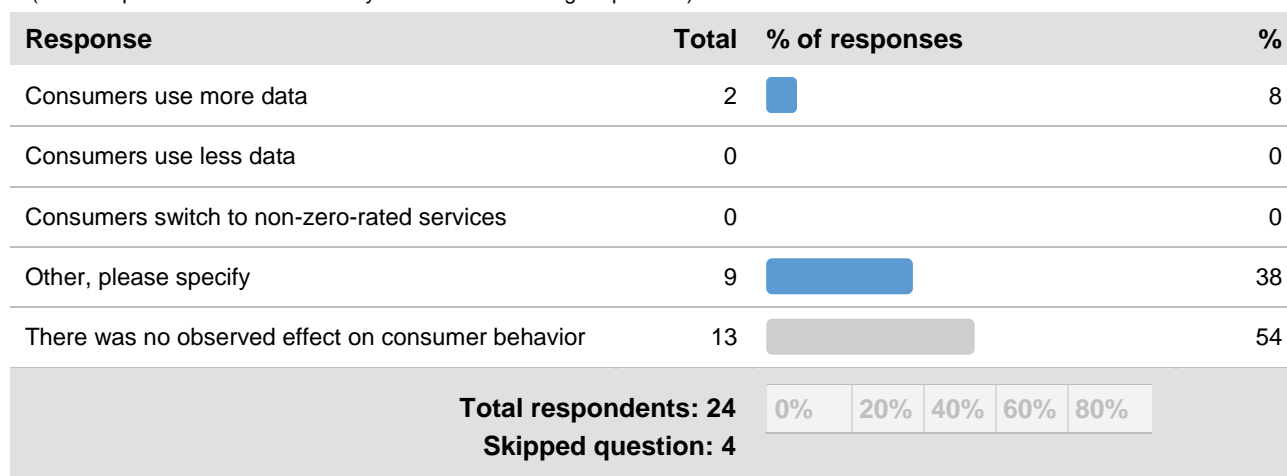
25. Which services are zero-rated? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



26. Did you observe any effect of zero-rating on consumer behavior?

(Each respondent could choose only ONE of the following responses.)



27. Have you provided additional guidance related to the implementation of Article 3(2)?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	7		26
No	20		74

Total respondents: 27 0% 20% 40% 60% 80%
Skipped question: 1

28. To which addressees have you provided guidance? Please specify the name and type of an organization.






(Each respondent could write multiple open-ended responses of maximum 255 characters.)

Response	Total	% of responses	%
Internet access providers	7		100
Content, applications and services providers	2		29
Consumers	3		43
Consumer organizations	3		43


Total respondents: 7 0% 20% 40% 60% 80%
Skipped question: 21

29. What was the topic of the guidance? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)






Response	Total	% of responses	%
Internet access providers' contracts that limited open internet access	3		43
Commercial agreements and practices (for example, zero-rating)	5		71
Price of internet access services	1		14
Data volumes or speed	2		29
Other, please specify	2		29

Total respondents: 7
Skipped question: 21




30. Have there been issues regarding Internet access providers (IAS) contractually banning the use of specific content or applications? Please summarize the issues:

(Each respondent could write multiple open-ended responses of maximum 255 characters.)

Response	Total	% of responses	%
IAS ban specific illegal content, please specify	4		14
IAS ban other content, please specify	2		7
IAS ban certain applications, please specify	2		7
Other, please specify	5		18
None of the above, please mark 'X'	18		64

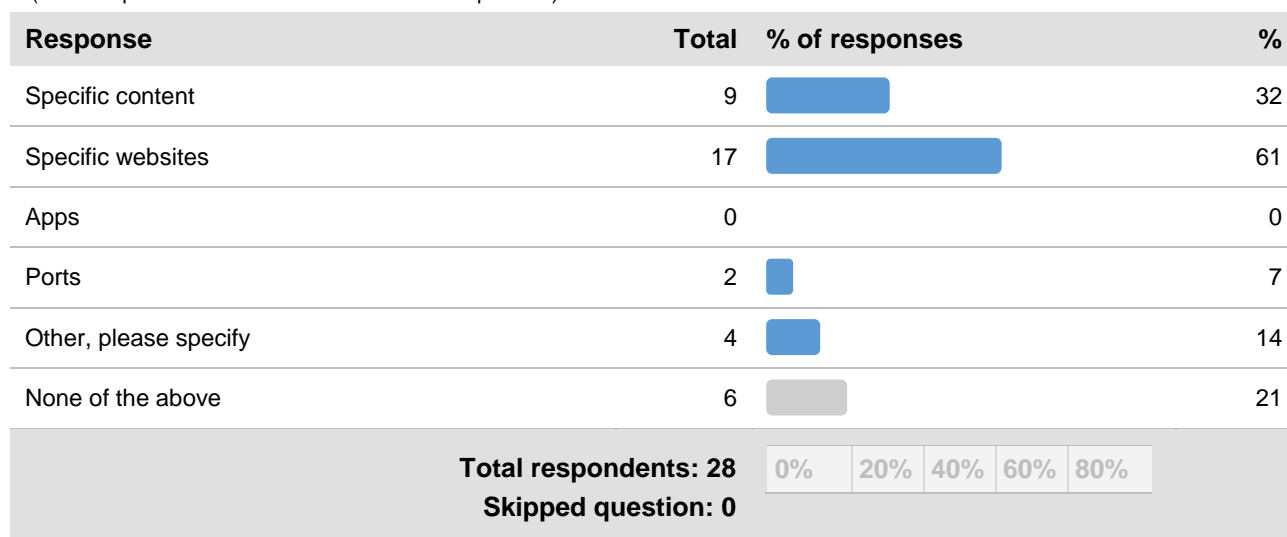
Total respondents: 28
Skipped question: 0



The next set of questions refers to Article 3(3) of the TSM Regulation: 'Traffic management'.

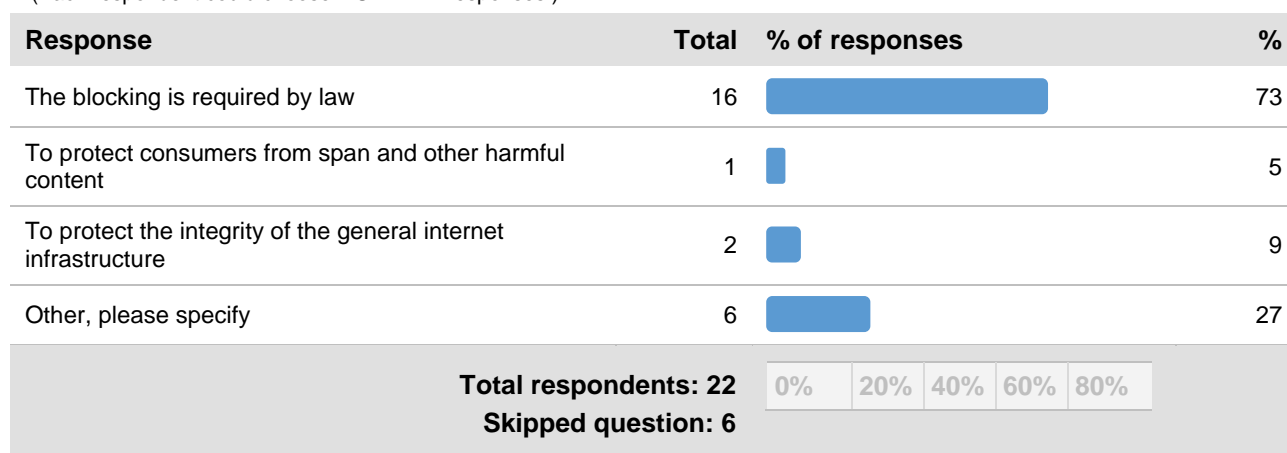
31. Are Internet access providers required to block any of the following? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



32. What are the reasons for the required blocking? Multiple answers possible.



(Each respondent could choose MULTIPLE responses.)



33.1. Which ports, content or websites are Internet access providers required to block?

- Specific content



(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	6		100
Total respondents: 6			
Skipped question: 22			

33.2. Which ports, content or websites are Internet access providers required to block?

- Specific websites

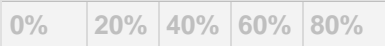
(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	14		100
Total respondents: 14			
Skipped question: 14			

33.3. Which ports, content or websites are Internet access providers required to block?

- Apps

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	0		0
Total respondents: 0			
Skipped question: 28			

33.4. Which ports, content or websites are Internet access providers required to block?

- Ports

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	1		100
Total respondents: 1			
Skipped question: 27			

33.5. Which ports, content or websites are Internet access providers required to block?

- Other (\$\$\$Quest31-5\$\$\$)

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Please fill in here	3		100
Total respondents: 3			
Skipped question: 25			




34. Do you allow Internet access providers in your country to block certain ports (without being obliged to do so)?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	21		78
No	6		22
Total respondents: 27			
Skipped question: 1			

35. What are the reasons to allow Internet access providers blocking of certain ports? Multiple answers possible.


(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
To protect consumers from spam and other unwanted content	15		71
To protect the integrity of the general internet infrastructure	18		86
Other, please specify	3		14

Total respondents: 21 0% 20% 40% 60% 80%
Skipped question: 7

36. How many enforcement actions have you taken related to traffic management infringements since 30 April 2016?

(Each respondent could write a single open-ended response of maximum 255 characters.)

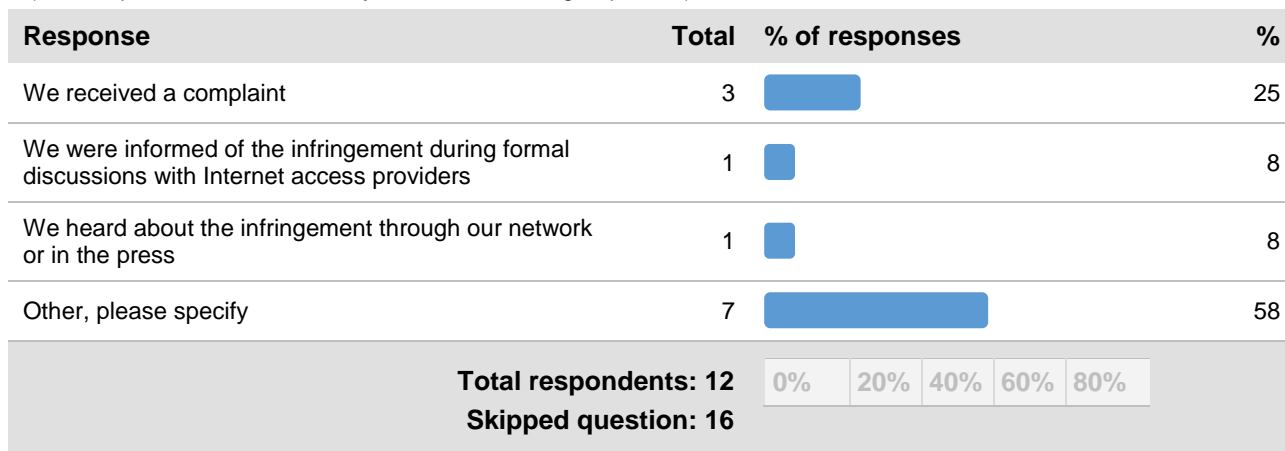
Response	Total	% of total respondents	%
Open answer	27		73

Total respondents: 27 0% 20% 40% 60% 80%
Skipped question: 1

The next set of questions refers to the last case related to traffic management that you handled.








37. What were the grounds for the enforcement action you have taken in the case related to traffic management infringement?


(Each respondent could choose only ONE of the following responses.)



38. What was/were the enforcement action(s) taken in the last case related to traffic management infringement? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



Response	Total	% of responses	%
Informal discussions	8		67
Informal warnings	5		42
Formal warnings	0		0
Request for information	8		67
Formal investigations	5		42
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	5		42
Prohibition of conducting business	0		0
Order to bring the infringement to an end	5		42
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	3		25
No actions were taken	0		0


Total respondents: 12 

Skipped question: 16

39. Has the case related to traffic management infringement been resolved?

(Each respondent could choose only ONE of the following responses.)



Response	Total	% of responses	%
Yes	7		58
No	5		42

Total respondents: 12 

Skipped question: 16



40. How was it resolved?

(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	7		19
Total respondents: 7 Skipped question: 21			

41. How many enforcement actions have you taken related to filtering infringements since 30 April 2016?




(Each respondent could write a single open-ended response of maximum 255 characters.)

Response	Total	% of total respondents	%
Open answer	27		73
Total respondents: 27 Skipped question: 1			

The next set of questions refers to the last case related to filtering that you handled.




42. What were the grounds for the enforcement action you have taken in the case related to filtering?


(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
We received a complaint	1		50
We were informed of the infringement during informal discussions with Internet access providers	0		0
We heard about the infringement through our network or in the press	2		100
Other, please specify	0		0
Total respondents: 2 Skipped question: 26			

43. What was/were the enforcement action(s) taken in the last case related to filtering? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)


Response	Total	% of responses	%
Informal discussions	2		100
Informal warnings	2		100
Formal warnings	0		0
Request for information	1		50
Formal investigations	0		0
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
No actions were taken	0		0


Total respondents: 2 

Skipped question: 26

44. Has the case related to filtering been resolved?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	0		0
No	2		100

Total respondents: 2 

Skipped question: 26

45. How was it resolved?


(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	0		0

Total respondents: 0 0% 20% 40% 60% 80%
Skipped question: 28

46. How many enforcement actions have you taken related to content differentiation/discrimination infringements since 30 April 2016?

(Each respondent could write a single open-ended response of maximum 255 characters.)





Response	Total	% of total respondents	%
Open answer	27		73

Total respondents: 27 0% 20% 40% 60% 80%
Skipped question: 1

The next set of questions refers to the last case related to content differentiation / discrimination that you handled.

47. What were the grounds for the enforcement action you have taken in the case related to content differentiation/discrimination?










(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
We received a complaint	1		11
We were informed of the infringement during informal discussions with Internet access providers	1		11
We heard about the infringement through our network or in the press	1		11
Other, please specify	6		67

Total respondents: 9 0% 20% 40% 60% 80%
Skipped question: 19

48. What was/were the enforcement action(s) taken in the last case related to content differentiation/discrimination? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



Response	Total	% of responses	%
Informal discussions	4		44
Informal warnings	2		22
Formal warnigns	1		11
Request for information	7		78
Formal investigations	6		67
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	1		11
Prohibition of conducting business	0		0
Order to bring the infringement to an end	3		33
Coercive administrative action	1		11
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	3		33
No actions were taken	0		0

Total respondents: 9
Skipped question: 19



49. Has the case related to content differentiation/discrimination been resolved?

(Each respondent could choose only ONE of the following responses.)



Response	Total	% of responses	%
Yes	5		56
No	4		44

Total respondents: 9
Skipped question: 19








50. How was it resolved?

(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	5		14
Total respondents: 5 Skipped question: 23			






51. Do you provide guidance related to the implementation of Article 3(3) of the TSM Regulation? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Yes, the guidance was offered to individual organizations	3		11
Yes, guidance of general nature was provided	3		11
Yes, other guidance was provided, please specify	4		15
No	19		70
Total respondents: 27 Skipped question: 1			

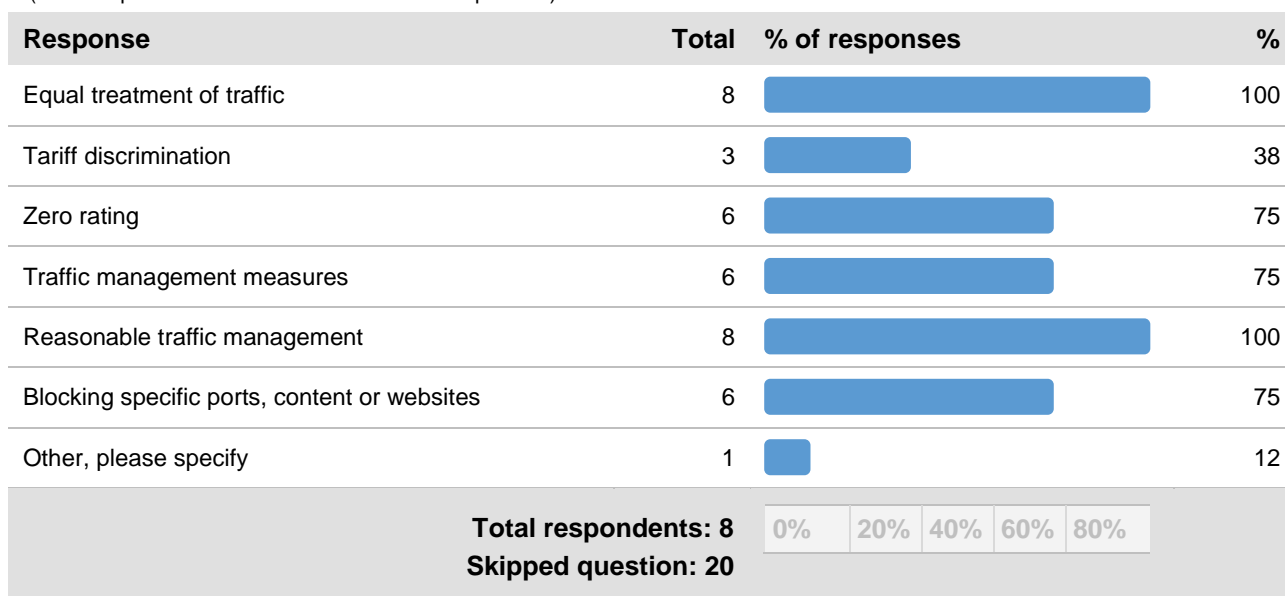
52. To which organizations have you provided guidance? Please specify the name and type of an organization:

(Each respondent could write multiple open-ended responses of maximum 255 characters.)

Response	Total	% of responses	%
Internet access providers	8		100
Content, applications and services providers	3		38
Consumers	3		38
Consumer organizations	4		50
Total respondents: 8 Skipped question: 20			

53. What was the topic of the guidance? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

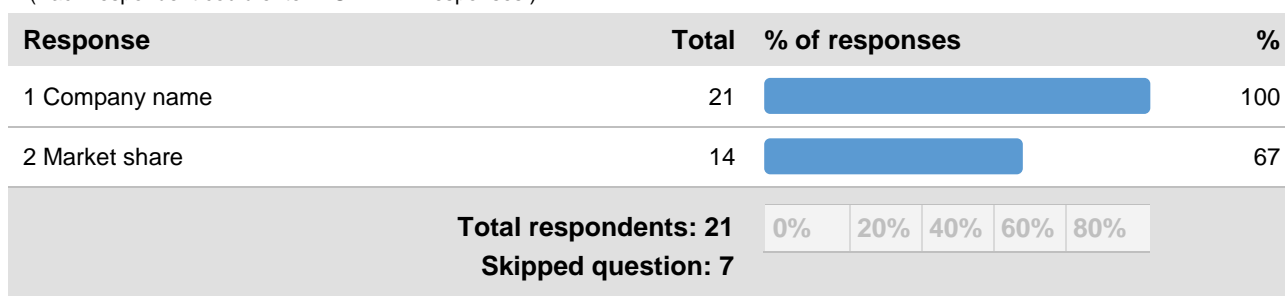


The next set of questions refers to Article 3(5) of the TSM Regulation: 'Specialised services'.

54.1. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 1




(Each respondent could enter MULTIPLE responses.)



54.2. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 2




(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	17		100
2 Market share	12		71
Total respondents: 17			
Skipped question: 11			

54.3. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 3




(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	12		100
2 Market share	8		67
Total respondents: 12			
Skipped question: 16			

54.4. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 4



(Each respondent could enter MULTIPLE responses.)


Response	Total	% of responses	%
1 Company name	10		100
2 Market share	7		70
Total respondents: 10			
Skipped question: 18			

54.5. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 5

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	8		100
2 Market share	5		62



Total respondents: 8 


Skipped question: 20

54.6. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 6

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	7		100
2 Market share	3		43



Total respondents: 7 


Skipped question: 21

54.7. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 7

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	6		100
2 Market share	3		50



Total respondents: 6 






Skipped question: 22

54.8. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 8

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Company name	5		100
2 Market share	3		60






Total respondents: 5     
Skipped question: 23

54.9. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 9

(Each respondent could enter MULTIPLE responses.)



Response	Total	% of responses	%
1 Company name	4		100
2 Market share	3		75






Total respondents: 4     
Skipped question: 24

54.10. What Internet access providers provide specialised services? Please provide the names of up to 10 companies and their respective market shares in percentages:

- Company 10



(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Company name	3		100
2 Market share	3		100

Total respondents: 3     
Skipped question: 25





55. Why is the optimisation of specialised services required?

(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	21		57
Total respondents: 21			
Skipped question: 7			



56. Have you encountered complaints about specialized services offered by Internet access providers in your Member State? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Yes, from individual consumers	2		7
Yes, from consumer organizations	0		0
Yes, from competitors	0		0
Yes, from another organization, please specify	1		4
No	25		89
Total respondents: 28			
Skipped question: 0			



57. What kind of complaints have you encountered about specialized services offered by Internet access providers (IAS) in your Member State? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
The specialized service disrupted the functioning of the IAS	0		0
The specialized service was not properly optimized for the type of services offered	0		0
Other, please specify	3		100
Total respondents: 3			
Skipped question: 25			

58. Have you encountered any other issues regarding specialized services offered by Internet access providers in your Member State?



(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	3		11
No	24		89

Total respondents: 27 0% 20% 40% 60% 80%
Skipped question: 1

59. What were these issues regarding specialised services related to?



(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Internet access providers were unsure what the requirements for offering specialized services were	2		67
Internet access providers limited their offers to specialized services	0		0
Other, please specify	1		33

Total respondents: 3 0% 20% 40% 60% 80%
Skipped question: 25

60. Have these issues regarding specialised services been resolved?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	1		33
No	2		67

Total respondents: 3 0% 20% 40% 60% 80%
Skipped question: 25

61. How were these issues regarding specialised services resolved?



(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	1		3

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 27

62. Have you taken any enforcement measures related to specialized services?




(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	2		7
No	26		93

Total respondents: 28 0% 20% 40% 60% 80%
Skipped question: 0

63. What kind of measures were taken? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Informal discussion with the Internet access provider	0		0
Still ongoing investigation into the infringement	1		50
Formally requested the Internet access provider to stop the infringement	1		50
Imposed a fine on the Internet access provider	0		0
Other, please specify	1		50

Total respondents: 2 0% 20% 40% 60% 80%
Skipped question: 26

64. What was the result of the action? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
The Internet access provider stopped infringing Article 3(5)	0		0
The Internet access provider appealed the action	1		50
Other, please specify	1		50

Total respondents: 2
Skipped question: 26

0% 20% 40% 60% 80%

The next set of questions refers to Article 4(1) of the TSM Regulation: 'Contract information'.

65.1. Do you agree or disagree with the following statement?

- The information required by the TSM Regulation can be found in one location (contract, terms and conditions or website).

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	4		14
2 Agree	9		32
3 Neither agree or disagree	8		29
4 Disagree	5		18
5 Fully disagree	2		7

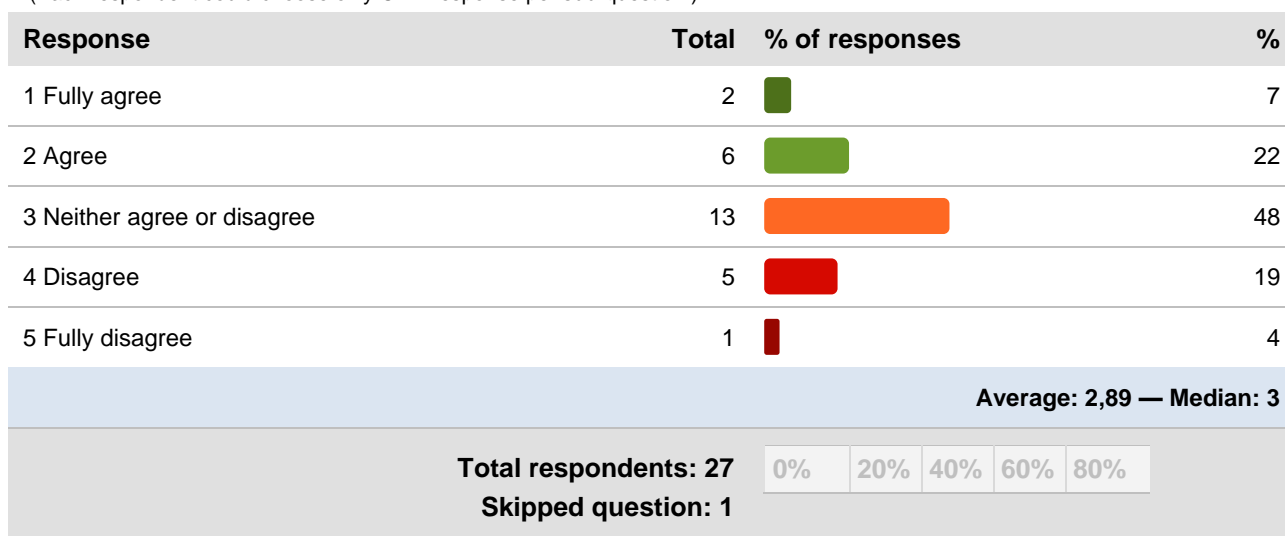
Average: 2,71 — Median: 3

Total respondents: 28
Skipped question: 0

0% 20% 40% 60% 80%

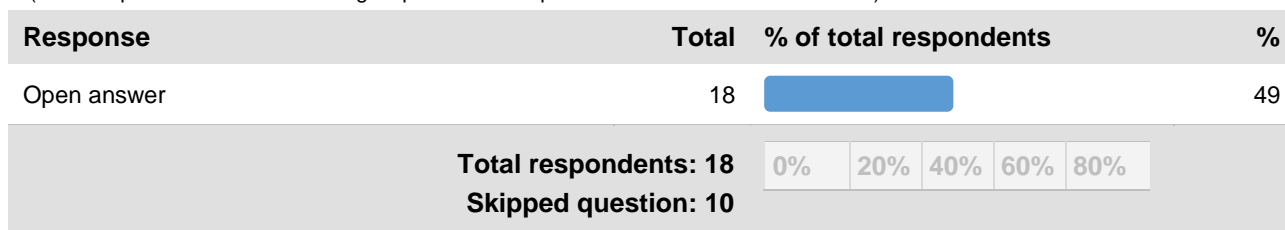
65.2. Do you agree or disagree with the following statement?

- The information required by the TSM Regulation is easily understandable for consumers.
- (Each respondent could choose only ONE response per sub-question.)



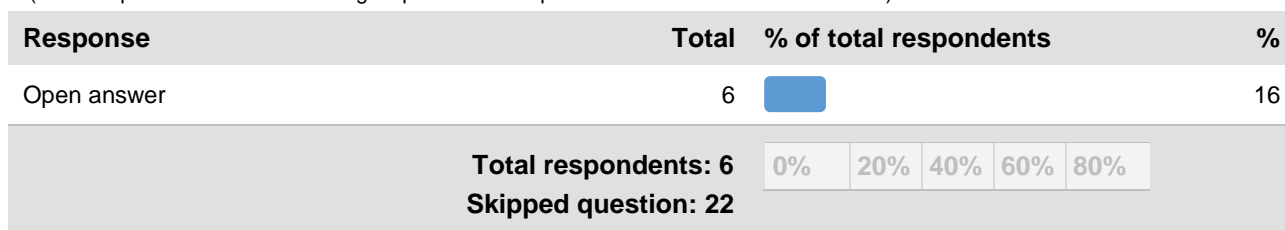
66. How many Internet access providers did not provide easy access to the required information?

(Each respondent could write a single open-ended response of maximum 255 characters.)



