

Telework: at the crossroads of social demand and technology offer

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Special thanks to



SINDACATO ROMANO DIRIGENTI AZIENDE INDUSTRIALI



UIR
Unione degli Industriali
e delle imprese di Roma



Telework: definition and some history

◆ **Telework**: is any kind of work which can be remotely performed with the use of ICT, *whereas the physical presence of employees in office is not required (see next slide)*

- ◇ Strong dependence on technology development
- ◇ Constant evolution of different modes of telework
- ◇ More reliable, powerful and secure technologies are in demand; new job positions are on rise

◆ In **1972** Jack Nilles (the “father” of telecommuting) started studying a trade-off between telecommunications and transport

◆ In **mid-1970s** telework was firstly applied to practice in Sweden and then spread around the world

◆ In **1980** the first European centre of telework was set up in France

◆ In **1990** the US Congress took a strategic route for telework development

◆ **Today** in the USA 10% of total workforce (more than 17 millions) practices telework

Telework: why not?

Any prejudices?

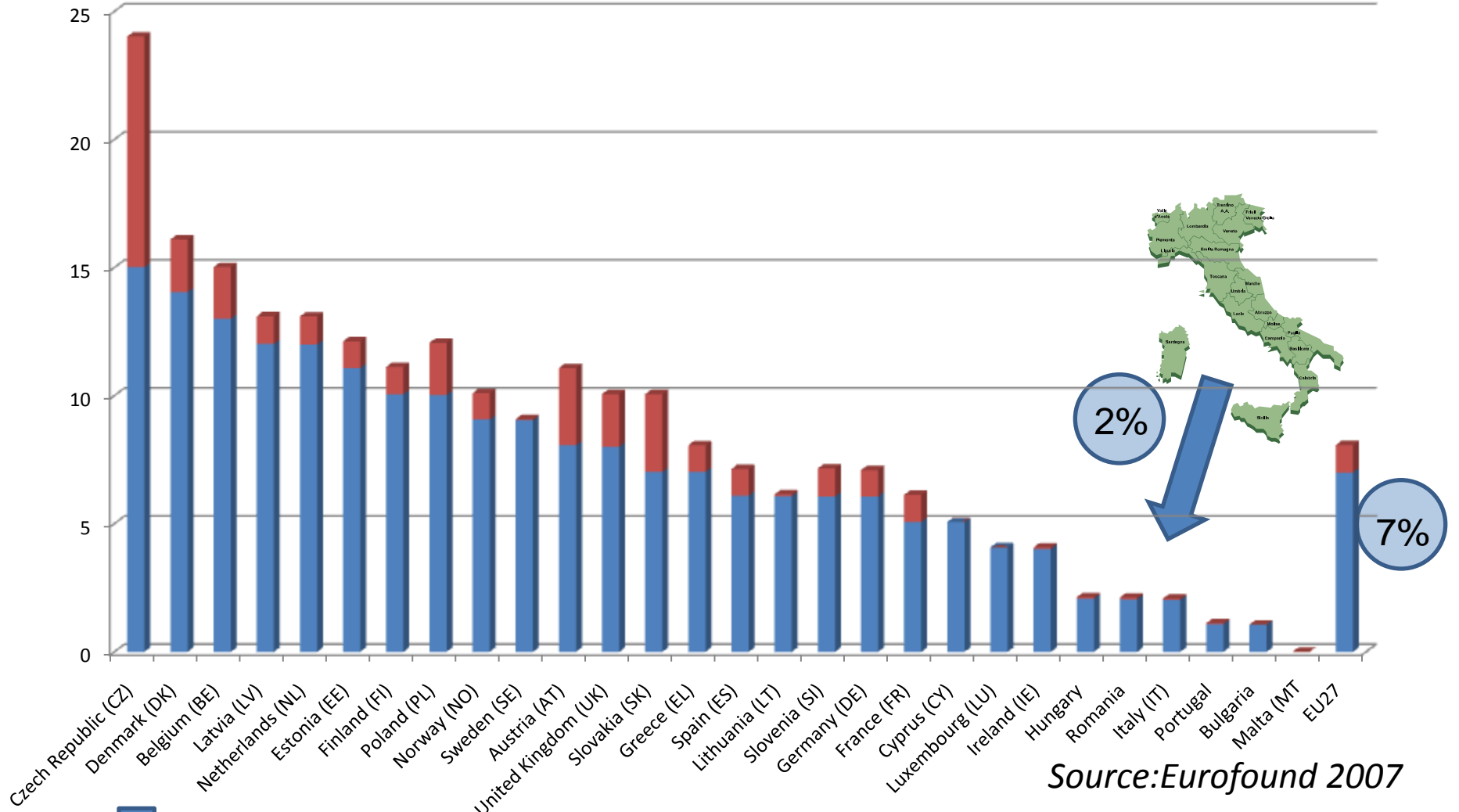
When one refers to telework, people (in Italy) often think to “call centre” or similar: actually a lot of teleworkers are managers in big industries, physicians, etc.

