

# 31 The Internet and Digital Technologies as Essential Tools for the Civil Service

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## I. Introduction

Computers have been used by public authorities in Europe for some time now. However, internet and its further development have led to significant changes in the organisation of relations between public administrations and private-law subjects (citizens and business) as well as users within the public sector.<sup>1</sup> Since the 1990s, the consequences of the use of Information and Communication Technologies (ICT) by public administrations have mostly been discussed under the heading of “eGovernment”.<sup>2</sup> In the early 1990s, the main focus was on the possibilities created by the internet for providing information to private individuals and legal entities and for electronic communication.<sup>3</sup> The focus was probably initially more on shifting existing administrative processes from paper to electronic form.<sup>4</sup> In the meantime, however, there appears to have been widespread agreement that ICT offers a variety of opportunities for better and faster completion of administrative tasks and that it can be an instrument to modernise public administration.<sup>5</sup> In recent times, the focus has moved to (partial) automation of administrative processes<sup>6</sup> and the use of artificial intelligence (AI).<sup>7</sup>

Digitalisation of the public administration is an ongoing process for many reasons.<sup>8</sup> In particular, there is the desire to improve public administrative services and boost cost-effectiveness and efficiency, improve quality and utility for citizens and business and in some cases transparency.<sup>9</sup> Certain electronic practices that are now common in the private sector can also reasonably be expected in relationships with public administrations.<sup>10</sup> It

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1 See also Glaser (2015), p. 263.

2 On German approaches to definition, see Guckelberger (2019), paras. 16 ff.; on the numerous paraphrases with different emphasis, see Andermatt (2022), pp. 93 f.

3 Cossalter (2022), paras. 8 ff.

4 Mayrhofer and Parycek (2022), p. 14.

5 Guckelberger (2019), paras. 18 ff.

6 Braun Binder (2020), p. 28.

7 Marsch and Fölsch Schroh (2022), pp. 443 f.

8 Distel (2022), p. 54.

9 Galetta (2023); Marsch and Fölsch Schroh (2022), pp. 447 and 453.

10 Saarland Parliament LT-Drucks. 16/1806, p. 153.

is also hoped that technologies, such as AI, will make a breakthrough in public administration.<sup>11</sup> For some time now, most countries in Europe have had their own national eGovernment strategies, which show differences and similarities.<sup>12</sup> These are probably due partly to the fact that the European Union sets soft-law guidelines for digitalisation, as well as issuing hard-law instruments, since it has a special interest in promoting cooperation.

The digitalisation of public administration has technological, administrative and legal components.<sup>13</sup> Because digitalisation is associated with innovations and readjustments in many areas, the literature usually only focuses on the national setting. In contrast, comparative international and European Union studies provide an overview of the digitalisation of public administration in each country. In the context of the European Commission's initiative for stronger interoperability in the public sector, Digital Public Administration Factsheets have been published annually by the European Commission since 2014, providing information on the current status of the digital transition. Comparison of the factsheets of the different countries shows parallels and differences in the digitalisation of the public sector.<sup>14</sup> Although the coronavirus pandemic drove digitalisation of public administration across the Union, especially through the performance of administrative tasks from home, and altered the manner of working,<sup>15</sup> differences in the degree of digitalisation are evident between countries.<sup>16</sup> These comparative studies allow countries to more accurately assess their progress in digitalising public administration.<sup>17</sup> Lower-performing countries can learn from leading States and find areas for improvement by exchanging ideas with them and examining their strategies. Because better-performing countries according to comparative studies can present themselves in a good light, such studies create incentives for defending top positions or catching up.

Since digitalisation of public administration poses similar challenges to all countries in Europe, it makes sense to take a closer look at some of them. Germany, Switzerland, Austria, and France are discussed here. Although the United Kingdom is viewed as having an important type of administrative law,<sup>18</sup> it is not considered. This is because there is no factsheet for the United Kingdom (UK) in 2022 as a result of Brexit. It should be mentioned, however, that use of a flawed algorithm during the coronavirus pandemic caused outrage there because good students from low-performing schools were discriminated in university admission procedures.<sup>19</sup> Instead of the UK, the analysis will include Estonia, which has long been the European leader in digital public services.

Best eGovernment practices in one country often cannot be compared or transferred one-to-one to another country because of different initial conditions.<sup>20</sup> Depending on whether a country is small or large, or has a younger or older population structure, the dig-

11 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "2030 digital compass: the European way for the digital decade", COM(2021) 118 final, p. 13.

12 Poelmans (2019), p. 167; on Germany see Marsch and Fölsch Schroh (2022), pp. 451 f.

13 Pleger and Mertes (2022), p. 3.

14 With regard to comparative law in general, see Ruffert (2017), p. 168.

15 Andermatt (2022), p. 97.

16 European Court of Auditors (2022), p. 42; Braun Binder (2021), p. 5.

17 With regard to comparative law, see Sommermann (2021), section 52, para. 31.

18 Groß (2021), pp. 544 and 547.

19 Taylor (2020).

20 Distel et Al. (2020), p. 6.

ital transition of public administrations may be simpler or more complex. It can also make a significant difference whether a country is a federal or unitary State, or whether – as in the case of Germany for example – it attaches great importance to data protection.<sup>21</sup> Different organisational and legal frameworks as well as diverging assessments of the importance of digitalisation of the public sector, including the financial resources earmarked for it, have produced a rather heterogeneous eGovernment landscape in Europe.<sup>22</sup> European Union law, however, has a standardising effect on the Member States.

## II. Supranational Level

The Union level provides major impetus for the digitalisation of public administrations because it contributes to the success of the Single Market.<sup>23</sup> As the European Union (EU) does not have general legislative competence for digitalisation, it often drives this issue forward through policy initiatives, soft law instruments and support programmes so as to achieve the desired results in agreement with the Member States.<sup>24</sup> According to the 2030 Digital Compass, the EU's objective is

to ensure that democratic life and public services online will be fully accessible for everyone, including persons with disabilities, and benefit from a best-in-class digital environment providing for easy-to-use, efficient and personalised services and tools with high security and privacy standards. (. . .) Government as a Platform, as a new way of building digital public services, will provide a holistic and easy access to public services with a seamless interplay of advanced capabilities, such as data processing, AI and virtual reality.<sup>25</sup>

Furthermore, the Berlin Declaration on Digital Society and Value-Based Digital Government of 8 December 2020, representing the highest level of commitment of Member States, aims for “value-based digital transformation by addressing and ultimately strengthening digital participation and digital inclusion in our societies”,<sup>26</sup> involving inter alia a paradigm shift from electronic Government to mobile Government.<sup>27</sup>

For some time now, a key impetus for the electronic or digitalisation of administrative procedures has come from European legislation, such as Directive 2006/123/EC on services in the internal market. Article 6, paragraph 1 of this Directive provides that Member States must enable providers to complete a host of procedures and formalities through points of single contact, where the information listed in Article 7, paragraph 1 is easily accessible to providers and recipients. Article 8, paragraph 1 obliges Member States to ensure that all procedures and formalities relating to access to a service activity and to the exercise thereof may be easily completed, at a distance and by electronic means, through

21 Distel et Al. (2020), p. 18; Marsch and Fölsch Schroh (2022), p. 448.

22 Zefferer (2015).

23 Guckelberger (2019), para. 171.

24 Guckelberger (2019).

25 Communication from the Commission (n. 11), p. 13.

26 Berlin Declaration on Digital Society and Value-based Digital Government of 2020, <https://digital-strategy.ec.europa.eu/en/news/berlin-declaration-digital-society-and-value-based-digital-government>.