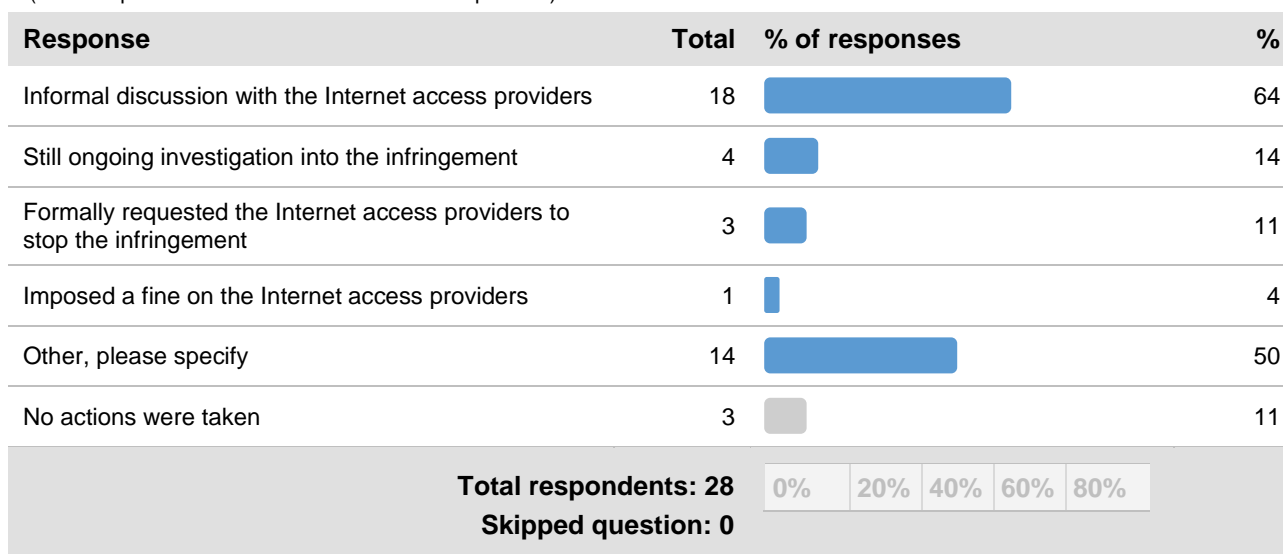
67. Which Internet access providers did not provide easy access to the required information?

(Each respondent could write a single open-ended response of maximum 2000 characters.)



68. What kind of actions did you take in relation to information requirements of the TSM Regulation? Multiple answers possible.

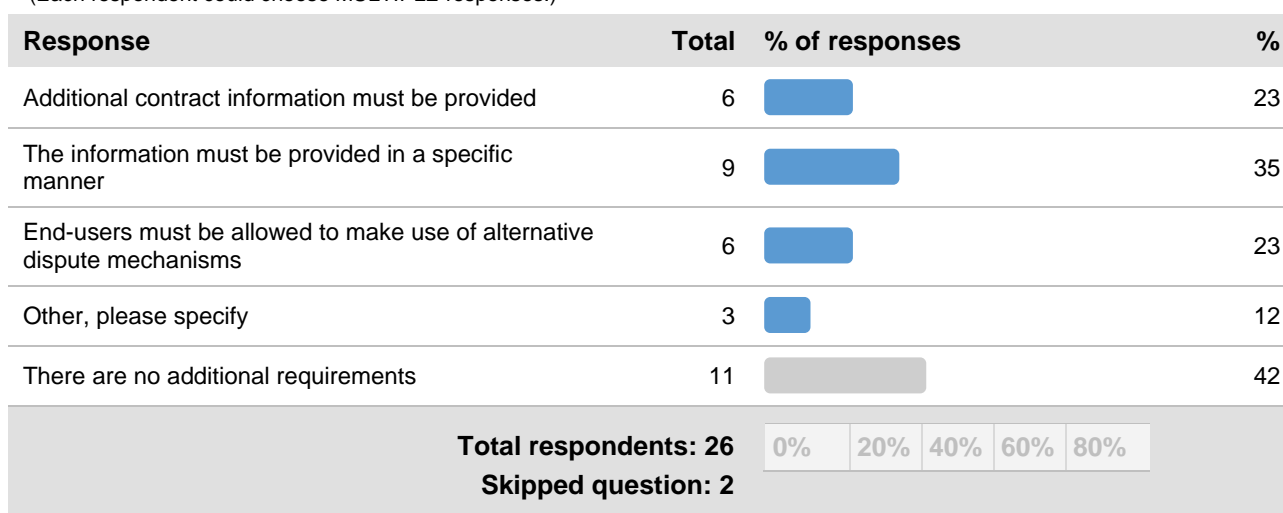
(Each respondent could choose MULTIPLE responses.)



The next set of questions refers to Article 4(3) of the TSM Regulation: 'Additional monitoring, information and transparency requirements'.



69. What monitoring, information and/or transparency requirements for Internet access providers exist in your country that go beyond the requirements of Article 4(1) and 4(2) of TSM Regulation? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



70.1. When were these requirements introduced?

- Additional contract information must be provided
(Each respondent could choose only ONE response per sub-question.)



Response	Total	% of responses	%
1 Before the TSM Regulation	3		50
2 After the TSM Regulation	3		50
- N/A	0		0

Average: 1,50 — Median: 1

Total respondents: 6 0% 20% 40% 60% 80%
Skipped question: 22

70.2. When were these requirements introduced?

- The information must be provided in a specific manner
(Each respondent could choose only ONE response per sub-question.)




Response	Total	% of responses	%
1 Before the TSM Regulation	5		56
2 After the TSM Regulation	4		44
- N/A	0		0

Average: 1,44 — Median: 1

Total respondents: 9 0% 20% 40% 60% 80%
Skipped question: 19




70.3. When were these requirements introduced?

- End-users must be allowed to make use of alternative dispute mechanisms
(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Before the TSM Regulation	5		83
2 After the TSM Regulation	1		17
- N/A	0		0
Average: 1,17 — Median: 1			
Total respondents: 6			
Skipped question: 22			

70.4. When were these requirements introduced?

- Other (\$\$\$Quest69-4\$\$\$)
(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Before the TSM Regulation	2		67
2 After the TSM Regulation	1		33
- N/A	0		0
Average: 1,33 — Median: 1			
Total respondents: 3			
Skipped question: 25			

The next set of questions refers to Article 4(4) of the TSM Regulation: 'Monitoring mechanisms'.

71. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of Internet access provider's performance (for example, on speeds)?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	17		61
No	11		39

Total respondents: 28 0% 20% 40% 60% 80%
Skipped question: 0

72.1. Do you agree or disagree with the following statements?

- Monitoring mechanism is necessary for consumers to test conformity of performance.

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	9		53
2 Agree	7		41
3 Neither agree or disagree	1		6
4 Disagree	0		0
5 Fully disagree	0		0

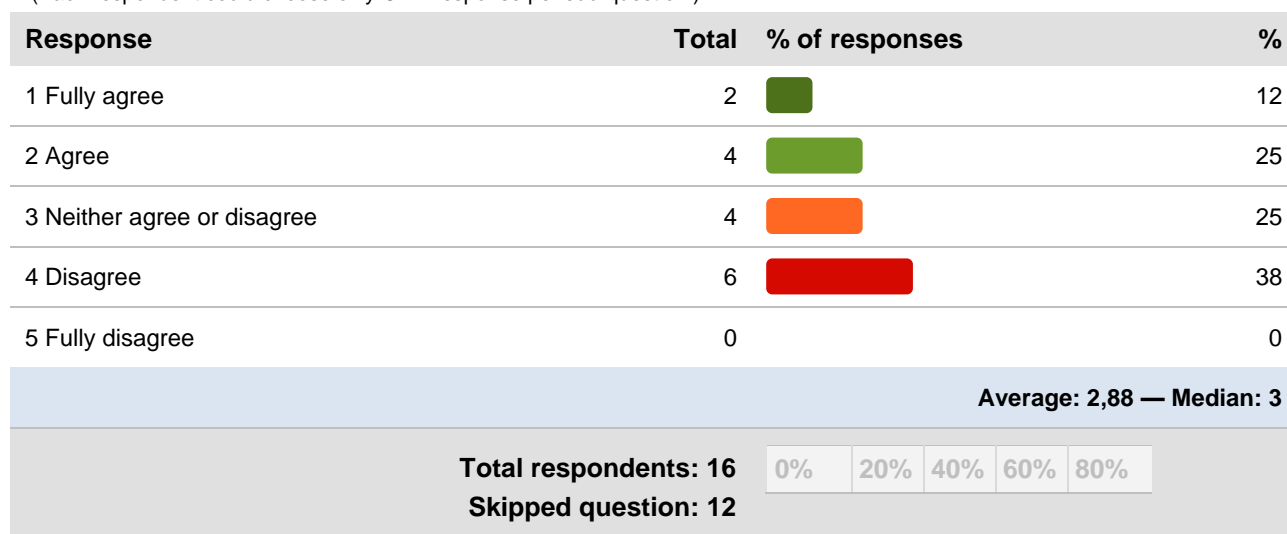
Average: 1,53 — Median: 1

Total respondents: 17 0% 20% 40% 60% 80%
Skipped question: 11

72.2. Do you agree or disagree with the following statements?

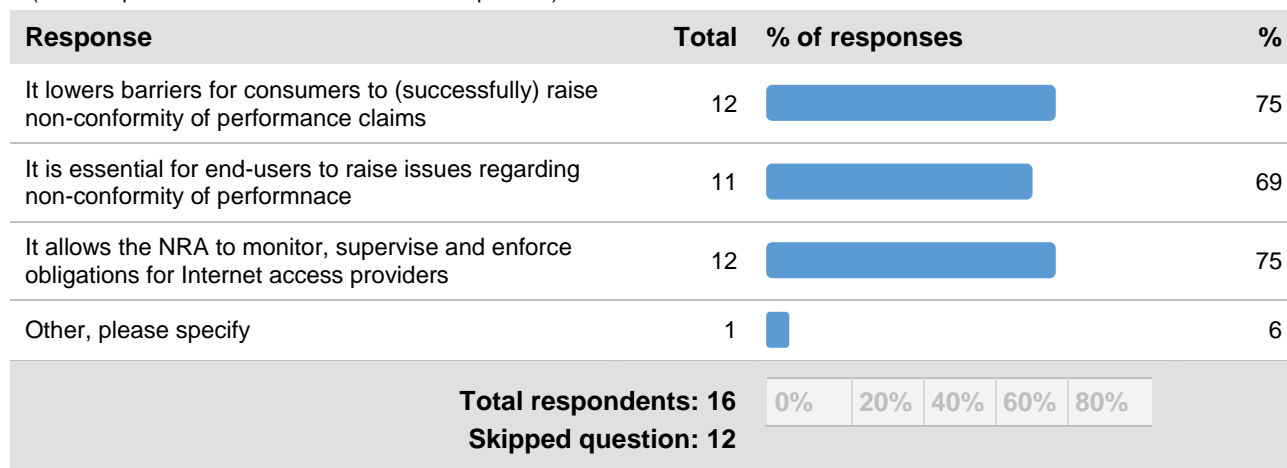
- It is necessary to certify the monitoring mechanism.

(Each respondent could choose only ONE response per sub-question.)




73. Why is a monitoring mechanism for consumers to test conformity of performance necessary? Multiple answers possible.


(Each respondent could choose MULTIPLE responses.)



74. Why is it necessary to certify the monitoring mechanism?


(Each respondent could write a single open-ended response of maximum 2000 characters.)


Response	Total	% of total respondents	%
Open answer	5		14

Total respondents: 5 
Skipped question: 23

75. What do you consider to be the requirements for certification of a monitoring mechanism?


(Each respondent could write a single open-ended response of maximum 2000 characters.)


Response	Total	% of total respondents	%
Open answer	6		16

Total respondents: 6 
Skipped question: 22

76. How many times have end-users used the monitoring mechanism since 30 April 2016?



(Each respondent could write a single open-ended response of maximum 255 characters.)


Response	Total	% of total respondents	%
Open answer	13		35

Total respondents: 13 
Skipped question: 15

77. Do you utilize the available monitoring mechanism for monitoring, supervision and enforcement obligations?


(Each respondent could choose only ONE of the following responses.)


Response	Total	% of responses	%
Yes	9		53
No	8		47

Total respondents: 17 
Skipped question: 11

78. How many cases or complaints have there been in your country based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?




(Each respondent could write a single open-ended response of maximum 255 characters.)


Response	Total	% of total respondents	%
Open answer	7		19

Total respondents: 7 
Skipped question: 21

79. Are the data generated with the monitoring mechanism stored?

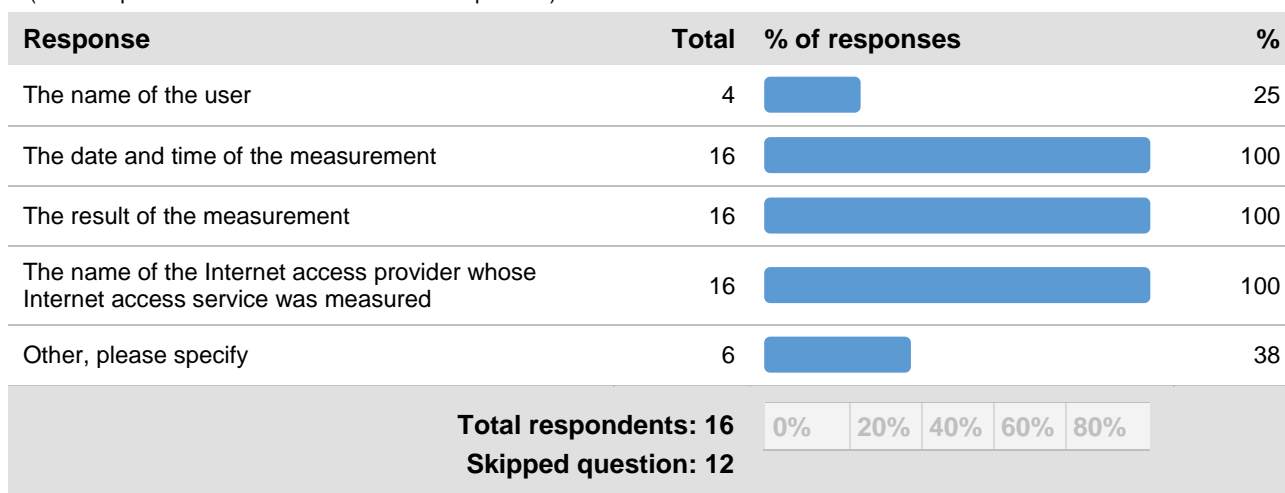
(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes, all the data are stored	11		65
Yes, partially	5		29
No	0		0
I don't know	1		6

Total respondents: 17 
Skipped question: 11

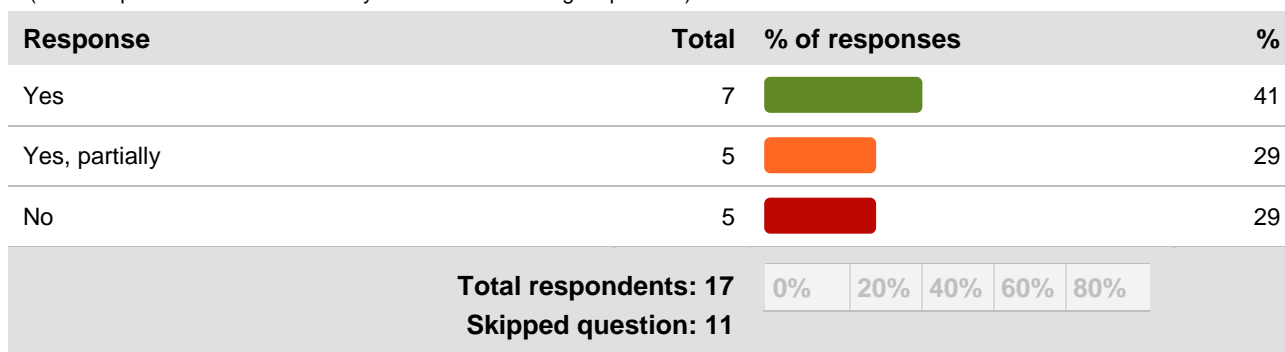
80. What data are stored? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



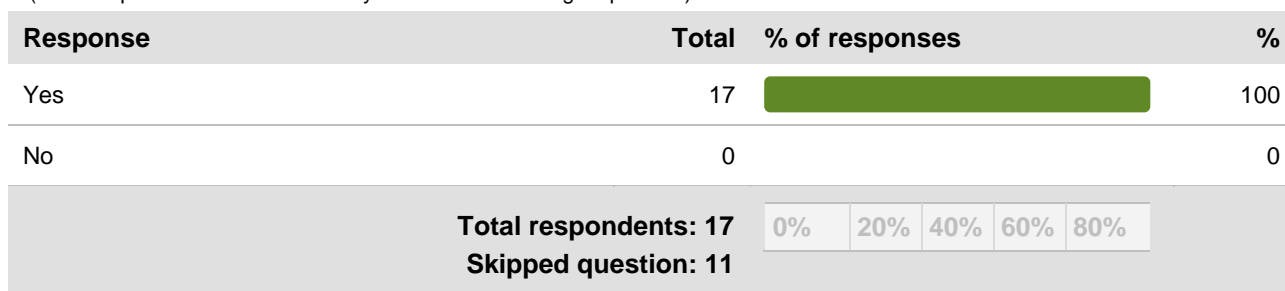
81. Did you follow the relevant BEREC documents* when implementing or supporting a monitoring mechanism?* BEREC Guidelines, BoR (15) 207, BoR (17) 178, BoR (14) 117, BoR (11) 53

(Each respondent could choose only ONE of the following responses.)



82. Does the monitoring mechanism make use of a speed measurement technology?


(Each respondent could choose only ONE of the following responses.)



The next set of questions refers to Article 5 of the TSM Regulation: 'Supervision and enforcement'.





83. How do you monitor the compliance of Internet access providers with Article 3(3), in particular concerning the management of network capacity and traffic?

(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	23		62
Total respondents: 23 Skipped question: 5		<input type="checkbox"/> 0% <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <input type="checkbox"/> 80%	



84. Did you impose requirements listed in Article 5(2)? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Yes, concerning technical characteristics	5		18
Yes, concerning minimum quality of service	4		14
Yes, other, please specify	3		11
No requirements are imposed	20		71
Total respondents: 28 Skipped question: 0		<input type="checkbox"/> 0% <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <input type="checkbox"/> 80%	



85. Did you follow the structure recommended in the BEREC guidelines for your annual net neutrality monitoring report?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	24		86
No	4		14
Total respondents: 28 Skipped question: 0		<input type="checkbox"/> 0% <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <input type="checkbox"/> 80%	

86. Why didn't you follow the structure recommended by BEREC?

(Each respondent could choose only ONE of the following responses.)


Response	Total	% of responses	%
As it was a recommended structure, I did not feel obliged to use the structure	0		0
It did not fit our national circumstances	2		50
Other, please specify	2		50

Total respondents: 4 0% 20% 40% 60% 80%
Skipped question: 24

87.1. How many times did you ask Internet access providers to provide any information concerning one of the following issues? If you did not ask for this information, please enter '0'.

- Management of network capacity

(Each respondent could enter MULTIPLE responses.)


Response	Total	% of responses	%
1 Number of times	22		100

Total respondents: 22 0% 20% 40% 60% 80%
Skipped question: 6

87.2. How many times did you ask Internet access providers to provide any information concerning one of the following issues? If you did not ask for this information, please enter '0'.

- Management of network traffic

(Each respondent could enter MULTIPLE responses.)


Response	Total	% of responses	%
1 Number of times	25		100

Total respondents: 25 0% 20% 40% 60% 80%
Skipped question: 3

87.3. How many times did you ask Internet access providers to provide any information concerning one of the following issues? If you did not ask for this information, please enter '0'.

- Justifications for any traffic management applied

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times	24		100

Total respondents: 24


Skipped question: 4



87.4. How many times did you ask Internet access providers to provide any information concerning one of the following issues? If you did not ask for this information, please enter '0'.

- Other information, please specify

(Each respondent could enter MULTIPLE responses.)

Response	Total	% of responses	%
1 Number of times	7		100



Total respondents: 7

Skipped question: 21



88. Did the Internet access providers make the requested information available within the time limits and with the level of detail you required?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	16		67
Partially	8		33
No	0		0

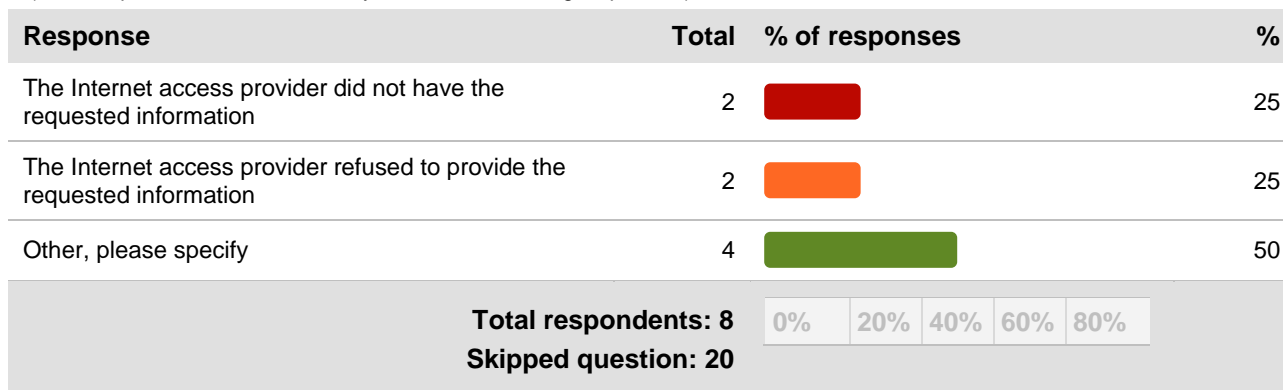
Total respondents: 24

Skipped question: 4



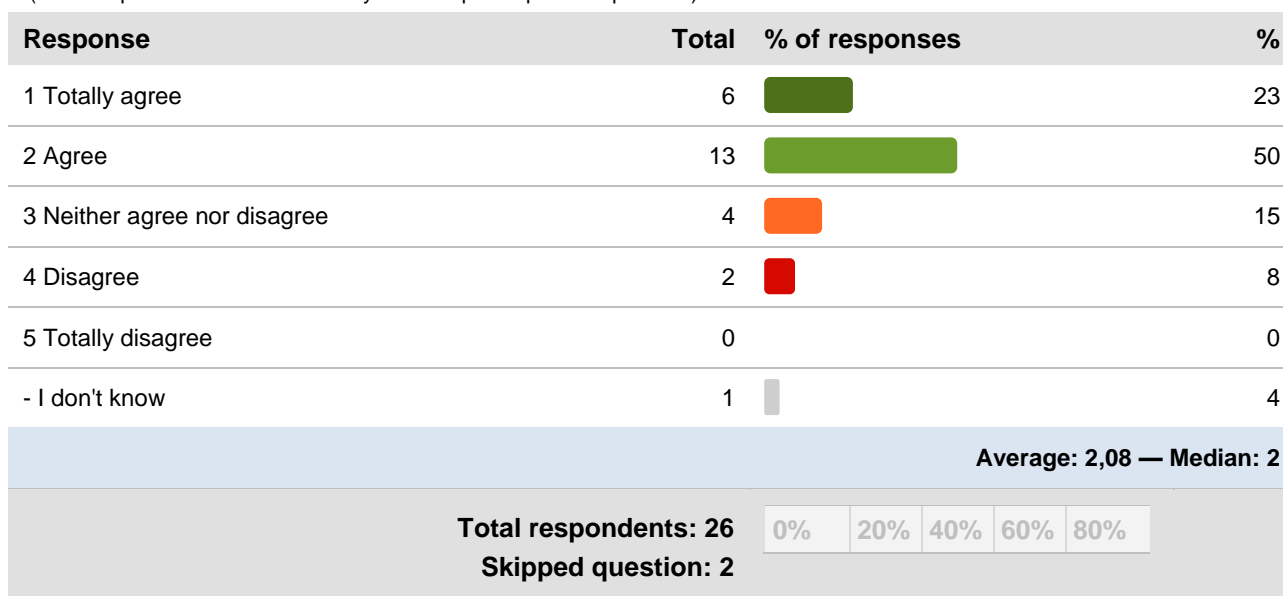
89. What was the reason for not making the requested information available within the time limits and with the level of detail you required?

(Each respondent could choose only ONE of the following responses.)



90.1. Do you agree or disagree with the following statements?

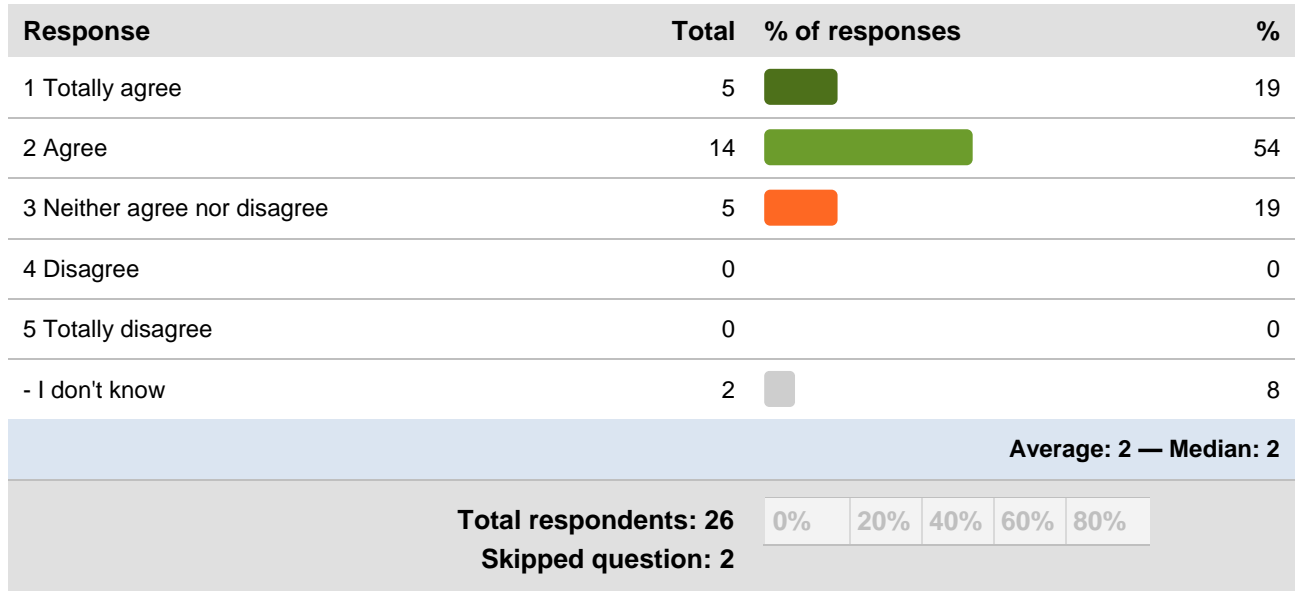
- The available enforcement measures are effective to achieve conformity with the TSM Regulation.
- (Each respondent could choose only ONE response per sub-question.)



90.2. Do you agree or disagree with the following statements?

- The available enforcement measures are proportionate to achieve conformity with the TSM Regulation.

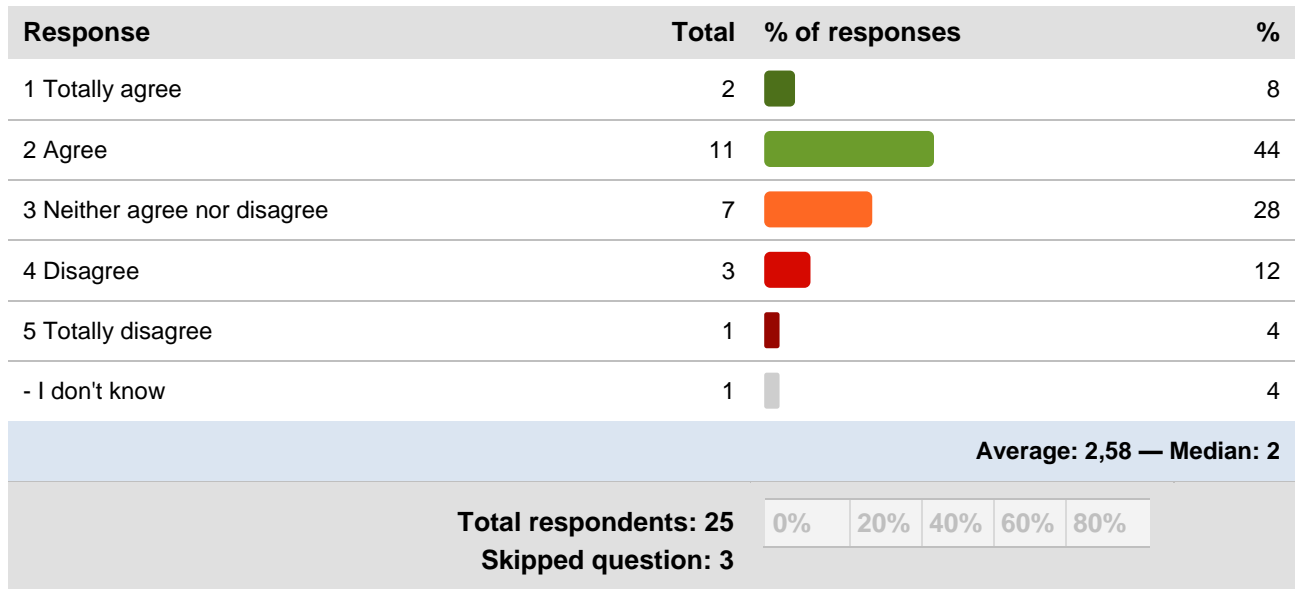
(Each respondent could choose only ONE response per sub-question.)