The required physical presence at work may just be an excuse:

Are you sure your physical presence at work is strictly required?



Telework in the EU



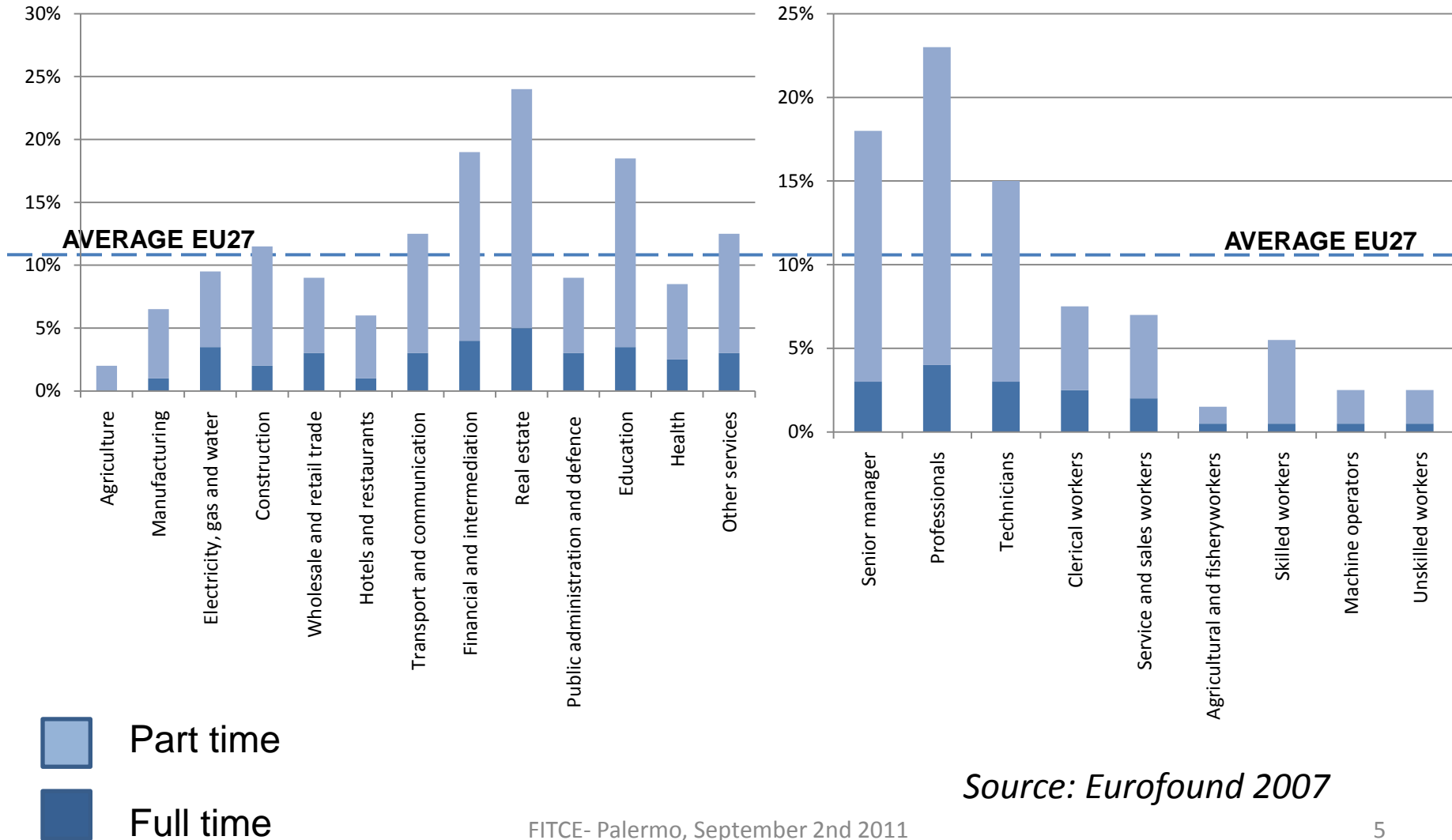
Source: Eurofound 2007

Note: In Italy there are mostly call center employees

- Full time
- Between 1/4 and 3/4 of time ("part time")

Who does telework?

Telework by sector and professional occupation in the EU in 2005



Source: Eurofound 2007

Telework benefits

Society

- ❑ **Traffic reduction and related issues**
 - *Better traffic conditions*
 - *Reduced pollution*
 - *Reduced number of car accidents and hospitalizations*

Individual

- ❑ **Better management of work time**
- ❑ **Save time and travel costs**
- ❑ **Better management of workload**