27 Berlin Declaration on Digital Society and Value-based Digital Government of 2020, <https://digital-strategy.ec.europa.eu/en/news/berlin-declaration-digital-society-and-value-based-digital-government>.

the relevant point of single contact and with the relevant competent authorities. Union law has set out the legal framework for electronic public procurement (see Article 22, paragraph 1, sentence 1 of Directive 2014/24/EU on public procurement;<sup>28</sup> Implementing Regulation (EU) 2019/1780 establishing standard forms for the publication of notices in the field of public procurement (eForms),<sup>29</sup> Directive 2014/55/EU on electronic invoicing in public procurement).<sup>30</sup> Directive (EU) 2016/2102 contains requirements relating to accessibility of the websites and mobile applications of public-sector bodies.<sup>31</sup> According to Article 2, paragraph 1 Regulation (EU) 2018/1724,<sup>32</sup> the Commission and Member States will establish a single digital gateway. The gateway is intended to enable access to the information listed in Article 2, paragraph 2. Article 14 lays down arrangements for the introduction of a technical system for cross-border automated exchange of evidence and application of the “once only” principle. In the intervening period, the EU Commission developed the single point of entry, for which Member States have to digitise 21 procedures to make them accessible via the “Your Europe” portal no later than December 2023.<sup>33</sup> Regulation (EU) 910/2014 on electronic identification and trust services for electronic transactions in the internal market,<sup>34</sup> the General Data Protection Regulation (hereinafter GDPR) 2016/679/EU,<sup>35</sup> Article 22 of which regulates automated individual decision-making, including profiling, and Directive (EU) 2016/1148 concerning measures for a high common level of security of network and information systems across the Union<sup>36</sup> are also of general importance. This also applies to Regulation (EU) 2022/868 (Data Governance Act),<sup>37</sup> Article 1, paragraph 1(a), which lays down conditions for the reuse, within the Union, of certain categories of data held by public-sector bodies.

In January 2023, the European Declaration on Digital Rights and Principles for the Digital Society, which was agreed upon by the European Parliament, the Council and the Commission, was published in the Official Journal of the European Union.<sup>38</sup> On the

28 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC Text with EEA relevance, OJ L 94/65.

29 Commission Implementing Regulation (EU) 2019/1780 of 23 September 2019 establishing standard forms for the publication of notices in the field of public procurement and repealing Implementing Regulation (EU) 2015/1986 (eForms), OJ L 272/7.

30 Directive 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement, OJ L 133/1.

31 Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies, OJ L 327/1.

32 Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services and amending Regulation (EU) 1024/2012, OJ L 295/1.

33 European Court of Auditors (2022), p. 31.

34 Regulation (EU) 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC, OJ L 257/73.

35 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, OJ L 119/1.

36 Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union, OJ L 194/1.

37 Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act), OJ L 152/1.

38 Official Journal of the European Union, 23 January 2023, C 23, pp. 1 f.

horizon is the enactment of an EU Artificial Intelligence Act. The proposal submitted by the Commission adopts a risk-based approach, distinguishing uses of AI that create unacceptable risk, high risk, and low or minimal risk.<sup>39</sup> The Commission has also submitted a proposal for a Regulation amending Regulation (EU) No. 910/2014 on a framework for European Digital Identity.<sup>40</sup> Under Article 6(a)(1), all persons are to have secure, trusted, and seamless access to cross-border public and private services through the issue of European Digital Identity Wallets by Member States.

Summing up, it can be said that the European Union is very active when it comes to the digitalisation of public administration and spells out sector-specific as well as cross-sectoral requirements. Although it only specifies eGovernment solutions for its own area of competence due to its limited competencies, there is hope that Member States will also adopt these solutions in their area of responsibility for reasons of utility and cost efficiency.<sup>41</sup> According to a special report issued by the European Court of Auditors, the Member States it surveyed were grateful for the Commission's support in connection with certain digitisation projects.<sup>42</sup> In order to better promote digitisation, however, it recommended that the Commission strengthen the implementation framework to encourage Member States to complete the provision of eGovernment services and develop a comprehensive strategy to effectively promote eGovernment.<sup>43</sup>

### III. Germany

Germany usually only ranks somewhere in the middle of the field in comparative eGovernment studies.<sup>44</sup> In the Digital Economy and Society Index (DESI) 2022, it ranked eighteenth in the category of digital public services. Only 55% of internet users access e-government services. It was among the five worst-performing EU countries in the category of pre-filled forms. While it is close to the EU average for digital public services for businesses, it was slightly above average for such services for citizens.<sup>45</sup> When the guiding principle of eGovernment emerged, the hope was especially that of its own accord, the public administration would push ahead with its digitalisation. With effect from 1 January 2003, Section 3a on electronic communication was inserted in the Administrative Procedure Act (APA).<sup>46</sup> Electronic communication is now permissible provided the recipient establishes access (paragraph 1). Where legal provisions stipulate that a document be in written form, electronic communication of an electronic document is now also permitted if it bears a qualified electronic signature (paragraph 2). Section 71e of the APA, which came into force at the end of 2008 to transpose the European Services Directive, stipulates that if requested, procedures dealt with by

39 Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending certain Union Legislative Acts, COM(2021) 206 final, p. 15.

40 Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 910/2014 as regards establishing a framework for a European Digital Identity, COM(2021) 281 final.

