

5G in the EU

FUBinar – Impatto economica e sociale della diffusione del 5G
13th April 2022

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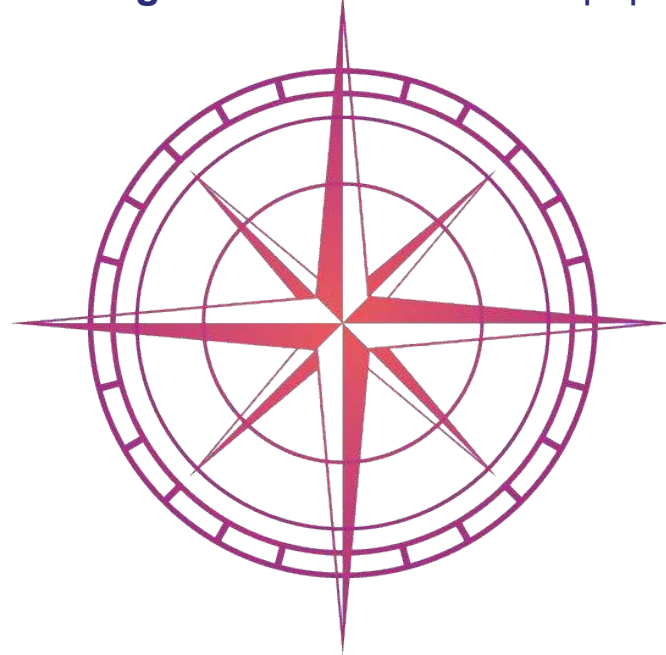
Investment in High-Capacity Networks - DG CONNECT

Europe's Digital Compass towards 2030

Skills

ICT Specialists: 20 million + Gender convergence

Basic Digital Skills: min 80% of population



Government

Key Public Services: 100% online

e-Health: 100% availability medical records

Digital Identity: 80% citizens using digital ID

Infrastructures

Connectivity: Gigabit for everyone, 5G in all populated areas

Cutting edge Semiconductors: double EU share in global production

Data – Edge & Cloud: 10,000 climate neutral highly secure edge nodes

Computing: first computer with quantum acceleration

Business

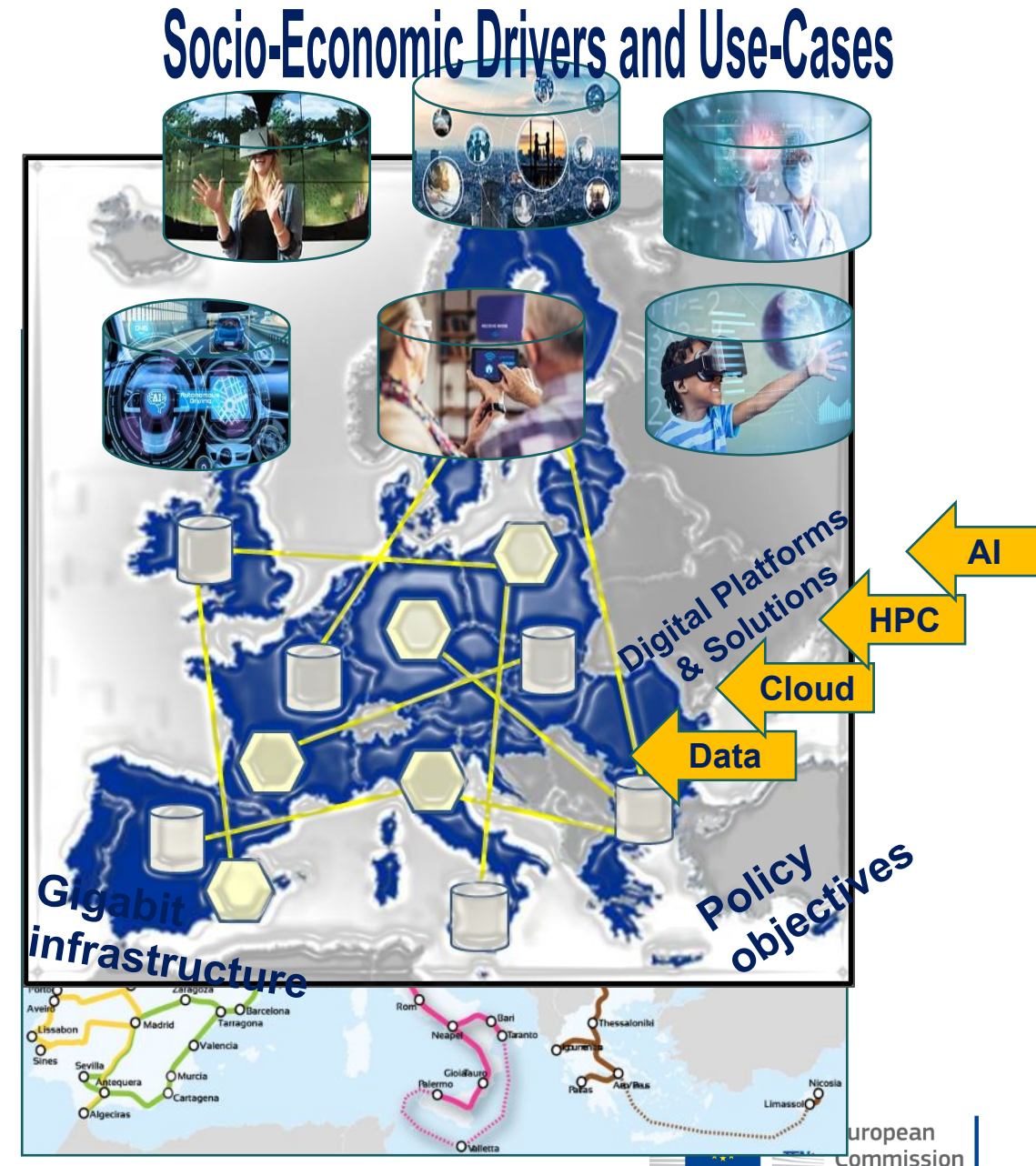
Tech up-take: 75% of EU companies using Cloud/AI/Big Data