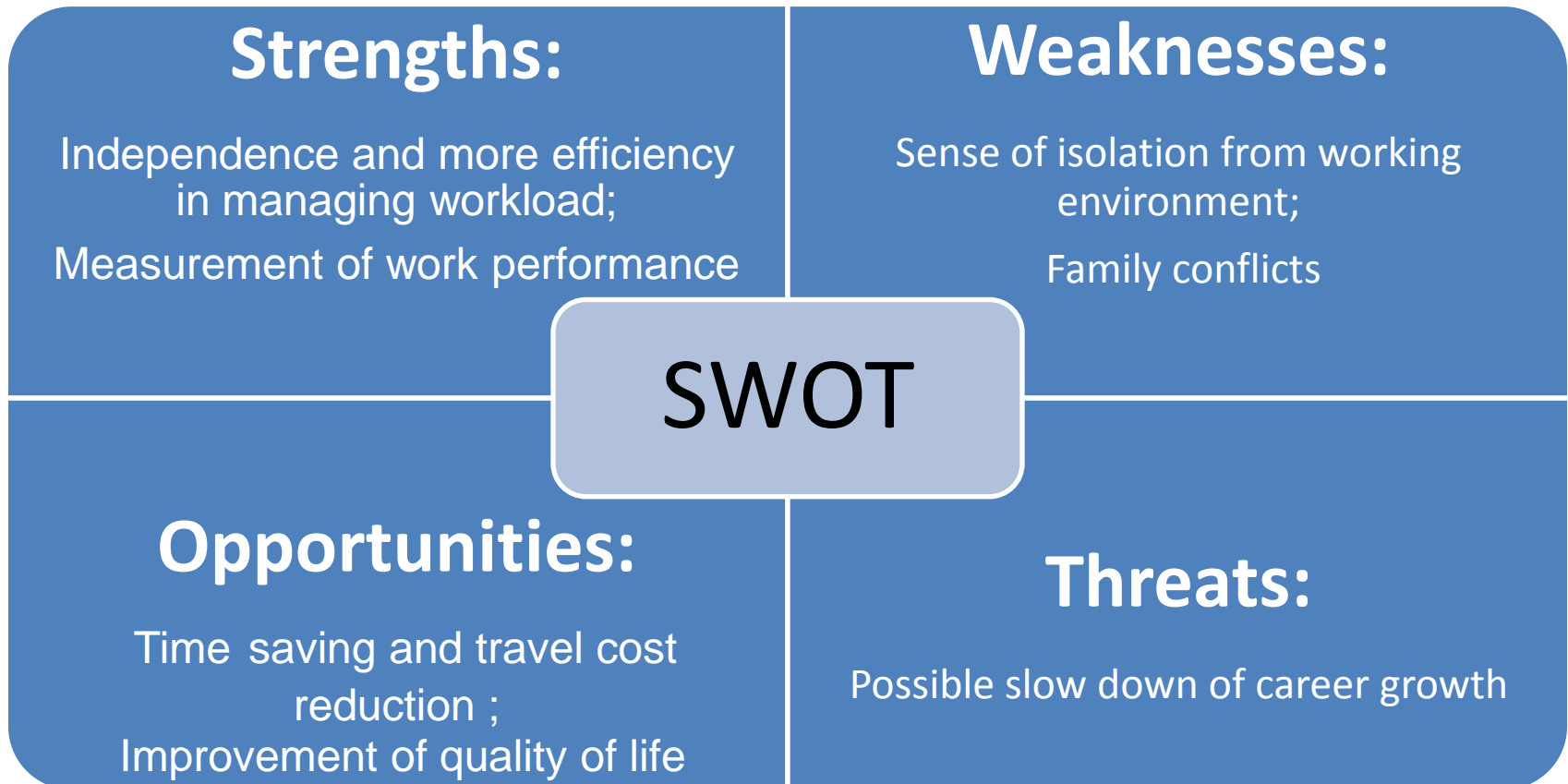
Organization

- ❑ **Reduced absenteeism**
- ❑ **Improved productivity**
- ❑ **Better monitoring of performances**
- ❑ **Better geographic distribution of workforce**



Telework: pro & contro