41 Guckelberger (2019), para. 230.

42 European Court of Auditors (2022), pp. 5 and 35.

43 European Court of Auditors (2022), p. 5.

44 Marsch and Fölsch Schroh (2022), p. 450.

45 DESI 2022 Germany, p. 15, available at <https://digital-strategy.ec.europa.eu/en/policies/desi-germany>.

46 Marsch and Fölsch Schroh (2022), p. 447.

a single authority must be handled electronically. Because, contrary to expectations, public administrations had seldom prepared electronic access, the federal government enacted a law to promote electronic government (E-Government Act of the Federation, E-GovG)<sup>47</sup> in 2013. It applies to federal authorities (Section 1, paragraph 1 E-GovG) and to the administrative activities of authorities of the *Länder*, local authorities and local authority associations when implementing federal law (Section 1, paragraph 2 E-GovG), but only insofar as the following provisions do not relate to federal authorities. By way of deviation from the voluntary principle laid down in Section 3a, paragraph 1 of the APA, Section 2, paragraph 1 of the E-GovG Bund stipulates: every authority shall be obliged to open up a point of access for the transfer of electronic documents, including such documents provided with a qualified electronic signature. In addition, the possibilities for replacing the written form with De-Mail, which is rarely used, and the use of electronic forms with an electronic proof of identity according to Section 18 of the Identity Cards Act, Section 12 of the Act on a Card with an Electronic Identification Function for Citizens of the European Union and the European Economic Area, and Section 78, paragraph 5 of the Residence Act, have meanwhile been extended. Although the eID function is now activated by default, in line with eGovernment Monitor 2022, only 10% of ID card holders actually use it.<sup>48</sup>

The E-Government Acts of the Federation and the *Länder* contain important building blocks for electronic administrative action. For example, the E-Government Act of the Federation contains statutory arrangements relating to: electronic means of payment (Section 4), required documentation (Section 5), electronic record-keeping (Section 6), access to files (Section 8), optimisation of administrative procedures and information on the status of progress (Section 9), requirements pertaining to the provision of data, authorisation to issue statutory instruments (Section 12), and electronic forms (Section 13). Some of the E-Government Acts of the *Länder* are modelled on the E-Government Act of the Federation, whereas others deviate from it. While the Federal authorities were supposed to have implemented electronic record-keeping by 1 January 2020, public authorities in the Saarland do not have to implement such an obligation until 1 January 2025 at the latest (Section 5, paragraph 1, sentence 1 E-Government Act SL). Most E-Government Acts contain only objective-legal obligations. The Bavarian Digital Act (BayDiG), on the other hand, extends the right to communicate digitally with public authorities via the Internet (Article 12, paragraph 1, sentence 1 BayDiG) to everyone.<sup>49</sup> As well, Article 20 BayDiG contains a very progressive arrangement, laying down the principle of digital first, according to which appropriate administrative procedures or separable parts of such should generally be carried out digitally. Administrative services that are processed via an organisational account, which is available inter alia to legal entities as well as natural persons who are occupationally or economically active, can also only be offered digitally. However, exceptions are possible in cases of hardship.

47 Act on the Promotion of Electronic Administration of 25 July 2013 (*Gesetz zur Förderung der elektronischen Verwaltung (E-Government-Gesetz – E-GovG)*), (BGBl. I p. 2749), [www.gesetze-im-internet.de/egovg/BJNR274910013.html](http://www.gesetze-im-internet.de/egovg/BJNR274910013.html).

48 eGovernment Monitor 2022, pp. 8 and 22, available at [https://initiated21.de/uploads/03\\_Studien-Publikationen/eGovernment-MONITOR/2022/egovernment\\_monitor\\_22.pdf](https://initiated21.de/uploads/03_Studien-Publikationen/eGovernment-MONITOR/2022/egovernment_monitor_22.pdf).

49 Law on Digitalisation in the Free State of Bavaria of 22 July 2022 (*Gesetz über die Digitalisierung im Freistaat Bayern (Bayerisches Digitalgesetz – BayDiG)*), GVBl. p. 374, [www.gesetze-bayern.de/Content/Document/BayDiG](http://www.gesetze-bayern.de/Content/Document/BayDiG).



With effect from January 2017, Federal lawmakers inserted regulations on the fully automated issuance of administrative acts into the Fiscal Code of Germany, Book 10 of the Social Code and the APA.<sup>50</sup> However, Section 35a of the APA is based a different regulatory structure because digitalisation in the fiscal and social administrations is more advanced: an administrative act may be issued entirely by automatic means, provided this is permitted by law and the administration has no discretionary power.<sup>51</sup> The latter restriction is based on the consideration that such decisions are generally highly dependent on the situation and the individual case, and at present only human officials can make evaluative decisions.<sup>52</sup> The need for a specific legal basis for fully automated administrative acts takes into account Article 22, paragraph 2(b) GDPR in the processing of personal data.<sup>53</sup> Since Section 24, paragraph 1(3), APA<sup>54</sup> is not sufficient in and of itself to lay down suitable measures to safeguard the data subject's rights, freedoms, and legitimate interests, this deficit can be compensated in the context of a legal order.<sup>55</sup> The hitherto rather rare legal orders for fully automated administrative acts include internet-based vehicle registration (Section 6g, paragraph 2(1) Road Traffic Act; Sections 15a ff. Vehicle Registration Ordinance)<sup>56</sup> and public broadcasting fee notices (Section 10a Public Broadcasting Fee State Treaty). Probably in view of criticism of the design of Section 35a Federal Administrative Procedures Act,<sup>57</sup> Bavaria has refrained from including a comparable provision in its APA. Instead, Article 5, paragraph 2, sentence 1 BayDiG stipulates that in the case of fully automated administrative procedures, the expediency, objectivity and efficiency of the IT systems used must be regularly reviewed.

Due to the "prohibition of mixed administration", Article 91c on information technology systems was inserted in the Basic Law of the Federal Republic of Germany (GG – the German constitution) in 2009.<sup>58</sup> According to subsection 1, the Federation and the *Länder* may cooperate in planning, constructing and operating information technology systems needed to discharge their responsibilities. Since the eGovernment landscape in Germany has remained very heterogeneous despite the possibilities for cooperation created,<sup>59</sup> subsection 5 was added in 2017<sup>60</sup> and envisages that comprehensive access by means of information technology to the administrative services of the Federation and the *Länder* be regulated by a federal law with the consent of the Bundesrat. At almost the same time, the Federation adopted the Act for the Improvement of Online Access to Administration Services (Online Access Act, *Onlinezugangsgesetz*, OZG) on the basis

50 Marsch and Fölsch Schroh (2022), pp. 447 and 469.

51 Marsch and Fölsch Schroh (2022), p. 463.

52 Braun Binder (2019), chapter 12, paras. 12 ff.; Guckelberger (2022), p. 318; Marsch and Fölsch Schroh (2022), pp. 465 f.

53 Marsch and Fölsch Schroh (2022), p. 467.

54 "If the authority uses automatic devices to issue automatic administrative acts, it must take into account factual information of the person concerned that is significant for the individual case and that would not be determined in the automatic procedure", Marsch and Fölsch Schroh (2022), p. 466.