90.3. Do you agree or disagree with the following statements?

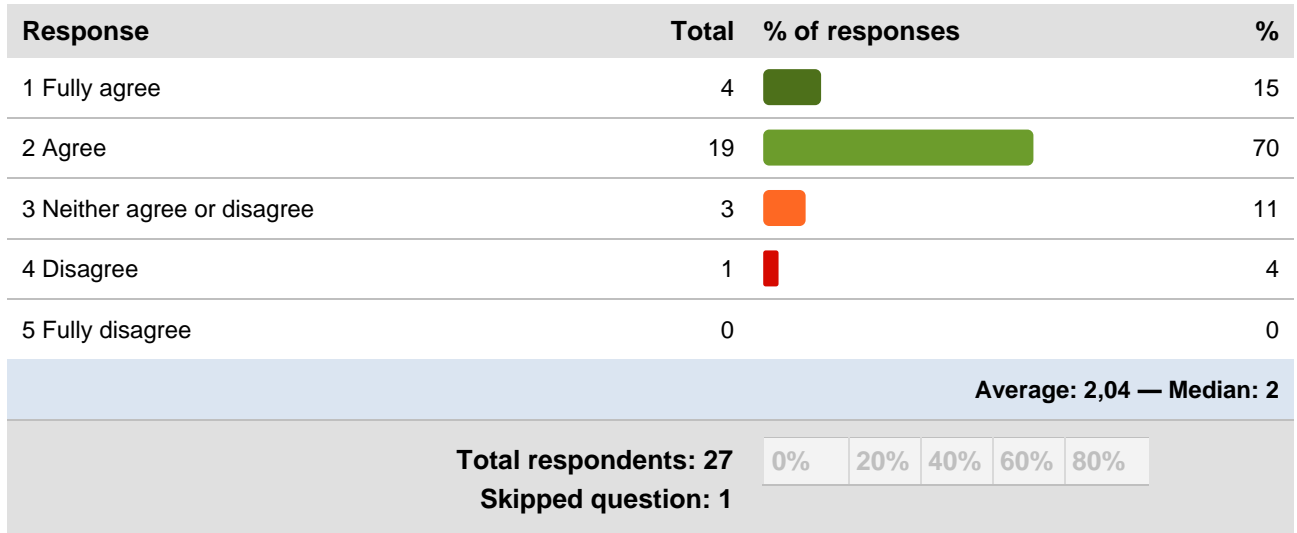
- The available enforcement measures are dissuasive to achieve conformity with the TSM Regulation.

(Each respondent could choose only ONE response per sub-question.)



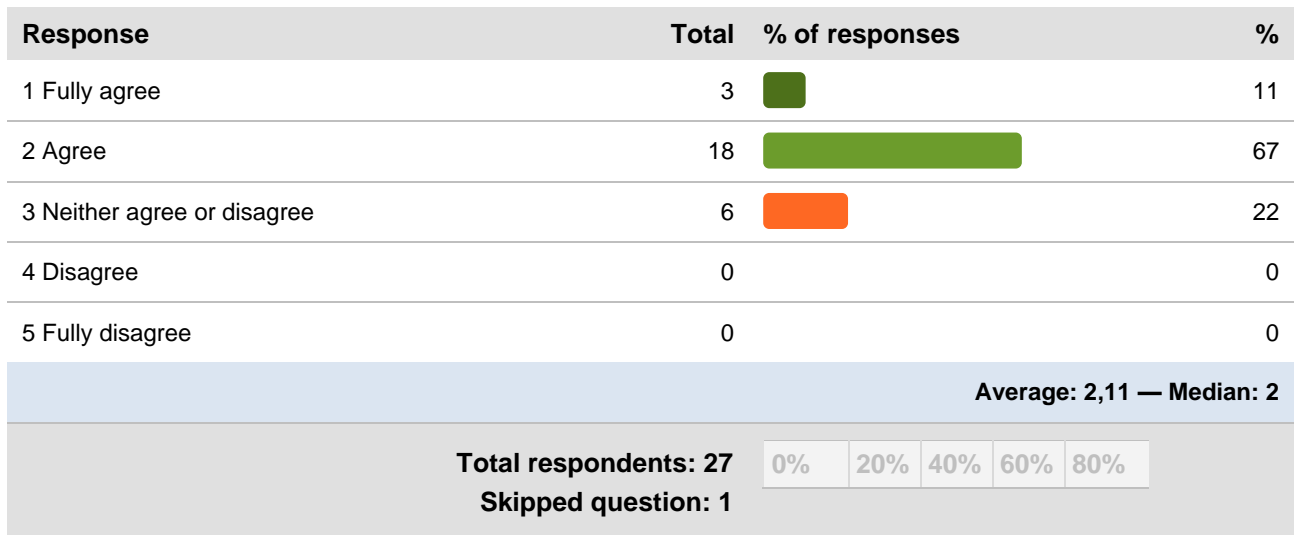
91.1. Do you agree or disagree with the following statements?

- The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- (Each respondent could choose only ONE response per sub-question.)



91.2. Do you agree or disagree with the following statements?

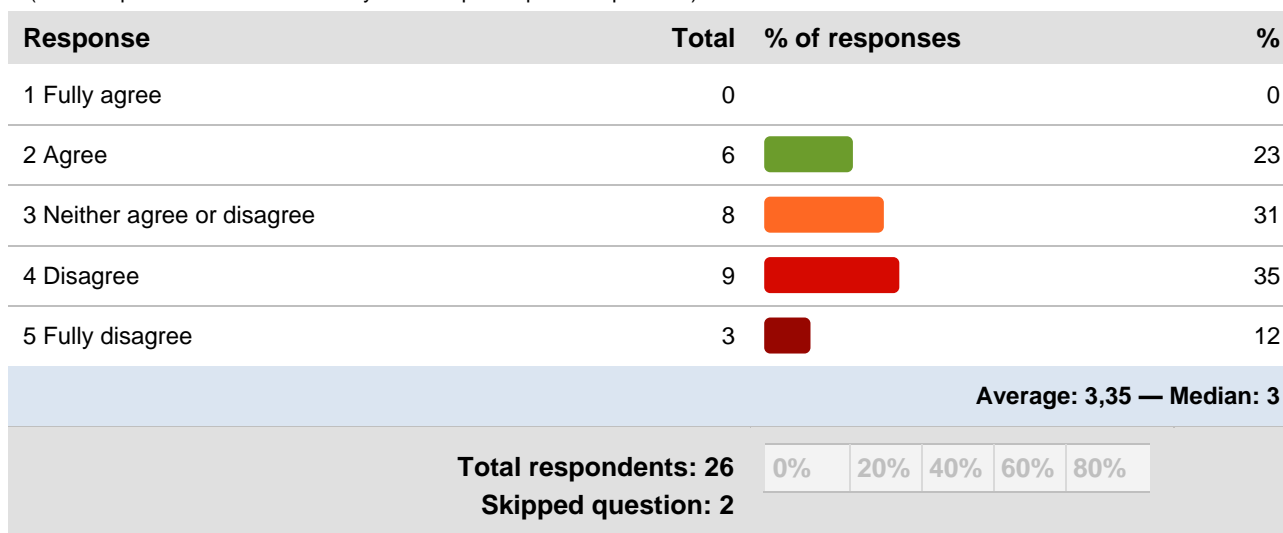
- The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- (Each respondent could choose only ONE response per sub-question.)



91.3. Do you agree or disagree with the following statements?

- A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.

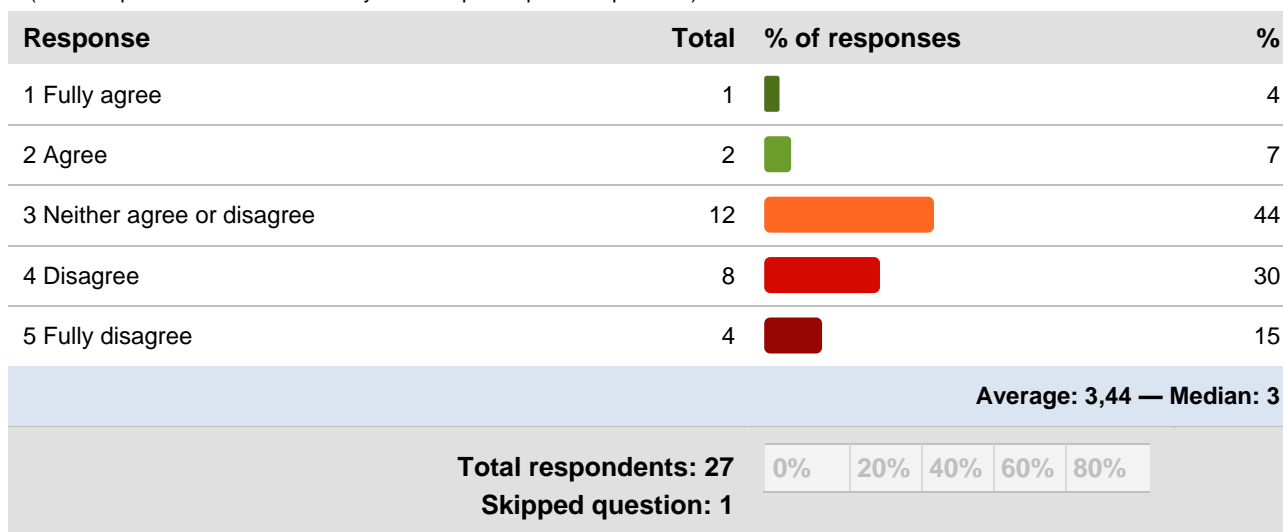
(Each respondent could choose only ONE response per sub-question.)



91.4. Do you agree or disagree with the following statements?


- Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.


(Each respondent could choose only ONE response per sub-question.)



92. What is the name of your organisation?

(Each respondent could write a single open-ended response of maximum 255 characters.)



Response	Total	% of total respondents	%
Open answer	28		76


Total respondents: 28 
Skipped question: 0

Ecorys and Bird & Bird would like to approach some participants of this survey for interviews about their experience with the TSM Regulation. Your contact information will be used exclusively for the purposes of the interview. Participation in this part of the research project is entirely without obligation. You can withdraw your consent at any time. For more information about how Ecorys and Bird & Bird deal with your personal data, please refer to our privacy policy [here](#).

93. Are you willing to continue discussing your experience with the TSM Regulation with Ecorys and Bird&Bird?


(Each respondent could choose only ONE of the following responses.)


Response	Total	% of responses	%
Yes, I consent to use my contact details for said purposes. I am aware that my contact details will not be used for other purposes and that I can withdraw my consent at any time.	15		54
No, I do not want to be further contacted by Ecorys and Bird & Bird.	13		46

Total respondents: 28 
Skipped question: 0

94. What is your name?


(Each respondent could write a single open-ended response of maximum 255 characters.)


Response	Total	% of total respondents	%
Open answer	13		35

Total respondents: 13 
Skipped question: 1

95. What is your email address?

(Each respondent could write a single open-ended response of maximum 255 characters.)


Response	Total	% of total respondents	%
Open answer	14		38


Total respondents: 14 

Skipped question: 0

96. What is your telephone number?

(Each respondent could write a single open-ended response of maximum 255 characters.)







Response	Total	% of total respondents	%
Open answer	12		32

Total respondents: 12 

Skipped question: 2

Survey results for Consumer Protection Authorities

2. What country are you from?



Response	Total	% of responses	%
Austria	1		17
Finland	1		17
Germany	1		17
Italy	1		17
Slovakia	1		17
United Kingdom	1		17

Total respondents: 6 0% 20% 40% 60% 80%
Skipped question: 0

3. What powers and responsibilities do you have with regard to ensuring net neutrality (supervision, investigation, enforcement/administrative action, none, etc.)?






Three answers were provided.

4. How involved are you with regard to ensuring net neutrality and specifically in ensuring the TSM Regulation is complied with?

Response	Total	% of responses	%
Not involved	2		67
Only involved for consumer complaints	0		0
Involved for consumer complaints and transparency measures	1		33
Involved in all aspects	0		0

Total respondents: 3 0% 20% 40% 60% 80%
Skipped question: 0

5. What are the most important topics covered in the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Open internet access	1		100
Use of terminal equipment / tethering	0		0
Contractual limitations	1		100
Equal treatment of traffic	0		0
Tariff discrimination	0		0
Reasonable traffic management	0		0
Zero-rating	0		0
Possible exceptions	0		0
Transparency on quality of services	1		100
Transparency on remedies in case of insufficient quality	1		100
Existence of transparent, simple and efficient procedures to address complaints	0		0
Supervision and enforcement guidelines	1		100
Penalty guidelines	0		0
Other, please specify	0		0

Total respondents: 1 0% 20% 40% 60% 80%

Skipped question: 1

6. How many complaints from individual consumers on issues concerning Article 3 of the TSM Regulation have you received since 30th April 2016?
One answer was provided.

7. On which issues have complaints been received? *[multiple answers possible]*
No response was received for this question since zero complaints were indicated.

8. How many complaints have you received per issue?
No response was received for this question since zero complaints were indicated.

9. How did you deal with these complaints?
No response was received for this question since zero complaints were indicated.

10. On all the complaints that were well-founded, please indicate the measure taken.
No response was received for this question since zero complaints were indicated.

27. In how many cases did your lodging of a complaint/starting of informal discussions with the NRA of a consumer complaint have the following result:
No response was received for this question since zero complaints were indicated.




28. Please describe the result/status of the (class) action(s) you lodged the national court resulting from consumer complaints you received.

No response was received for this question since zero complaints were indicated.



29. Please describe the result/status of the (class) administrative action(s) you undertook resulting from consumer complaints you received.

No response was received for this question since zero complaints were indicated.

30. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Additional contract information must be provided	0		0
The information must be provided in a specific manner	0		0
End-users must be allowed to make use of alternative dispute mechanisms	1		50
Other, please specify	1		50
There are no additional requirements	0		0
Total respondents: 2			
Skipped question: 0			

31. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

Response	Total	% of responses	%
Yes	0		0
No	2		100
Total respondents: 2			
Skipped question: 0			

32. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?

No response was received for this question.

33. What online tools do consumers utilise?

No response was received for this question.

34. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?

No response was received for this question.

35. Are the data generated with the monitoring mechanism stored?

No response was received for this question.



36. What data are stored? *[multiple answers possible]*

No response was received for this question.

37. Are data generated used for other purposes than for end-users to test conformity of performance?

No response was received for this question.




38. What instruments does the NRA in your country practically and effectively use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
formal investigations	1		100
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	1		100
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such instruments in place	0		0




Total respondents: 1 0% 20% 40% 60% 80%

Skipped question: 1

39. Which enforcement measure available in your country do you consider the most effective to achieve conformity with the TSM Regulation?

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
formal investigations	1		100
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	1		100
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such measures in place	0		0
Total respondents: 1			
Skipped question: 1			

40. Which enforcement measure available in your country do you consider the most proportionate to achieve conformity with the TSM Regulation?

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	1		100
Request for information	0		0
formal investigations	1		100
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	1		100
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such measures in place	0		0
Total respondents: 1			
Skipped question: 1			

41. Which enforcement measure available in your country do you consider the most dissuasive to achieve conformity with the TSM Regulation?

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
formal investigations	0		0
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such measures in place	1		100
Total respondents: 1			
Skipped question: 1			

42. Do you agree with the following statements:

a. The TSM Regulation has strengthened the consumer's position.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		100
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Average: 2 — Median: 1,50			
Total respondents: 1			
Skipped question: 1			

b. The TSM Regulation has strengthened our position in protecting the consumer's position.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		100
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Average: 2 — Median: 1,50			
Total respondents: 1		<input type="checkbox"/> 0% <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <input type="checkbox"/> 80%	
Skipped question: 1			

c. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		100
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Average: 2 — Median: 1,50			
Total respondents: 1		<input type="checkbox"/> 0% <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <input type="checkbox"/> 80%	
Skipped question: 1			

d. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		100
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Average: 2 — Median: 1,50			
Total respondents: 1		<input type="checkbox"/> 0% <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <input type="checkbox"/> 80%	
Skipped question: 1			

e. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.



Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1	<div style="width: 100%; background-color: #6aa84f;"></div>	100
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Average: 2 — Median: 1,50			
Total respondents: 1		<div style="display: flex; justify-content: space-between; width: 100%;"> 0% 20% 40% 60% 80% </div>	
Skipped question: 1			


f. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1	<div style="width: 100%; background-color: #6aa84f;"></div>	100
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Average: 2 — Median: 1,50			
Total respondents: 1		<div style="display: flex; justify-content: space-between; width: 100%;"> 0% 20% 40% 60% 80% </div>	
Skipped question: 1			

Survey results for Content, Applications and Services Providers


2. In how many EU Member States are you active?


Response	Total	% of responses	%
In only one Member State	1		10
In several Member States	9		90
We are not active in the EU at all	0		0

Total respondents: 10 
Skipped question: 0


Questions 3-36 are only for those that responded that they are active in only 1 MS.


3. In which Member State(s) are you active?

Response	Total	% of responses	%
Germany	1		100


Total respondents: 1 
Skipped question: 9

4. Did you engage in informal discussions with the NRA in your country regarding Article 3?

Response	Total	% of responses	%
Yes, before the entry into force of the TSM Regulation on 30 April 2016.	0		0
Yes, after the entry into force of the TSM Regulation on 30 April 2016.	0		0
Yes, before and after the entry into force of the TSM Regulation on 30 April 2016.	1		100
No, we did not engage in discussions with the NRA.	0		0

Total respondents: 1 
Skipped question: 9

5. Which issues regarding Article 3 of the TSM Regulation "Safeguarding of open internet access" were informally discussed with the NRA? *Multiple answers possible.*

Response	Total	% of responses	%
Open Internet access	0		0
Use of terminal equipment / tethering	0		0
Contractual limitations	0		0
Equal treatment of traffic	0		0
Tariff discrimination	0		0
Reasonable traffic management	0		0
Zero-rating	1		100
Possible exceptions	0		0
Other, please specify	0		0

Total respondents: 1



Skipped question: 9

6. Was there any follow-up by the NRA on Open internet access?
No response was provided for this question since this issue was not selected.
7. Was there any follow-up by the NRA on Use of terminal equipment / tethering?
No response was provided for this question since this issue was not selected.
8. Was there any follow-up by the NRA on Contractual limitations?
No response was provided for this question since this issue was not selected.
9. Was there any follow-up by the NRA on Equal treatment of traffic?
No response was provided for this question since this issue was not selected.
10. Was there any follow-up by the NRA on Tariff discrimination?
No response was provided for this question since this issue was not selected.
11. Was there any follow-up by the NRA on Reasonable traffic management?
No response was provided for this question since this issue was not selected.
12. Was there any follow-up by the NRA on Zero-rating?

Response	Total	% of responses	%
The NRA started an official investigation.	0		0
The NRA gave public guidance on how to deal with this issue	0		0
The NRA gave informal guidance on how to deal with this issue	1		100
Other, please specify	0		0
There was no follow-up.	0		0

Total respondents: 1

Skipped question: 9

13. Was there any follow-up by the NRA on Possible exceptions?
 No response was provided for this question since this issue was not selected.

14. Was there any follow-up by the NRA on issues related to [other]? *[multiple answers possible]*
 No response was provided for this question since this issue was not selected.

15. Did you engage in negotiations with the Internet access providers regarding zero-rating?

Response	Total	% of responses	%
Yes	0		0
No	1		100

Total respondents: 1

Skipped question: 9

16. Did you conclude any commercial agreement regarding zero-rating with the Internet access providers?
 No response was provided for this question.

17. Are these exclusive agreements?
 No response was provided for this question.

18. What were the reasons that no agreement was reached with Internet service providers (IAS)? *Multiple answers possible.*
 No response was provided for this question.

19. Which of your services are most often zero-rated? *Multiple answers possible.*
 No response was provided for this question.

20. Did you observe any effect of zero-rating on consumer behaviour?
 No response was provided for this question.

21. Do any of the following Traffic Management measures affect your services? *[multiple answers possible]*

No response was provided for this question.

22. Which specialised service(s) do you provide to end-users? *[multiple answers possible]*

No response was provided for this question.

23. Why is the optimisation of specialised services, that are provided on your network, required?

No response was provided for this question.

24. Please describe any problems you experience when providing specialised service across the EU.

No response was provided for this question.

25. Do you agree with the following statement:

- Monitoring mechanism is necessary for consumers to test conformity of performance.

No response was provided for this question.

26. Why is a monitoring mechanism for consumers to test conformity of performance necessary? *Multiple answers possible.*

No response was provided for this question.

27. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

No response was provided for this question.

28. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?

No response was provided for this question.

29. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?

No response was provided for this question.

30. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of TSM Regulation? *[multiple answers possible]*

No response was provided for this question.

31. What measures are taken by the NRA to ensure compliance the requirements laid down in Articles 3 and 4 of TSM Regulation? *[multiple answers possible]*

No response was provided for this question.

32. What measure(s) are taken by the NRA to promote the continued availability of non-discriminatory Internet access service at levels of quality that reflect advances in technology? *[multiple answers possible]*

No response was provided for this question.

33. Did the NRA impose requirements concerning technical characteristics on one or more providers of electronic communications to the public, including providers of IAS?

No response was provided for this question.

34. What instruments does the NRA in your country practically and effectively use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*

No response was provided for this question.

35. Which enforcement measures available in your country do you consider the most effective to achieve conformity of providers of Electronic Communications Services with the TSM Regulation? *[multiple answers possible; maximum three]*

No response was provided for this question.

36. Which enforcement measures available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum three]*

No response was provided for this question.

37. Which enforcement measures available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum three]*

No response was provided for this question.

38. What is the effect of diverging approaches to penalties across EU Member States on your business? *[multiple answers possible]*





























No response was provided for this question.

39. Do you agree with the following statements:

- a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
- b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.
- c. The annual net neutrality monitoring report of your NRA is of high quality.
- d. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.
- e. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.
- f. The NRA acts in accordance with the BEREC Guidelines.
- g. The BEREC Guidelines led to a more consistent practice across Member States.






























No response was provided for this question.

40. In which Member State(s) are you active? *[multiple answers possible]*

Response	Total	% of responses	%
Austria	6		67
Belgium	6		67
Bulgaria	6		67
Czech Republic	6		67
Croatia	5		56
Cyprus	6		67
Denmark	6		67
Estonia	6		67
Finland	6		67
France	6		67
Germany	7		78
Greece	6		67
Hungary	6		67
Ireland	6		67
Italy	5		56
Latvia	5		56
Lithuania	5		56
Luxembourg	6		67
Malta	6		67
Netherlands	7		78
Poland	6		67
Portugal	6		67
Romania	6		67
Slovakia	6		67
Slovenia	6		67
Spain	7		78
Sweden	7		78
United Kingdom	8		89



Response	Total	% of responses					%
	Total respondents: 9	0%	20%	40%	60%	80%	
	Skipped question: 0						

41. In which Member States did you engage in informal discussions with the NRA's regarding the net neutrality provisions of the TSM Regulation (if any)? *[multiple answers possible]*







Response	Total	% of responses	%
Austria	3		33
Belgium	2		22
Bulgaria	2		22
Czech Republic	2		22
Croatia	2		22
Cyprus	2		22
Denmark	2		22
Estonia	2		22
Finland	2		22
France	4		44
Germany	4		44
Greece	4		44
Hungary	2		22
Ireland	4		44
Italy	2		22
Latvia	1		11
Lithuania	1		11
Luxembourg	3		33
Malta	2		22
Netherlands	5		56
Poland	3		33
Portugal	2		22
Romania	2		22
Slovakia	2		22
Slovenia	2		22
Spain	3		33
Sweden	3		33
United Kingdom	7		78
None of the above	1		11

Response	Total	% of responses	%
Total respondents: 9		0% 20% 40% 60% 80%	
Skipped question: 0			






42. When did the majority of these informal discussions take place?

Response	Total	% of responses	%
Yes, before the entry into force of the TSM Regulation	0		0
Yes, after the entry into force of the TSM Regulation	1		14
Yes, before and after the entry into force of the TSM Regulation	6		86
Total respondents: 7		0% 20% 40% 60% 80%	
Skipped question: 1			

43. Which issues regarding Article 3 of the TSM Regulation "Safeguarding of open internet access" were most often informally discussed with the NRA? *[multiple answers possible; maximum of three]*

Response	Total	% of responses	%
Open Internet access	3		50
Use of terminal equipment / tethering	0		0
Contractual limitations	1		17
Equal treatment of traffic	0		0
Tariff discrimination	2		33
Reasonable traffic management	3		50
Zero-rating	2		33
Possible exceptions	2		33
Other, please specify	0		0
Total respondents: 6		0% 20% 40% 60% 80%	
Skipped question: 1			

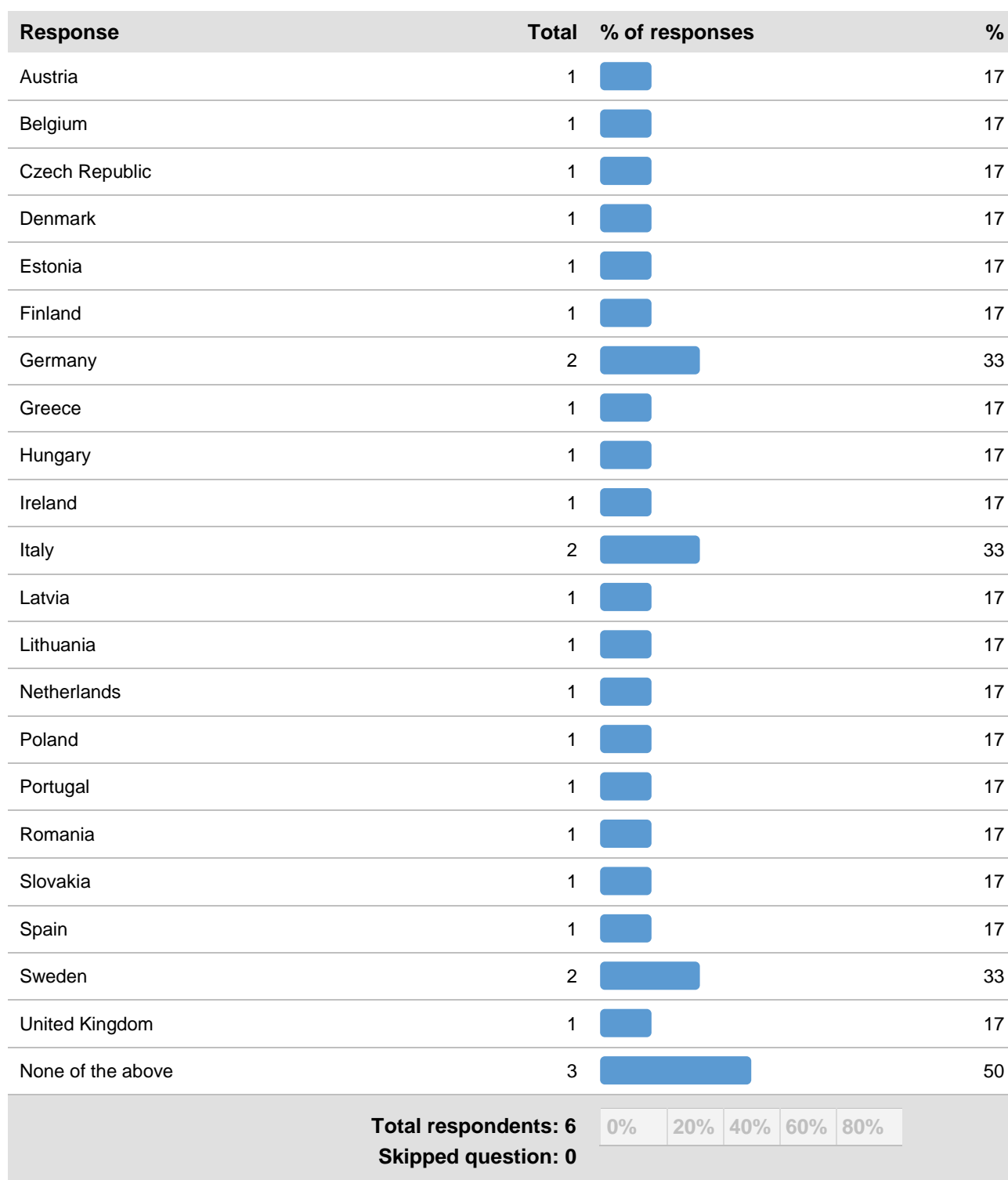
44. Which issues regarding Article 3 of the TSM Regulation "Safeguarding of open internet access" most often lead to actions by the NRA other than informal discussions? *[multiple answers possible; maximum of three]*