Innovators: grow scale ups & finance to double EU Unicorns

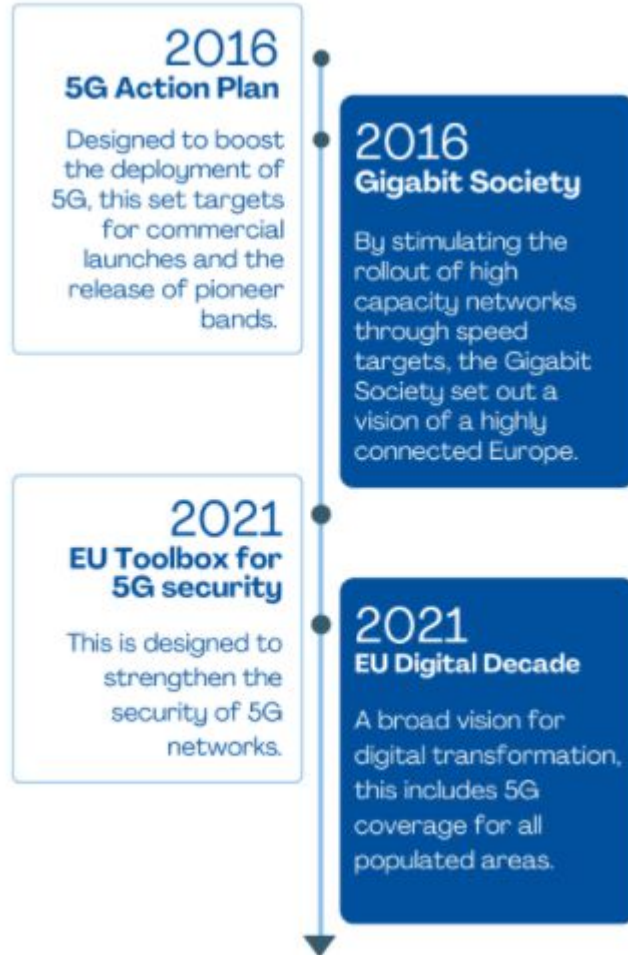
Late adopters: more than 90% of European SMEs reach at least a basic level of digital intensity

Connectivity for a post-COVID era

- Digital Decade policy targets:
- 1Gbps to all households
- 5G in all populated areas
- Strategic autonomy: foster the digital supply chain