55 Hornung (2022), section 35a, para. 18.

56 Marsch and Fölsch Schroh (2022), pp. 467 f.

57 Marsch and Fölsch Schroh (2022), pp. 465 f.; Stegmüller (2018) p. 355.

58 Marsch and Fölsch Schroh (2022), pp. 459 f.

59 Marsch and Fölsch Schroh (2022), p. 461 "patchwork of digital offers".

60 Marsch and Fölsch Schroh (2022).

of said exclusive legislative competence of the Federation.<sup>61</sup> Section 1, paragraph 2 OZG obliges the federal, State and local levels of government to “link” their administrative portals “in a portal network”.<sup>62</sup>

By the end of 2022, around 575 administrative services were also to be made accessible to users online via each of the portals without barriers or media discontinuity (Section 1, paragraph 1, Section 3, paragraph 1 OZG). To implement the once-only principle, the Register Modernisation Act introduces a unique, trans-sectoral identification number in the German administration for a whole host of registers.<sup>63</sup> An arrangement governing the data (protection) cockpit was also included in the OZG (Section 10 OZG).

Despite considerable effort, Germany did not achieve its goal of making 575 administrative services accessible via the portal network by the end of 2022. According to the Federal Ministry of the Interior and Community, as of that date, only 33 services could be accessed via the portal network throughout Germany.<sup>64</sup> This sobering finding can be explained by Germany’s complex federal structure and differences in the IT landscape, but also by the different levels of digitalisation at federal, *Länder*, and local levels.<sup>65</sup> In addition, new structures and forms of cooperation first had to be established and there was not always enough staff available for digitalisation.<sup>66</sup> On 23 May 2023, the Federal Government therefore agreed on “cornerstones for a modern and future-oriented administration”. According to these cornerstones, all processes are to be reviewed in terms of their necessity and potential for automation, while a user-friendly digital proof of identity is to be established, the once-only principle is to be implemented and the digital readiness of laws and regulations is to be pushed forward.<sup>67</sup> Moreover, the Federal Government presented a draft bill to amend the Online Access Act and other regulations governing digitalisation of the administration.<sup>68</sup> Among other things, removal of the previous OZG implementation deadline and provision of citizen accounts and online mailboxes by the federal government instead of the *Länder* are envisaged. According to the planned Section 1a (1) OZG, administrative services for the implementation of federal laws in economic matters that exclusively affect legal entities and authorities will only be offered electronically five years after their enactment at the latest (exception: legitimate interest of the user). Introduction of a new provision laying down

61 Act for the Improvement of Online Access to Administration Services of 17 August 2017 (*Gesetz zur Verbesserung des Onlinezugangs zu Verwaltungsleistungen (Onlinezugangsgesetz – OZG)*), BGBl. I p. 3122, 3138, [www.gesetze-im-internet.de/ozg/BJNR313800017.html](http://www.gesetze-im-internet.de/ozg/BJNR313800017.html).

62 Jahresbericht 2018 des nationalen Normenkontrollrats, p. 36, available at [www.normenkontrollrat.bund.de/Webs/NKR/SharedDocs/Downloads/DE/Jahresberichte/2018-Jahresbericht.pdf?\\_\\_blob=publicationFile&v=2](http://www.normenkontrollrat.bund.de/Webs/NKR/SharedDocs/Downloads/DE/Jahresberichte/2018-Jahresbericht.pdf?__blob=publicationFile&v=2); Marsch and Fölsch Schroh (2022), p. 461.

63 Digital Public Administration factsheet 2022 Germany, p. 20, available at [https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA\\_Factsheets\\_2022\\_Germany\\_vFinal\\_1.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA_Factsheets_2022_Germany_vFinal_1.pdf); see also the Act on the Introduction and Use of an Identification Number in Public Administration and on the Amendment of Other Acts of 28 March 2021 (*Gesetz zur Einführung und Verwendung einer Identifikationsnummer in der öffentlichen Verwaltung und zur Änderung weiterer Gesetze (Registermodernisierungsgesetz – RegMoG)*), BGBl. I p. 591; 2023 I Nr. 230, Nr. 293, [www.gesetze-im-internet.de/regmog/BJNR059100021.html](http://www.gesetze-im-internet.de/regmog/BJNR059100021.html).

64 Kretschmer (2022).

65 Normenkontrollrat, BT-Drucks. 20/5495, p. 33; see also Marsch and Fölsch Schroh (2022), p. 450.

66 See also Normenkontrollrat, BT-Drucks. 20/5495, p. 33.

67 Bundesministerium des Innern und für Heimat, *Eckpunkte für eine moderne und zukunftsgerichtete Verwaltung* of 23 May 2023, p. 1.

68 BR-Drucks. 226/23.



the principles of electronic processing via administrative portals, as well as replacement of the written form, is being contemplated, but it is limited to legal acts of the European Union, regarding which the German Federal Government has legislative power, and to the implementation of federal law. In future, this is to take precedence over Section 3a APA. A general clause laying down the once-only principle as well as complete electronic processing of essential administrative services (end-to-end digitisation) is to be included in the Federation's E-Government Act.

In Germany, with its legalistic administrative tradition,<sup>69</sup> increasingly detailed legal regulations are being enacted to promote the digital transition of public administration.<sup>70</sup> In the early days, the main goal was to remove legal obstacles to electronic administration, such as written form requirements, whereas now there is an increasing desire to actively shape the digital transition through legal requirements.<sup>71</sup> As a result, the legal situation is becoming increasingly complex. Deadlines for the executive for certain digitalisation projects can raise the pressure by virtue of the legal supremacy. As the Online Access Act shows, however, there are ultimately no guarantees that goals set will actually be achieved.<sup>72</sup> When a deadline is approaching, there is a danger of quick solutions to demonstrate success, at the expense of user-friendliness. Because there is currently a strong focus on online access to public administrations, too little attention is paid to digitalisation of the underlying process steps.<sup>73</sup>

Due to the different distribution of competencies for legislation and implementation of laws in Germany, digitalisation of public administrations is a complex matter. This results in discussions about the constitutional consistency of some federal regulations, which like the question of the compatibility of uniform identification numbers with fundamental rights, initially complicate implementation. For digitalisation to be successful, coordination and cooperation are required between the different State levels. The focal point of the public administrative services to be digitalised lies in the domain of responsibility of the *Länder* and municipalities. Since digitalisation is cost-intensive at first, some of these bodies are not able to cope with the task on their own due to financial constraints.<sup>74</sup> In some cases, public officials are not open to digitalisation or the administration lacks the necessary IT staff.<sup>75</sup> According to DESI, Germany is also one of the weakest Member States when it comes to broadband cover, there being a gap between urban and rural areas.<sup>76</sup> The right to "fast" internet, which has existed since June 2022, is criticised for specifying excessively low bandwidths.<sup>77</sup> As long as there are considerable deficits here or in the conversion of public administrations to e-files, digital-first, and digital-only regulations will encounter difficulties.

69 Hill (2014), pp. 181 f.

70 Guckelberger (2019), paras. 707 ff.

71 Britz and Eifert (2022), section 26, para. 13.

72 Stelkens (2021), section 6, paras. 31 ff.

73 Menhard (2022).

74 *Botschaft zum Bundesgesetz über den Einsatz elektronischer Mittel zur Erfüllung von Behördenaufgaben*, 4 March 2022, BBl 2022 804, p. 22, available at [www.fedlex.admin.ch/eli/fga/2022/804/de](http://www.fedlex.admin.ch/eli/fga/2022/804/de); see also Digital Public Administration factsheet 2022 Germany, p. 16.