Response	Total	% of responses	%
Open Internet access	2		40
Use of terminal equipment / tethering	0		0
Contractual limitations	0		0
Equal treatment of traffic	1		20
Tariff discrimination	0		0
Reasonable traffic management	1		20
Zero-rating	3		60
Possible exceptions	3		60
Other, please specify	0		0
None of the above	0		0

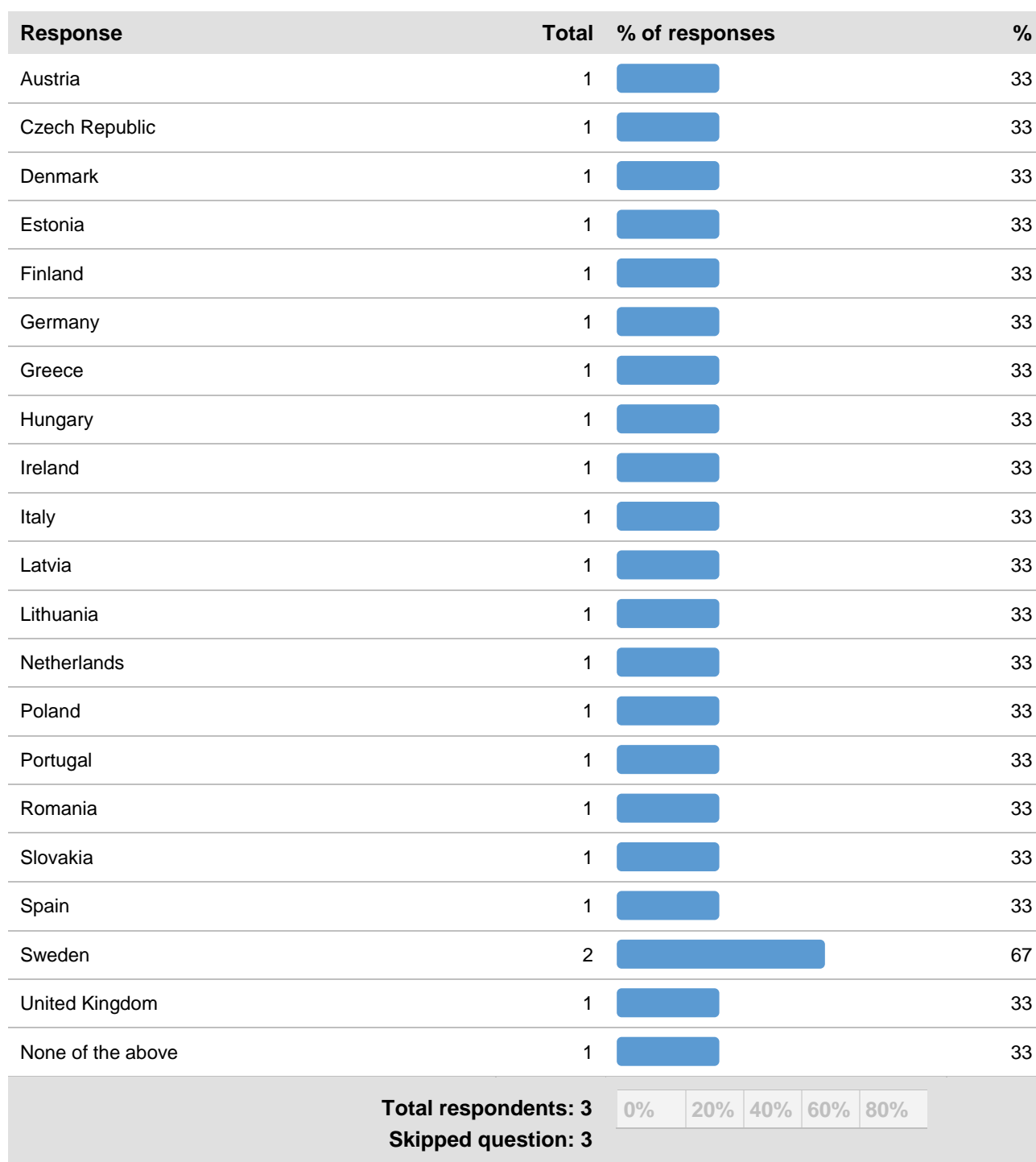
Total respondents: 5 0% 20% 40% 60% 80%

Skipped question: 2


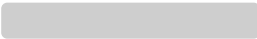
45. In which Member States that you are active in, did you engage in negotiations with the Internet access providers (IAS) regarding zero-rating (if any)? *[multiple answers possible]*



46. In which Member States did you conclude any commercial agreement regarding zero-rating with the Internet access providers (if any)? *[multiple answers possible]*




















47. In which Member States are these commercial agreements exclusive agreements (if any)? *[multiple answers possible]*

Response	Total	% of responses	%
Sweden	1		33
None of the above	2		67

Total respondents: 3
Skipped question: 3

0% 20% 40% 60% 80%


48. In which Member States are your services included in a zero-rated offer (if any)? *[multiple answers possible]*

Response	Total	% of responses	%
Austria	1		20
Czech Republic	1		20
Denmark	1		20
Estonia	1		20
Finland	1		20
Germany	1		20
Greece	1		20
Hungary	1		20
Italy	1		20
Latvia	1		20
Lithuania	1		20
Poland	1		20
Portugal	1		20
Spain	1		20
Sweden	2		40
United Kingdom	1		20
None of the above	3		60

Total respondents: 5
Skipped question: 1

0% 20% 40% 60% 80%

49. Do you have the same zero-rated offers in multiple Member States?



Response	Total	% of responses	%
Yes	2		100
No	0		0
I don't know	0		0

Total respondents: 2 0% 20% 40% 60% 80%
Skipped question: 4

50. If the zero-rated offers differ across Member States, what are the main reasons for those differences?



No answer was provided for this question.

51. Which of your services are most often zero-rated? *[multiple answers possible]*

Response	Total	% of responses	%
Audio-streaming	1		50
Video-streaming	2		100
Cloud storage	0		0
Communication (text)	0		0
Communication (VoIP)	0		0
ISP customer services	0		0
Social media	0		0
Navigation services	0		0
Information/news	0		0
Banking	0		0
Gaming	0		0
Other, please specify	0		0

Total respondents: 2 0% 20% 40% 60% 80%
Skipped question: 4










52. Do you observe any effect of zero-rating on consumer behaviour?

Response	Total	% of responses	%
Consumers use more data	0		0
Consumers use less data	0		0
Consumers switch to non zero-rated services	1		50
Other, please specify	1		50
There was no observed effect on consumer behaviour	0		0

Total respondents: 2
Skipped question: 4





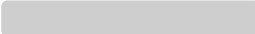

53. Do any of the following Traffic Management measures affect your services? *Multiple answers possible.*

Response	Total	% of responses	%
Blocking	2		33
Throttling/ slowing down	2		33
Alteration	2		33
Restriction	2		33
Interference with the service	3		50
Degradation	2		33
Discrimination	2		33
Other traffic management measure, please specify	2		33
Traffic Management measures do not affect our services	1		17

Total respondents: 6
Skipped question: 0



54. Which specialised service(s) do you provide to end-users? *[multiple answers possible]*

Response	Total	% of responses	%
IPTV	0		0
VoIP	1		17
VoLTE	0		0
LTE Broadcast	0		0
Real-time health services	0		0
Services to specific industrial sectors (eg. automotive, energy, utilities, transport)	0		0
Other, please specify	1		17
We do not provide specialised services	4		67
Total respondents: 6			
Skipped question: 0			

55. Why is the optimisation of specialised services, that are provided on your network, required?





1 answer was provided.

56. Please describe any problems you experience when providing specialised services across the EU.






No response was provided for this question.

57. Do you agree with the following statement:





- Monitoring mechanism is necessary for consumers to test conformity of performance of internet access services.

Response	Total	% of responses	%
1 Fully agree	2		40
2 Agree	1		20
3 Neither agree or disagree	2		40
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 5			
Skipped question: 1			






58. Why is a monitoring mechanism for consumers to test conformity of performance necessary? *[multiple answers possible]*

Response	Total	% of responses	%
It lowers barriers for consumers to (successfully) raise non-conformity of performance claims.	2		67
It is essential for end-users to raise issues regarding non-conformity of performance.	2		67
It allows the NRA to monitor, supervise and enforce IAS obligations.	3		100
Other, please specify	2		67
Total respondents: 3			
Skipped question: 3			







59. Are there any cases or complaints regarding your services/application based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?

Response	Total	% of responses	%
Yes	2		33
No	2		33
I don't know	2		33
Total respondents: 6			
Skipped question: 0			

60. Please select Member States in which NRAs provide the most effective supervision and enforcement. *[multiple answers possible; maximum of three]*






Response	Total	% of responses	%
Germany	2		33
Netherlands	1		17
United Kingdom	3		50
None of the above	2		33
Total respondents: 6			
Skipped question: 0			

61. Please select Member States in which NRAs provide the least effective supervision and enforcement, in your opinion. *[multiple answers possible; maximum of three]*

Response	Total	% of responses	%
Germany	1		17
Ireland	1		17
Italy	1		17
Spain	1		17
United Kingdom	1		17
None of the above	2		33






Total respondents: 6 0% 20% 40% 60% 80%
Skipped question: 0

62. Which enforcement measures do you consider the most effective to achieve conformity of providers of Electronic Communications Services with the TSM Regulation? *[multiple answers possible; maximum of three]*

Response	Total	% of responses	%
Informal discussions	5		83
Informal warnings	1		17
Formal warnings	0		0
Request for information	2		33
formal investigations	0		0
Threat of publication on non-conformity	2		33
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	3		50
There are no such measures in place	0		0

Total respondents: 6 0% 20% 40% 60% 80%
Skipped question: 0




63. Which enforcement measures do you consider the most proportionate to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum of three]*

Response	Total	% of responses	%
Informal discussions	4		80
Informal warnings	1		20
Formal warnings	0		0
Request for information	1		20
Formal investigations	0		0
Threat of publication on non-conformity	2		40
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	3		60
Other measures, please specify	0		0
There are no such measures in place	0		0




Total respondents: 5 0% 20% 40% 60% 80%

Skipped question: 0

64. Which enforcement measures do you consider the most dissuasive to achieve conformity with the TSM Regulation? *[multiple answers possible; maximum of three]*



Response	Total	% of responses	%
Informal discussions	1		33
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
Formal investigations	0		0
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	2		67
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	1		33
Conditional or unconditional fine	2		67
Other measures, please specify	0		0
There are no such measures in place	0		0
Total respondents: 3			
Skipped question: 1			

65. What is the effect of diverging approaches to penalties across EU Member States on your business (if any)?
[multiple answers possible]



Response	Total	% of responses	%
Less administrative pressure to comply	0		0
More administrative pressure to comply	0		0
Less room to experiment with services	1		25
More room to experiment with services	0		0
Other, please specify	0		0
Diverging approaches do not have any effect.	3		75
Total respondents: 4			
Skipped question: 0			

66. Do you agree with the following statements:



- g. The TSM Regulation has generally positively contributed to achieving the objectives of openness of Internet.

Response	Total	% of responses	%
1 Fully agree	2		50
2 Agree	2		50
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 4		0% 20% 40% 60% 80%	
Skipped question: 0			


h. The TSM Regulation has generally ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	3		75
3 Neither agree or disagree	0		0
4 Disagree	1		25
5 Fully disagree	0		0
Total respondents: 4		0% 20% 40% 60% 80%	
Skipped question: 0			


i. The annual net neutrality monitoring report of NRAs is generally of high quality.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	0		0
3 Neither agree or disagree	3		75
4 Disagree	1		25
5 Fully disagree	0		0
Total respondents: 4		0% 20% 40% 60% 80%	
Skipped question: 0			




j. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	0		0
3 Neither agree or disagree	4		100
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 4		0% 20% 40% 60% 80%	
Skipped question: 0			

k. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	0		0
3 Neither agree or disagree	4		100
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 4		0% 20% 40% 60% 80%	
Skipped question: 0			

l. The BEREC Guidelines led to a more consistent practice across Member States.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	2		50
3 Neither agree or disagree	1		25
4 Disagree	1		25
5 Fully disagree	0		0
Total respondents: 4		0% 20% 40% 60% 80%	
Skipped question: 0			






67. To what extent has the entry into force of the TSM Regulation i) benefitted your business (in the different Member States you are active in) and in particular ii) strengthened your position in dealings with Internet access providers?


Four answers were provided:

Survey results for Consumer Organisations

Survey under Consumer Organisations

92. What country are you from?

Response	Total	% of responses	%
Germany	1		17
Netherlands	2		33
Slovenia	1		17
Sweden	1		17
Other, please specify	1		17





Total respondents: 6 


Skipped question: 0

93. How many complaints from individual consumers on issues concerning Article 3 of TSM Regulation have you received since 30th April 2016? *[please provide a number]*

2 answers:



94. Which issues were complaints received? *[multiple answers possible]*

Response	Total	% of responses	%
Open internet access	0		0
Use of terminal equipment / tethering	1		50
Contractual limitations	1		50
Equal treatment of traffic	1		50
Tariff discrimination	0		0
Reasonable traffic management	0		0
Zero-rating	1		50
Possible exceptions	0		0
Other, please specify	0		0
We received no complaints	0		0

Total respondents: 2 





Skipped question: 4

95. Please select the topic of complaint which you dealt with last (last closed file): *[selection of one of the topics of Q4]*




Response	Total	% of responses	%
Open internet access	0		0
Use of terminal equipment / tethering	1		50
Contractual limitations	0		0
Equal treatment of traffic	0		0
Tariff discrimination	0		0
Reasonable traffic management	0		0
Zero-rating	1		50
Possible exceptions	0		0
\$\$\$Quest4-9\$\$\$	0		0
Total respondents: 2		0% 20% 40% 60% 80%	
Skipped question: 4			

The next set of questions refers to the last selected topic of complaint (answer to question 5).









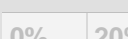

96. How did you deal with these complaints? *Multiple answers possible.*

Response	Total	% of responses	%
Lodge an official complaint with NRA	0		0
Lodge a complaint with the consumer authority	0		0
Start informal discussions with the NRA	0		0
Contact the relevant ISP	1		50
Lodge a (class action) case with a national court	1		50
Compile a press release or other publicly available document	1		50
Do nothing	0		0
Other, please specify	1		50
Total respondents: 2		0% 20% 40% 60% 80%	
Skipped question: 4			





97. What was the follow-up by the NRA?

Response	Total	% of responses	%
The NRA started an official investigation.	1		50
The NRA started informal discussions with the Internet access provider (IAS).	0		0
Other, please specify	0		0
There was no follow-up	1		50
Total respondents: 2			
Skipped question: 4			

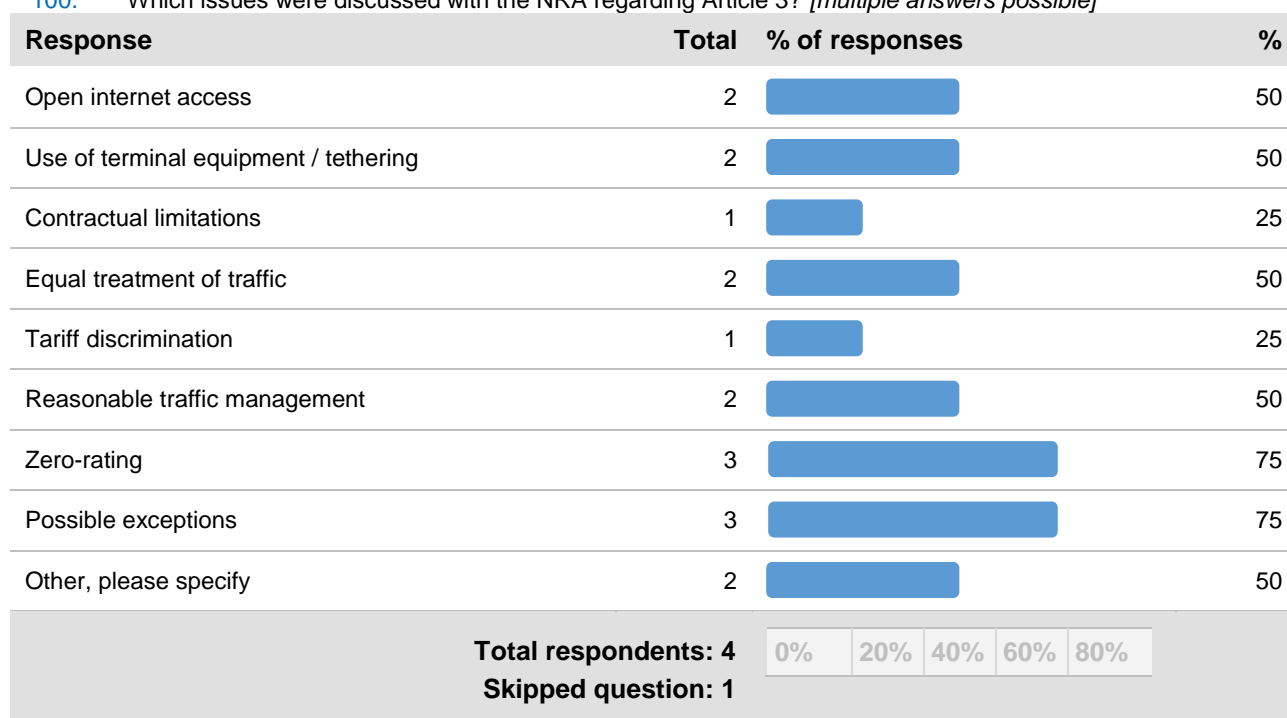
98. Which issues do you deem the most pressing in your country?

Response	Total	% of responses	%
Open internet access	2		33
Use of terminal equipment / tethering	1		17
Contractual limitations	3		50
Equal treatment of traffic	4		67
Tariff discrimination	2		33
Reasonable traffic management	1		17
Zero-rating	6		100
Possible exceptions	2		33
Other, please specify	2		33
Total respondents: 6			
Skipped question: 0			

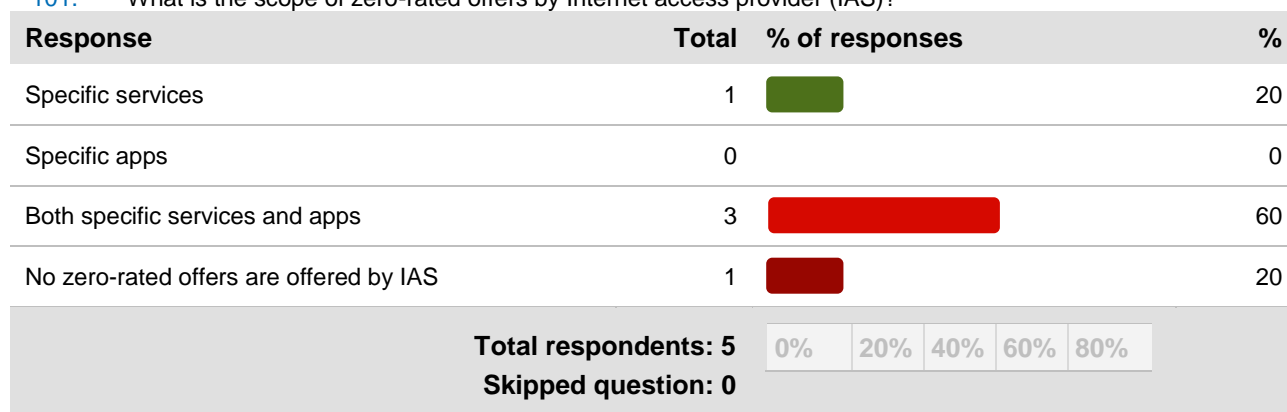
99. Did you engage in informal discussions with the NRA regarding Article 3, other than following up on complaints from individual consumers?

Response	Total	% of responses	%
Yes, before the entry into force of the TSM Regulation.	1		17
Yes, after the entry into force of the TSM Regulation.	0		0
Yes, before and after the entry into force of the TSM Regulation.	4		67
No, we did not engage in discussions with the NRA.	1		17
Total respondents: 6			
Skipped question: 0			

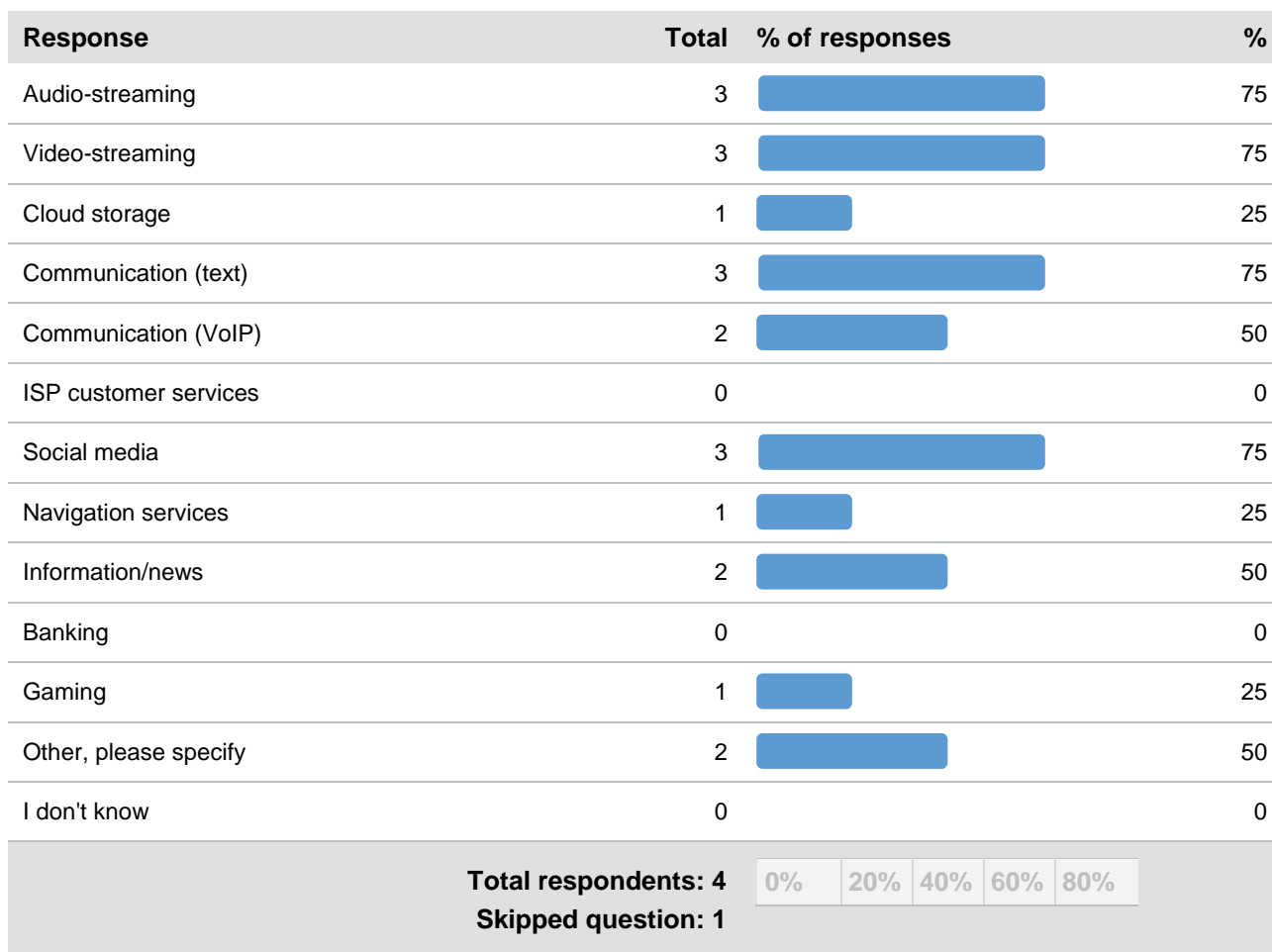
100. Which issues were discussed with the NRA regarding Article 3? *[multiple answers possible]*












101. What is the scope of zero-rated offers by Internet access provider (IAS)?



102. Which services are zero rated? *[multiple answers possible]*




103. Which categories of apps are zero-rated? *[multiple answers possible]*

Response	Total	% of responses	%
Audio-streaming	3		100
Video-streaming	3		100
Cloud storage	0		0
Communication (text)	3		100
Communication (VoIP)	2		67
Social media	3		100
Navigation services	1		33
Information/news	1		33
Banking	0		0
Gaming	1		33
Other, please specify	1		33
I don't know	0		0






Total respondents: 3 0% 20% 40% 60% 80%
Skipped question: 2

104. Did you observe any effect of zero-rating on consumer behaviour?

Response	Total	% of responses	%
Consumers use more data	0		0
Consumers use less data	0		0
Consumers switch to non zero-rated services	0		0
Other, please specify	5		100
There was no observed effect on consumer behaviour	0		0




Total respondents: 5 0% 20% 40% 60% 80%
Skipped question: 0

105. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*




Response	Total	% of responses	%
Additional contract information must be provided	1		33
The information must be provided in a specific manner	1		33
End-users must be allowed to make use of alternative dispute mechanisms	0		0
Other, please specify	1		33
There are no additional requirements	1		33
Total respondents: 3			
Skipped question: 1			

106. How many complaints from individual consumers on issues concerning additional requirements have you received between 30th April 2016 and 30th April 2018? *[please provide a number]*
No answers were provided.

107. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

Response	Total	% of responses	%
Yes	3		75
No	1		25
Total respondents: 4			
Skipped question: 0			



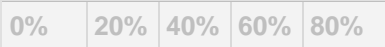
108. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?

Response	Total	% of responses	%
Yes	2		67
No	1		33
Total respondents: 3			
Skipped question: 1			





109. Please list the online tools that are used by consumers to test conformity with the TSM Regulation. *[open question; please describe]*
2 answers were provided:

110. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance? *[please provide a number]*
No answers were provided.

111. Are the data generated with the monitoring mechanism stored?

Response	Total	% of responses	%
Yes, all the data are stored	0		0
Yes, partially	1		50
No	0		0
I don't know	1		50
Total respondents: 2			
Skipped question: 2			







112. What data are stored? *[multiple answers possible]*

Response	Total	% of responses	%
The name of the user	0		0
The date and time of the measurement	1		100
The result of the measurement	1		100
The name of the Internet access provider whose Internet access service was measured	1		100
Other, please specify	0		0
Total respondents: 1			
Skipped question: 3			











113. What rules are implemented on the use of these data? *[open question; please describe]*


1 answer provided:

114. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*





Response	Total	% of responses	%
Informal discussions	1		25
Requests for information	2		50
Surveys	1		25
Consultations	2		50
Other, please specify	2		50
There are no monitoring measures in place.	0		0
Total respondents: 4			
Skipped question: 0			


115. What measures are taken by the NRA to ensure compliance with the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Informal discussions	3		100
Informal warnings	2		67
Formal warnings	1		33
Request for information	2		67
formal investigations	1		33
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	1		33
Prohibition of conducting business	0		0
Order to bring the infringement to an end	1		33
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	1		33
Conditional or unconditional fine	1		33
Other, please specify	1		33
There are no such measures in place	0		0









Total respondents: 3 
Skipped question: 1

116. What measures are taken by the NRA to promote the continued availability of non-discriminatory internet access service at levels of quality that reflect advances in technology? *[multiple answers possible]*

Response	Total	% of responses	%
Information on website	3		100
Brochures	1		33
Educational meetings	1		33
Other, please specify	1		33
There are no such measures in place	0		0

Total respondents: 3 
Skipped question: 1










117. What instruments does the NRA in your country in general use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Informal discussions	1		33
Informal warnings	1		33
Formal warnings	1		33
Request for information	2		67
Formal investigations	2		67
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	1		33
Prohibition of conducting business	0		0
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	1		33
Conditional or unconditional fine	1		33
Other, please specify	0		0
There are no such instruments in place	0		0

Total respondents: 3 0% 20% 40% 60% 80%

Skipped question: 1






118. Which enforcement measure available in your country you consider the most effective to achieve conformity with the TSM Regulation? Please select top three most effective measures.

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	1		25
Formal warnings	1		25
Request for information	0		0
Formal investigations	2		50
Threat of publication on non-conformity	1		25
Requests for amending practices and/or conditions	1		25
Prohibition of conducting business	0		0
Order to bring the infringement to an end	2		50
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	1		25
Conditional or unconditional fine	2		50
Other, please specify	1		25
There are no such measures in place	0		0

Total respondents: 4 0% 20% 40% 60% 80%

Skipped question: 0








119. Which enforcement measure available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? Please select top three most proportionate measures.

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
Formal investigations	3		75
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	2		50
Prohibition of conducting business	0		0
Order to bring the infringement to an end	3		75
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	1		25
Conditional or unconditional fine	2		50
Other, please specify	0		0
There are no such measures in place	0		0






Total respondents: 4 0% 20% 40% 60% 80%

Skipped question: 0

120. Which enforcement measure available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? Please select top three most dissuasive measures.




Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
Formal investigations	2		50
Threat of publication on non-conformity	1		25
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	1		25
Order to bring the infringement to an end	2		50
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	4		100
Other, please specify	1		25
There are no such measures in place	0		0
Total respondents: 4			
Skipped question: 0			

121. Do you encounter one of the following difficulties as a result of diverging approaches to penalties across EU Member States? *[multiple answers possible]*




Response	Total	% of responses	%
There are different levels of administrative pressure to comply	2		67
There is a difference in flexibility to experiment with innovative services	2		67
Other, please specify	2		67
Diverging approaches do not present any problems.	1		33
Total respondents: 3			
Skipped question: 1			

122. Do you agree with the following statements:





- a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.

Response	Total	% of responses	%
1 Fully agree	2		50
2 Agree	2		50
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 4			
Skipped question: 0			



b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

Response	Total	% of responses	%
1 Fully agree	1		25
2 Agree	3		75
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 4			
Skipped question: 0			

c. The annual net neutrality monitoring report of your NRA is of high quality.

Response	Total	% of responses	%
1 Fully agree	1		25
2 Agree	1		25
3 Neither agree or disagree	2		50
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 4			
Skipped question: 0			



d. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.

Response	Total	% of responses	%
1 Fully agree	2		50
2 Agree	0		0
3 Neither agree or disagree	2		50
4 Disagree	0		0
5 Fully disagree	0		0

Total respondents: 4
Skipped question: 0



- e. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.





Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	2		50
3 Neither agree or disagree	2		50
4 Disagree	0		0
5 Fully disagree	0		0


Total respondents: 4
Skipped question: 0



Survey results for Civil Society Organisations

2. What country are you from?

Response	Total	% of responses	%
Austria	1		17
Belgium	1		17
Denmark	1		17
Netherlands	3		50








Total respondents: 6 


Skipped question: 0

3. How many complaints from individual consumers on issues concerning Article 3 of TSM Regulation have you received since 30th April 2016?

Number of responses	Average number	Minimum number	Maximum number
2	22.5	0	45


4. Which issues were complaints received? [multiple answers possible]

Response	Total	% of responses	%
Open internet access	1		100
Use of terminal equipment / tethering	1		100
Contractual limitations	1		100
Equal treatment of traffic	1		100
Tariff discrimination	1		100
Reasonable traffic management	1		100
Zero-rating	1		100
Possible exceptions	0		0
Other, please specify	0		0
We received no complaints	0		0




Total respondents: 1 

Skipped question: 1



5. Please select the topic of complaint which you dealt with last (last closed file):

Response	Total	% of responses	%
Open internet access	0		0
Use of terminal equipment / tethering	0		0
Contractual limitations	0		0
Equal treatment of traffic	0		0
Tariff discrimination	0		0
Reasonable traffic management	0		0
Zero-rating	1		100
Possible exceptions	0		0
\$\$\$Quest4-9\$\$\$	0		0
Total respondents: 1		0% 20% 40% 60% 80%	
Skipped question: 1			





6. How did you deal with these complaints? *Multiple answers possible.*

Response	Total	% of responses	%
Lodge an official complaint with NRA	1		100
Lodge a complaint with the consumer authority	0		0
Start informal discussions with the NRA	1		100
Contact the relevant ISP	0		0
Lodge a (class action) case with a national court	0		0
Compile a press release or other publicly available document	1		100
Do nothing	0		0
Other, please specify	0		0
Total respondents: 1		0% 20% 40% 60% 80%	
Skipped question: 1			



7. What was the follow-up by the NRA?

Response	Total	% of responses	%
The NRA started an official investigation.	1		100
The NRA started informal discussions with the Internet access provider (IAS).	0		0
Other, please specify	0		0
There was no follow-up	0		0
Total respondents: 1			
Skipped question: 1			








8. Which issues do you deem the most pressing in your country?


Response	Total	% of responses	%
Open internet access	0		0
Use of terminal equipment / tethering	1		50
Contractual limitations	0		0
Equal treatment of traffic	0		0
Tariff discrimination	0		0
Reasonable traffic management	1		50
Zero-rating	2		100
Possible exceptions	0		0
Other, please specify	0		0
Total respondents: 2			
Skipped question: 0			

9. Did you engage in informal discussions with the NRA regarding Article 3, other than following up on complaints from individual consumers?


Response	Total	% of responses	%
Yes, before the entry into force of the TSM Regulation.	0		0
Yes, after the entry into force of the TSM Regulation.	0		0
Yes, before and after the entry into force of the TSM Regulation.	2		100
No, we did not engage in discussions with the NRA.	0		0
Total respondents: 2			
Skipped question: 0			


10. Which issues were discussed with the NRA regarding Article 3? [multiple answers possible]

Response	Total	% of responses	%
Open internet access	1		50
Use of terminal equipment / tethering	1		50
Contractual limitations	1		50
Equal treatment of traffic	2		100
Tariff discrimination	1		50
Reasonable traffic management	2		100
Zero-rating	2		100
Possible exceptions	0		0
Other, please specify	0		0

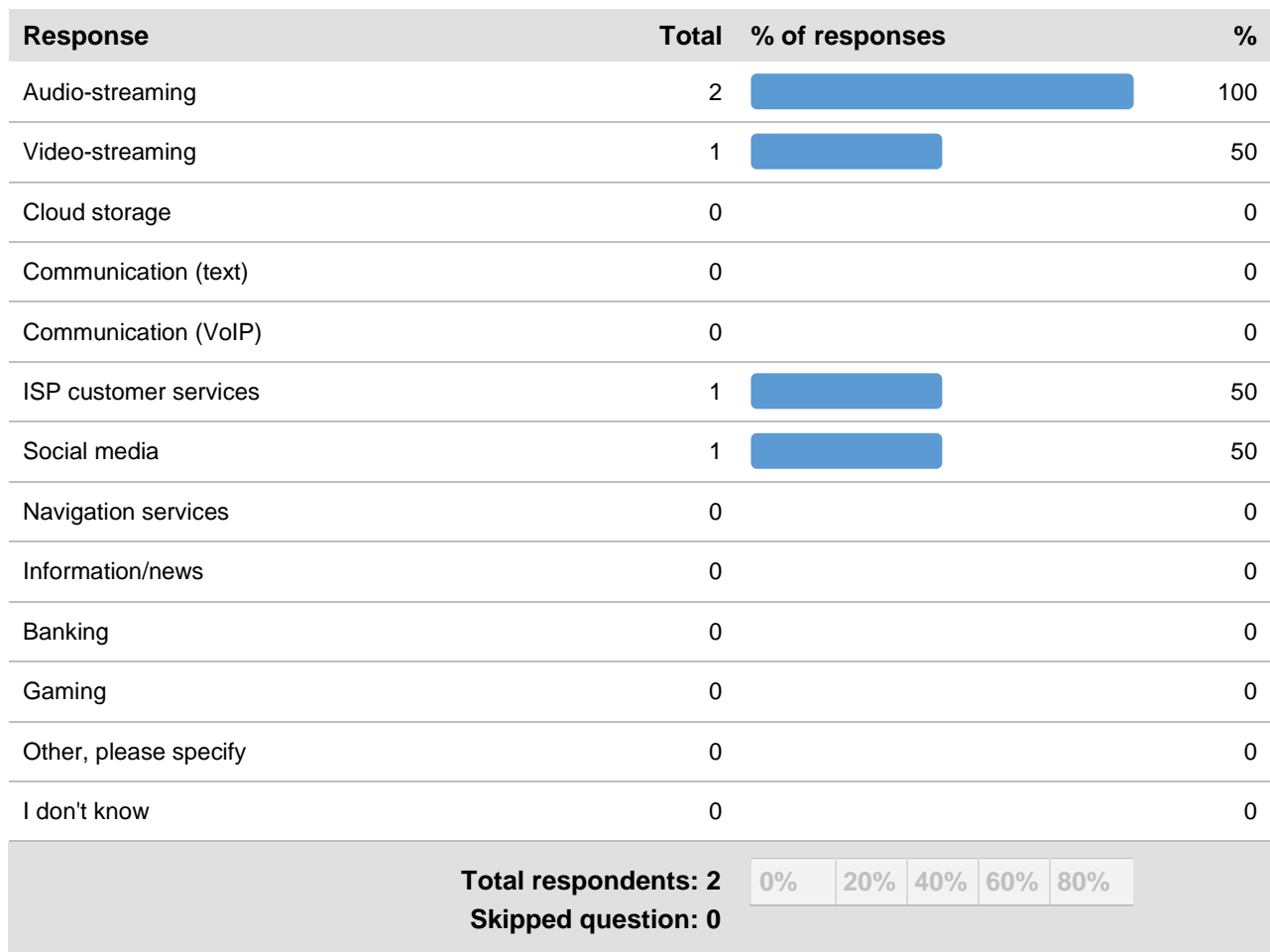
Total respondents: 2 
Skipped question: 0

123. What is the scope of zero-rated offers by Internet access provider (IAS)?

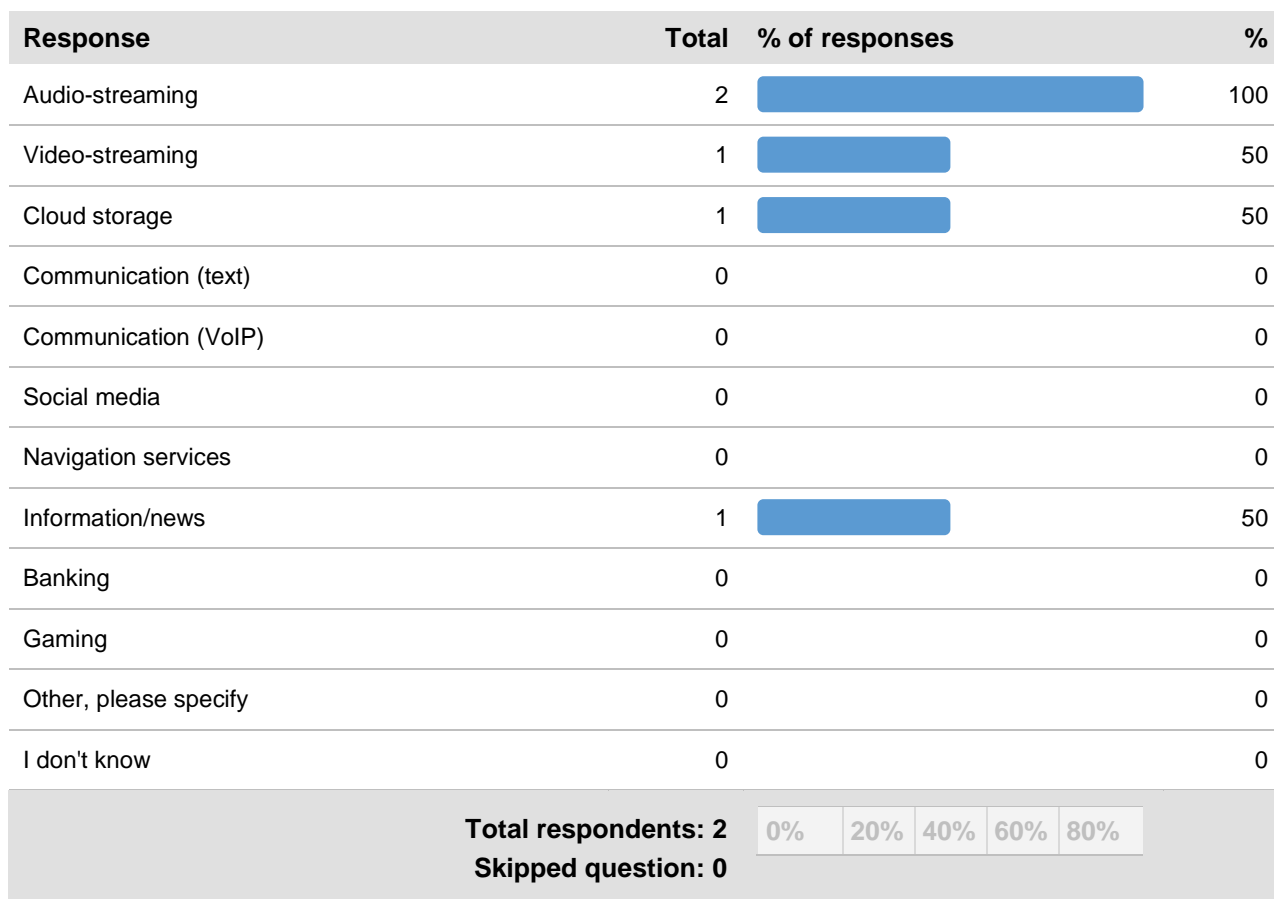
Response	Total	% of responses	%
Specific services	0		0
Specific apps	0		0
Both specific services and apps	2		100
No zero-rated offers are offered by IAS	0		0

Total respondents: 2 
Skipped question: 0

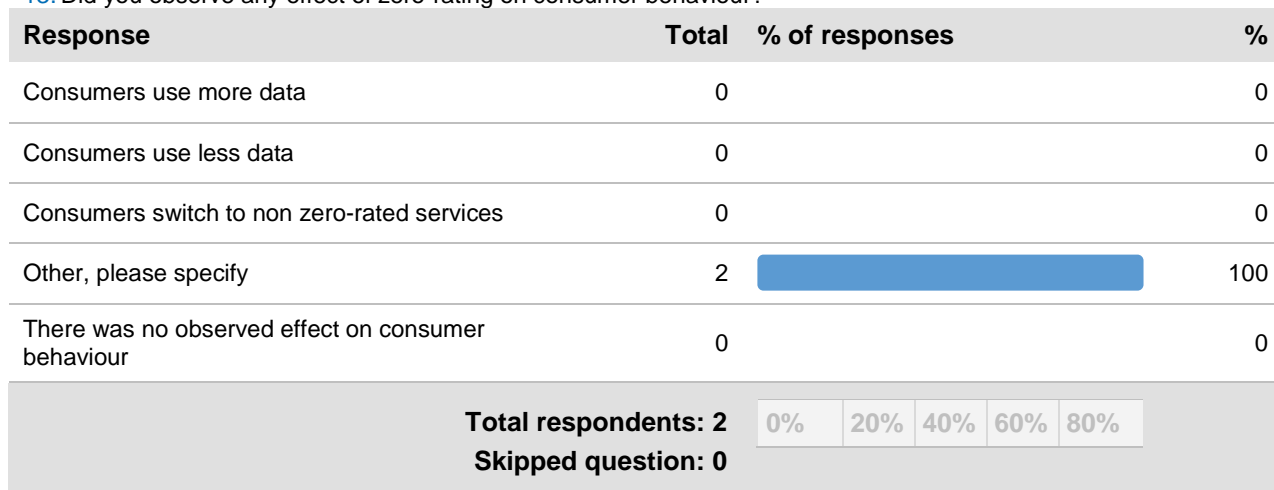
11. Which services are zero rated? [multiple answers possible]



12. Which categories of apps are zero-rated? *[multiple answers possible]*



13. Did you observe any effect of zero-rating on consumer behaviour?



14. What monitoring, information and/or transparency requirements for IAS exist in your country that go beyond the requirement of article 4(1) and 4(2) of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Additional contract information must be provided	0		0
The information must be provided in a specific manner	0		0
End-users must be allowed to make use of alternative dispute mechanisms	1		50
Other, please specify	0		0
There are no additional requirements	1		50
Total respondents: 2			
Skipped question: 0			

15. How many complaints from individual consumers on issues concerning additional requirements have you received between 30th April 2016 and 30th April 2018?

One answer was provided: 0 complaints.

16. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

Response	Total	% of responses	%
Yes	1		50
No	1		50
Total respondents: 2			
Skipped question: 0			

17. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?

Response	Total	% of responses	%
Yes	1		100
No	0		0
Total respondents: 1			
Skipped question: 1			


18. Please list the online tools that are used by consumers to test conformity with the TSM Regulation.


One answer was provided:

19. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?




One answer was provided.


20. Are the data generated with the monitoring mechanism stored?

Response	Total	% of responses	%
Yes, all the data are stored	0		0
Yes, partially	1		100
No	0		0
I don't know	0		0

Total respondents: 1 
Skipped question: 1

21. What data are stored? *[multiple answers possible]*




Response	Total	% of responses	%
The name of the user	0		0
The date and time of the measurement	1		100
The result of the measurement	1		100
The name of the Internet access provider whose Internet access service was measured	1		100
Other, please specify	0		0


Total respondents: 1 
Skipped question: 1

22. What rules are implemented on the use of these data? *[open question; please describe]*










One answer was provided:


23. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Informal discussions	2		100
Requests for information	2		100
Surveys	1		50
Consultations	0		0
Other, please specify	0		0
There are no monitoring measures in place.	0		0

Total respondents: 2 
Skipped question: 0



24. What measures are taken by the NRA to ensure compliance with the requirements laid down in Articles 3 and 4 of the TSM Regulation? *[multiple answers possible]*


Response	Total	% of responses	%
Informal discussions	2		100
Informal warnings	1		50
Formal warnings	1		50
Request for information	1		50
formal investigations	1		50
Threat of publication on non-conformity	1		50
Requests for amending practices and/or conditions	1		50
Prohibition of conducting business	0		0
Order to bring the infringement to an end	2		100
Coercive administrative action	1		50
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such measures in place	0		0

Total respondents: 2 

Skipped question: 0










25. What measures are taken by the NRA to promote the continued availability of non-discriminatory internet access service at levels of quality that reflect advances in technology? *[multiple answers possible]*

Response	Total	% of responses	%
Information on website	1		50
Brochures	0		0
Educational meetings	0		0
Other, please specify	0		0
There are no such measures in place	1		50

Total respondents: 2 

Skipped question: 0






26. What instruments does the NRA in your country in general use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? *[multiple answers possible]*

Response	Total	% of responses	%
Informal discussions	2		100
Informal warnings	1		50
Formal warnings	1		50
Request for information	1		50
Formal investigations	1		50
Threat of publication on non-conformity	1		50
Requests for amending practices and/or conditions	1		50
Prohibition of conducting business	0		0
Order to bring the infringement to an end	2		100
Coercive administrative action	1		50
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such instruments in place	0		0






Total respondents: 2 0% 20% 40% 60% 80%

Skipped question: 0




27. Which enforcement measure available in your country you consider the most effective to achieve conformity with the TSM Regulation? Please select top three most effective measures.

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
Formal investigations	0		0
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	1		50
Order to bring the infringement to an end	1		50
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	2		100
Conditional or unconditional fine	1		50
Other, please specify	0		0
There are no such measures in place	0		0
Total respondents: 2			
Skipped question: 0			




28. Which enforcement measure available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? Please select top three most proportionate measures.

Response	Total	% of responses	%
Informal discussions	1		50
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
Formal investigations	0		0
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	0		0
Order to bring the infringement to an end	2		100
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	2		100
Conditional or unconditional fine	1		50
Other, please specify	0		0
There are no such measures in place	0		0
Total respondents: 2			
Skipped question: 0			

29. Which enforcement measure available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? Please select top three most dissuasive measures.

Response	Total	% of responses	%
Informal discussions	0		0
Informal warnings	0		0
Formal warnings	0		0
Request for information	0		0
Formal investigations	0		0
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	1		50
Order to bring the infringement to an end	0		0
Coercive administrative action	0		0
Order subject to an incremental penalty or other measure	2		100
Conditional or unconditional fine	0		0
Other, please specify	0		0
There are no such measures in place	0		0
Total respondents: 2			
Skipped question: 0			

30. Do you encounter one of the following difficulties as a result of diverging approaches to penalties across EU Member States? *[multiple answers possible]*

Response	Total	% of responses	%
There are different levels of administrative pressure to comply	2		100
There is a difference in flexibility to experiment with innovative services	0		0
Other, please specify	1		50
Diverging approaches do not present any problems.	0		0
Total respondents: 2			
Skipped question: 0			

31. Do you agree with the following statements:

- a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.

Response	Total	% of responses	%
1 Fully agree	1		50
2 Agree	1		50
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			




b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		50
3 Neither agree or disagree	1		50
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			



c. The annual net neutrality monitoring report of your NRA is of high quality.

Response	Total	% of responses	%
1 Fully agree	1		50
2 Agree	0		0
3 Neither agree or disagree	1		50
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			

d. A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.

Response	Total	% of responses	%
1 Fully agree	1		50
2 Agree	1		50
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			






- e. Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.

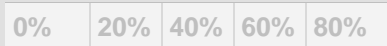
Response	Total	% of responses	%
1 Fully agree	2		100
2 Agree	0		0
3 Neither agree or disagree	0		0
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			

Survey results for Data Protection Authorities

Survey under Data Protection Authorities (DPA)

2. What country are you from?

Response	Total	% of responses	%
Bulgaria	1		20
Greece	1		20
Lithuania	1		20
Luxembourg	1		20
Slovenia	1		20

Total respondents: 5 
Skipped question: 0

3. How many complaints with regard to privacy and data protection were raised by the data subjects in relation to net neutrality in your Member State?
Three answers were received for this question.

4. Regarding which issues have complaints related to privacy and data protection been raised by data subjects in relation to net neutrality in your Member State? *[multiple answers possible]*
No response was provided for this question since zero complaints were indicated.


5. Please identify the topic of complaint which you dealt with last (last closed file):
No response was provided for this question since zero complaints were indicated.

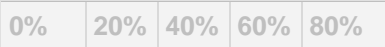
6. Has this issue been resolved?
No response was provided for this question since zero complaints were indicated.

7. How was the issue resolved?
No response was provided for this question since zero complaints were indicated.



8. Why wasn't a (complete) resolution achieved (yet)?
No response was provided for this question since zero complaints were indicated.


9. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

Response	Total	% of responses	%
Yes	2		100
No	0		0

Total respondents: 2 
Skipped question: 0

10. Do consumers utilise the available online tools to monitor conformity with the TSM Regulation?

Response	Total	% of responses	%
Yes, they use it	1		50
No, they do not use it	0		0
We do not know whether they use it	1		50

Total respondents: 2 
Skipped question: 0

11. What online tools do consumers utilise?

One answer was provided.


12. How many cases or complaints in your country have there been based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?


One answer was provided:

13. Please describe the most typical case or complaint in your country that was based on the use of the monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance.






No response was provided for this question.

14. Are the data generated with the monitoring mechanism stored?

Response	Total	% of responses	%
Yes, all the data are stored	0		0
Yes, partially	1		100
No	0		0
I don't know	0		0

Total respondents: 1 
Skipped question: 1

15. What data are stored? *[multiple answers possible]*




Response	Total	% of responses	%
The name of the user	0		0
The date and time of the measurement	1		100
The result of the measurement	1		100
The name of the Internet access provider whose Internet access service was measured	1		100
Other, please specify	1		100
Total respondents: 1			
Skipped question: 1			

16. What rules are implemented on the use of the stored data?




One answer was provided:

17. Do you agree with the following statements:

a. The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		50
3 Neither agree or disagree	1		50
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			

b. The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	1		50
3 Neither agree or disagree	1		50
4 Disagree	0		0
5 Fully disagree	0		0
Total respondents: 2			
Skipped question: 0			

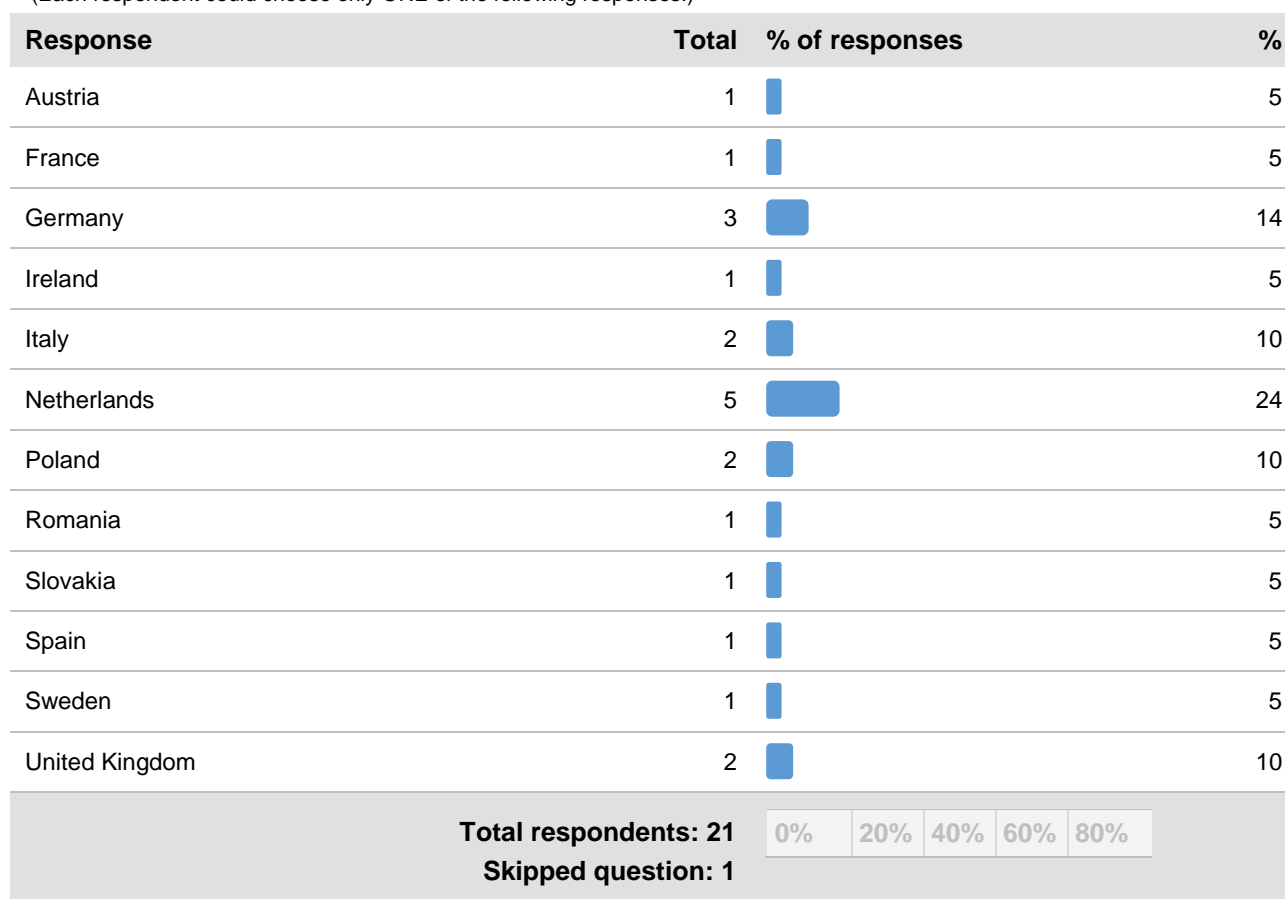
Survey results for Internet Access Providers

1. Please choose the category of stakeholder that you represent:

22 responses

2. Which Member State is the most important market for you? Please select one country. The remaining questions of the survey will refer only to this Member State (called 'your country').

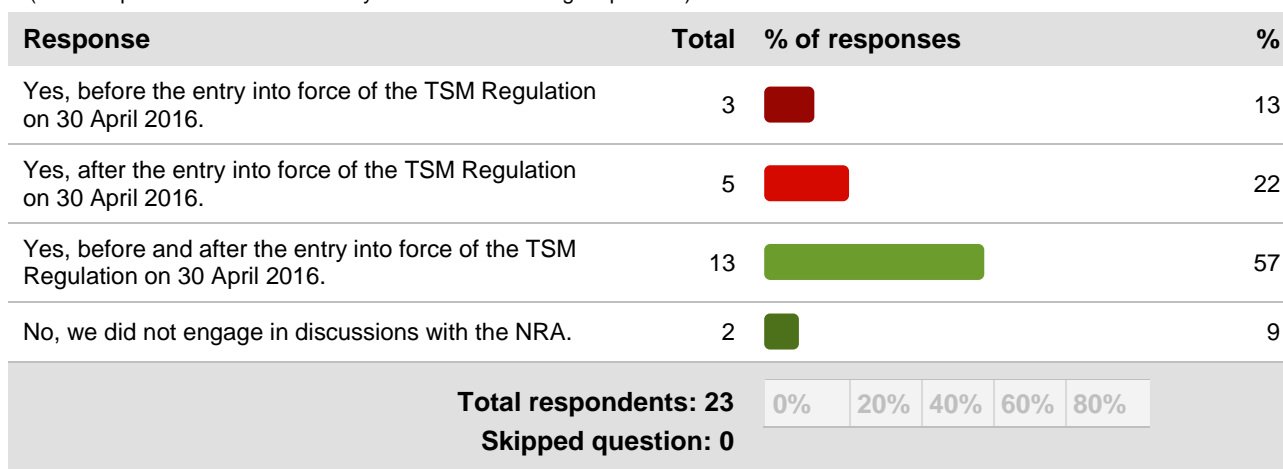
(Each respondent could choose only ONE of the following responses.)