The overall impact of telework adoption and its consequences can be difficult to estimate.



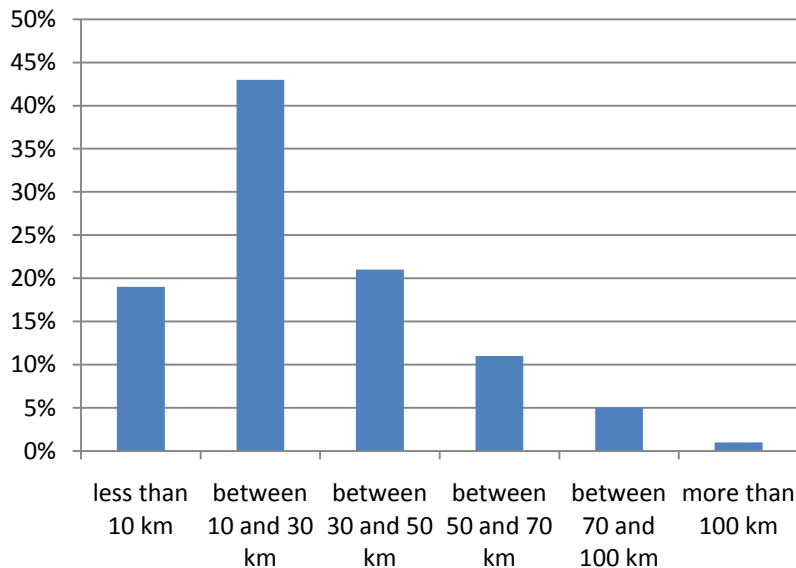
Telework: social benefits

Case study: Province of Rome

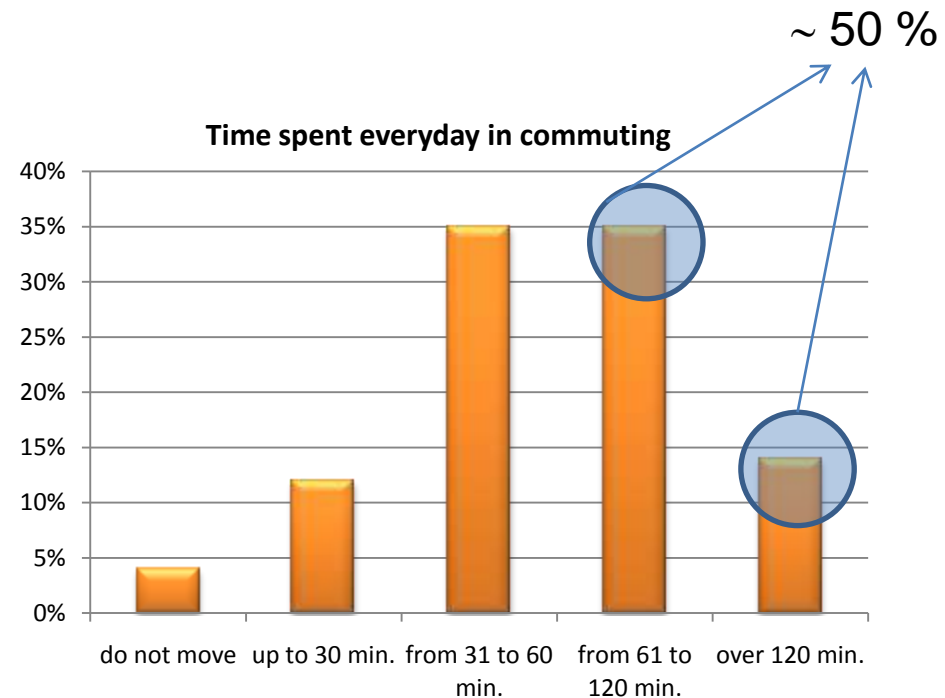
About **180.000 people (commuters)** enter the city ever day

