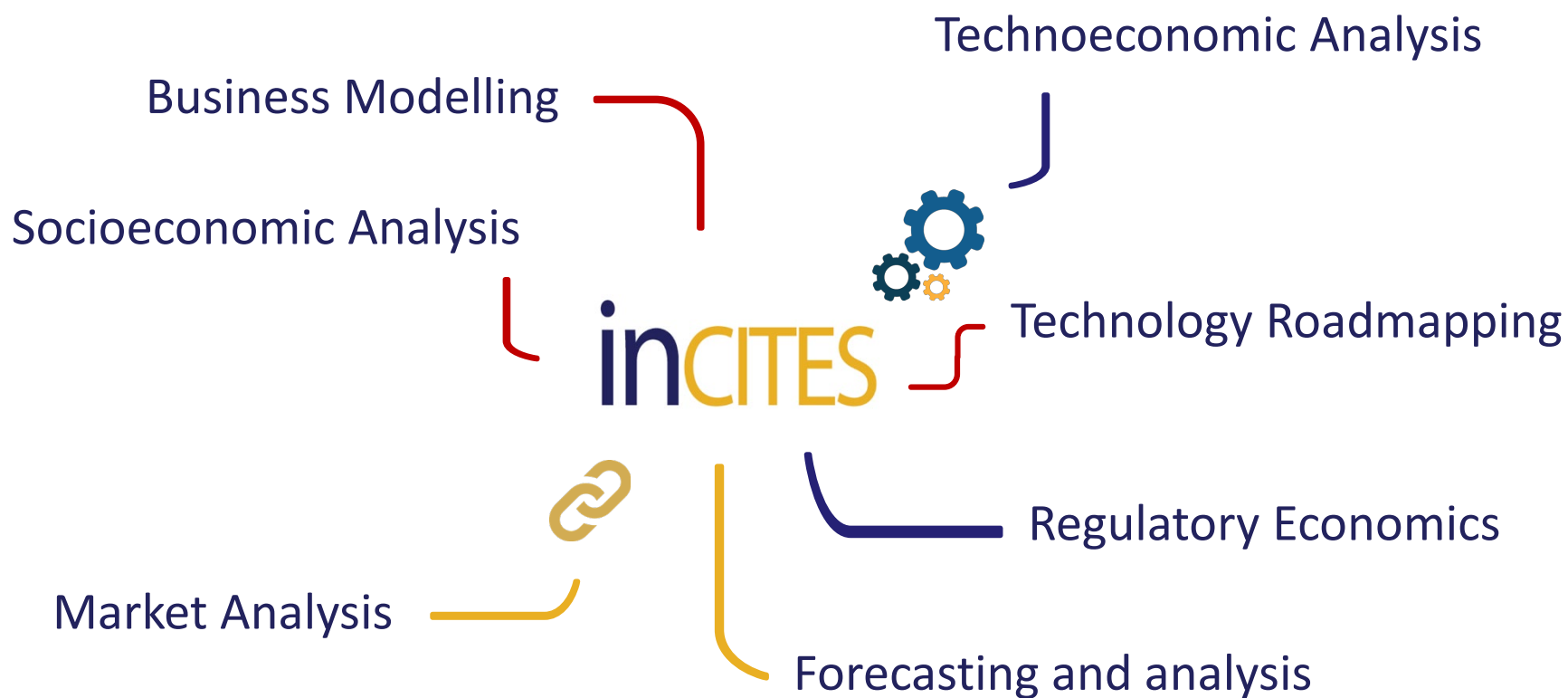




Connectivity amid the covid-19 pandemic

Dr. Ioannis Neokosmidis, CEO

inCITES Consulting

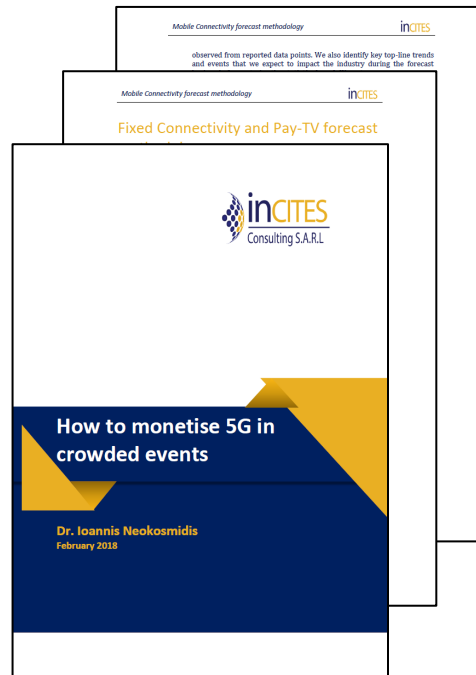


What we do

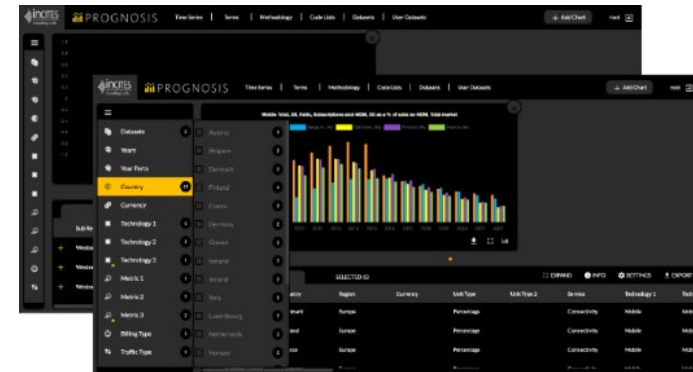
Consulting



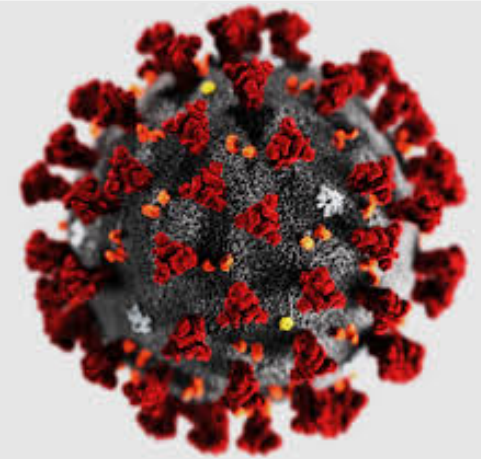
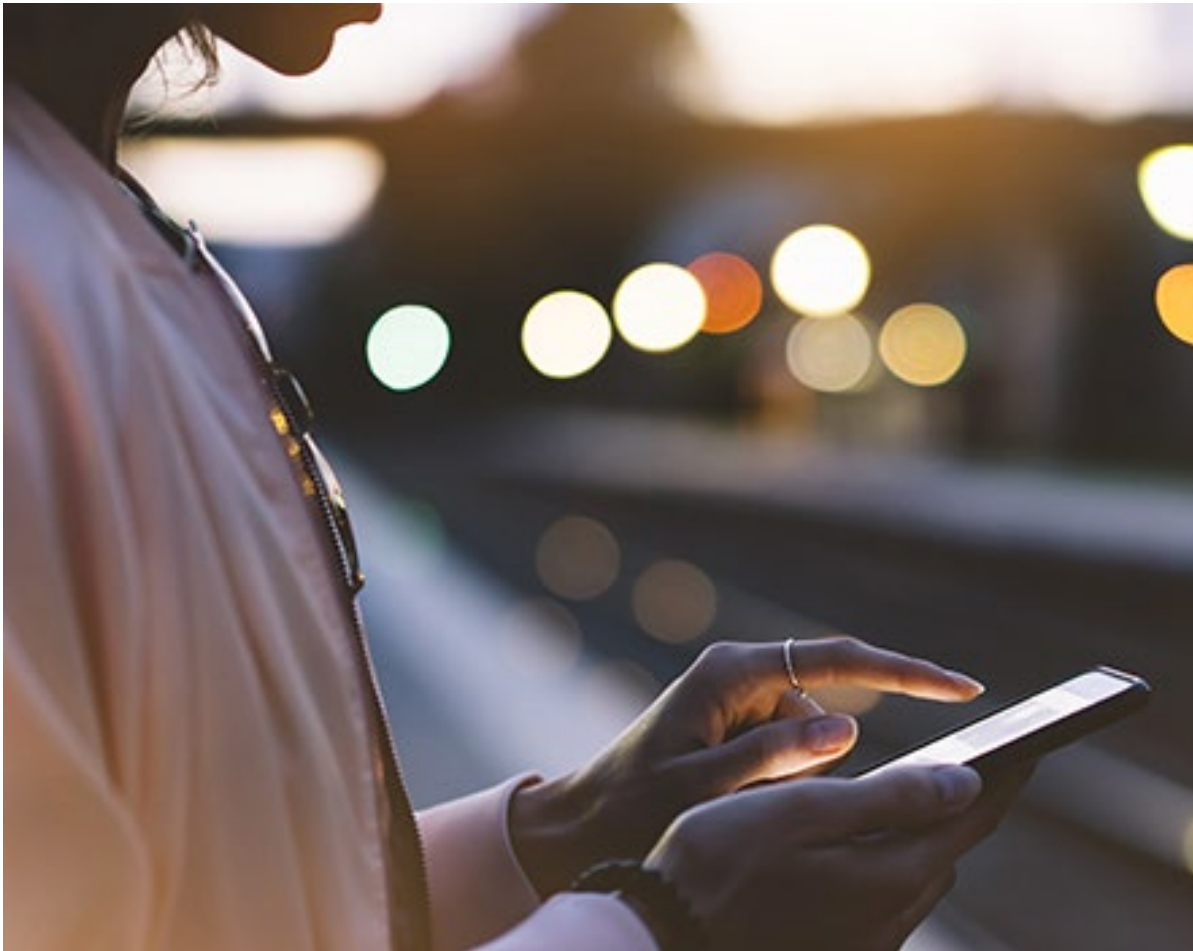
Research



Prognosis



The need for high-speed connectivity



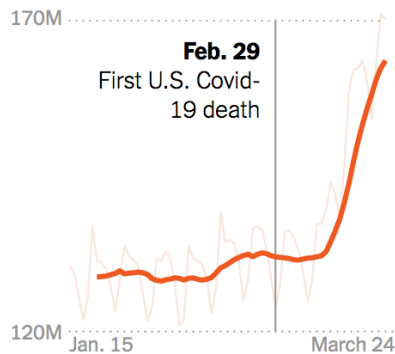
**Covid-19
shows why
internet access
is a basic right
– not a luxury**

Connect and entertain ourselves (away from our phones)