The next set of questions refers to Article 3 of the TSM Regulation: 'Safeguarding of open Internet access'.

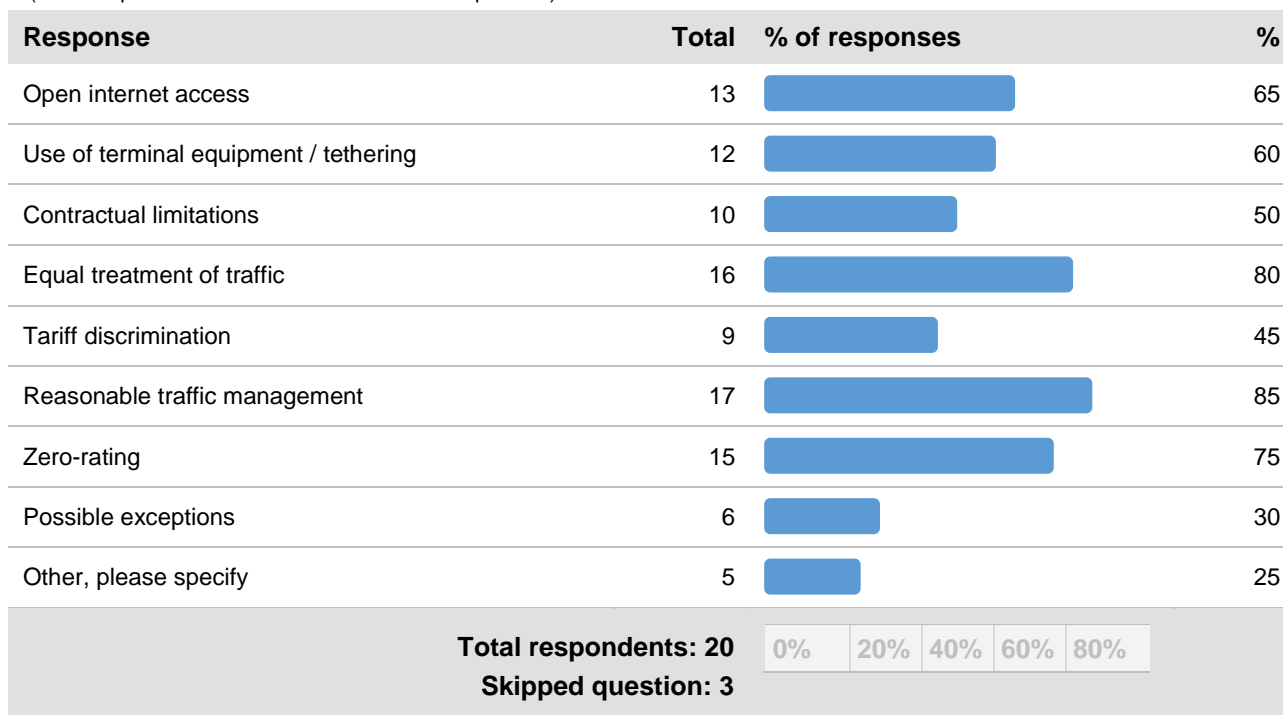
3. Did you engage in informal discussions with the NRA regarding Article 3 of the TSM Regulation?

(Each respondent could choose only ONE of the following responses.)



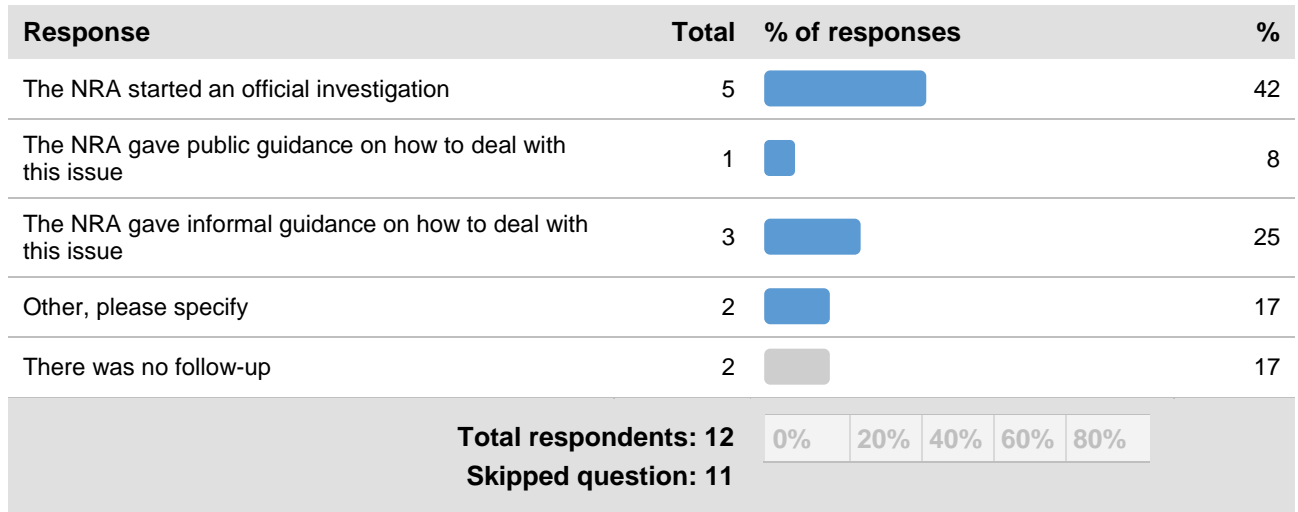
4. Which issues were discussed? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



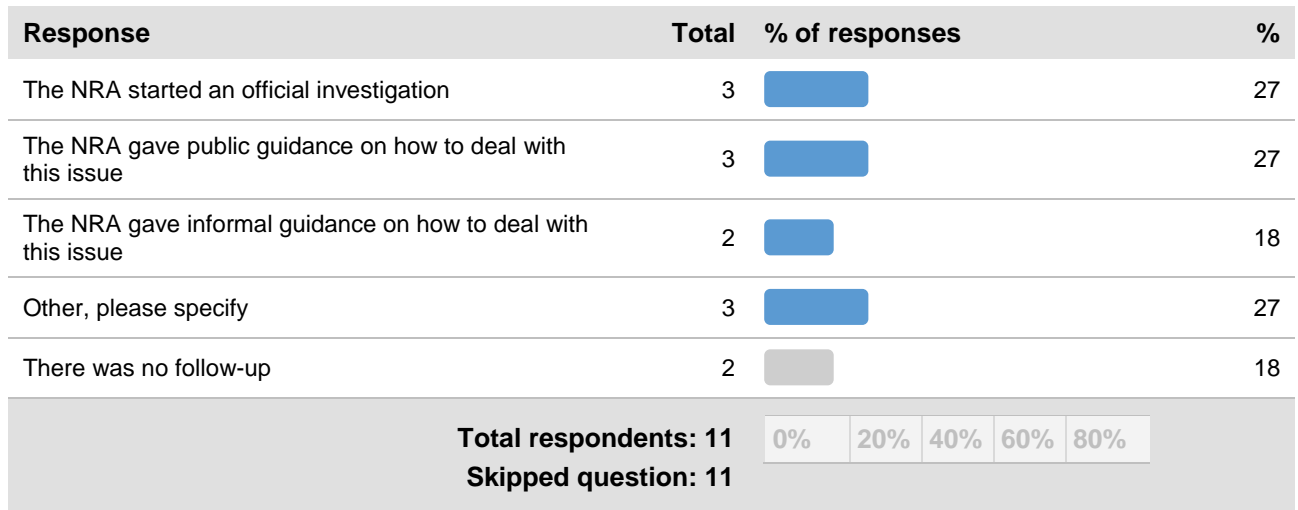
5. Was there any follow-up by the NRA on Open internet access? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



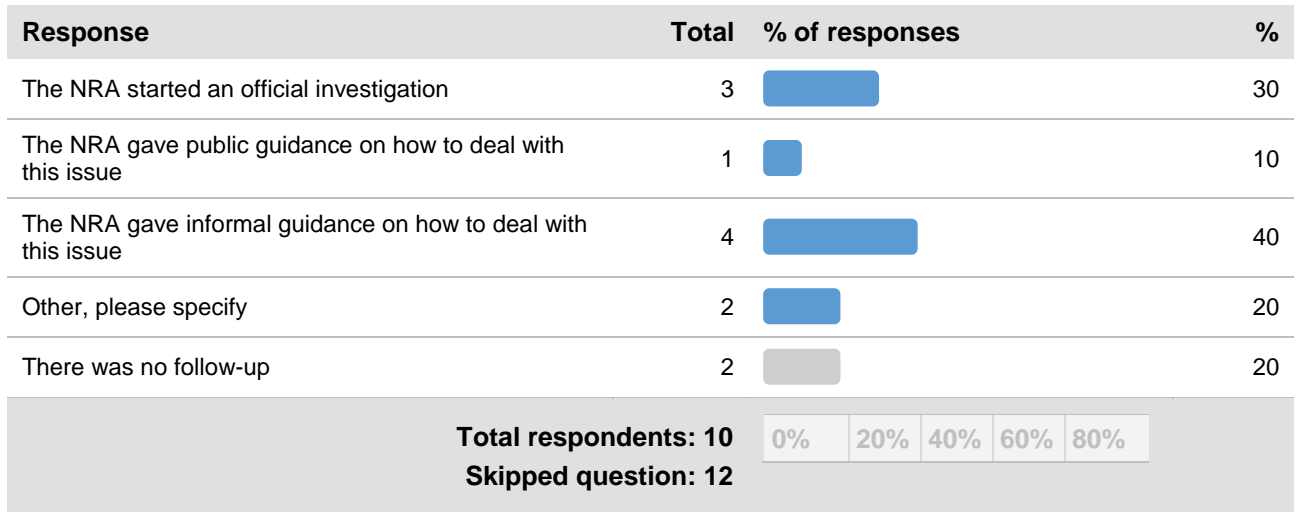
6. Was there any follow-up by the NRA on Use of terminal equipment / tethering? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



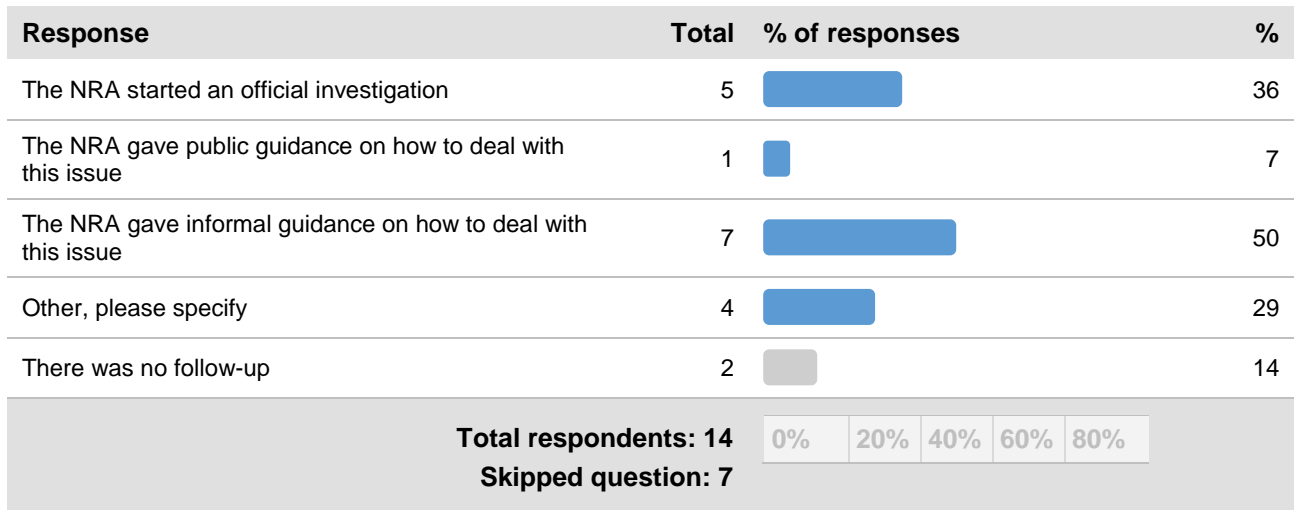
7. Was there any follow-up by the NRA on Contractual limitations? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



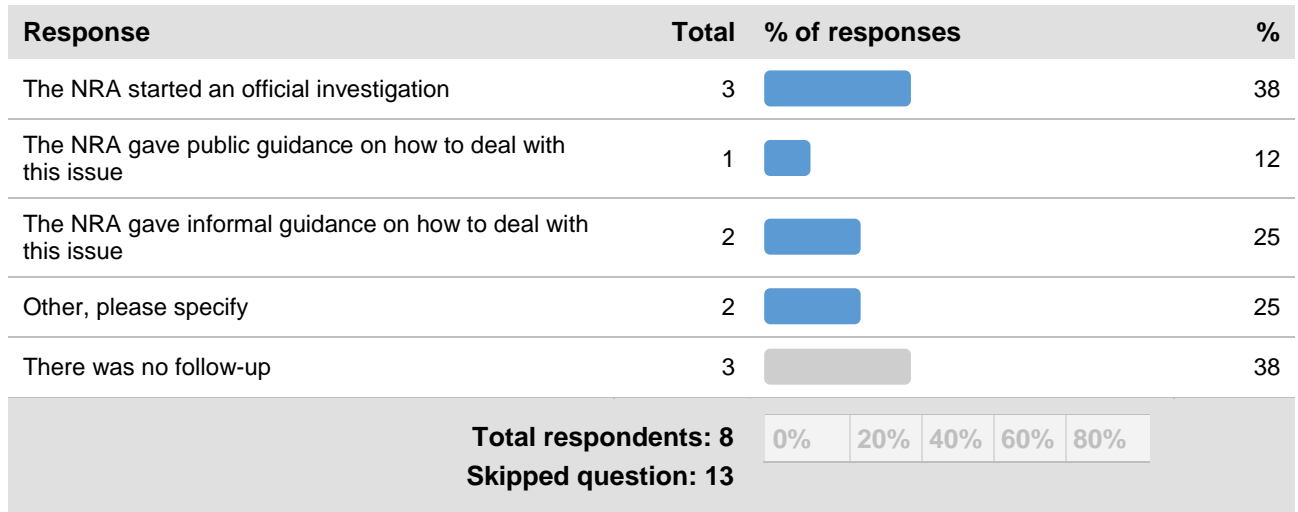
8. Was there any follow-up by the NRA on Equal treatment of traffic? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



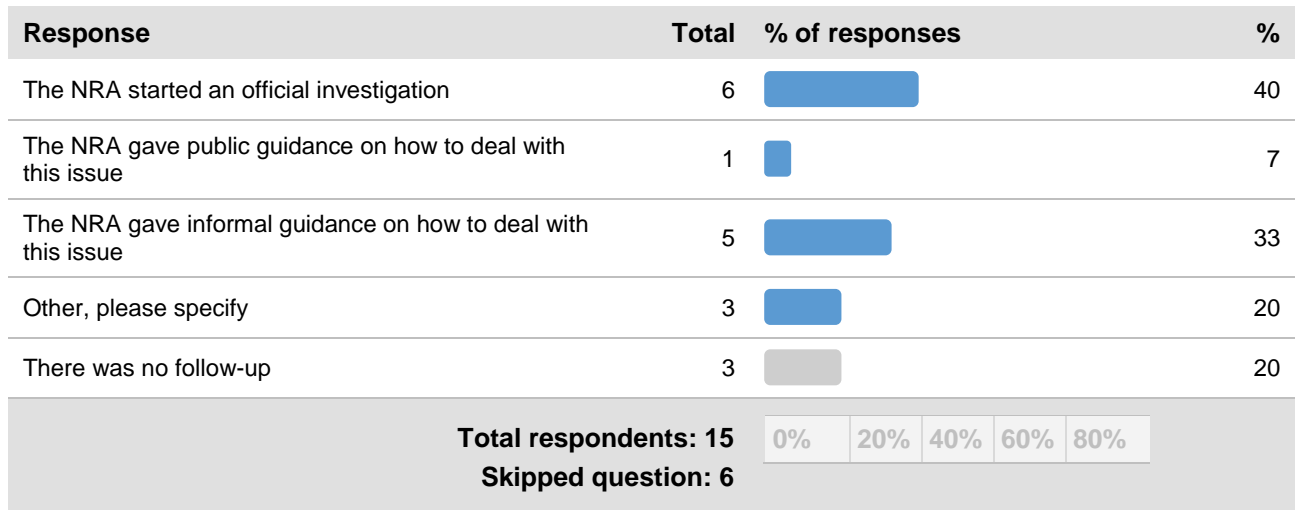
9. Was there any follow-up by the NRA on Tariff discrimination? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



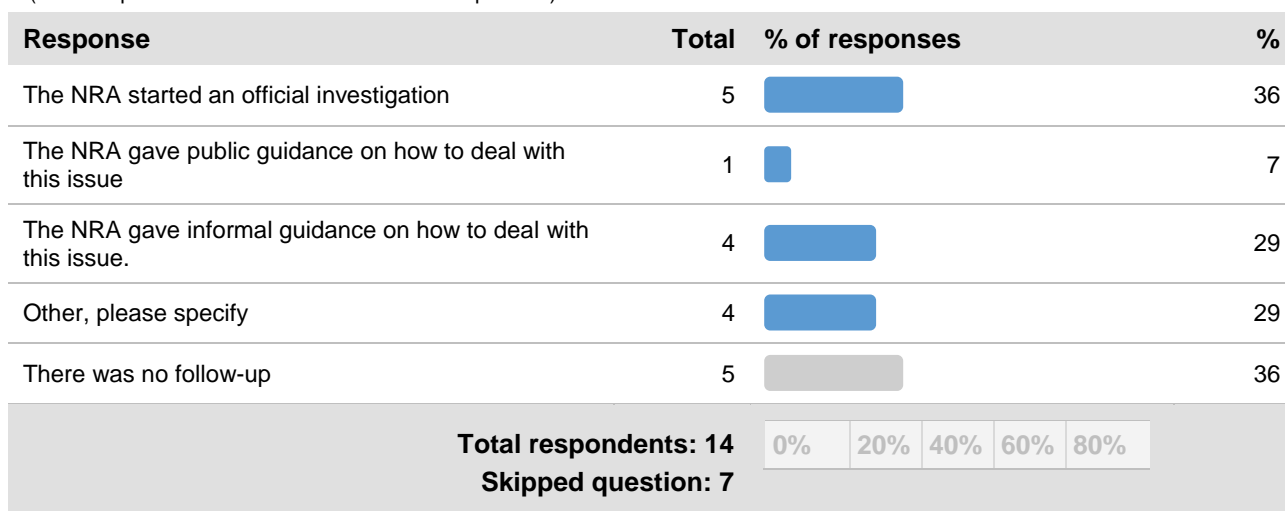
10. Was there any follow-up by the NRA on Reasonable traffic management? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



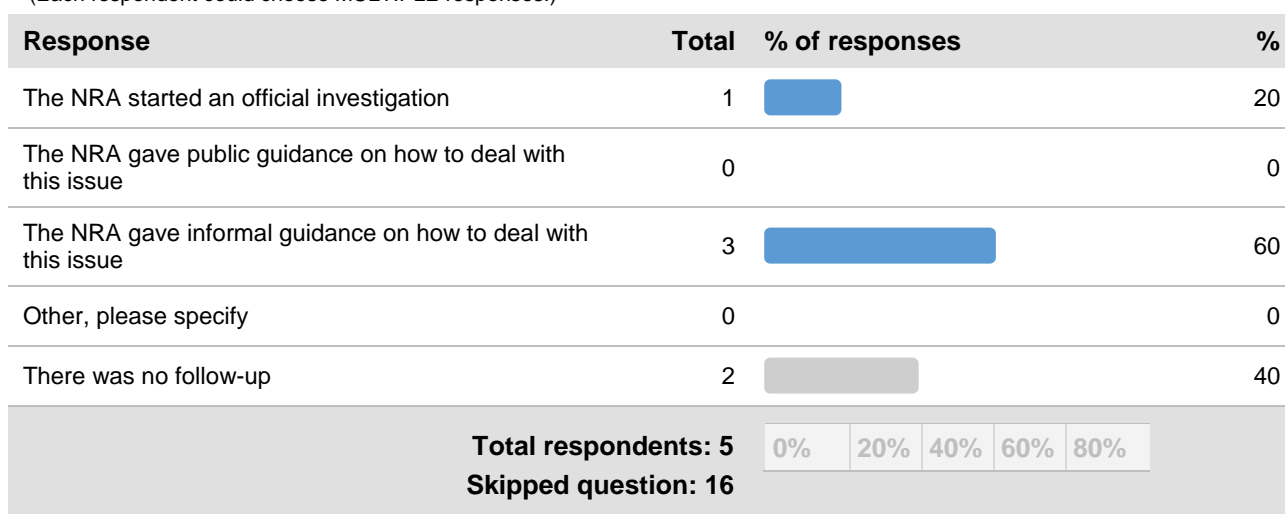
11. Was there any follow-up by the NRA on Zero-rating? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



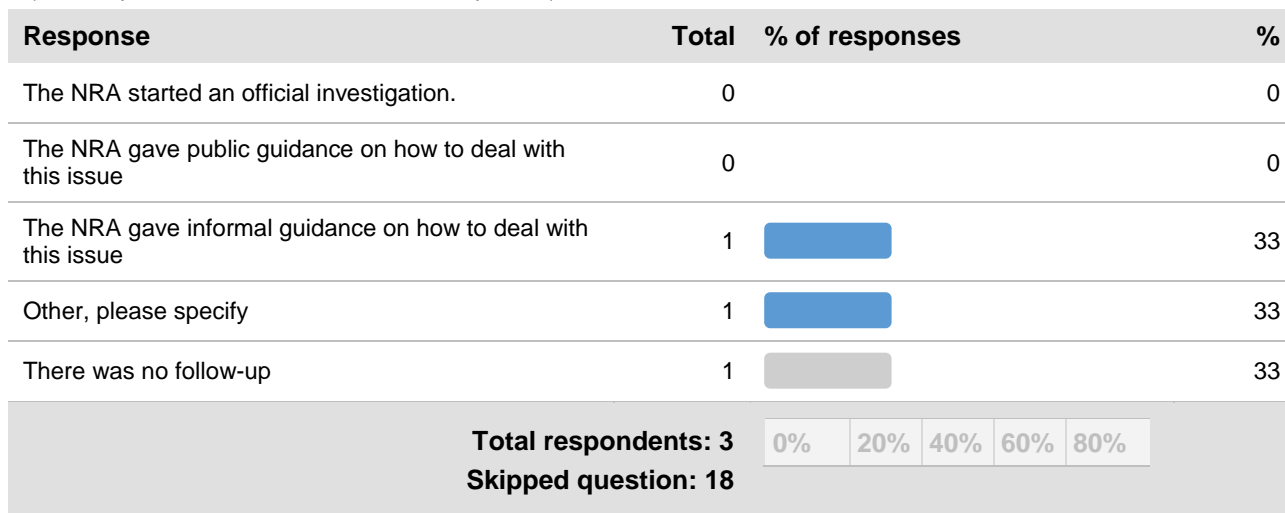
12. Was there any follow-up by the NRA on Possible exceptions? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



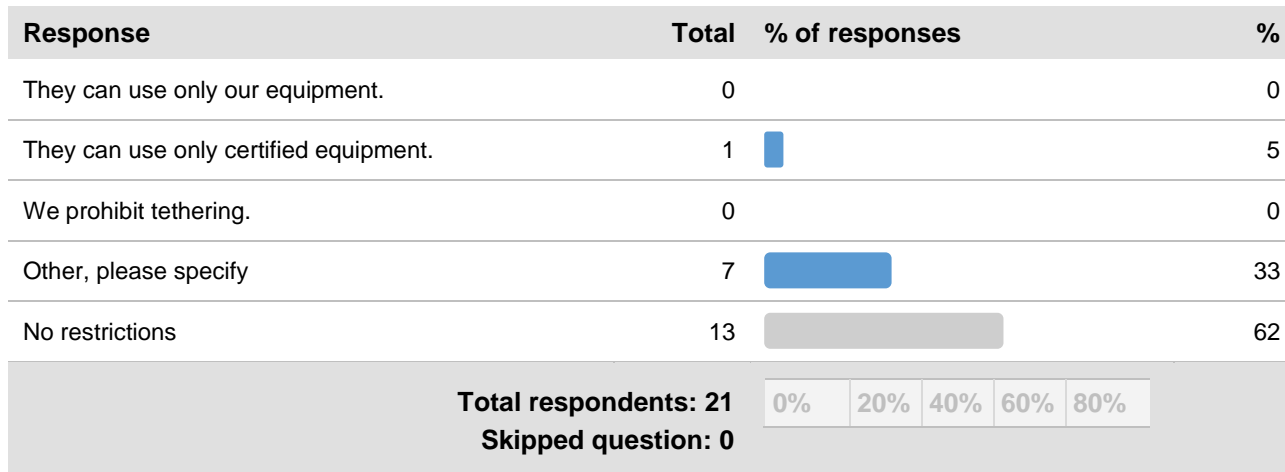
13. Was there any follow-up by the NRA on issues related to \$\$\$Quest4-9\$\$\$? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)





14. What restrictions do you impose on the ability of end-users to use their own equipment? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



15. Do you currently have zero-rated offers?


(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	9		43
No	12		57

Total respondents: 21 0% 20% 40% 60% 80%
Skipped question: 0

16. When were these offers introduced? Please provide dates or best estimates of the dates.



(Each respondent could write a single open-ended response of maximum 2000 characters.)