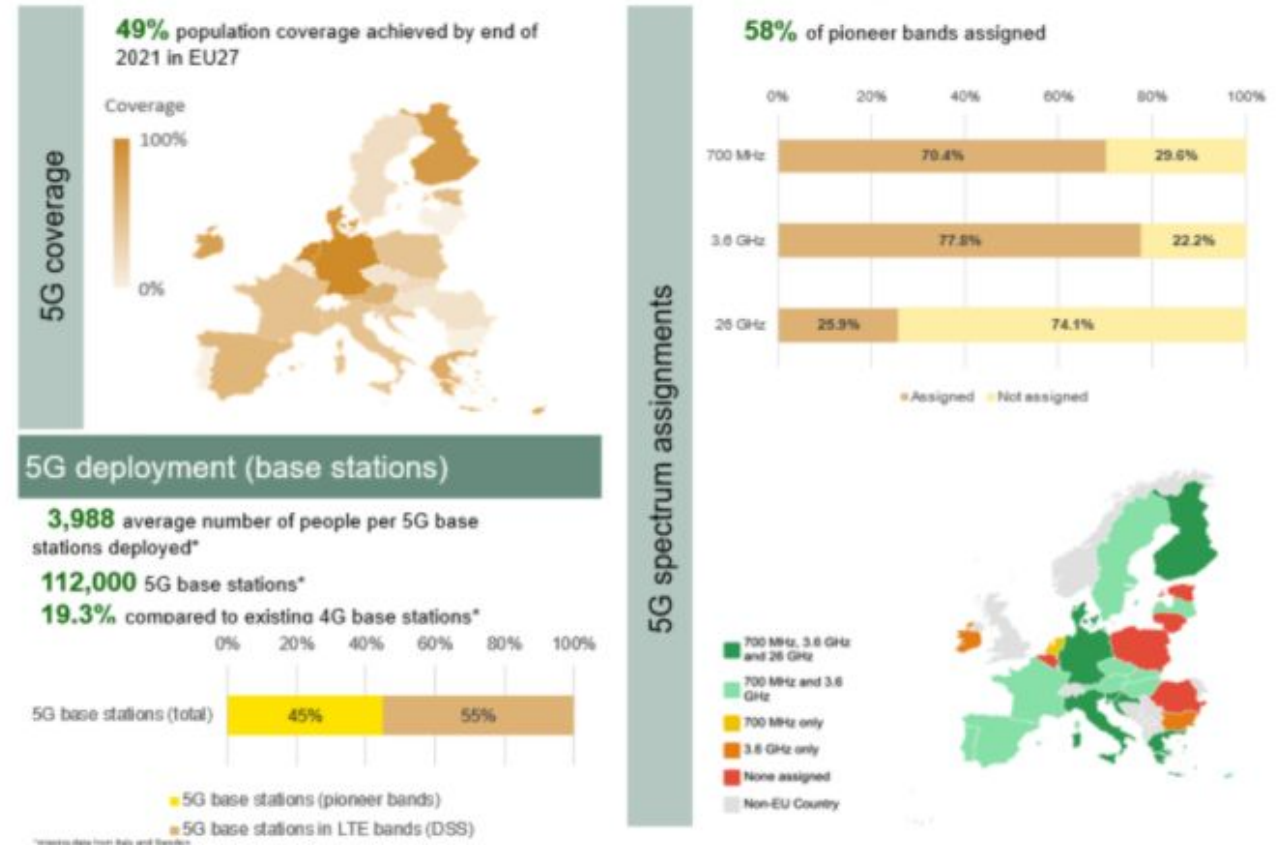
5G Policy







5G Scoreboard

The 5G scoreboard summarises the status of 5G rollouts, spectrum assignments, as well as 5G base station deployment in the EU and internationally.

5G scoreboard, January 2022



International scoreboard, January 2022

	 China	 South Korea	 Japan	 USA	 EU
5G Mode ⁶	NSA/SA	NSA/SA	NSA/SA	NSA	NSA/SA
Approximate number of 5G base stations	916,000	162,000	50,000	50,000	112,000
Population	1,402,000,000	51,780,000	125,800,000	329,500,000	447,706,000
People per base station	1531	319	2516	6590	3988
5G target bands assigned	700 MHz 2.6 GHz 3.6 GHz	3.6 GHz 28 GHz	3.6 GHz 3.6 - 4.1 GHz 4.5 GHz 28 GHz	600 MHz 2.5 GHz 3.45 - 3.55GHz 3.5 - 3.7 GHz 3.7 - 3.98 GHz 24 GHz 28 GHz 39 GHz 47 GHz	700 MHz 3.6 GHz 26 GHz
Indicative 5G subscriber numbers	166 million (China Mobile only; source: China Mobile Research Institute) 173 million (source: Ericsson 2020)	17 million (source: 5G Forum, Korea)	14.19 million (source: Japan times)	15.8 million (in Dec 2020; source: Insider Intelligence) 14 million (including Canada; source: Ericsson 2020)	8 million (source: Ericsson 2020)