Websites

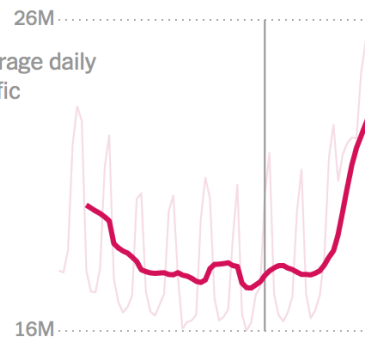
Facebook.com

+27.0%



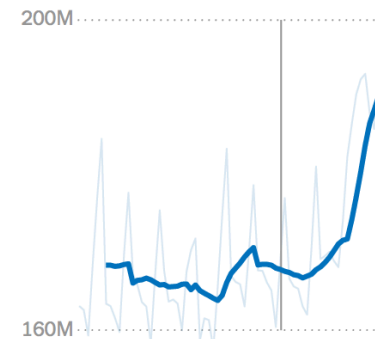
Netflix.com

+16.0%



YouTube.com

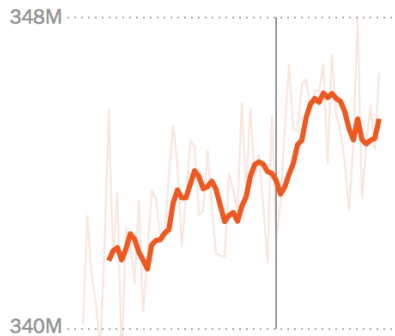
+15.3%



Apps

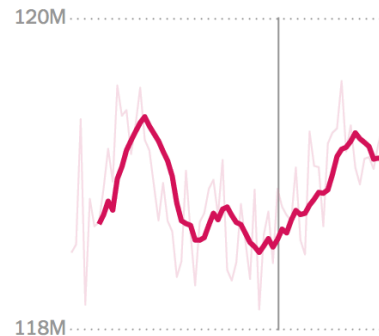
Facebook

+1.1%



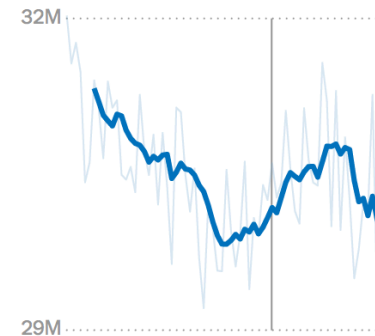
Netflix

+0.3%



YouTube

-4.5%

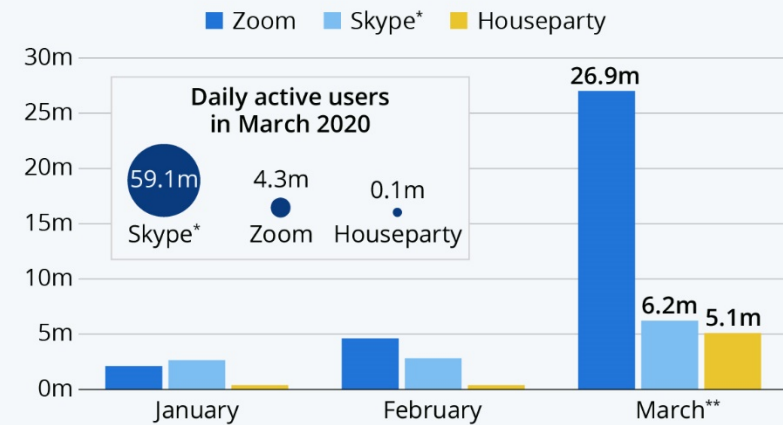


Sources: SimilarWeb, Apptopia

Work and learn from home

Video Chat Apps Rise to Prominence Amid Pandemic

Global downloads of video chat apps for Android and iOS



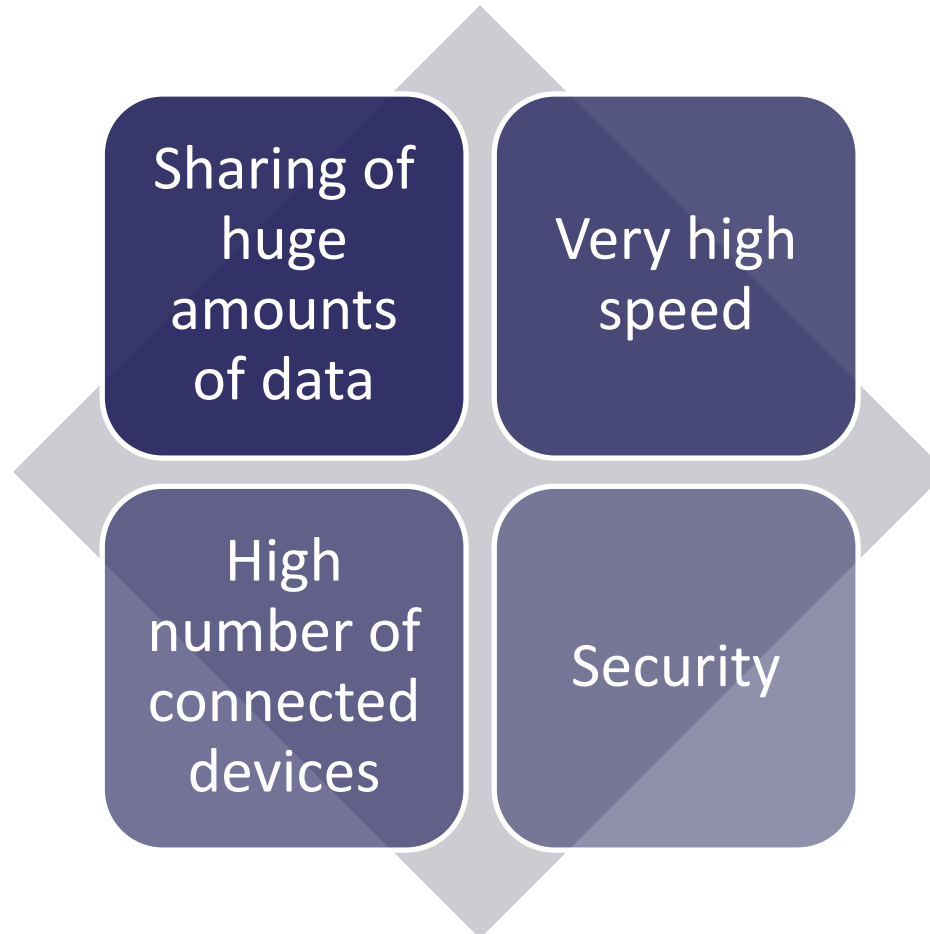