75 Marsch and Fölsch Schroh (2022), p. 450.

76 DESI 2022 Germany, p. 9.

77 Tagesschau (2022).

#### IV. Switzerland

As a member of the European Free Trade Association (EFTA), Switzerland has signed the Tallinn Declaration on eGovernment. Although it is not a European Union Member State, factsheets on its eGovernment performance are nevertheless compiled. In contrast to the early days, it is now generally agreed that the Confederation, cantons, and municipalities need to cooperate to ensure effective implementation of eGovernment.<sup>78</sup> This is because under the Swiss federal constitution, the Confederation has no general competence to impose binding requirements on the cantons with regard to eGovernment.<sup>79</sup> As far back as 2005, the Swiss Federal Supreme Court decided that electronic communication with administrative authorities required specific legal foundations in order to lay down statutory arrangements to govern its conditions and prevent abuses.<sup>80</sup> As in Germany, an increasing body of eGovernment legislation is being established.

The public-law framework agreement on Digital Public Services Switzerland (DPSS) came into force on 1 January 2022. The organisation DPSS is set up and managed on an equal footing by the Confederation and the cantons.<sup>81</sup> Its purpose is to ensure effective strategic steering and direction of federal, cantonal, and communal digitalisation activities.<sup>82</sup> DPSS has the objective of promoting the digital transformation of public administrations in Switzerland as a political platform with standard development and it issues recommendations. Its tasks include spelling out a common vision, strategic control, priorities and areas of action, identifying necessary basic services, promoting standardisation, harmonisation, common legal and political foundations and underlying conditions for digital public administration, supporting the interested public authorities in the area of digitalisation, strengthening networking, cooperation and knowledge exchange, setting up and monitoring a contact point on the topic of digital administration, promoting a cultural shift towards digital administration and collaborating with the data protection authorities. The DPSS does not, however, provide any ICT services itself. It must fulfil its tasks in a four-year strategy cycle and one-year implementation planning.

In 2005, individual statutory arrangements on electronic administration were included in the Federal Act on Administrative Procedures (APA). Thus, according to Article 21(a), when a submission is sent to a government authority electronically, the submission must bear the qualified electronic signature of the party or its representative (Federal Act of 18 March 2016 on Electronic Signatures).<sup>83</sup> Article 34, paragraph 1bis states that if a party gives its consent, notification of a ruling may be provided by electronic means. Consent is also required for inspection of electronic files (Article 26, paragraph 1bis). The Federal Act on Electronic Identification Services (eID Act), approved by the Parliament, was rejected

78 Glaser (2015), p. 296.

79 *Botschaft zum Bundesgesetz über den Einsatz elektronischer Mittel zur Erfüllung von Behördenaufgaben* (n. 74).

80 BGE, judgment of 30 August 2005, 1P.254/2005, para. 2.3.; see also BGE, judgment of 20 February 2016, 142 V 152, 156.

81 *Botschaft zum Bundesgesetz über den Einsatz elektronischer Mittel zur Erfüllung von Behördenaufgaben* (n. 74).

82 Digital Public Administration factsheet 2022 Switzerland, p. 10, available at [https://joinup.ec.europa.eu/sites/default/files/inlinefiles/DPA%20Factsheets%202022%20Switzerland%20vFinal\\_0.pdf](https://joinup.ec.europa.eu/sites/default/files/inlinefiles/DPA%20Factsheets%202022%20Switzerland%20vFinal_0.pdf).

83 Federal Act on Electronic Signatures of 18 March 2016 (*Bundesgesetz über Zertifizierungsdienste im Bereich der elektronischen Signatur und anderer Anwendungen digitaler Zertifikate (Bundesgesetz über die elektronische Signatur, ZertES)*), [www.fedlex.admin.ch/eli/cc/2016/752/de](http://www.fedlex.admin.ch/eli/cc/2016/752/de).

in a popular vote on 7 March 2021 because private companies were involved in the development of these services.<sup>84</sup> It is therefore expected that a legal basis in the direction of self-sovereign identities will now be developed.<sup>85</sup> Overall, the use of digital identity in the Swiss population is significantly greater than in Germany, around 63% across all procedures.<sup>86</sup>

In the meantime, the Federal Council has submitted a draft law on the use of electronic means for fulfilling public authority tasks, which according to Article 2, paragraph 1, will apply to the central federal administration. This law is intended to create the necessary possible legal foundations in the existing constitutional framework<sup>87</sup> for cooperation between authorities of different communities and with third parties in the use of electronic means to support the fulfilment of public authority tasks, as well as for the expansion and further development of use of such means (Article 1). Among the principles for the use of electronic means in the federal administration, Article 3 envisages “digital first”, coordination between the Confederation and the cantons, the principle of sustainability, accessibility of services for the entire population and consideration of risks for data protection and information security as well as for the security and availability of data and services. Article 4 authorises the Confederation to sign agreements on cooperation in the area of eGovernment with other Swiss communities and organisations, including the creation of joint organisations with their own legal personality, as well as with other States. Article 5 relates to the participation of the Confederation in organisations active in the area of eGovernment, and Article 7 sets out the framework conditions for the provision of financial assistance by the Confederation in the technical and organisational implementation of cooperation. Article 8 allows the Confederation to delegate tasks in the area of administrative support activities, such as procurement, to organisations under either public or private law. Article 9 obliges the federal authorities to disclose the source code of software whenever this is possible and reasonable, provided that the rights of third parties are respected. Other provisions relate to Open Government Data (Article 10), the provision and use of ICT resources by federal authorities (Article 11), standards (Article 12), interfaces (Article 13), and an interoperability platform (Article 14).

Efforts are also being made at canton level to push digital administration. In March 2023, the Digital Administration Act (DVG) came into force in the canton of Bern. Article 5, paragraph 1 DVG provides for digital primacy comparable to the digital first principle, according to which the authorities should act, inform and communicate digitally, unless they cannot effectively fulfil their task in this manner. In Article 8, paragraph 1(a) DVG legal persons and (b) natural persons who deal with public authorities in the course of their professional activities or (c) apply for or receive State contributions are obliged to communicate digitally with the authorities. The latter are also obliged to communicate digitally with these persons and with each other. To promote digitalisation, Article 9 DVG foresees information for users and the public, training and sensitisation of administrative staff, and creation of incentives for voluntary digital communication with the authorities, for example through priority treatment of such applications or reduction

84 Digital Public Administration factsheet 2022 Switzerland, p. 20.

85 eGovernment Monitor 2022, p. 25.

86 eGovernment Monitor 2022, p. 25.