5G R&D&I

- ❑ 5G Public Private Partnership R&D&I
Towards applications for the economy, for society, and for citizens
- ❑ Joint Undertaking for 6G Smart Networks and Services
- ❑ Latency, Capacity, Bandwidth: enabling new applications with connected objects
- ❑ Involving users from “vertical” activities: industry, transport, energy, health, smart cities



The 5G Infrastructure Public Private Partnership

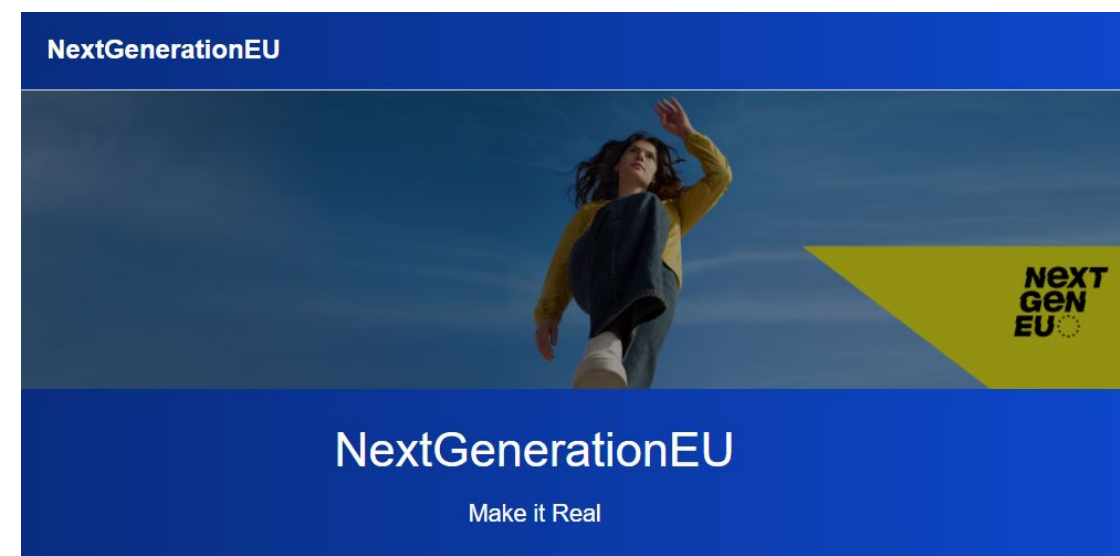


Recovery & Resilience Facility

- RRF is central to NextGenerationEU
 - 26% (EUR 117bn) Digital
 - EUR 13bn Connectivity

Cross-border projects:

- Microelectronics
- Cloud
- 5G corridors
- Very high capacity submarine cables



Make it Real

Make it green
Make it digital

- All 27 national plans refer to a 5G strategies
- 11 plans with 5G investments:
 - 5 on 5G Corridors
 - 5 on the Fibre for 5G in broad areas, including rural zones
 - 5 target municipalities or business parks and 1 public safety