* excluding Skype for Business

** March data as of March 26

Source: Priori Data

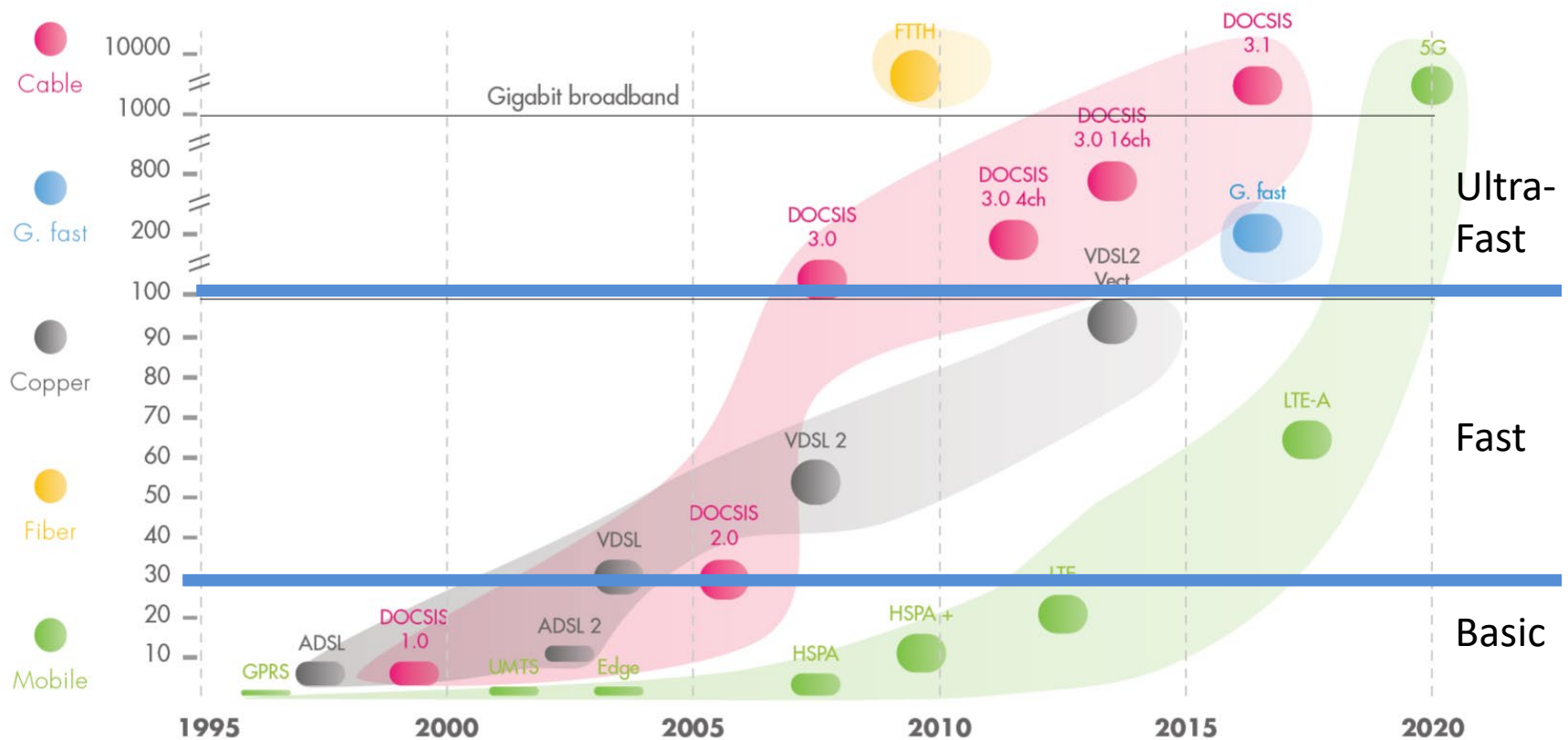


Connectivity Requirements



Gbps access for all by 2025

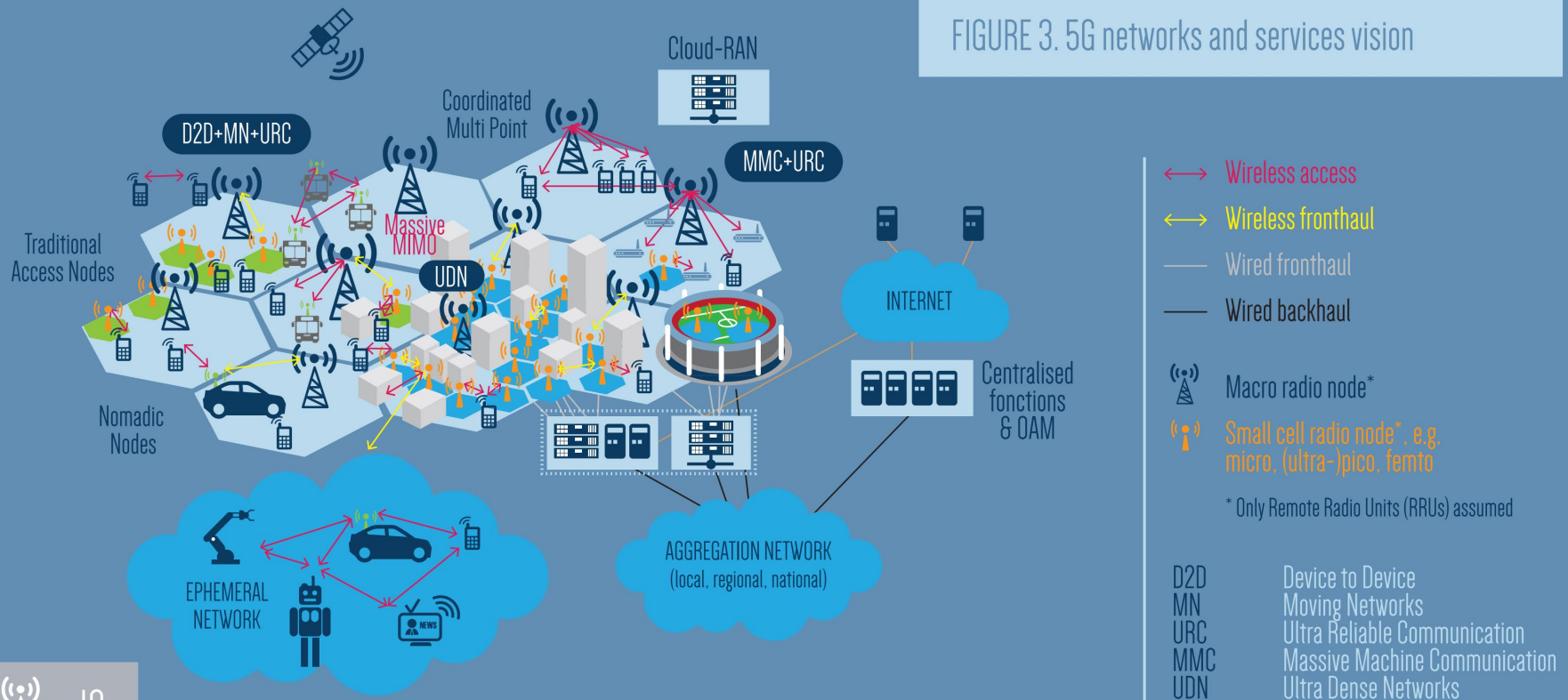
Only FTTH, DOCSIS 3.0/3.1 and 5G are capable of delivering speeds above 1Gbps
broadband access technology roadmap – downstream speed range



Source: Arthur D Little: Cable Operators' Contribution to the European Digital Landscape (Cable Europe, 2016)

Future Architectures

FIGURE 3. 5G networks and services vision



Digital Economy and Society Index (DESI)