87 *Botschaft zum Bundesgesetz über den Einsatz elektronischer Mittel zur Erfüllung von Behördenaufgaben* (n. 74).

of fees. Under Article 12, paragraph 1 DVG, personal data is only collected and kept once between authorities, to the extent possible.

Possibly inspired by Article 22 GDPR, Switzerland has included a provision on automated individual decisions in the revised Data Protection Act (DPA), which will come into force on 1 September 2023. Under Article 21, paragraph 1 DPA, the controller informs the data subject of a decision based solely on automated processing if such has legal effects on the subject or affects the subject significantly. Subsection 2 confers data subjects the right, on request, to state their position or to request review of the decision by a natural person. However, according to Article 21, paragraph 4(2) DPA does not apply if the data subject does not need to be heard under Article 30, paragraph 2 APA or under another federal act. The first clause provides that the automated individual decision by a federal body must, however, be designated as such. This exception to subsection 2 is explained by the fact that subsection 4 refers to decisions rendered by federal bodies against which data subjects can generally take legal action.<sup>88</sup> Fully automated decisions by the authorities are therefore increasingly to be expected also in Switzerland. Overall, the trust and confidence of the Swiss population in the State is high when it comes to digital transformation. This may also be due to the fact that Switzerland is a direct democracy, and voters therefore have sufficient opportunities to influence the legal framework of digitalisation.<sup>89</sup>

## V. Austria

Austria performed significantly better in the area eGovernment than Germany and Switzerland right from the start. In DESI 2022, it ranked twelfth in digital public services. The development and expansion of eGovernment has been one of the main priorities of the Austrian federal government from the outset. The information portal help.gov.at was set up as far back as 1997,<sup>90</sup> and was subsequently expanded and renamed oesterreich.gov.at in 2019. A range of government services can be accessed by users at the internet address and via app, partly with and partly without registration.<sup>91</sup> The law also envisages establishment and operation of a Business Service Portal, defining certain requirements for it, for the operation of a citizen service portal and for the establishment of a once-only platform (Section 1). This platform is intended to help prevent administrative burdens on citizens and businesses beyond what is necessary; it also simplifies the underlying technical conditions for exchange of information between government authorities (Section 1, paragraph 3).

Austria was one of the first EU Member States to adopt comprehensive legislation on eGovernment.<sup>92</sup> The Federal Act on Provisions Facilitating Electronic Communications with Public Bodies (EGovernment Act, EGovG) came into force on 1 March 2004 and

88 eGovernment Monitor 2022, p. 39.

89 Communication on the Federal Act on the Total Revision of the Federal Act on Data Protection and the Amendment of Other Data Protection Ordinances of 15 September 2017 (*Botschaft zum Bundesgesetz über die Totalrevision des Bundesgesetzes über den Datenschutz und die Änderung weiterer Erlasse zum Datenschutz*), BBl 2017 6941, p. 7059, available at: [www.fedlex.admin.ch/eli/fga/2017/2057/de](http://www.fedlex.admin.ch/eli/fga/2017/2057/de).

90 Braun Binder (2021), pp. 3 and 11.

91 Wikipedia, oesterreich.gv.at.

92 Digital Public Administration factsheet 2022 Austria, p. 19, available at [https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA\\_Factsheets\\_2022\\_Austria\\_vFinal\\_1.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA_Factsheets_2022_Austria_vFinal_1.pdf).

has since been amended several times.<sup>93</sup> The aim is to facilitate electronic communication with public bodies, while observing the principle of freedom to choose between different means of communication when making submissions to such bodies (Section 1, paragraph 1(2) EGovG). According to Section 1a, paragraph 1, sentence 1 EGovG, everyone (with some exceptions) has the right to communicate electronically with courts and administrative bodies in matters involving federal legislation. According to Section 25, paragraph 1 EGovG, the courts and administrative bodies established by federal legislation were required to create the technical and organisational requirements for electronic communication with the parties involved (defined in Section 1a) by 1 January 2020 at the latest. Under Section 1b EGovG, companies defined in Section 3, No. 20 of the federal act regarding federal statistics shall participate in electronic delivery, unless this is unacceptable because the company does not have the necessary technical requirements or any internet connection. Very early on, EGovernment Act set out arrangements for unique identification and the eID function. ID-Austria is currently the major further development of the mobile phone signature and Citizen Card. The continuing upward trend in identification options provided by the authorities, which are used by 64% of the population, suggests a high level of acceptance of ID-Austria.<sup>94</sup> According to Section 4a, paragraph 1, sentence 1 EGovG, the competent authority is to automatically register the eID function for citizens from age 14 years and over on application for a travel document, unless the data subject expressly objects to registration. Compared to the German register modernisation with its link to the identification number, the Austrian solution is claimed to be significantly more data-protection-friendly. The so-called source PIN (Section 6, paragraph 1 EGovG), which is only available to a single central office, is not linked to any other personal data, whereas sector-specific personal identifiers are derived from it.<sup>95</sup> Sections 14 ff. EGovG regulate the use of the eID function in the private sector and abroad. Section 17, paragraph 2 EGovG states that if authorities must determine the accuracy of personal data contained in an electronic register of a public-sector controller, they themselves, with the proviso of technical possibilities, must undertake acquisition of the data via electronic communications to this extent. However, the data subject must consent to this or the acquisition through official channels must be authorised by statute. Sections 19 ff. EGovG contain provisions on special aspects relating to the keeping of electronic records. With few exceptions, based on the ELAK concept, paper files have been replaced by electronic files in federal ministries. On the basis of a framework agreement, these are also used at the provincial and municipal levels.

According to Article 13, paragraph 2 of the General Administrative Procedures Act,<sup>96</sup> this “is relevant to eGovernment in that it regulates the ways in which public authorities and citizens can communicate with each other, such as the transmission of applications by

93 Enactment of an E-Government Act and amendment of the General Administrative Procedure Act 1991, the Service of Documents Act, the Fees Act 1957, the Registration Act 1991 and the Associations Act 2002 of 27 February 2004 (*Erlassung eines E-Government-Gesetzes sowie Änderung des Allgemeinen Verwaltungsverfahrensgesetzes 1991, des Zustellgesetzes, des Gebührengesetzes 1957, des Meldegesetzes 1991 und des Vereinsgesetzes 2002*), BGBl. I Nr. 10/2004, [www.ris.bka.gv.at/eli/bgbl/I/2004/10](http://www.ris.bka.gv.at/eli/bgbl/I/2004/10).

94 eGovernment Monitor 2022, p. 24.

95 Sorge et Al. (2020), pp. 24 f.

96 General Administrative Procedure Act of 1 January 1991 (*Allgemeines Verwaltungsverfahrensgesetz 1991 – AVG*), BGBl. Nr. 51/1991, [www.ris.bka.gv.at/Dokumente/Erw/ERV\\_1991\\_51/ERV\\_1991\\_51.pdf](http://www.ris.bka.gv.at/Dokumente/Erw/ERV_1991_51/ERV_1991_51.pdf).

email or Web forms”.<sup>97</sup> Pursuant to Section 17, paragraph 1(2) APA, to the extent that the authority processes the files of the case electronically, the parties may be granted the right to inspect the files in any technically feasible manner on request. Provisions on electronic service are also set out in Sections 28 ff. of the Service of Documents Act.

