

# EUROPEAN CLUSTER CONFERENCE 2020

10-11 NOVEMBER 2020 | BRINGING TOGETHER THE CLUSTER COMMUNITY

## Ecosystem session: DIGITAL

Clusters strengthening ecosystems



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# Digital as enabler of the Recovery

European Cluster Conference

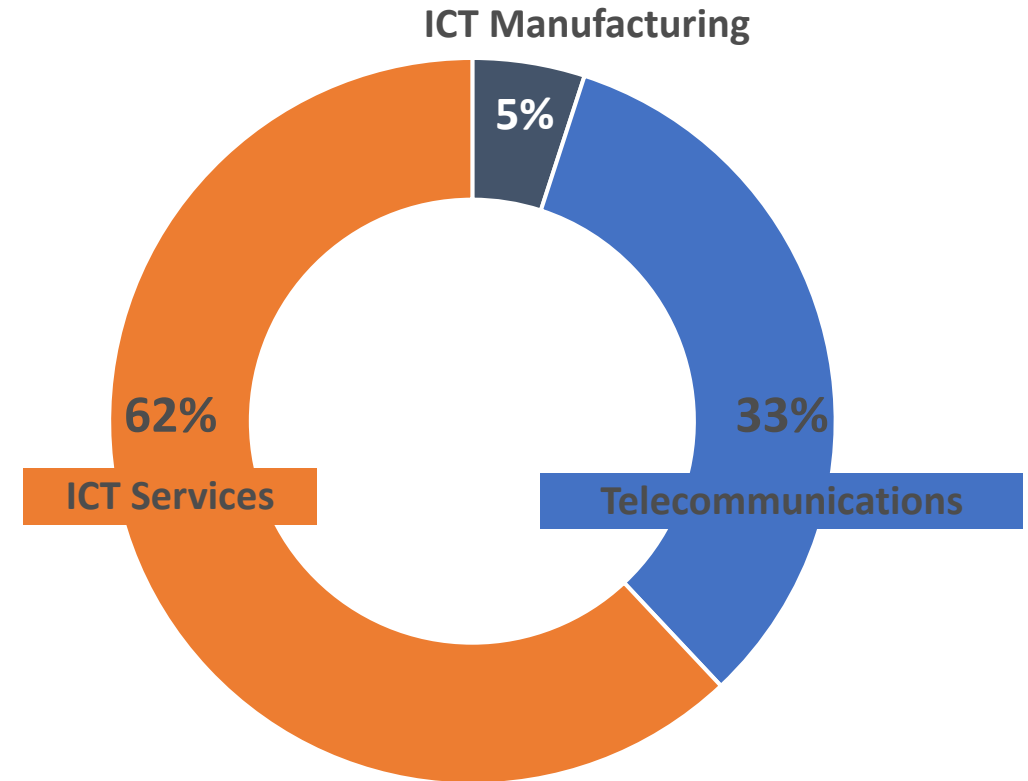
Alexander Riedl

European Commission DG Connect

# The digital ecosystem

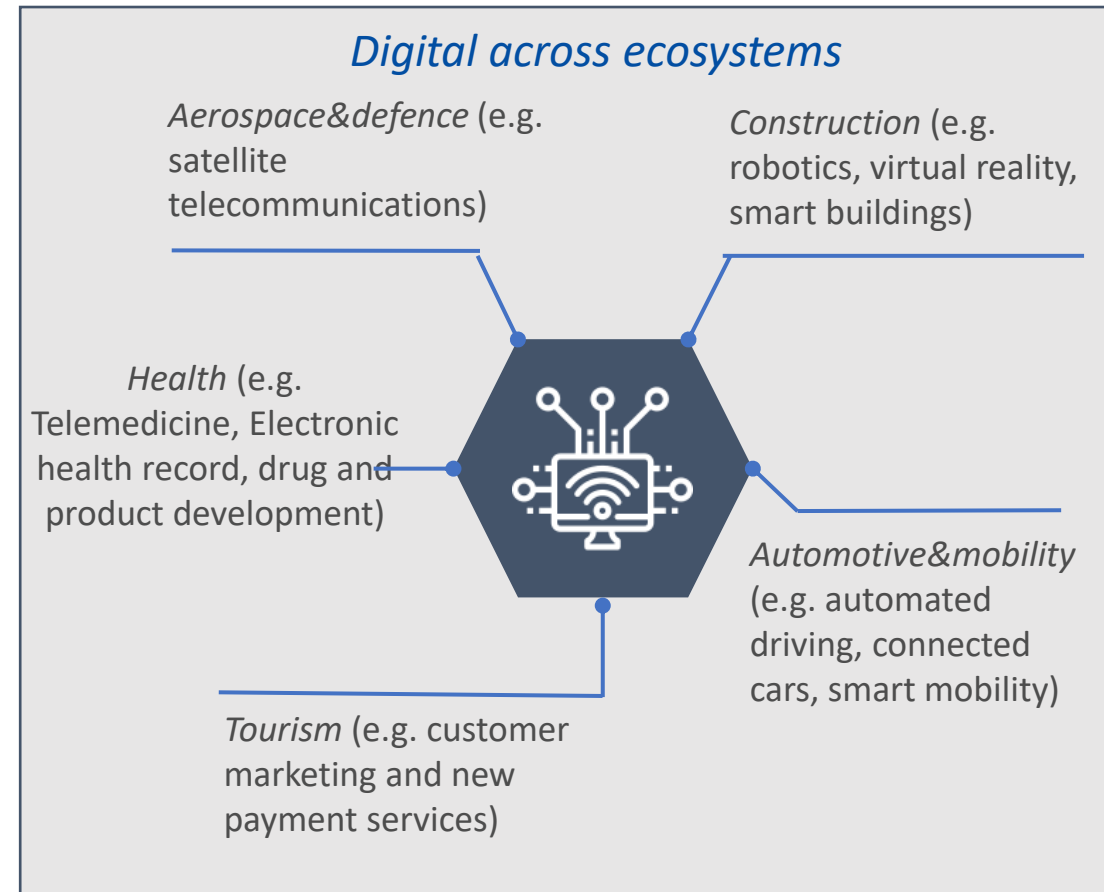
## The **ICT sector** – key figures<sup>1</sup>

- **4.5%** of the EU-27 Value Added
- ~ **1 trillion** turnover
- More than **5 million** employees