CONNECTIVITY



HUMAN CAPITAL



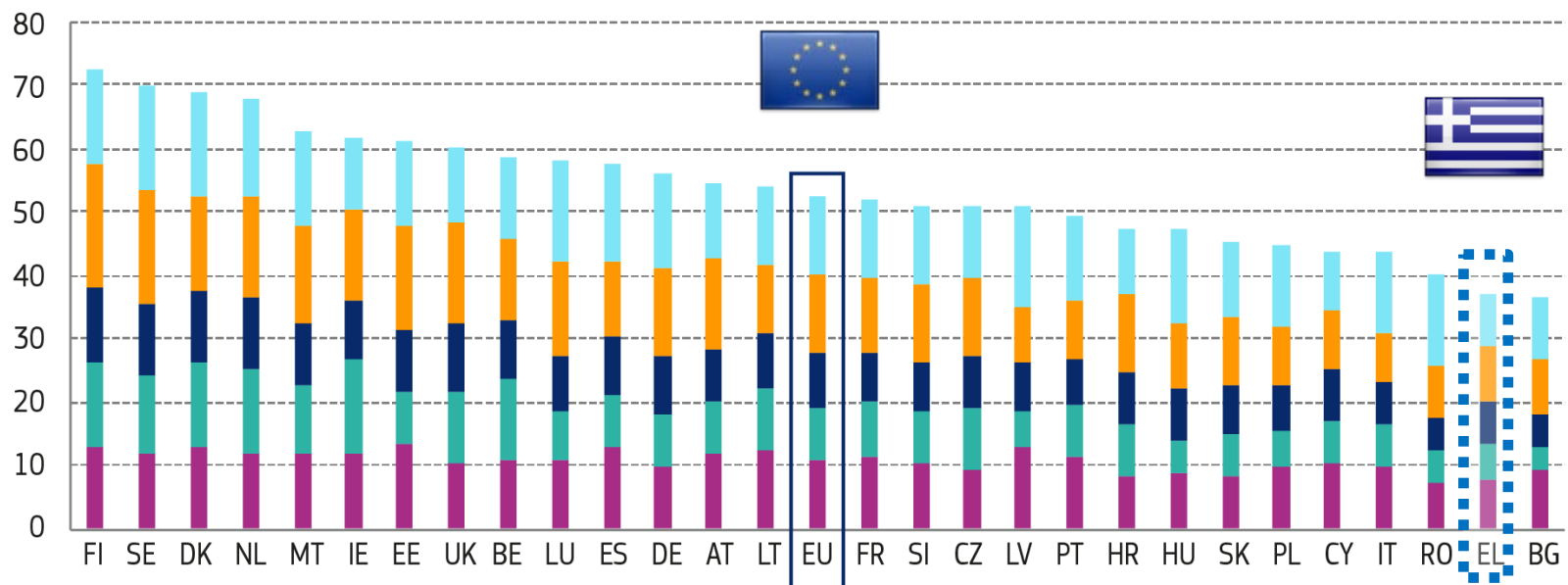
USE OF INTERNET
SERVICES



INTEGRATION OF
DIGITAL TECHNOLOGY