Connecting Europe Facility - Digital

Actions supporting 5G infrastructure deployments

5G corridors along transport paths

5G for Smart Communities: 5G connectivity for socio-economic drivers

Actions supporting pan-EU backbone infrastructures

Connectivity for Digital Global Gateways

Pan-European cloud federation

Quantum Communication Infrastructure

Terabit connectivity for HPC

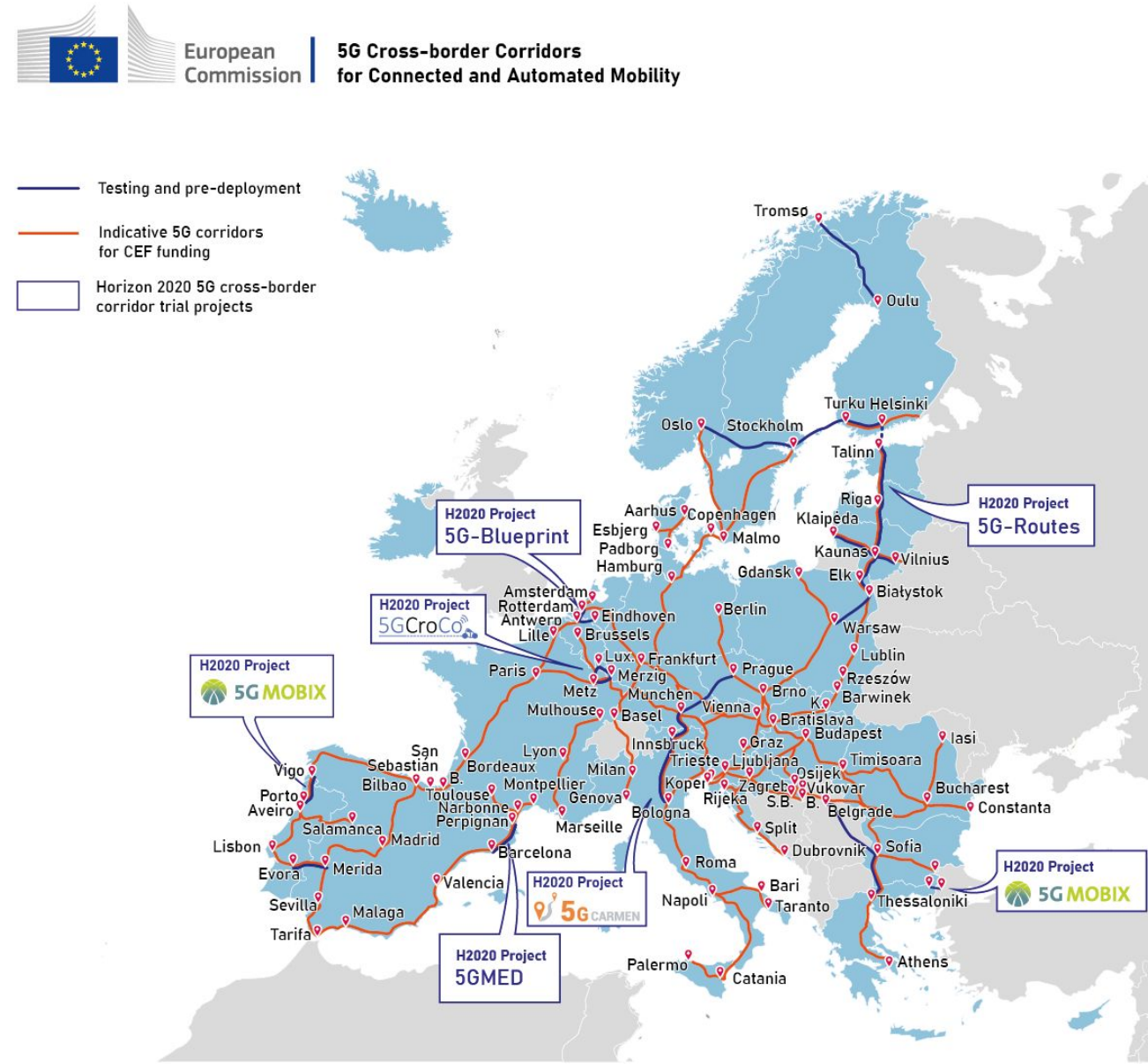
Operational Digital Platforms

Deployment of 5G Cross-Border Corridors

- transport paths : Investment required: ~EUR 5,4 bn
- Large-scale deployment (~€1B for 5G Corridors until 2027)

2022 open call:

- Works: early wave, EUR 100m
- Studies: EUR 6m (for EUR 240m next year)



5G for Smart Communities

- 5G systems □ innovative use-cases for public authorities, services of general (economic) interest
- Best practices as blueprints for replication
- EUR 80m until 2023- up to 75% 5G infrastructure co-funded
- First call for proposals: until 20th of April
- Operators + local authority/hospital/school/public safety
- Performance of 5G indispensable for the vertical use cases and not already available/planned



Thank you

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