# Digital helped to master the crisis and is a key enabler of the recovery

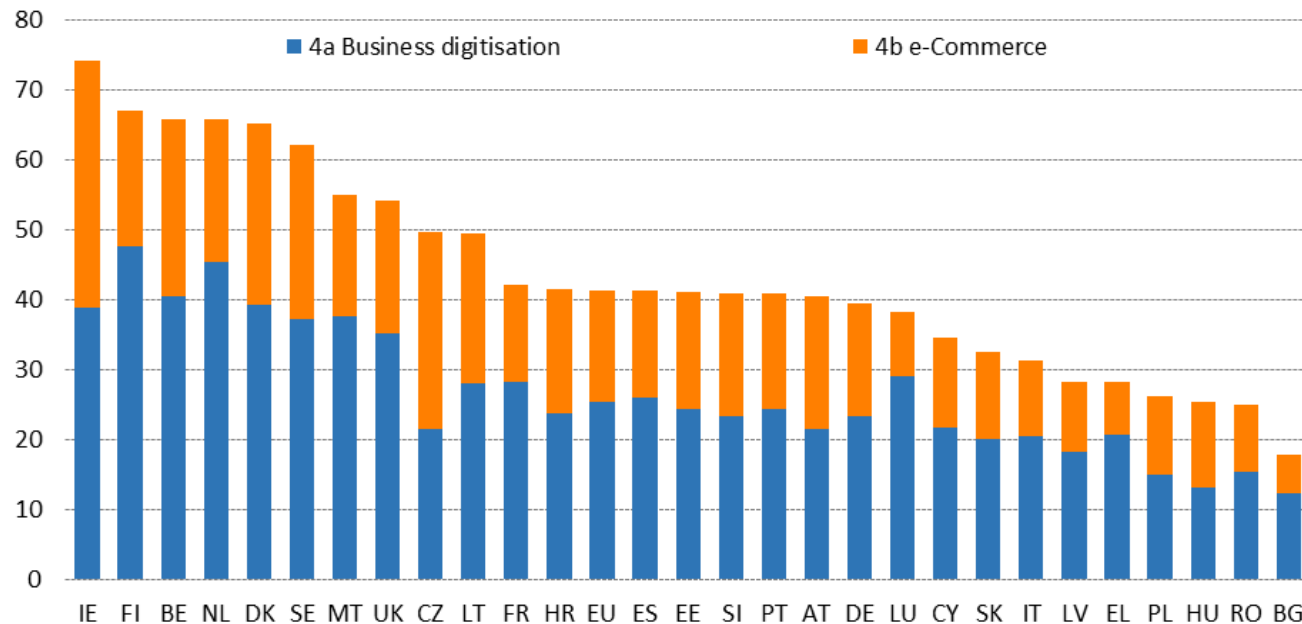
- The crisis emphasised the need for **digital connectivity, skills** and **digital tools** for businesses and citizens
- Compared to international competitors, the EU is currently **underinvesting in digital technologies**, e.g. AI, robotics, blockchain, quantum, high performance computing, cybersecurity
- Recovery Facility as **opportunity**: **minimum level of 20%** of expenditure needs to be digital (i.e. potentially €134.5 billion overall)



# SMEs are not fully exploiting potential of digitalisation

Enterprises are increasingly digitised, with large companies taking the lead. 38.5% of large companies rely already on advanced cloud services and 32.7% are using big data analytics. However, the vast majority of SMEs are not yet taking advantage of these technologies.

Digital Economy and Society Index (DESI) 2020, integration of digital technologies



Source: Digital Economy and Society Index 2020

The Integration of digital technology dimension of DESI

	EU	
	DESI 2018	DESI 2020
<b>4a1 Electronic information sharing</b>	<b>34%</b>	<b>34%</b>
% enterprises	2017	2019
<b>4a2 Social media</b>	<b>21%</b>	<b>25%</b>
% enterprises	2017	2019
<b>4a3 Big data</b>	<b>10%</b>	<b>12%</b>
% enterprises	2016	2018
<b>4a4 Cloud</b>	<b>NA</b>	<b>18%</b>
% enterprises		2018
<b>4b1 SMEs selling online</b>	<b>17%</b>	<b>18%</b>
% SMEs	2017	2019
<b>4b2 e-Commerce turnover</b>	<b>10%</b>	<b>11%</b>
% SME turnover	2017	2019
<b>4b3 Selling online cross-border</b>	<b>8%</b>	<b>8%</b>
% SMEs	2017	2019

# Digital priorities for the Recovery Fund

- Digital Connectivity
- Human Capital
- Digitalisation of businesses
- E-Government, digital public services and local digital ecosystems
- Digital-related investment in R&D
- Investment in digital capacities and deployment of advanced technologies
- Greening the digital sector

# Businesses hold the key for the digital transition



Bouncing back from the crisis is an **opportunity to accelerate the digital transition** of the economy



**Businesses and clusters are key actors** both for the recovery and the digital transition - the EU and the RRF can help but you need to play your part



We need to build **European capacities in key technologies** (AI, cloud, cyber, blockchain, HPC, quantum) across all sectors, to reduce the reliance on third countries and to create a digitally competitive, resilient and autonomous Europe



Invest in closing the digital **skills** gaps, starting by re- and upskilling your own staff