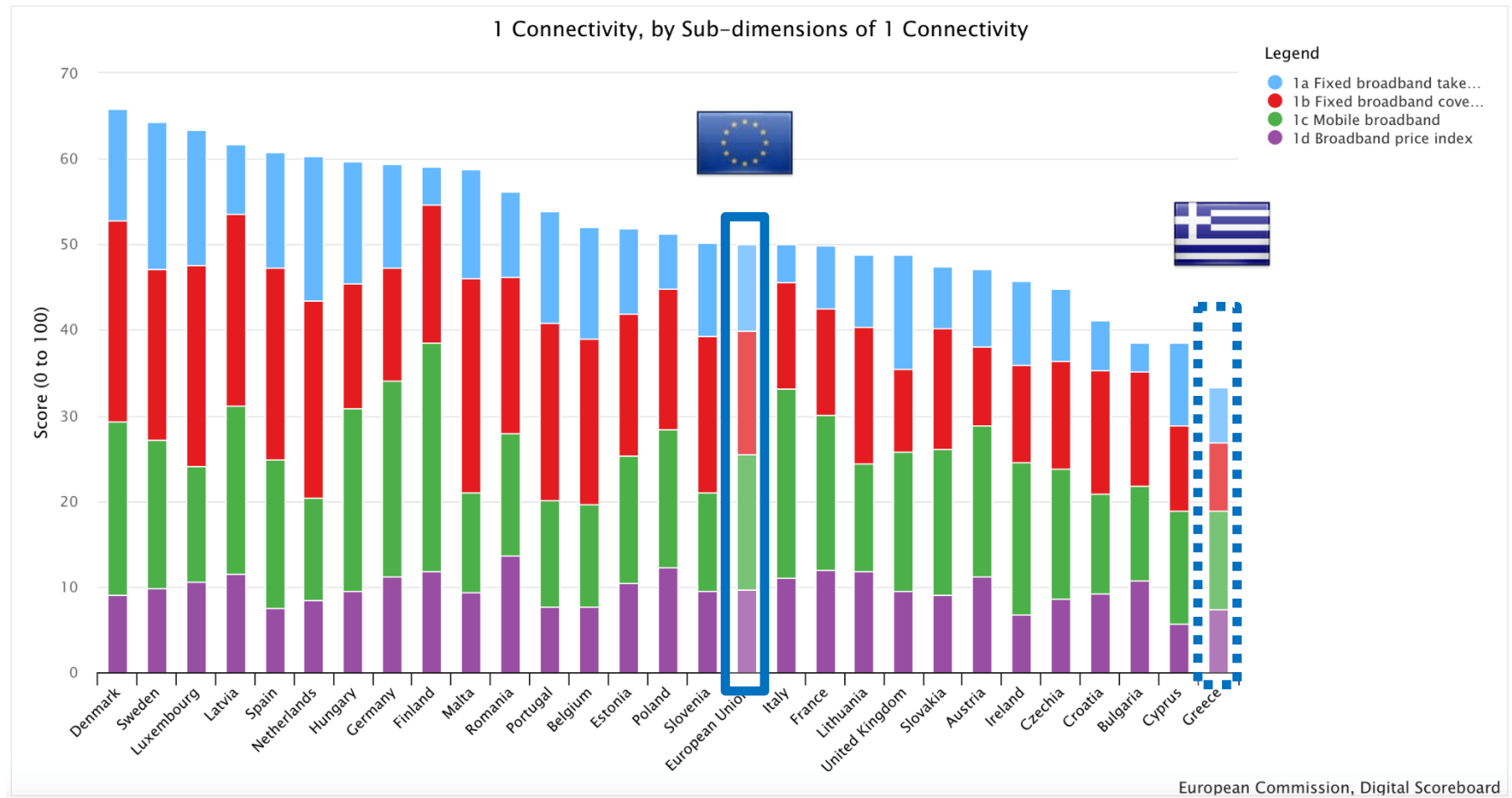
DIGITAL PUBLIC
SERVICES



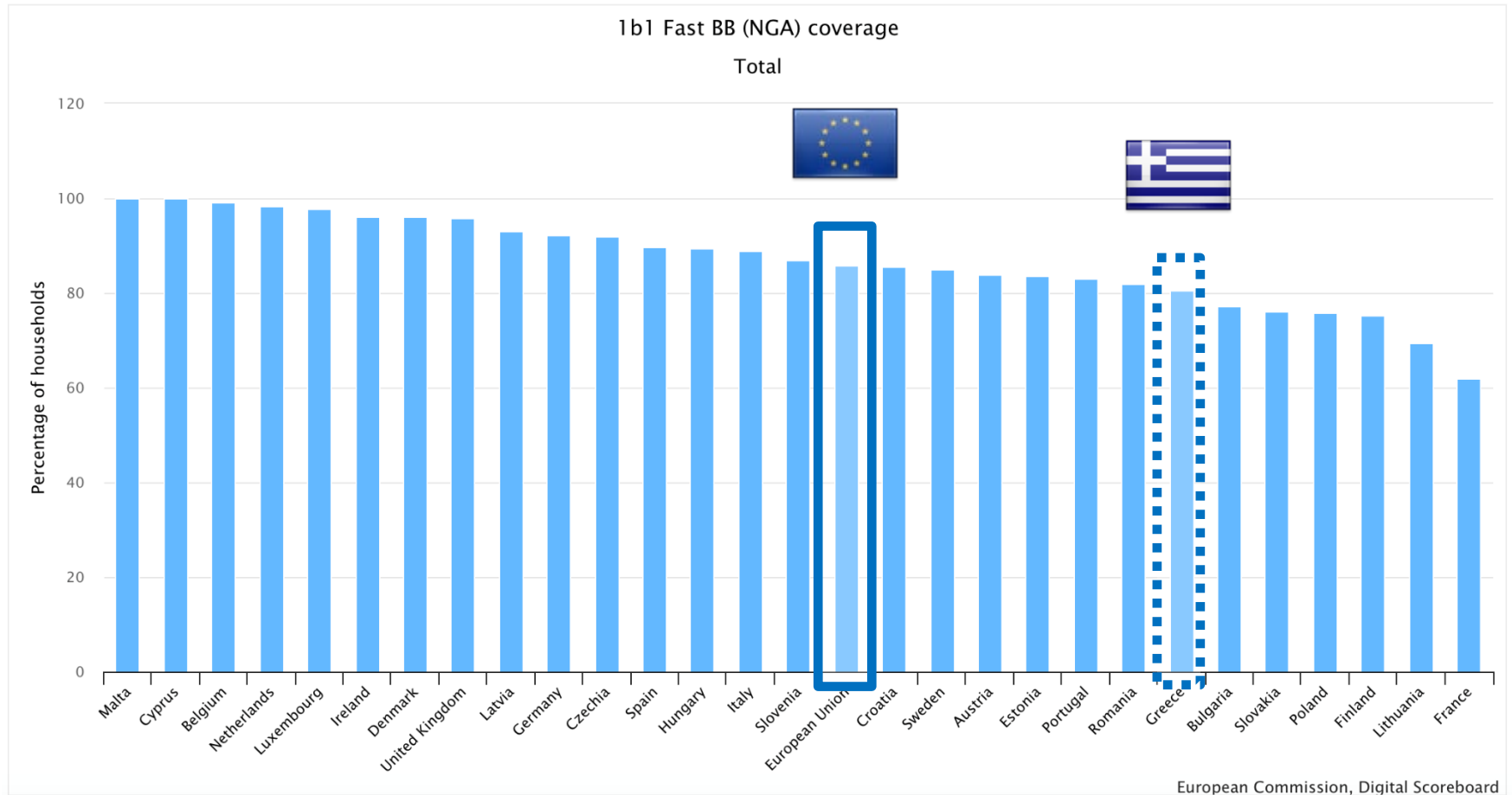
Digital Economy and Society Index (DESI)