Response	Total	% of total respondents	%
Open answer	8		23

Total respondents: 8 0% 20% 40% 60% 80%
Skipped question: 13

17. What is the scope of your zero-rated offers?

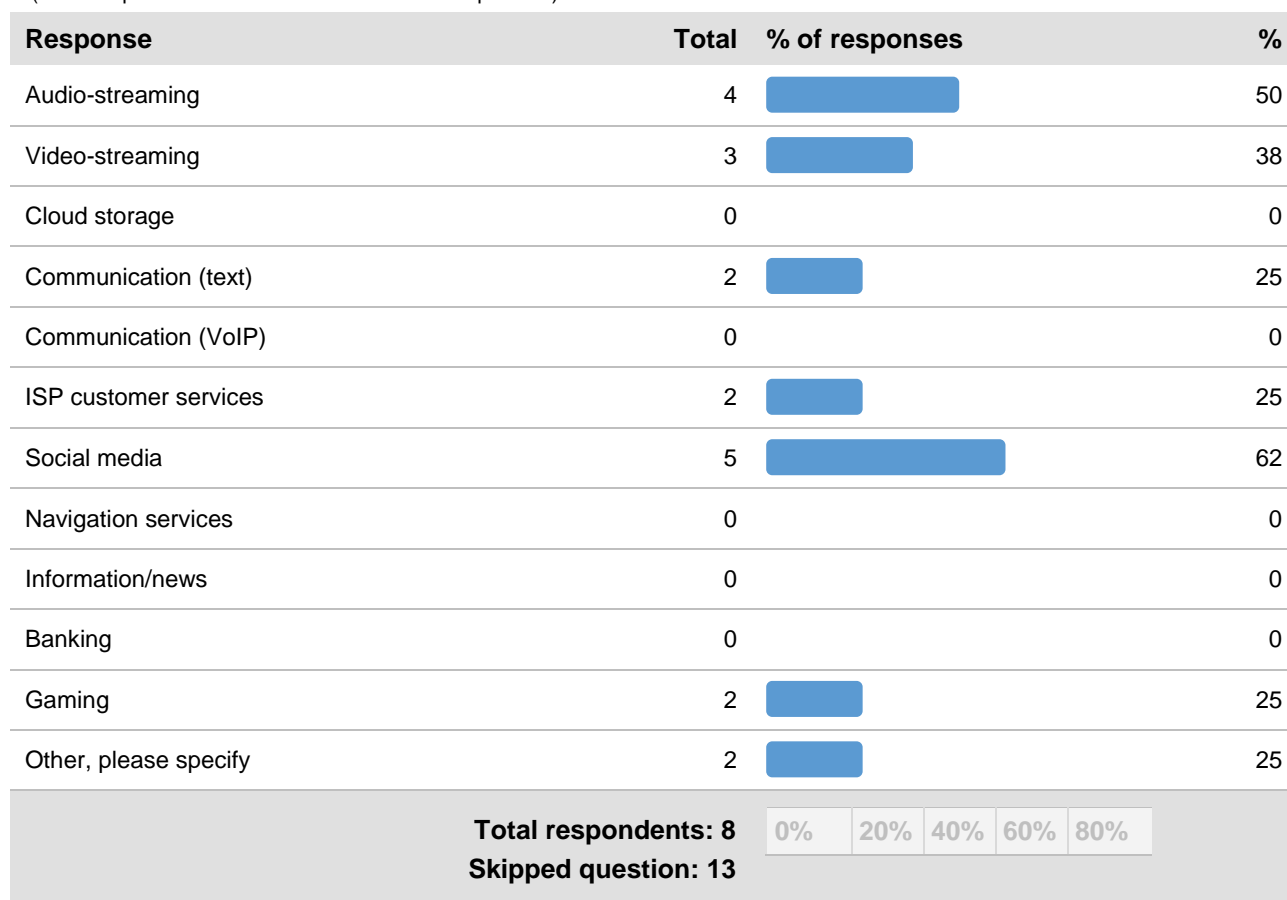
(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Specific services	3		38
Specific apps	0		0
Both specific services and apps	5		62

Total respondents: 8 0% 20% 40% 60% 80%
Skipped question: 13

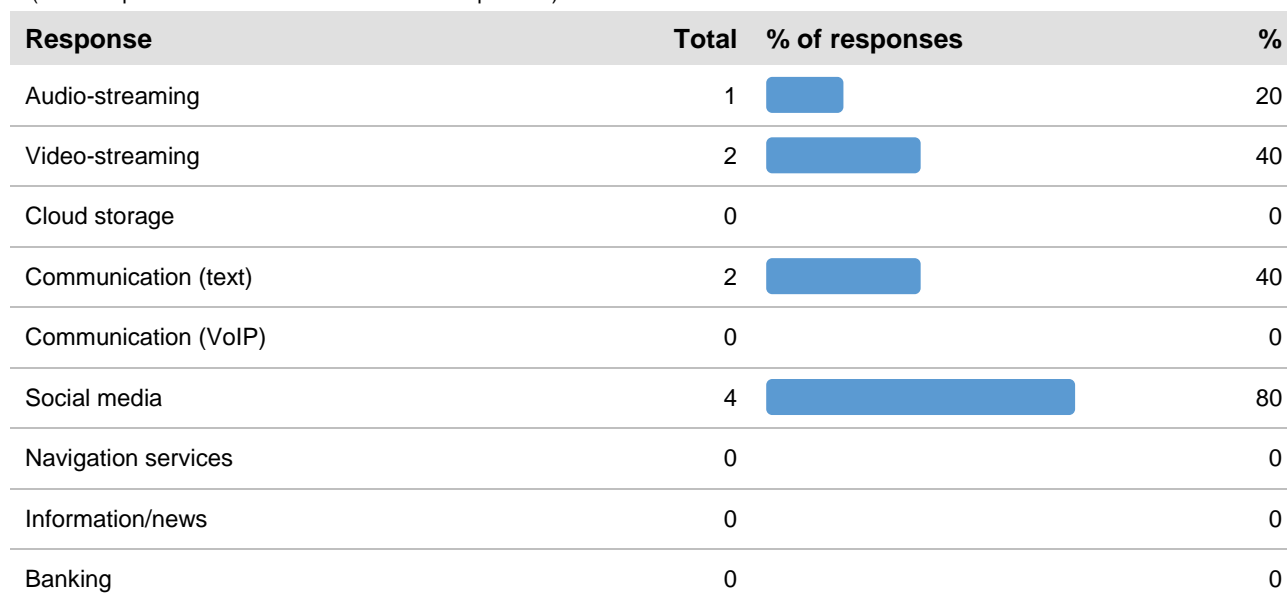
18. Which categories of services are zero-rated? Multiple answers possible.



(Each respondent could choose MULTIPLE responses.)



19. Which categories of apps are zero-rated? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)








Response	Total	% of responses	%
Gaming	2		40
Other, please specify	2		40

Total respondents: 5
Skipped question: 16

0% 20% 40% 60% 80%

20. What happens with the zero-rated apps or services once a user exceeds its general data allowance? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



Response	Total	% of responses	%
Data for zero-rated offers remains are transmitted without any change	3		38
Data for all apps and/or services gets blocked	2		25
Only data for apps and/or services that are not zero-rated gets blocked	0		0
Data for all apps and/or services are slowed down	2		25
Only data for apps and/or services that are not zero-rated are slowed down	0		0
Data are charged at a higher price	1		12
Other, please specify	1		12

Total respondents: 8
Skipped question: 13

0% 20% 40% 60% 80%

21. Did you have any zero-rated offers prior to the introduction of the TSM Regulation?

(Each respondent could choose only ONE of the following responses.)




Response	Total	% of responses	%
Yes	4		21
No	15		79
I don't know	0		0


Total respondents: 19
Skipped question: 2

0% 20% 40% 60% 80%

22. What happened to these offers with the entry into force of the TSM Regulation?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
They were terminated	1		25
They were amended to comply with the TSM Regulation	2		50
Other, please specify	1		25

Total respondents: 4 



Skipped question: 17


23. What amendmends were made?

2 answers were provided:

24. Did you engage in negotiations with content, applications and services providers (CAPs) regarding zero-rating?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	8		42
No	11		58

Total respondents: 19 


Skipped question: 2

25. How many commercial agreements regarding zero-rating did you conclude with content, applications and services providers?

Number of responses	Average number	Minimum number	Maximum number
5	5.4	0	25

26. Are these exclusive agreements?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes, all agreements are exclusive	0		0
Some agreements are exclusive	0		0
No, all agreements are non-exclusive	2		100

Total respondents: 2 0% 20% 40% 60% 80%
Skipped question: 19

27. In how many cases was an agreement sought by a content, applications and services provider, but no agreement was reached?

Number of responses	Average number	Minimum number	Maximum number
4	1.75	0	7

28. What were the reasons that no agreement was reached? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Too expensive	0		0
Unsuccessful negotiation	0		0
Unfavourable conditions	0		0
Regulatory concerns	0		0
The CAP decided to stop the negotiations	0		0
Other, please specify	1		100

Total respondents: 1 0% 20% 40% 60% 80%
Skipped question: 20

29. Do you have the same zero-rated offers in multiple Member States?

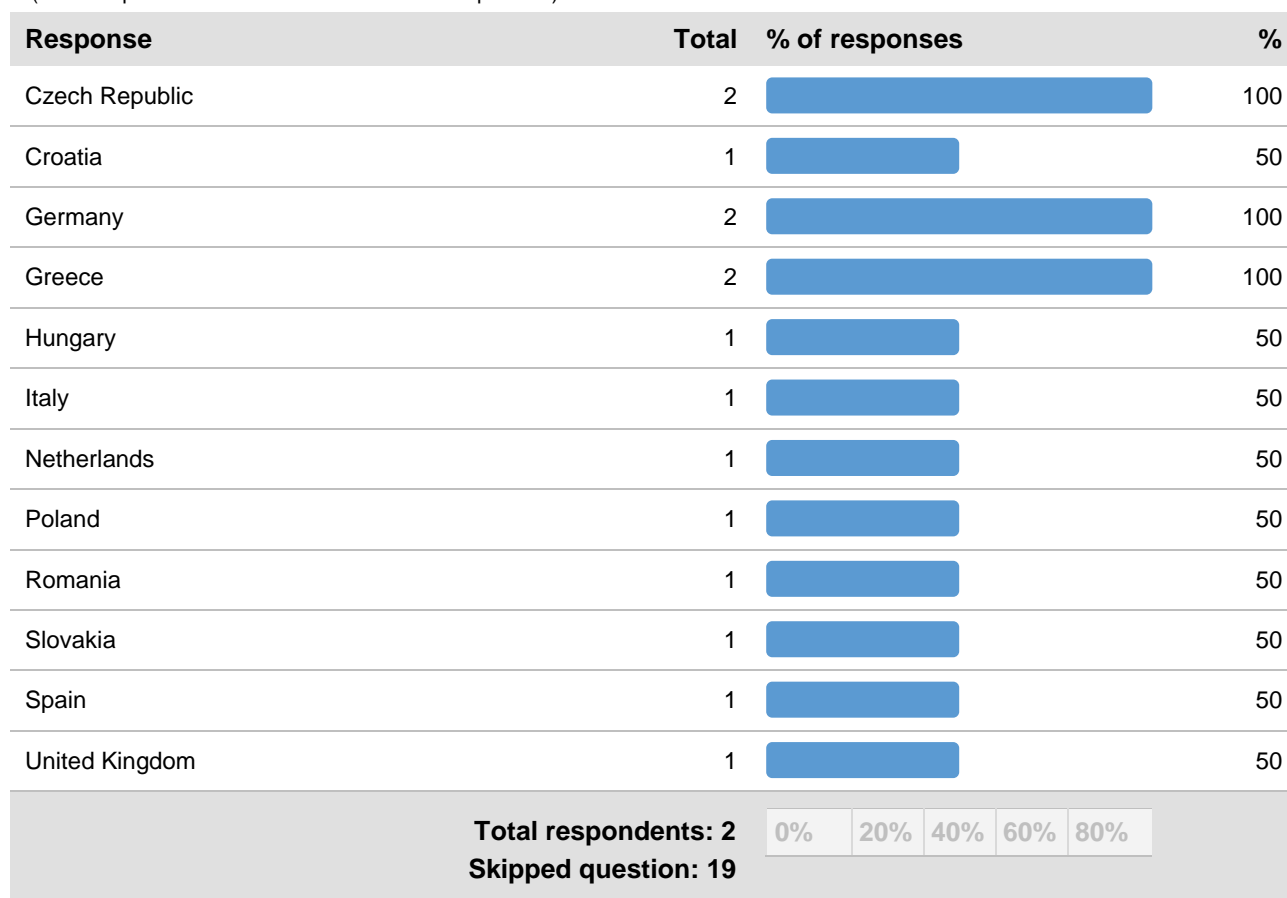
(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	2		22
No	5		56
I don't know	2		22

Total respondents: 9 0% 20% 40% 60% 80%
Skipped question: 12

30. In which Member States do you have the same zero-rated offer? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

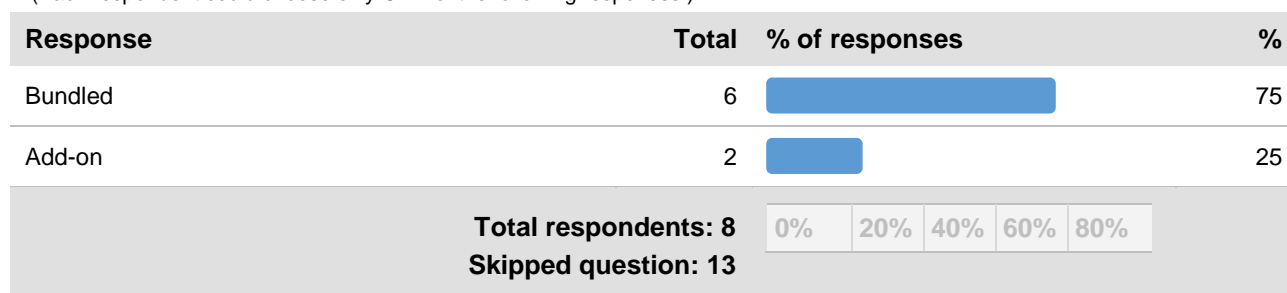


31. If the zero-rating offers differ across Member States, what are the reasons for the difference?

Two answer was provided:



32. Is zero-rated bundled with mobile tariffs or do you have add-on zero-rated offers?

(Each respondent could choose only ONE of the following responses.)





33. Do you have zero-rating regarding fixed services?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	0		0
No	8		100
Total respondents: 8			
Skipped question: 13			





34. Is the transmission quality of content different for zero-rated offers compared to non-zero-rated offers?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	0		0
No	8		100
Total respondents: 8			
Skipped question: 13			

35. Did you observe any effect of zero-rating on consumer behaviour?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Consumers use more data	7		39
Consumers use less data	0		0
Consumers switch to non-zero-rated services	0		0
Other, please specify	4		22
There was no observed effect on consumer behaviour	7		39
Total respondents: 18			
Skipped question: 3			





The next set of questions refers to Article 3(3) of the TSM Regulation: 'Traffic management'.

36.1. Do you block any of the following?

	Number of response	Yes, it is legally required	Yes, it is not legally required	No
Content	15	5	1	9
Specific websites	16	12	1	4
Apps	15	2	1	12
Ports	16	5	5	6
Other	10	2	1	7








37. What are the reasons for blocking?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
To protect consumers from spam and other harmful content	2		14
To protect the integrity of the general internet infrastructure	2		14
Other, please specify	10		71
Total respondents: 14			
Skipped question: 6			





38. Do you block any of the following ports? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
TCP-25	3		30
TCP-135 UDP-135	5		50
TCP + UDP-139	5		50
TCP-445	5		50
TCP & UDP- 161 & 162	1		10
Other, please specify	7		70
We do not block any ports	0		0
Total respondents: 10			
Skipped question: 10			

39. What is the reason for blocking these ports? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
To protect consumers from unwanted content	6		60
To protect the integrity of the general internet infrastructure	7		70
Other, please specify	2		20
Total respondents: 10			
Skipped question: 10			

40. What other traffic management measures do you take? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Blocking certain kinds of data	0		0
Throttling/Slowing down	2		11
Alteration	0		0
Restriction	0		0
Interference with the service	0		0
Degradation	0		0
Discrimination	0		0
Other, please specify	3		17
No other traffic management measures are employed	13		72

Total respondents: 18 0% 20% 40% 60% 80%

Skipped question: 2

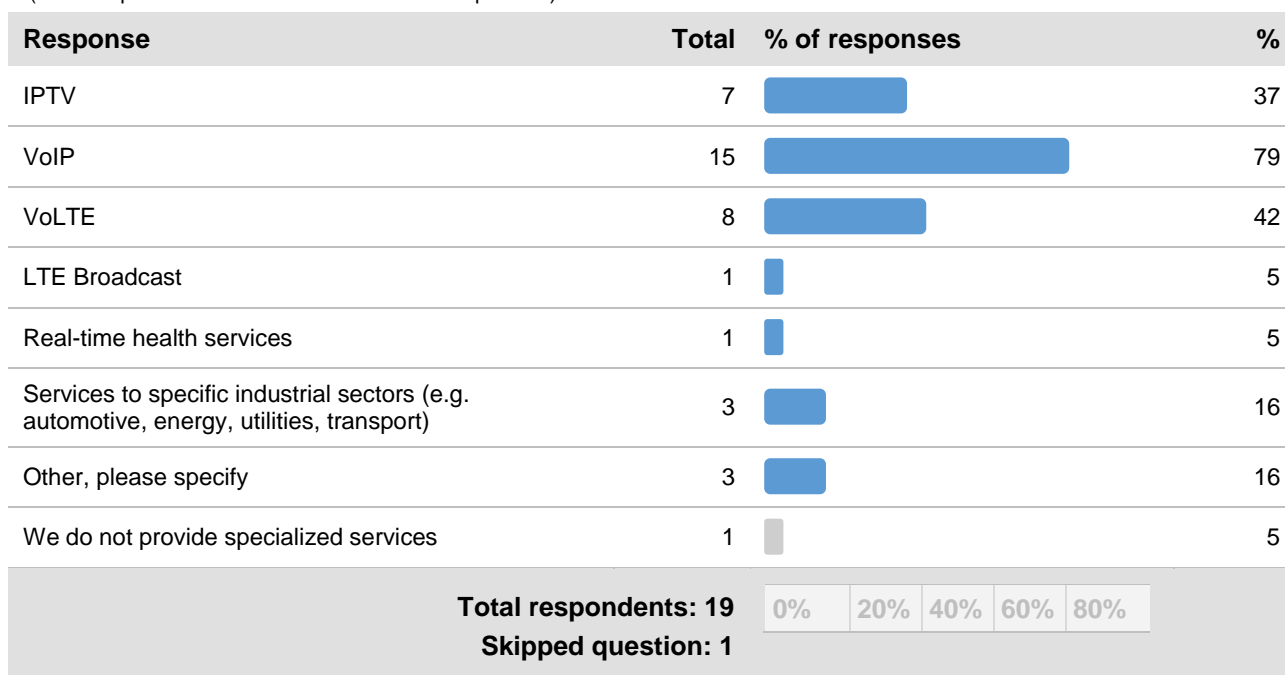
41. What are the reasons for introducing these traffic management measures?

5 answers were provided:

The next set of questions refers to Article 3(5) of the TSM Regulation: 'Specialised services'.

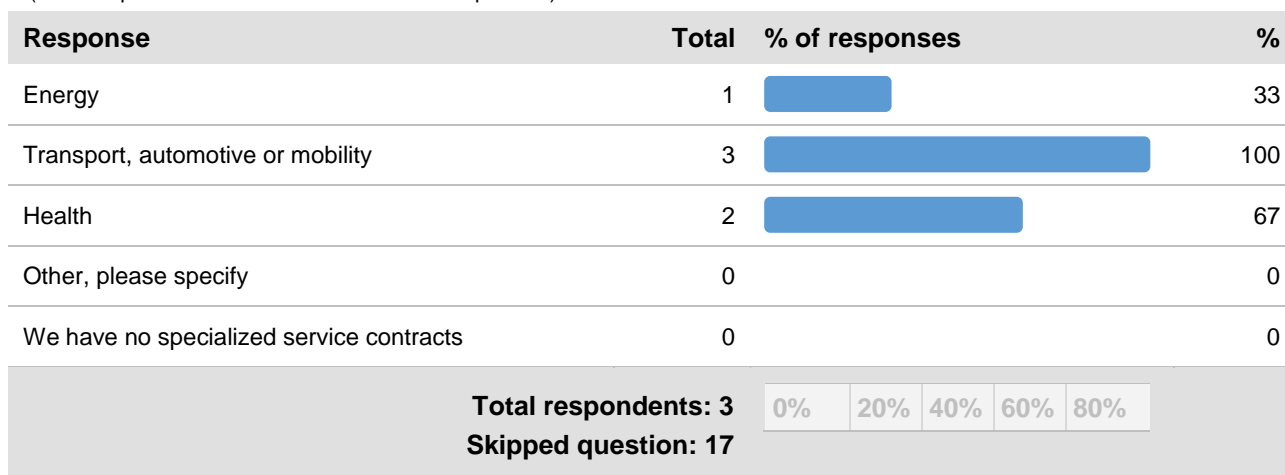
42. Which specialised service(s) do you provide to end-users? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



43. Do you have a specialized service contract with one or more of the following vertical sectors? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



44. Why is the optimisation of specialised services, that are provided on your network, required?



13 answers were provided:


45. How many complaints from individual consumers on issues concerning Article 3(5) of the TSM Regulation have you received between 30 April 2016 and 30 April 2018?

12 answers were provided:

46. How did you deal with these complaints? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)





Response	Total	% of responses	%
The complaints were granted.	1		50
The complaints led to a compensational measure.	0		0
No action was taken (the complaints were dismissed).	1		50
Other, please specify	0		0


Total respondents: 2 
Skipped question: 18

The next set of questions refers to Article 4(1) of the TSM Regulation: 'Contract information'.

47. In what manner do you provide the information required by the TSM Regulation to end-users?

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
In end-user contracts	10		56
On our website	10		56
In general terms and conditions	10		56
Other, please specify	6		33
We do not provide this information to end-users	0		0

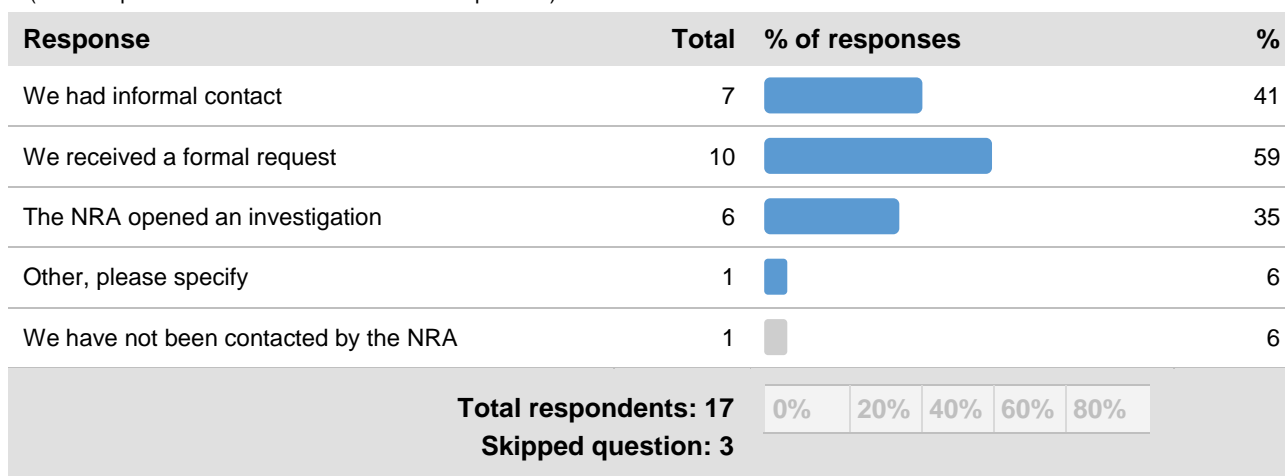
Total respondents: 18 
Skipped question: 2

48. Please estimate which percentage of your clients have accessed the information required by the TSM Regulation.

No answers were provided.

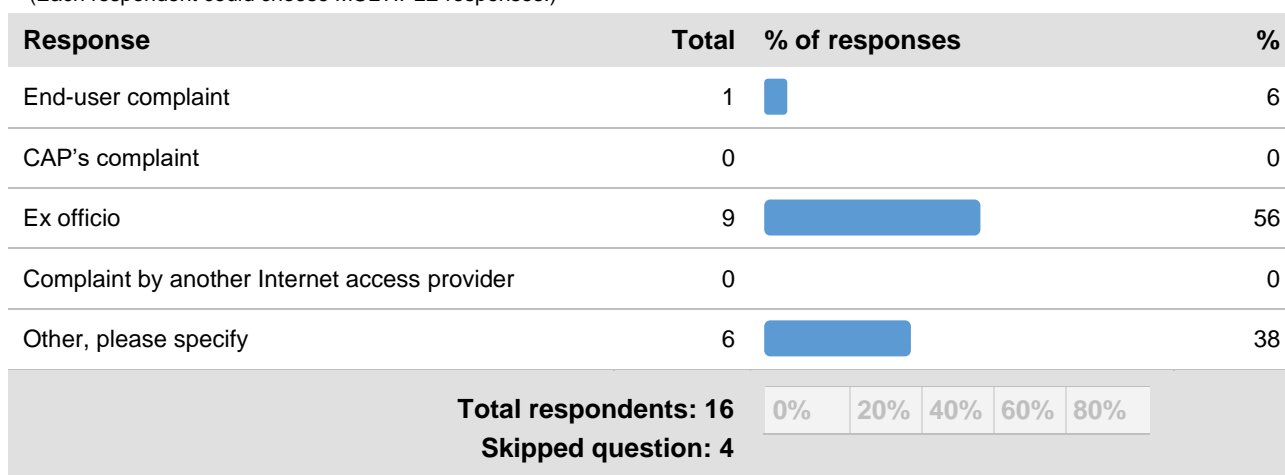
49. Have you been contacted by the NRA of your country regarding the information requirements for end-users? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



50. What was the reason for the contact by the NRA? Multiple answers possible.

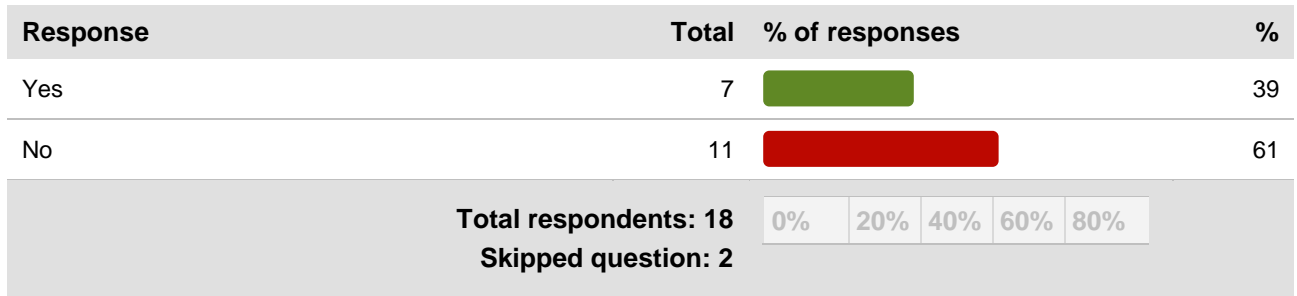
(Each respondent could choose MULTIPLE responses.)



The next set of questions refers to Article 4(2) of the TSM Regulation: 'Procedures for end-user complaints'.

51. Do you have specific complaint handling mechanisms for handling complaints related to the information required by the TSM Regulation?

(Each respondent could choose only ONE of the following responses.)



52. Please summarize the complaint handling mechanism(s).

6 answers were provided:






53. How many complaints related to the net neutrality provisions in the TSM Regulation have you received from end-users between 30 April 2016 and 30 April 2018?

Number of responses	Average number	Minimum number	Maximum number
11	154	0	1678

Number of responses	Average number	Minimum number	Maximum number
10	1.8	0	10

54. What were the three topics subject to most complaints?

(Each respondent could choose MULTIPLE responses.)

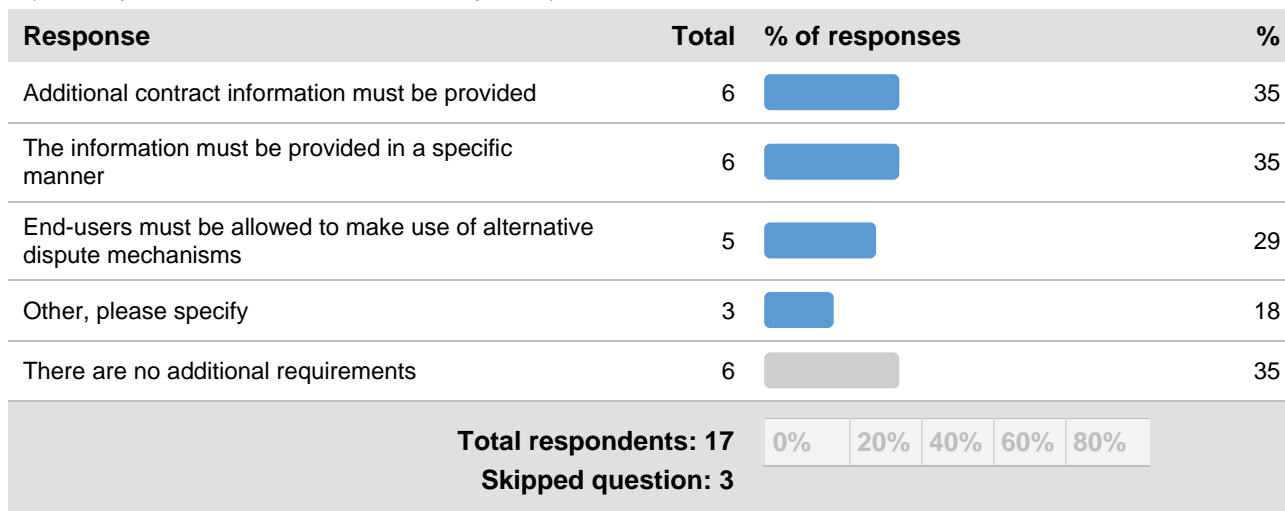
Response	Total	% of responses	%
Open internet access	0		0
Use of terminal equipment/tethering	3		75
Contractual limitations	1		25
Equal treatment of traffic	2		50
Tariff discrimination	0		0
Reasonable traffic management	2		50
Zero-rating	0		0
Possible exceptions	0		0
Other, please specify	2		50

Total respondents: 4 0% 20% 40% 60% 80%
Skipped question: 16

The next set of questions refers to Article 4(3) of the TSM Regulation: 'Additional monitoring, information and transparency requirements'.

55. What monitoring, information and/or transparency requirements for Internet access providers exist in your country that go beyond the requirement of article 4(1) and 4(2) of TSM Regulation? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



56.1. When were these requirements introduced?

	Number of responses	Before the TSM Regulation	After the TSM Regulation	Not applicable
Additional contract information must be provided	6	3	3	0
The information must be provided in a specific manner	6	3	3	0
End-users must be allowed to make use of alternative dispute mechanisms	5	5	0	0
Other	3	2	0	1

The next set of questions refers to Article 4 (4) of TSM Regulation: "Monitoring mechanisms".

57.1. Do you agree or disagree with the following statement?

- Monitoring mechanisms are necessary for consumers to test conformity of performance.

(Each respondent could choose only ONE response per sub-question.)