Commuters' average travel distance is 31 km and time spent is equal to **74 minutes**

Daily distances traveled by commuters



Time spent everyday in commuting



(Source: Cittalia 2009)

Social impact of telework

(Rome and Province of Rome)

Assumptions:

1. CO₂ emissions of 120 g/km per automobile
2. Average travel distance is 31 km a day
3. 50% of commuters use their own cars



If 10% of commuters worked at least 2,5 days a week (which is equivalent to 115 days a year), nearly 4.000 tons of CO₂ would be saved!

9,000 teleworkers x 31 km/day x 120 g/km of CO₂ x 115 working days

=

Nearly 4 thousands tons of CO₂ saved per year



N.B.: This amount equals the energy required by 1.000 residents

Impact of telework on individuals

Based on the “travel behaviour” of commuters used to measure the social benefits and taking into account average costs per km obtained from ACI, the individuals may benefit from telework:



Car type	Annual savings (€/year) for diesel models	Annual savings (€/year) for gasoline models
Luxury sedan	4.064	4.635
Sedan	3.351	3.636
Runabout	2.353	2.709
Citycar	1.925	2.068

N.B. Employee: ~ 2500 €/year

Organization (big): ~ 4000 €/month

Impact of telework on organizations

Based on the expenditures incurred by a large company with 250 employees and assuming that each employee works at least 50% of time at home, the following change in operating expenses can be observed:

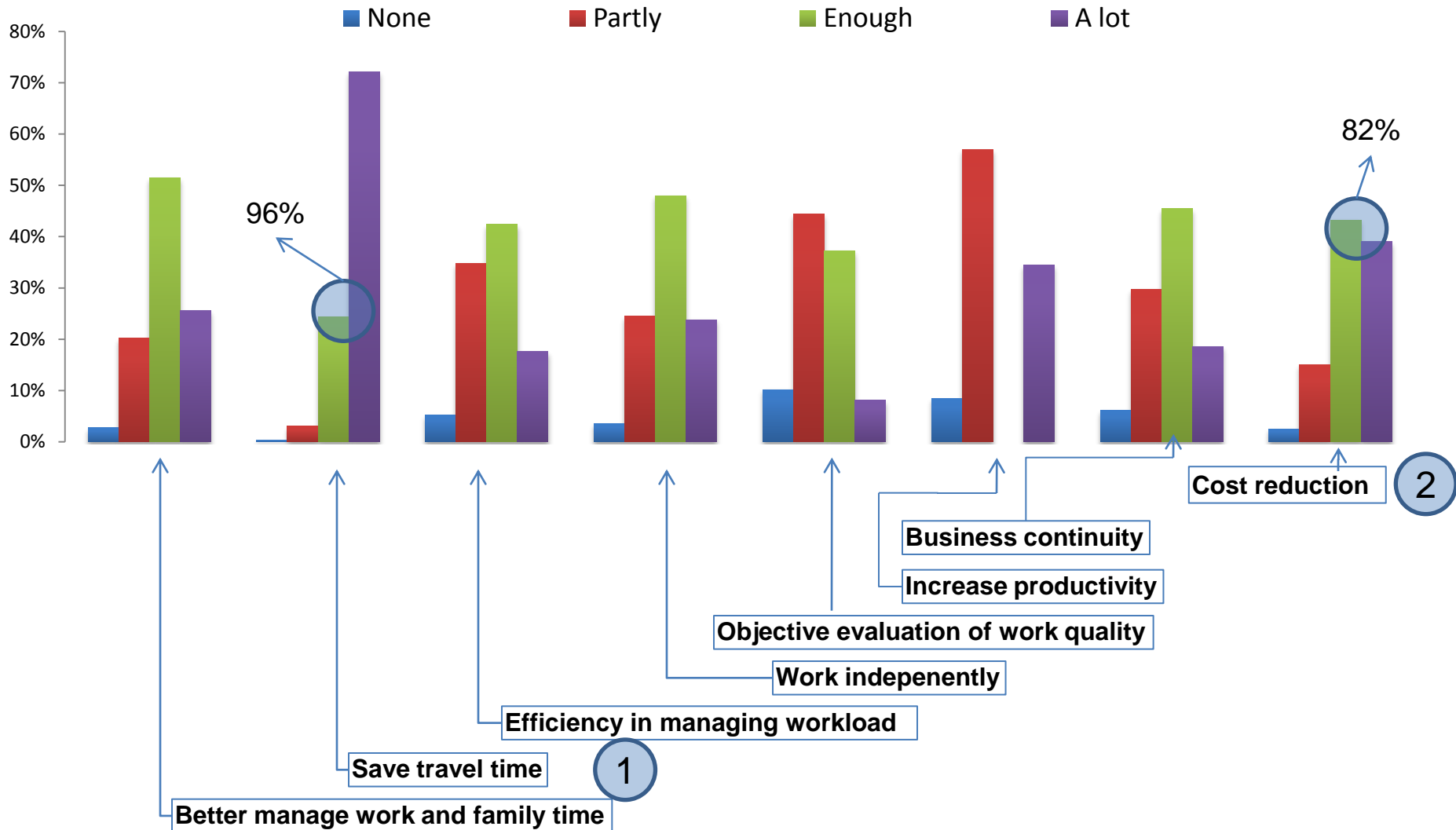


Cost item	Cost (€/monthly pro capita)	Cost(€/monthly pro capita) in case of telework
Cellular phone	200	300 (+50%)
IT (PC, broadband USB keys, sw licence)	1.000	1.000 (unchanged)
Space, furniture, energy consumption	3.500	1.750 (-50%)
Personnel costs	400	400 (unchanged)
Total monthly costs	5.100	3.450 (-31%)