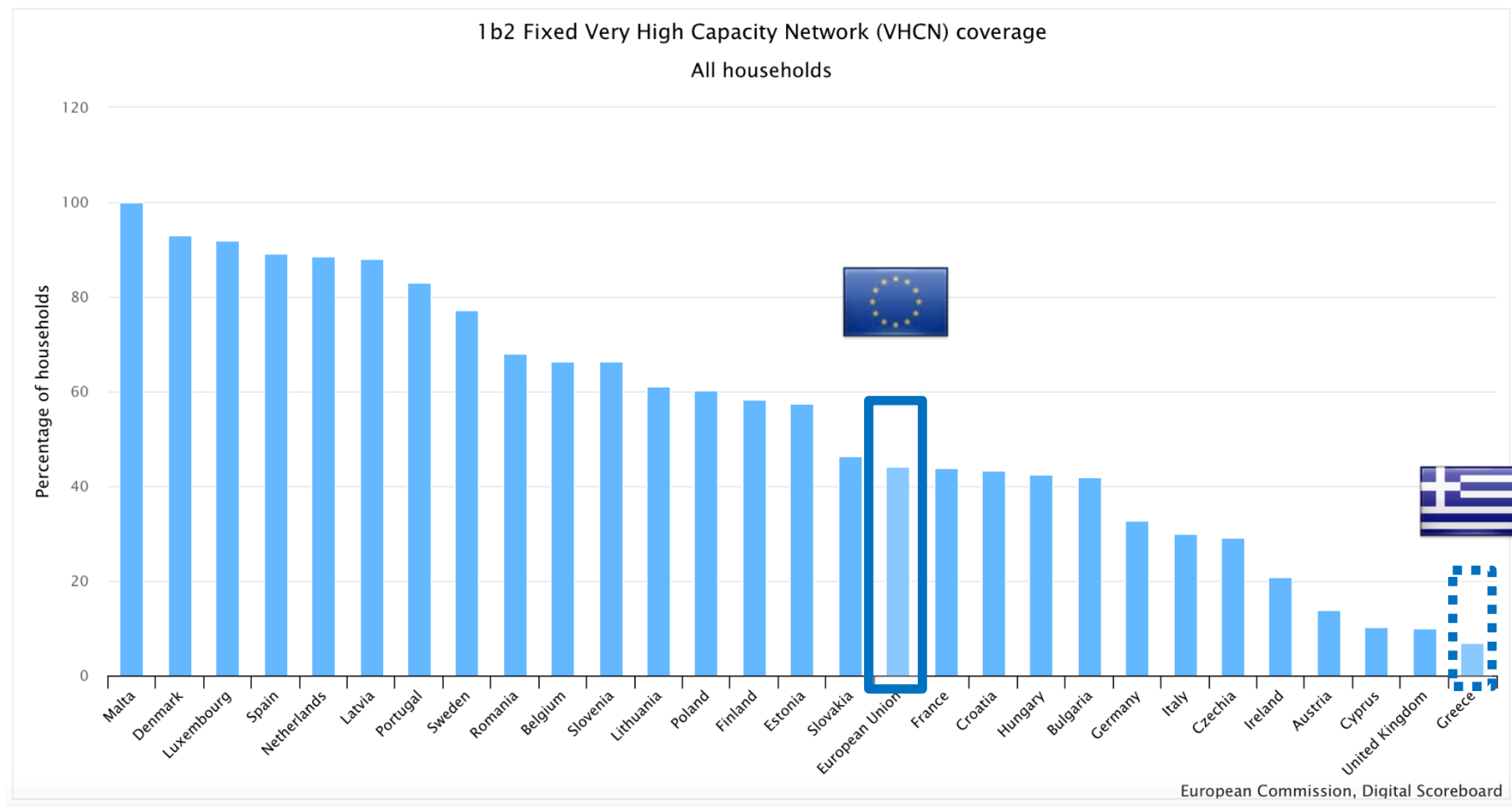
Connectivity



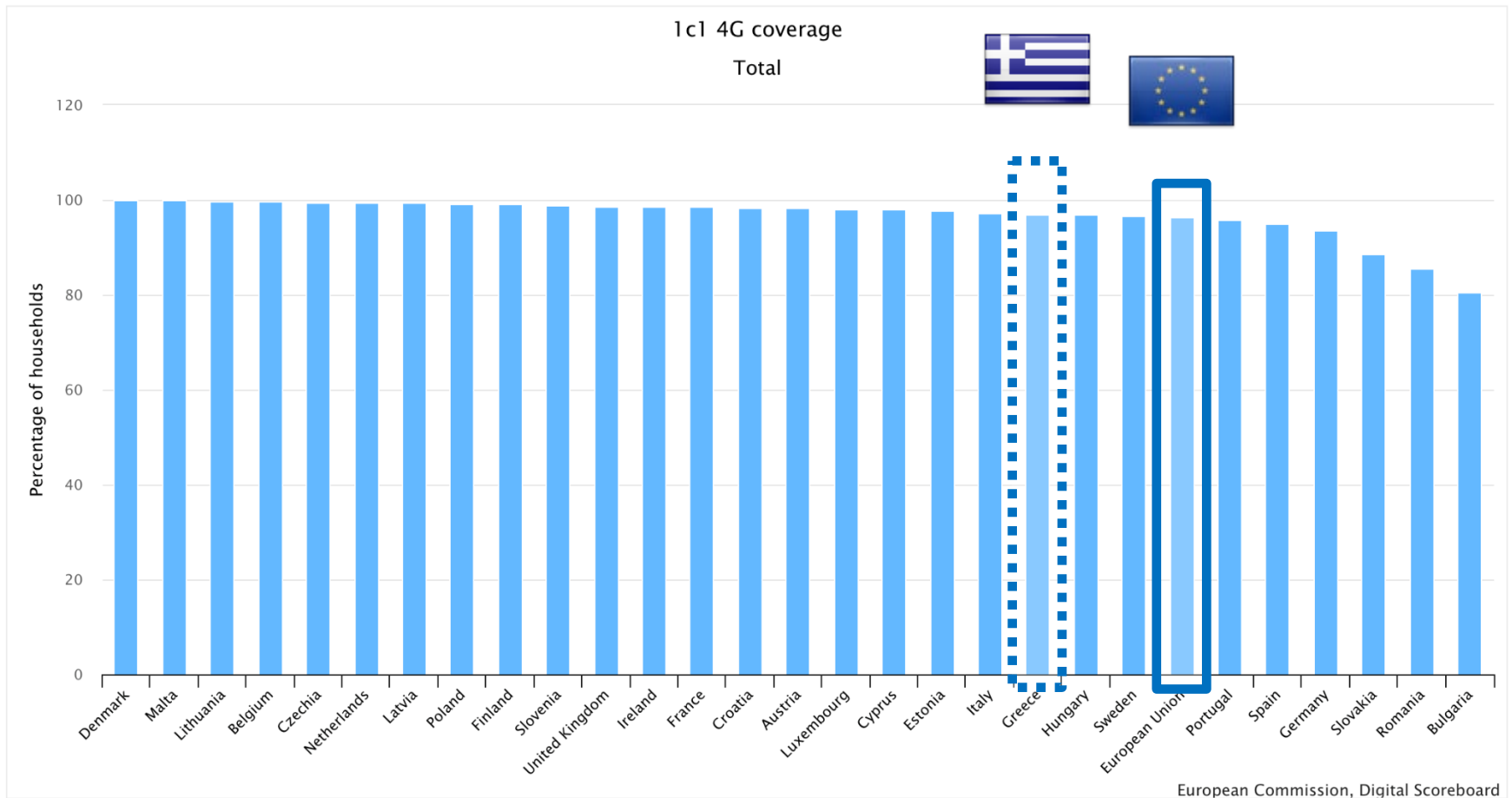
NGA Coverage in Greece



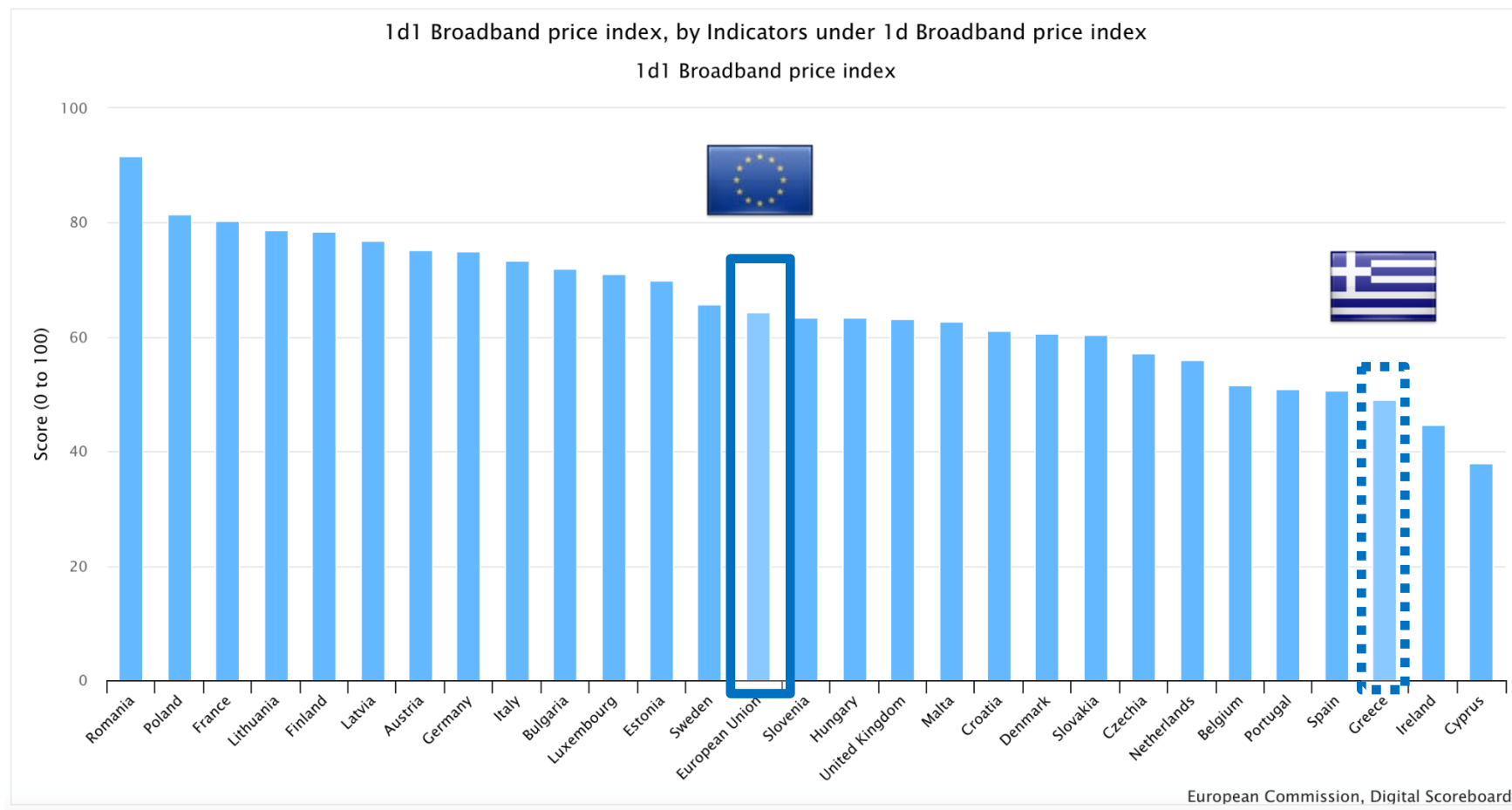
Very High Capacity Network Coverage



4G Coverage



Broadband Price Index



NGA Deployments

On going

- VDSL Vectoring (~2.8M lines)
- FTTH (~200K lines)