In the first phase of digitalisation, the focus was mainly on electronic mapping of existing processes. Increasingly, however, the focus has been on optimising administrative processes, as exemplified by the family allowance which does not require any application.<sup>98</sup> So far, no general provision on automated decisions has been included in the APA. Besides the requirements laid down in Article 22 GDPR, special constitutional requirements emanating from the constitutional concept of a notice also apply. For reasons relating to legal protection, the Constitutional Court requires that the specified authority actually initiate issue of an automation-assisted decision and that the authority have an actual influence on the automation-assisted process.<sup>99</sup> Constitutional law thus places limits on the use of AI. For some time now, a debate has been raging over the AMS algorithm that classifies unemployed persons as having low, medium, and high chances of placement in the allocation of support measures.

Austria’s good performance in comparative studies is explained by its pragmatic approach. Under the Austrian constitution, federalism is characterised by a tendency towards centralisation.<sup>100</sup> Under Article 11, paragraph 2 Federal Constitutional Law (B-VG), insofar as “a need for the issue of uniform regulations is considered to exist, the administrative procedure [. . .] is prescribed by federal law”.

## VI. France

In DESI 2022, France ranked fifteenth in digital public services.<sup>101</sup> Various new bodies have been set up to promote digitalisation of the public administration. The Interministerial Digital Directorate (DINUM) plays a key role in this effort.<sup>102</sup> France has set itself the objective of digitalising 250 of the most common public administrative services by 2022. According to DESI 2022, it has achieved 88% of this target, this success being partly due to use of the open-source dematerialisation platform “démarches-simplifiées (simplified steps)”.<sup>103</sup>

As France is a unitary State, the State is in principle exclusively responsible for legislation.<sup>104</sup> For various reasons, general administrative law was codified late in France.<sup>105</sup> Today, the essential eGovernment regulations for relations between the public administration and the rest of society are laid down in a single code, the Code on the Relationship between Users and the Administration (*Code des relations entre le public et l’administration*,

97 Digital Public Administration factsheet 2022 Austria, p. 19.

98 Mayrhofer and Parycek (2022), pp. 14 f.

99 VfSlg. 11.590/1987 at 8.2.6.

100 Schmidt (2021), p. 37.

101 DESI 2022 France, p. 16, available at <https://digital-strategy.ec.europa.eu/en/policies/desi-france>.

102 Digital Public Administration factsheet 2022 France, p. 31, available at [https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA\\_Factsheets\\_2022\\_France\\_vFinal\\_0.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA_Factsheets_2022_France_vFinal_0.pdf).

103 DESI 2022 France, p. 16.

104 Vilain (2015), section 3, paras. 80 ff.

105 Sommermann (2011), p. 195.



CRPA).<sup>106</sup> This contains inter alia provisions governing electronic forms on the public website “service-public.fr” (Article D. 113 CRPA) and on electronic communication between users and the public administration. According to a decision by the Conseil d’État, it follows from Article L. 112–8, L. 112–9 and L. 112–10 CRPA, that there is a right, but not an obligation, to communicate electronically with the public administration.<sup>107</sup> In order to promote electronic communication, Article L. 123–1 envisages a “right to error” for the first error in transmission to the public authorities. The digital identity federator called France Connect+, which relies on pre-existing accounts widely used by French citizens, such as health insurance and tax administration accounts, or the electronic identification, authentication, and trust services node (e-IDAS), introduced in 2021 with the intention of making electronic communication interoperable cross-border by the end of 2022, can be used for identification purposes in transactions with the public administration.<sup>108</sup>

Under Article L. 112–14 CRPA, the public administration may reply electronically if (1) a request for information is made to it by this means or (2) another request is sent to it electronically, unless the person concerned has expressly rejected an electronic reply. All the procedures using France Connect+ make it possible to apply the once-only principle (OOP). Further manifestations of OOP can be found in Article L. 113–12 CRPA and in the rules applicable to exchange of information between public administrations (Article L. 114–8, Article L. 114–9).<sup>109</sup>

Increasingly, algorithm-based decisions are also being made in France, for example in the areas of granting social assistance, allowances, taxes and levies, sometimes even through AI.<sup>110</sup> Under Article L. 311-1-3, data subjects must be informed, and pursuant to Article R. 311-3-1-2, certain information must be provided in an understandable form on request. Article 47 Law Number 78–17 on Informatics and Liberties must also be observed. The source code comes under official documents in Article L. 300–2 CRPA in the book on access to information.<sup>111</sup>

In France as well, various regulations relating to or having an impact on digital public administration are contained in specific sets of rules. For example, a decree on electronic exchanges between users and administrative authorities and public services envisages establishment of a public service, for which the State is responsible and provides users with storage space.<sup>112</sup> France’s Factsheet 2022 highlights enactment of a law on reduction of the environmental footprint of the digital sector (Law to reduce the environmental footprint of digital technology in France),<sup>113</sup> which aims to raise awareness among digital actors of sustainability factors in digitalisation.<sup>114</sup>

106 Digital Public Administration factsheet 2022 France, p. 23; see also [www.legifrance.gouv.fr/codes/texte\\_lc/LEGITEXT000031366350/2024-02-10](http://www.legifrance.gouv.fr/codes/texte_lc/LEGITEXT000031366350/2024-02-10).

107 Conseil d’État, decision of 27 November 2019, 422516.

108 DESI 2022 France, p. 16.

109 DESI 2022 France.

110 Roth (2022), pp. 254 f.; see also DESI 2022 France, p. 17.

111 Duy and de Schotten (2021) p. 35; see also Conseil Constitutionnel, decision of 28 May 2020, 2020–843 QPC, recital 17.

112 Cossalter (2022), para. 59.

113 Law to reduce the environmental footprint of digital technology in France of 15 November 2021 (*Loi n° 2021–1485 du 15 novembre 2021 visant à réduire l’empreinte environnementale du numérique en France*), JORF of 16 November 2021, [www.legifrance.gouv.fr/jorf/id/JORFTEXT000044327272](http://www.legifrance.gouv.fr/jorf/id/JORFTEXT000044327272).