Response	Total	% of responses	%
1 Fully agree	1		5
2 Agree	7		37
3 Neither agree nor disagree	8		42
4 Disagree	2		11
5 Fully disagree	1		5

Total respondents: 19
Skipped question: 1







58. Why is a monitoring mechanism for consumers to test conformity of performance necessary? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
It lowers barriers for consumers to (successfully) raise non-conformity of performance claims	5		62
It is essential for end-users to raise issues regarding non-conformity of performance	1		12
It allows the NRA to monitor, supervise and enforce IAS obligations	2		25
Other, please specify	3		38
Total respondents: 8			
Skipped question: 12			




59. Is there an online monitoring mechanism in place in your Member State for end-users to test conformity of performance (for example on speeds)?

(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	9		50
No	6		33
I don't know	3		17
Total respondents: 18			
Skipped question: 2			

60. Do consumers utilize the available online tools to monitor conformity with the TSM Regulation?

(Each respondent could choose only ONE of the following responses.)

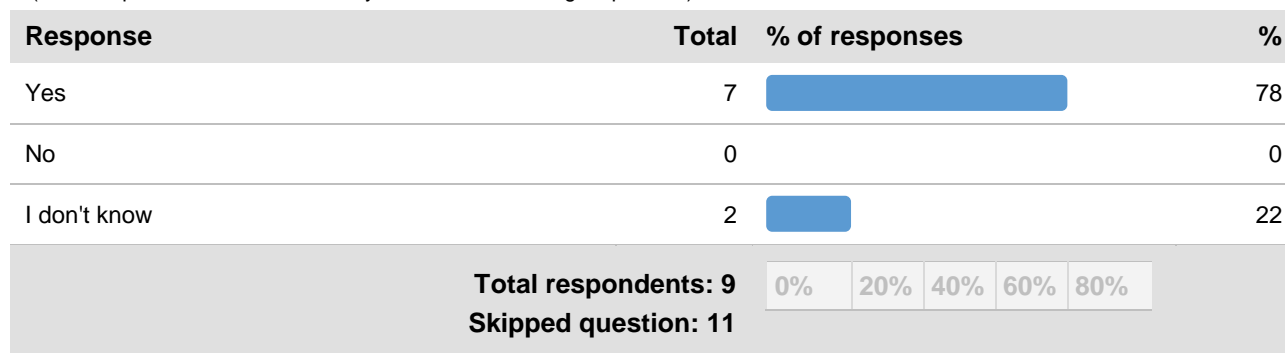
Response	Total	% of responses	%
Yes	5		56
No	0		0
I don't know	4		44
Total respondents: 9			
Skipped question: 11			

61. How many complaints have you received based on the use of the available monitoring mechanism (or any other relevant online tool) for establishing non-conformity of performance?

6 answers were provided:

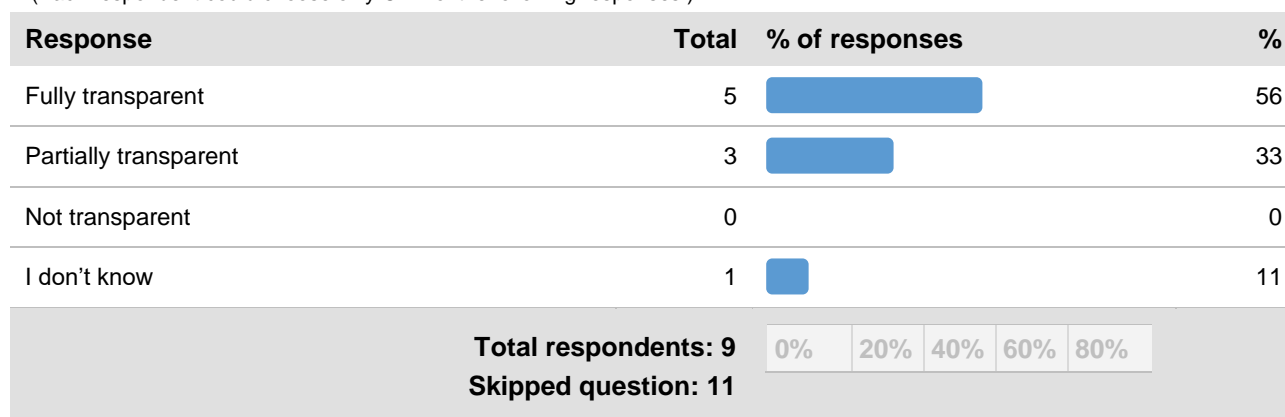
62. Does the NRA in your country utilise the available monitoring mechanisms for monitoring, supervision and enforcement obligations?

(Each respondent could choose only ONE of the following responses.)





63. Are the details of the speed measurement methodology of the monitoring mechanism transparent?


(Each respondent could choose only ONE of the following responses.)



64. What information is not transparent? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
The measurement methodology is not provided at all	0		0
Only part of the measurement methodology is provided to prevent Internet access providers from responding to the measurement methodology	3		100
The results and ensuing actions based on the results are not provided	0		0
Other, please specify	1		33






Total respondents: 3 


Skipped question: 17

65.1. Do you agree with the following statements?

- The online monitoring mechanism available in my country should be replicated in other Member States.

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	1		12
2 Agree	1		12
3 Neither agree nor disagree	3		38
4 Disagree	2		25
5 Fully disagree	1		12




Total respondents: 8 

Skipped question: 12

65.2. Do you agree with the following statements?

- The online monitoring mechanism available in another Member State should be introduced in my country.





(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	0		0
3 Neither agree nor disagree	3		38
4 Disagree	3		38
5 Fully disagree	2		25
Total respondents: 8		<div style="display: flex; justify-content: space-between; width: 100%;"> 0% 20% 40% 60% 80% </div>	
Skipped question: 12			

65.3. Do you agree with the following statements?

- A uniform online monitoring mechanism should be introduced in all Member States.

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	2		22
2 Agree	2		22
3 Neither agree nor disagree	2		22
4 Disagree	3		33
5 Fully disagree	0		0
Total respondents: 9		<div style="display: flex; justify-content: space-between; width: 100%;"> 0% 20% 40% 60% 80% </div>	
Skipped question: 12			

66. Why would you not recommend a uniform monitoring mechanism in all Member States? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
NRAs need to be able to implement their own monitoring mechanism	0		0
No monitoring mechanisms should be put in place in any case	0		0
A uniform mechanism would not leave room for local considerations	2		67
Other, please specify	1		33

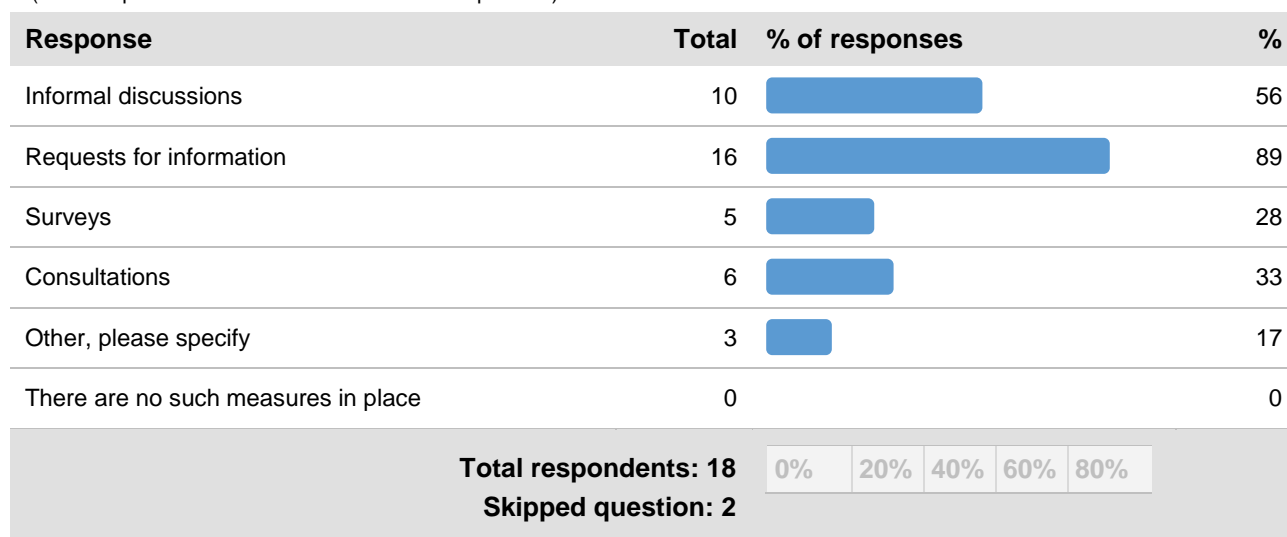
Total respondents: 3 0% 20% 40% 60% 80%

Skipped question: 17

The next set of questions refers to Article 5(1) of the TSM Regulation: 'Supervision and enforcement'.

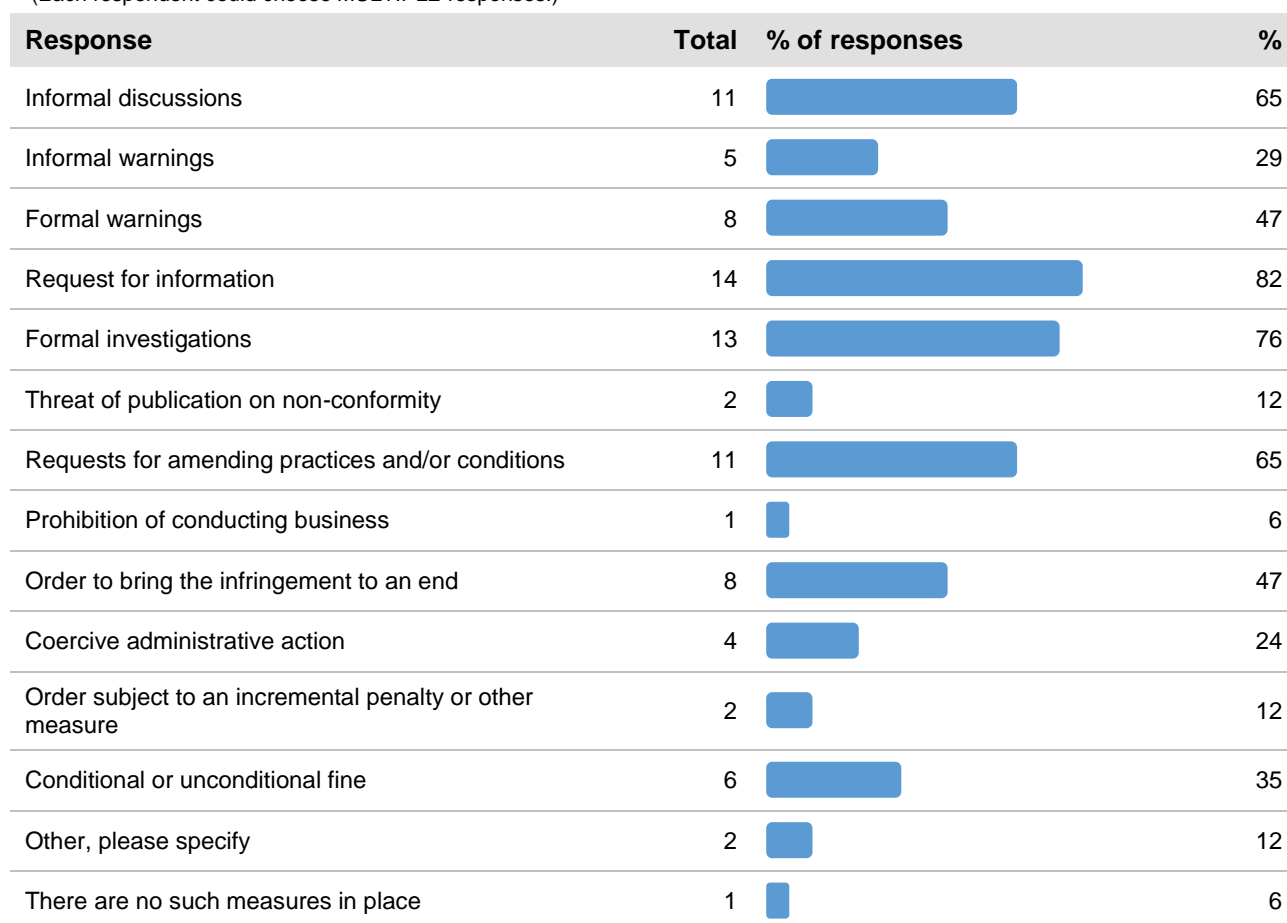
67. What monitoring measures are used by the NRA in relation to the requirements laid down in Articles 3 and 4 of TSM Regulation? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



68. What measures are taken by the NRA to ensure compliance with the requirements laid down in Articles 3 and 4 of the TSM Regulation? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)



Response	Total	% of responses	%
Total respondents: 17			
Skipped question: 3			

69. What measures are taken by the NRA to promote the continued availability of non-discriminatory Internet access service at levels of quality that reflect advances in technology? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Information on website	5		31
Brochures	1		6
Educational meetings	2		12
Other, please specify	2		12
There are no such measures in place	10		62
Total respondents: 16			
Skipped question: 4			






70. Did the NRA influence your compliance with the TSM Regulation?


(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	9		50
No	9		50
Total respondents: 18			
Skipped question: 2			

71. How was your compliance with the TSM Regulation influenced by the NRA? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)




Response	Total	% of responses	%
Via informal discussions	7		78
Via request for information	7		78
Via request for amending practices and/or conditions	6		67
Via (a threat of) publication on non-conformity	1		11
Via administrative sanctions	0		0
Via a fine	0		0
Other, please specify	1		11
There was no influence from the NRA	0		0


Total respondents: 9 

Skipped question: 11

72. What was the reason you were approached by the NRA? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)


Response	Total	% of responses	%
Complaint by consumers	1		11
Complaint by CAP	0		0
Complaint by other Internet access provider(s)	0		0
On the basis of the data from the monitoring mechanism	0		0
Proactive approach NRA	8		89
Other, please specify	1		11




Total respondents: 9 

Skipped question: 11

73. What was the result of the process?





(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
We adjusted our behaviour	6		67

Response	Total	% of responses	%
We continued as we did	0		0
We filed a court case	2		22
Other, please specify	1		11
Total respondents: 9			
Skipped question: 11			

74. Did the NRA impose requirements concerning technical characteristics on one or more providers of electronic communications to the public, including Internet access providers?







(Each respondent could choose only ONE of the following responses.)

Response	Total	% of responses	%
Yes	6		33
No	4		22
I don't know	8		44
Total respondents: 18			
Skipped question: 2			

The next set of questions refers to Article 5(2) of the TSM Regulation: 'Supervision and enforcement'.

75. Have you been requested by the NRA to provide information concerning one of the following issues? Multiple answers possible.

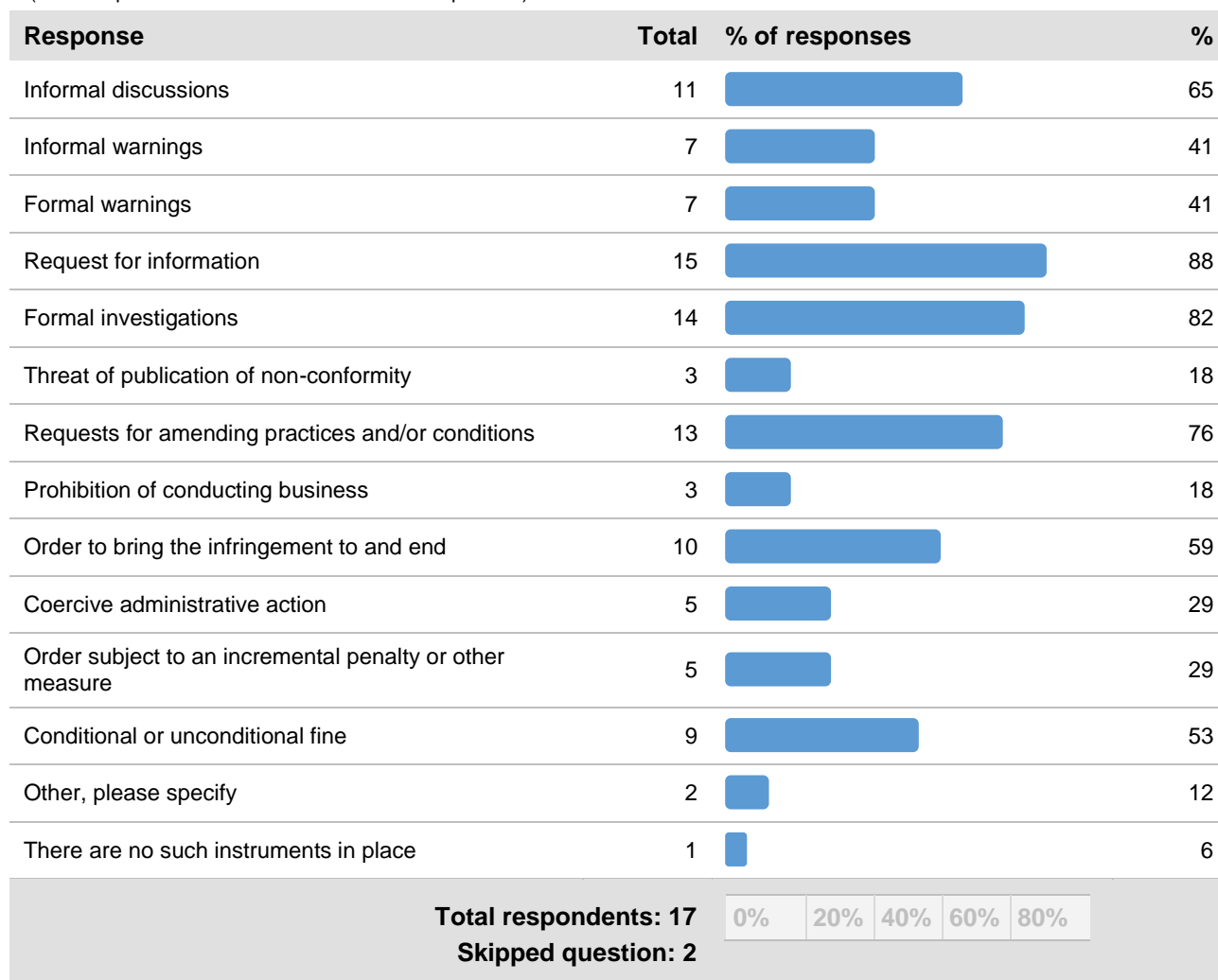
(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Management of network capacity	7		39
Management of network traffic	14		78
Justifications for any traffic management applied	6		33
Other information, please specify	3		17
We have not received any requests for information	1		6
Total respondents: 18			
Skipped question: 2			

The next set of questions refers to Article 6 of the TSM Regulation: 'Penalties'.

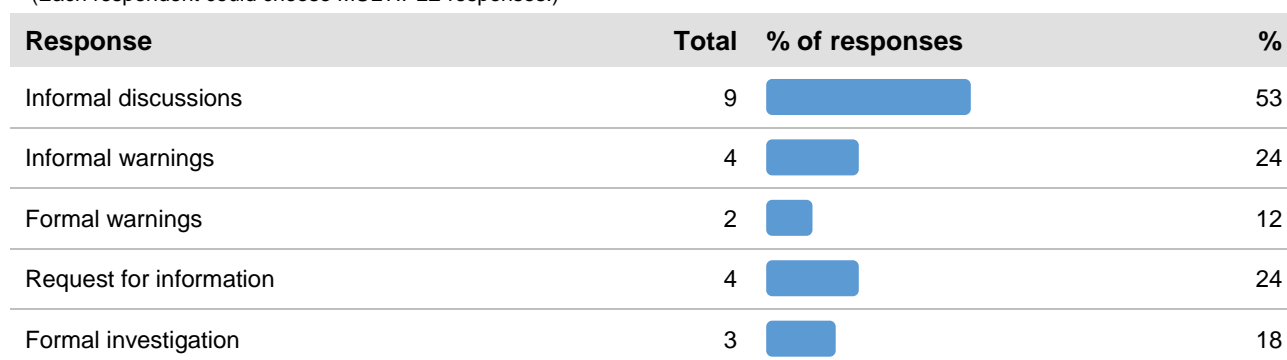
76. What instruments does the NRA in your country practically and effectively use to monitor and ensure compliance with Articles 3, 4 and 5 of the TSM Regulation? Multiple answers possible.








(Each respondent could choose MULTIPLE responses.)



77. What enforcement measures available in your country do you consider the most effective to achieve conformity of providers of Electronic Communications Services with the TSM Regulation? Please select maximum three answers.

(Each respondent could choose MULTIPLE responses.)















Response	Total	% of responses	%
Threat of publication on non-conformity	0		0
Requests for amending practices and/or conditions	4		24
Prohibition of conducting business	0		0
Order to bring the infringement to an end	3		18
Coercive administrative action	1		6
Order subject to an incremental penalty or other measure	1		6
Conditional or unconditional fine	2		12
Other, please specify	1		6
There are no such measures in place	1		6

Total respondents: 17 0% 20% 40% 60% 80%
Skipped question: 2

78. What enforcement measures available in your country you consider the most proportionate to achieve conformity with the TSM Regulation? Please select maximum three answers.















(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Informal discussions	9		53
Informal warnings	7		41
Formal warnings	0		0
Request for information	6		35
Formal investigations	3		18
Threat of publication on non-conformity	1		6
Requests for amending practices and/or conditions	4		24
Prohibition of conducting business	0		0
Order to bring the infringement to an end	2		12
Coercive administrative action	1		6
Order subject to an incremental penalty or other measure	0		0
Conditional or unconditional fine	1		6
Other, please specify	1		6

Response	Total	% of responses	%
There are no such measures in place	1		6
Total respondents: 17 Skipped question: 2			

79. What enforcement measures available in your country you consider the most dissuasive to achieve conformity with the TSM Regulation? Please select maximum three answers.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Informal discussions	2		12
Informal warnings	1		6
Formal warnings	1		6
Request for information	2		12
Formal investigations	1		6
Threat of publication on non-conformity	2		12
Requests for amending practices and/or conditions	0		0
Prohibition of conducting business	7		41
Order to bring the infringement to an end	3		18
Coercive administrative action	2		12
Order subject to an incremental penalty or other measure	4		24
Conditional or unconditional fine	5		29
Other, please specify	4		24
There are no such measures in place	1		6
Total respondents: 17 Skipped question: 2			

80. What is the effect of diverging approaches to penalties across EU Member States on your business? Multiple answers possible.

(Each respondent could choose MULTIPLE responses.)

Response	Total	% of responses	%
Less administrative pressure to comply	0		0

Response	Total	% of responses	%
More administrative pressure to comply	3		18
Less room to experiment with services	6		35
More room to experiment with services	1		6
Other, please specify	3		18
Diverging approaches do not present any effect	6		35

Total respondents: 17 0% 20% 40% 60% 80%
Skipped question: 2

81.1. To what extent do you agree with the following statements?

- The TSM Regulation has positively contributed to achieving the objectives of openness of Internet.
(Each respondent could choose only ONE response per sub-question.)





Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	7		39
3 Neither agree or disagree	6		33
4 Disagree	4		22
5 Fully disagree	1		6

Total respondents: 18 0% 20% 40% 60% 80%
Skipped question: 1

81.2. To what extent do you agree with the following statements?

- The TSM Regulation has ensured the right for end users to distribute information and content, use and provide applications and services and use terminal equipment of their choice.





(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	6		33
3 Neither agree or disagree	8		44
4 Disagree	3		17
5 Fully disagree	1		6
Total respondents: 18		<div style="display: flex; justify-content: space-between; width: 100%;"> 0% 20% 40% 60% 80% </div>	
Skipped question: 1			

81.3. To what extent do you agree with the following statements?

- The annual net neutrality monitoring report of your NRA is of high quality.

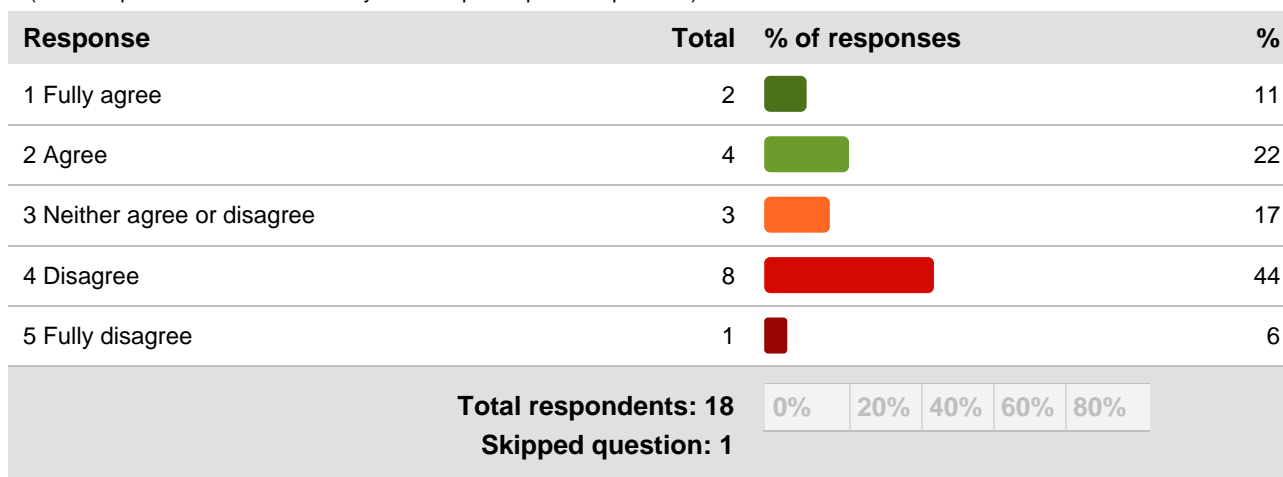
(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	6		35
3 Neither agree or disagree	6		35
4 Disagree	2		12
5 Fully disagree	3		18
Total respondents: 17		<div style="display: flex; justify-content: space-between; width: 100%;"> 0% 20% 40% 60% 80% </div>	
Skipped question: 2			

81.4. To what extent do you agree with the following statements?

- A more uniform and harmonised approach across the EU Member States is necessary in relation to penalties.

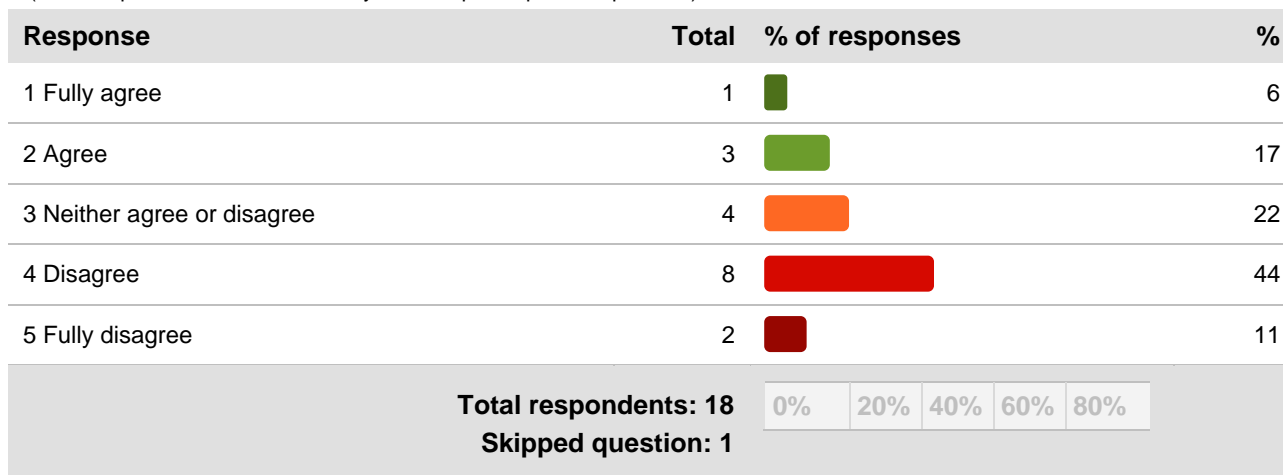
(Each respondent could choose only ONE response per sub-question.)



81.5. To what extent do you agree with the following statements?

- Guidelines or harmonisation on minimum or maximum fines should be introduced to ensure compliance with Articles 3, 4 and 5 of the TSM Regulation across the EU Member States.






(Each respondent could choose only ONE response per sub-question.)



81.6. To what extent do you agree with the following statements?

- The NRA acts in accordance with the BERC Guidelines.

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	2		12
2 Agree	8		47
3 Neither agree or disagree	5		29
4 Disagree	1		6
5 Fully disagree	1		6





Total respondents: 17
Skipped question: 2



81.7. To what extent do you agree with the following statements?

- The BERC Guidelines led to a more consistent practice across Member States.

(Each respondent could choose only ONE response per sub-question.)

Response	Total	% of responses	%
1 Fully agree	0		0
2 Agree	6		33
3 Neither agree or disagree	4		22
4 Disagree	3		17
5 Fully disagree	5		28

Total respondents: 18
Skipped question: 1



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