# Thank you



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Digital....

a challenge

and a tool

Vasco Lagarto  
*Cluster Manager*



tice.pt



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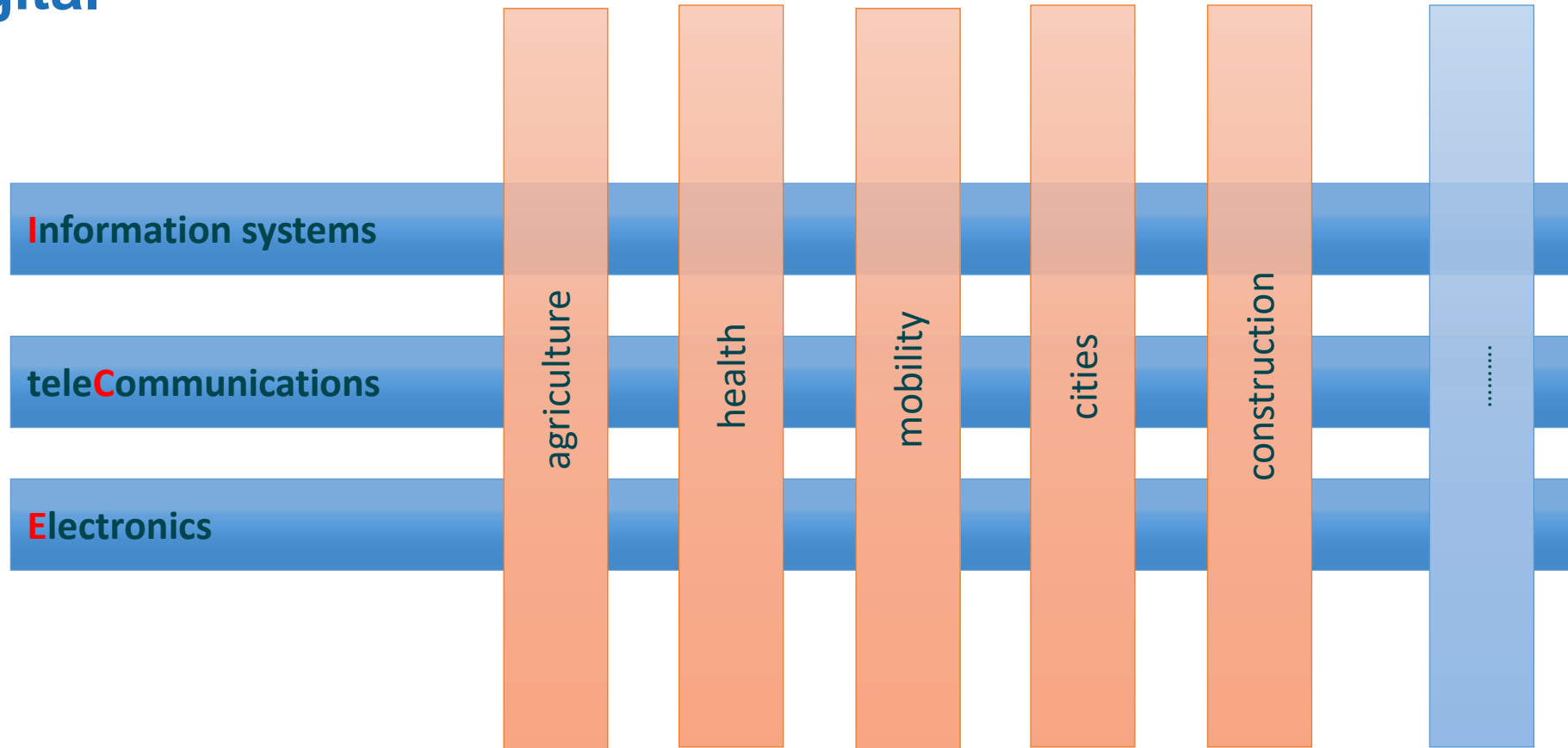
## Digital