Future

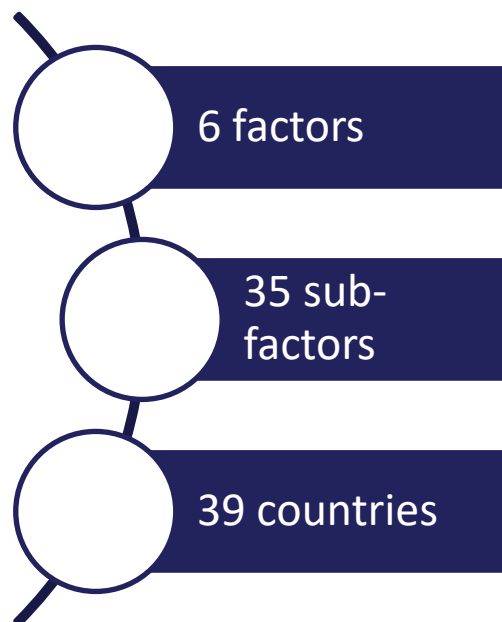
- UFBB: Competitive Dialogue

5G initiatives in Greece

- Cities:
 - Kalamata, Patra, Trikala, Zografou
- Corridor:
 - Thessaloniki, Sofia-Belgrade: Letter of Intent
- Spectrum auctions
 - Trial licenses (3.6 / 28 GHz)
 - 3.4-3.8GHz
 - 700MHz
 - 26GHz
- National plan

Europe 5G Readiness Index

www.incites.eu/europe-5g-readiness-index



Data Sources

OpenSignal

EUROSTAT

ITU

World Bank

World
Economic
Forum

Packet
Clearing
House

5G
Observatory

IMF

Prognosis

Main Factors

Infrastructure and technology

- Existing fixed and mobile infrastructure that will be used in 5G networks, 5G commercial nets as well as preparatory steps such as spectrum auctions and trials

Regulation and Policy

- Relate to the regulatory and policy framework

Innovation Landscape

- Potential contributors to the development of the new technology from a research and financial perspective

Human Capital

- Quality of the education system and lifelong learning initiatives

Country profile

- Existing economic state of a country, existing ICT industry competition and the government's reception of new technologies.

Demand

- Reception of new fixed and mobile technologies as well as the use of the Internet

Top-Bottom performers

Rank	Country
1	Finland
2	Switzerland
3	Germany
4	Denmark
5	Sweden
6	United Kingdom
7	Netherlands
8	Norway
9	Luxembourg
10	Austria

Rank	Country
30	Greece
31	Bulgaria
32	Georgia
33	Serbia
34	Albania
35	Croatia
36	Republic of Moldova
37	Ukraine
38	North Macedonia
39	Bosnia & Herzegovina

5G readiness of Greece

45.76

Index score

30 / 39

Global rank

19 / 20

Regional rank

Infrastructure &
Technology

45(26)

Regulation &
Policy

35(34)

Innovation
Landscape

31(31)

Human Capital

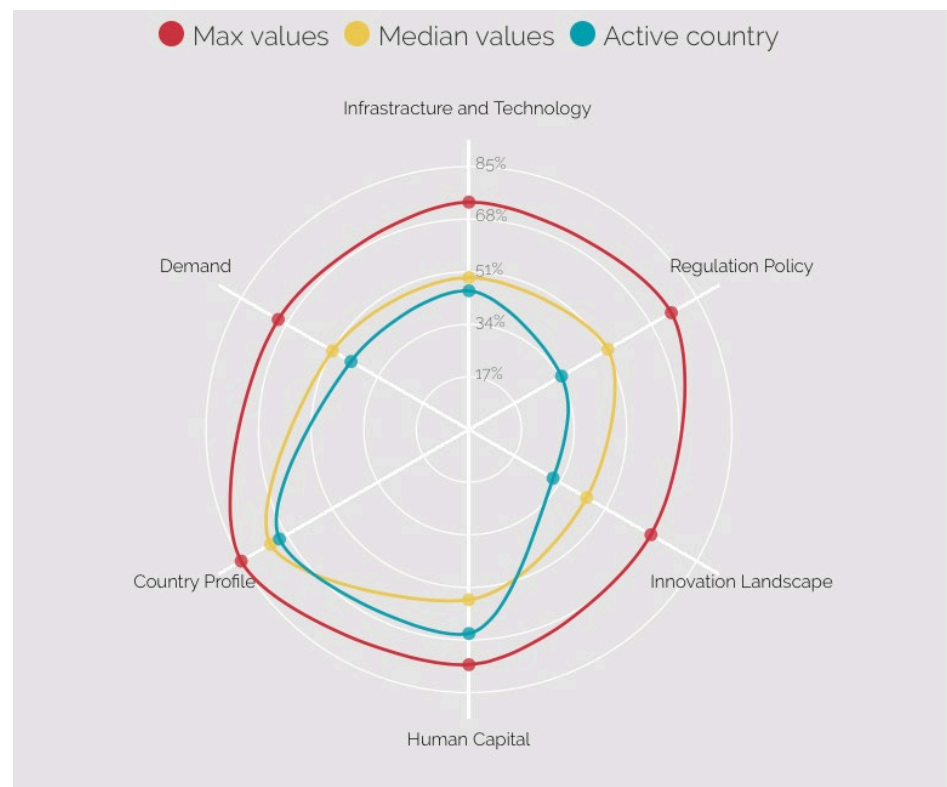
66(5)

Country profile

71(28)

Demand

44(28)



5G readiness of Greece

45.76

Index score

30 / 39

Global rank

19 / 20

Regional rank

Infrastructure &
Technology

45(26)

Regulation &
Policy

35(34)

Govt ensuring policy
stability

19,01

Legal fwk's adaptability to
digital BMs

28,31

Efficiency in settling
disputes

23,41

Public sector corruption

48,00

...

Innovation
Landscape

31(31)

Human Capital

66(5)

Country profile

71(28)

Demand

44(28)

Key points

- Connectivity is key element for Industry 4.0 and digital transformation
- Ongoing NGA deployments but still behind EU
- Improve our digital (5G) readiness
 - Create ecosystem and build relations
 - FTTX deployments to consider 5G requirements
 - Exploit assets (Human capital)
 - Develop applications and services in our Verticals

Thank you!

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