114 Digital Public Administration factsheet 2022 France, pp. 10 and 28.

In contrast to other countries, France has not enacted an EGovernment Act, and has instead laid down central provisions governing digital administration in the CRPA. France's ranking in comparative studies is explained by the digital divide and the rather poor relationship of citizens with the public administration.<sup>115</sup>

## VII. Estonia

Estonia has long been a frontrunner in digital public services and was the best performing country in DESI 2022.<sup>116</sup> 99% of public administrative services are offered online and used by over 90% of citizens and businesses.<sup>117</sup> Many of the forms used are pre-compiled. Because of its progress in digitalisation, Estonia has also dubbed itself “e-Estonia” and was apparently the first country ever to introduce e-residency for foreigners so that they can use its eGovernment and e-services.<sup>118</sup>

After achieving independence from the Soviet Union in 1991, the government had a unique opportunity to rebuild and refocus Estonia.<sup>119</sup> The first national IT strategy, adopted as far back as 1994, received support across political parties.<sup>120</sup> Moreover, with a population of around 1.3 million, the country has long had an IT-savvy population that tends to be open to data processing and have a high level of acceptance of digitalisation because of the economic boom associated with it.<sup>121</sup>

Among other things, early implementation of the integration platform X-Road, renamed X-tee in 2018, has contributed significantly to Estonia's eGovernment success.<sup>122</sup> It enables fast and secure data exchange between public-sector IT systems.<sup>123</sup> In 2003, Estonia launched its eGovernment portal and has since continued to develop it.<sup>124</sup> Mandatory introduction of the Estonian electronic ID card and implementation of electronic signatures early on promoted rapid attainment of high user numbers for eGovernment services.<sup>125</sup>

In the early days, Estonia mainly promoted digitalisation informally, but recently coordination has tended to be more systematic.<sup>126</sup> There is a whole series of legal regulations on e-administration. The Public Information Act is particularly noteworthy.<sup>127</sup> It contains provisions on the Estonian information gateway (Section 32<sup>1</sup>) and the State information system (Section 43<sup>2</sup>). Under Section 43<sup>3</sup>, subsection 1, this involves a database, established by an act or legislation issued on the basis of an act. It is prohibited to establish different databases for collection of the same data (Section 43<sup>3</sup> (2)). Prior to establishment or modi-

115 Dupuis (2022).

116 DESI 2022 Estonia, p. 16, available at <https://digital-strategy.ec.europa.eu/en/policies/desi-estonia>.

117 DESI 2022 Estonia, p. 16.

118 DESI 2022 Estonia, p. 16; Särav and Kerikmäe (2016), pp. 57 f.

119 Kattel and Mergel (2018), p. 4.

120 Kattel and Mergel (2018), p. 2.

121 BT-Drucks. 20/3651, pp. 53 f.

122 Kerikmäe and Pärn-Lee (2021), p. 562.

123 Kerikmäe and Pärn-Lee (2021), p. 562.

124 Digital Public Administration factsheet 2022 Estonia, p. 29, available at [https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA\\_Factsheets\\_2022\\_Estonia\\_vFinal\\_0.pdf](https://joinup.ec.europa.eu/sites/default/files/inline-files/DPA_Factsheets_2022_Estonia_vFinal_0.pdf).

125 Kerikmäe and Pärn-Lee (2021), p. 562.

126 Digital Public Administration factsheet 2022 Estonia, p. 14.

127 Public Information Act of 15 November 2000 (*Avaliku teabe seadus*), [www.riigiteataja.ee/en/eli/514112013001/consolide](http://www.riigiteataja.ee/en/eli/514112013001/consolide).

fication of a database, the technical documentation has to be approved by the Estonian Information System's Authority, the Data Protection Inspectorate and Statistics Estonia, for which subsection 4 Public Information Act specifies exceptions. Under Section 43<sup>6</sup> (1), basic data is the unique data collected in a database of the State information system and created in the performance of the public duties of the administrator of the database. While there are few provisions governing electronic administration in the Administrative Procedures Act, very detailed principles for managing services and governing information have been drawn up. For example, in Section 2 of this act, a distinction is made between direct public services, proactive services and event services. Chapter 2 regulates the responsibility for management and development of services, while Chapter 3 concerns the management of services. Section 9 deals with the provision of direct public services.

Estonia is praised in DESI 2022 for its investment in digital public services.<sup>128</sup> Estonian public institutions are increasingly switching from legacy IT systems to a new government cloud solution.<sup>129</sup> In June 2021, more than 100 AI-based tools were in use, according to the factsheet.<sup>130</sup> There is currently a strong focus on the development and implementation of Bürokratt, an interoperable network of AI applications that gives people access to public services through virtual assistants and voice interaction.<sup>131</sup> As the public sector is more progressive than the private sector when it comes to digitalisation, the aim is to use it to advance AI technology as a whole.<sup>132</sup> Fully automated administrative decisions based on the processing of personal data require a legal basis as a result of Article 22, paragraph 2(b) GDPR. Such foundations can be found, for example, in Section 46<sup>2</sup> of the Taxation Act. Enactment of a general standard for such administrative decisions is now being explored, as is the standardisation of legal requirements for the use of AI in public administration.<sup>133</sup> This also emphasises Estonia's high motivation to remain a pioneer in eGovernment.

## VIII. Conclusion

Considerable progress has been made in the digital transition of public administrations in Europe. While the state of affairs in some countries such as Estonia can be described as full digitalisation, other countries are only gradually making their way.<sup>134</sup> Countries such as Denmark and Spain, with high eGovernment user numbers, often grant individuals a right to communicate electronically or even make it mandatory for them to use electronic government mail.<sup>135</sup> Joint agreements, but also EU legal requirements, are instruments for advancing the digitalisation of public administrations as evenly as possible within Europe. Increasing progress in the digitalisation of public administrations makes it possible to serve larger user groups; at the same time, it offers the possibility of organisational and/or procedural redesign, thus also influencing the outcome of administrative decisions.<sup>136</sup> Fully

128 DESI 2022 Estonia, p. 17.

129 DESI 2022 Estonia.

130 Digital Public Administration factsheet 2022 Estonia, p. 15; see also Ebers and Tupay (2023), pp. 17 and 30 ff.

131 DESI 2022 Estonia, p. 16; see also Pilving and Mikiver (2020), pp. 47 f.

132 Kerikmäe and Pärn-Lee (2021), pp. 563 f.

133 Ebers and Tupay (2023), p. 87.

134 General information on full digitalisation Heckmann and Paschke (2021), chapter 5, paras. 962 ff.

135 On Spain, see Müller (2019), pp. 164 f.; on Denmark, see Sommer (2019), pp. 102 and 104.

136 Heckmann and Paschke (2021), chapter 5, para. 962.

automated administrative decisions should only be used if their legality is ensured and there are no legal obstacles. The flawed algorithm used in the UK to calculate final school scores, which influenced admission to institutes of higher learning, and the dispute over the Austrian algorithm concerning support for the unemployed have demonstrated that trust and confidence in public administrations may otherwise suffer. Since it is often difficult to attract IT specialists to public administration due to competition from the private sector, ways to change this and possibly boost the attractiveness of the public sector for well-trained specialists need to be found. As the examples of France and Switzerland show, sustainability is also a significant factor in digitalisation of public services.

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