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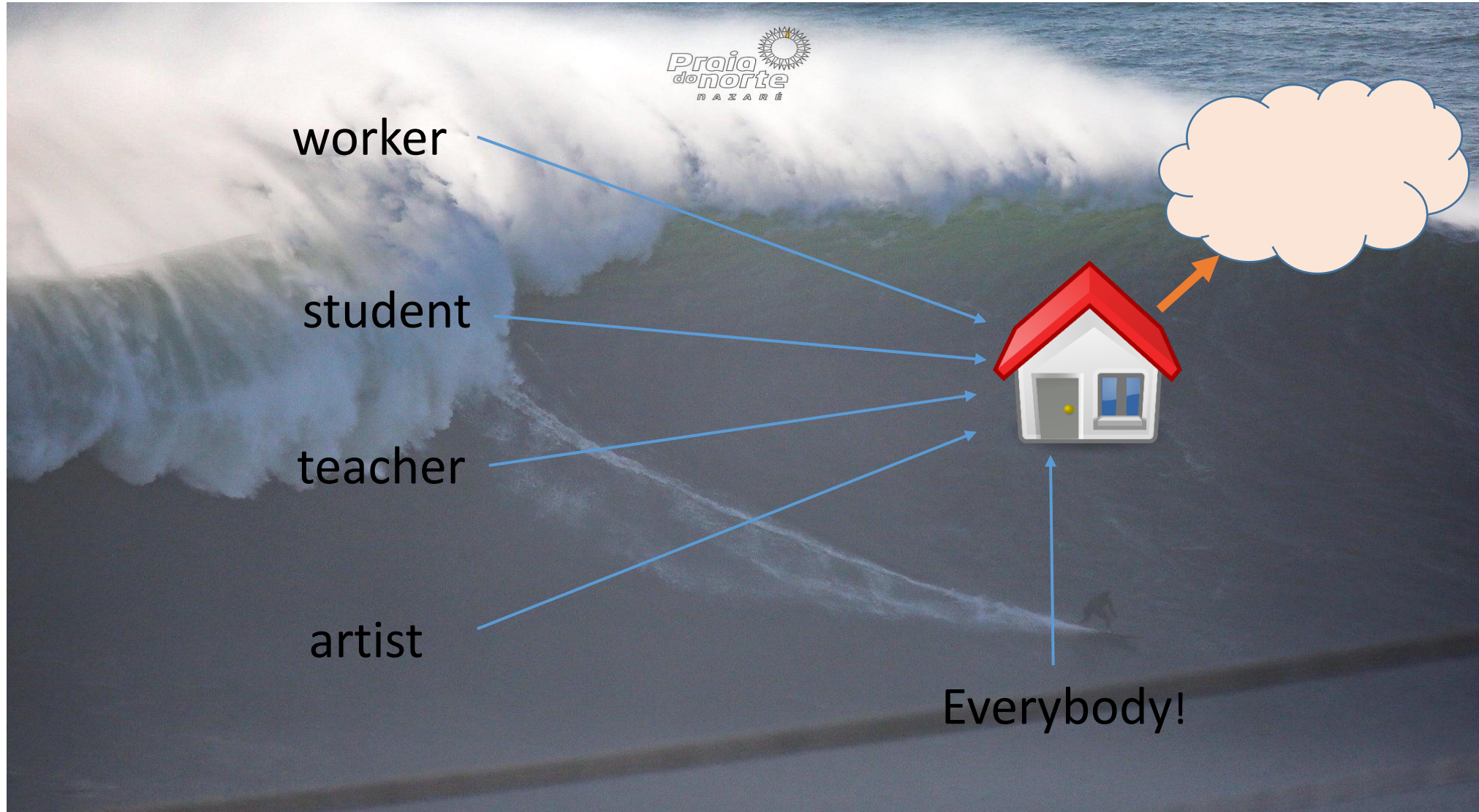


Just to say that there is a symbiotic relation among ICTe and all the other sectors



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**We went home and “home” became the center of our activity!**

## Implications

- Residential connections must be improved
- Wifi coverage (within the house) must be improved
- Contention factor must be reduced
- Core network should be upgraded to coop with the increased traffic
- The interconnection among different operators should be upgraded
- .....