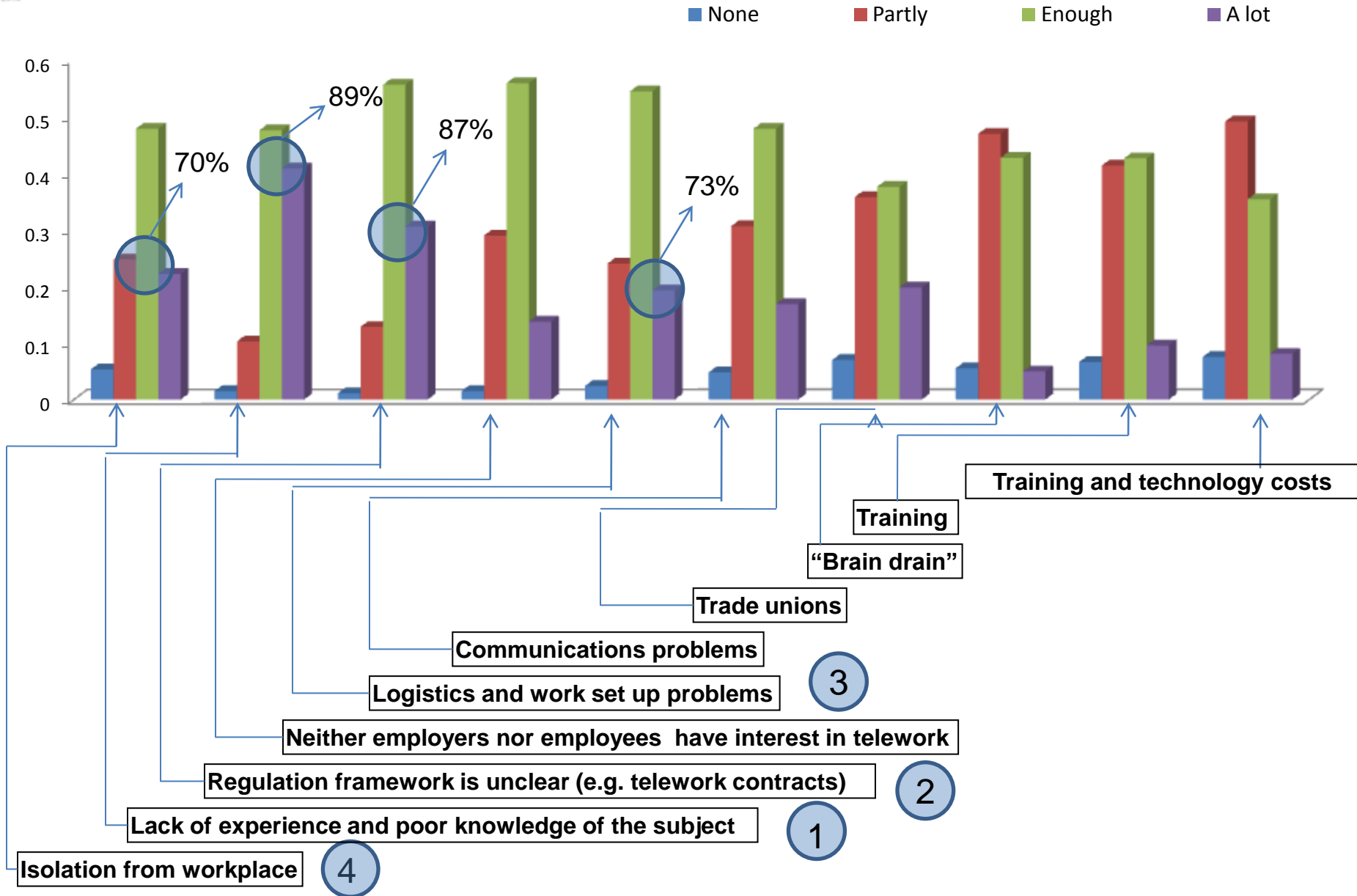
A survey about Telework

- ◆ The *questionnaire* given to the members of Sindacato Romano Dirigenti Aziende Industriali (SRDAI) is more than just a survey, it is an aggregate consulting experience!
 - ◇ About 700 interviewees from July to October 2010
- ◆ Interviewees
 - ◇ The interviewees are usually managers over 45; 67% are familiar with telework although they do not practice it
 - ◇ The interviewees usually work for large companies
 - ◇ Almost 1/3 belong to the ICT sector, the rest are chemical and energy companies
 - ◇ 75% are full time employees
 - ◇ 13% are women
 - ◇ 24% say to have had a telework experience and 21% work for a company that practices telework
- ◆ Organizations
 - ◇ At least 85% have technological and organizational conditions to practice telework
 - ◇ 41% agree that telework is suitable for all hierarchical levels while 59% would practice it in all economic sectors.

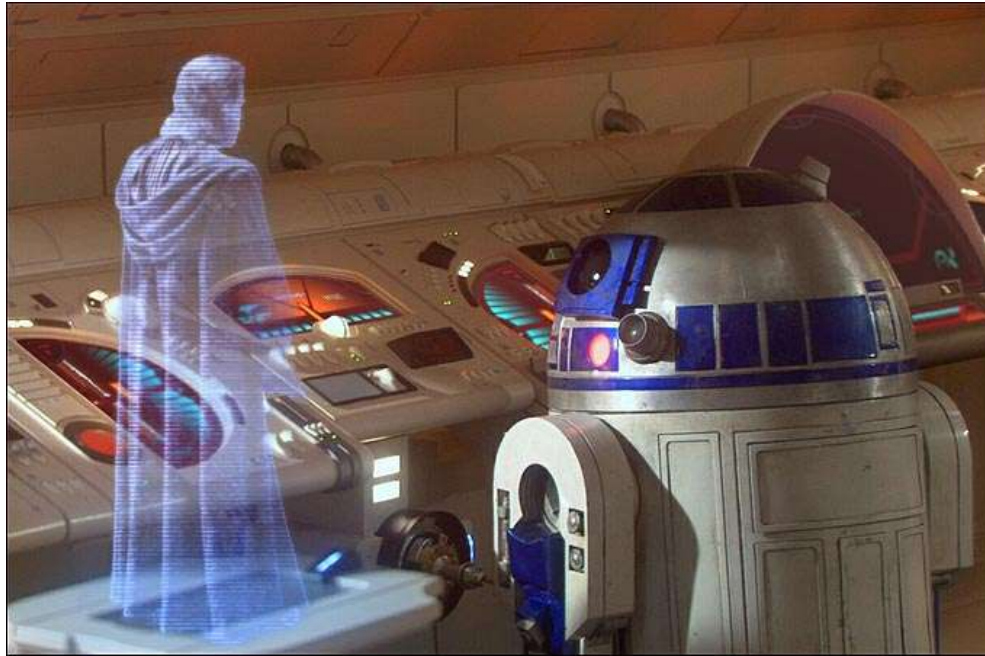
Telework: users' benefits perception



Reasons not to practice telework



Will there be a place for holographic video of StarWars?



Teleconference and telepresence rate at workplace in the world:

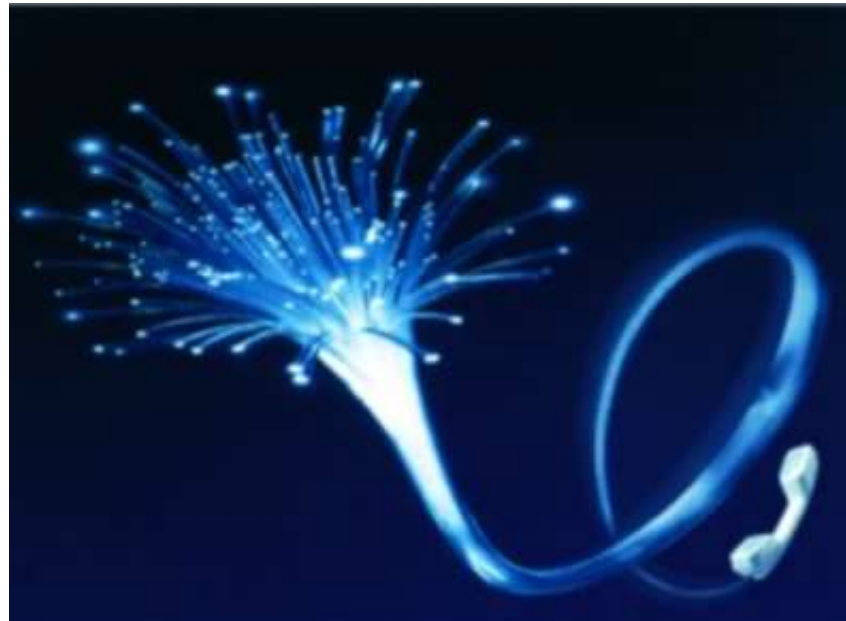
- Among the companies that do not use telework, only 2% use either teleconference and telepresence technologies, versus 43% of the companies that adopt telework.
- 48 + 11 % already use video equipment to communicate and interact within the company
- Note that 1/3 of the interviewees come from the ICT sector!

NGN as enabler

Telepresence

Cloud computing

Augmented reality



multitasking

Etc.

Enhanced security

Conclusions

The survey shows that telework bears a great potential

- ◆ The technologies already exist, they only have to be used properly
 - ◇ More PC, educational and knowledge campaigns, diffusion of telework in the companies and among individuals
 - ◇ **ultrabroadband to improve telework experience**
- ◆ To give a new impulse to telework starting from the PA and SME (where significant technological infrastructures update is necessary)
 - ◇ The productivity measures do exist and are already in use (ex. remote training and education)
 - ◇ Strong and enhancing role of PAs as raisers of telework
- ◆ Telework can help in achieving productivity growth



Thank you...