## Learnings...and challenges...

### Creating applications that improve remote actions

- Virtual/augmented reality applied to
  - Learning and teaching process
  - Support informal health actions
  - ....
- Robotics to extend our capabilities...
- Diffusion of rules (and tools..) to prevent/reduce cyber attacks.....

- Data...recognized as the center of the digital transformation!
  - And, finally, Europe made a move!>  
***[https://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=70089](https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=70089)***
  - It is a first step for the European digital Sovereignty...but Is that enough?...
- Mobile picture ([www.gsma.com/mobileeconomy/europe/](http://www.gsma.com/mobileeconomy/europe/))
  - 86% Unique mobile subscriber penetration at the end of 2019 (+/-470 millions).
  - 76 % Smartphone adoption at year-end 2019, as a proportion of total connections (+/-357 millions).

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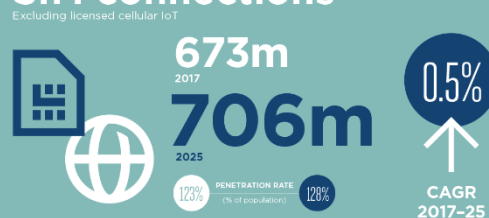
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## Digital

### Unique mobile subscribers

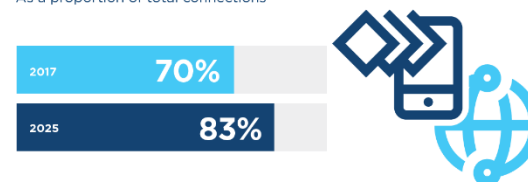


### SIM connections

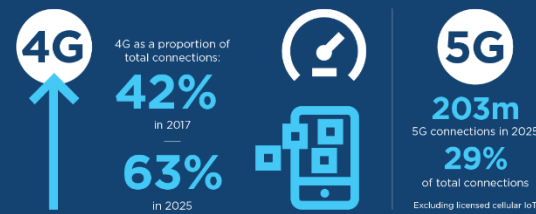


### Smartphone adoption

As a proportion of total connections



### Accelerating moves to mobile broadband networks

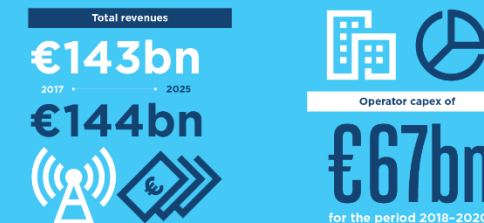


### Employment

Employment supported by the mobile ecosystem



### Operator revenues and investment



### Public funding

Mobile ecosystem contribution to public funding in 2017 (before regulatory and spectrum fees)



[www.gsma.com/mobileeconomy/europe/](http://www.gsma.com/mobileeconomy/europe/)

## Summary

- Data should be treated as a fundamental “material” for all sectors of economy
- Data should be considered as a “defense” issue
- Europe should create conditions to have a “word” on this field and aim to be a lighthouse on this area
- To achieve that:
  - Create a PPP involving the European mobile operators and regulators
  - Use this PPP to define the European road map related with mobile (platform and terminals..).....and add media
  - .....
- Assume data as a “rare” material, vital like the other materials.



My “challenge” 😊



- **Build an European mobile platform to preserve and use the data that we are producing.** Look at this as a defense issue

***It's time to think about value .....***

- **Implement a PPP devoted to this area**
  - To increment research
  - To foster innovation
  - To operate and maintain
  - To lead the way and make Europe a brilliant lighthouse in this area ...again 😊