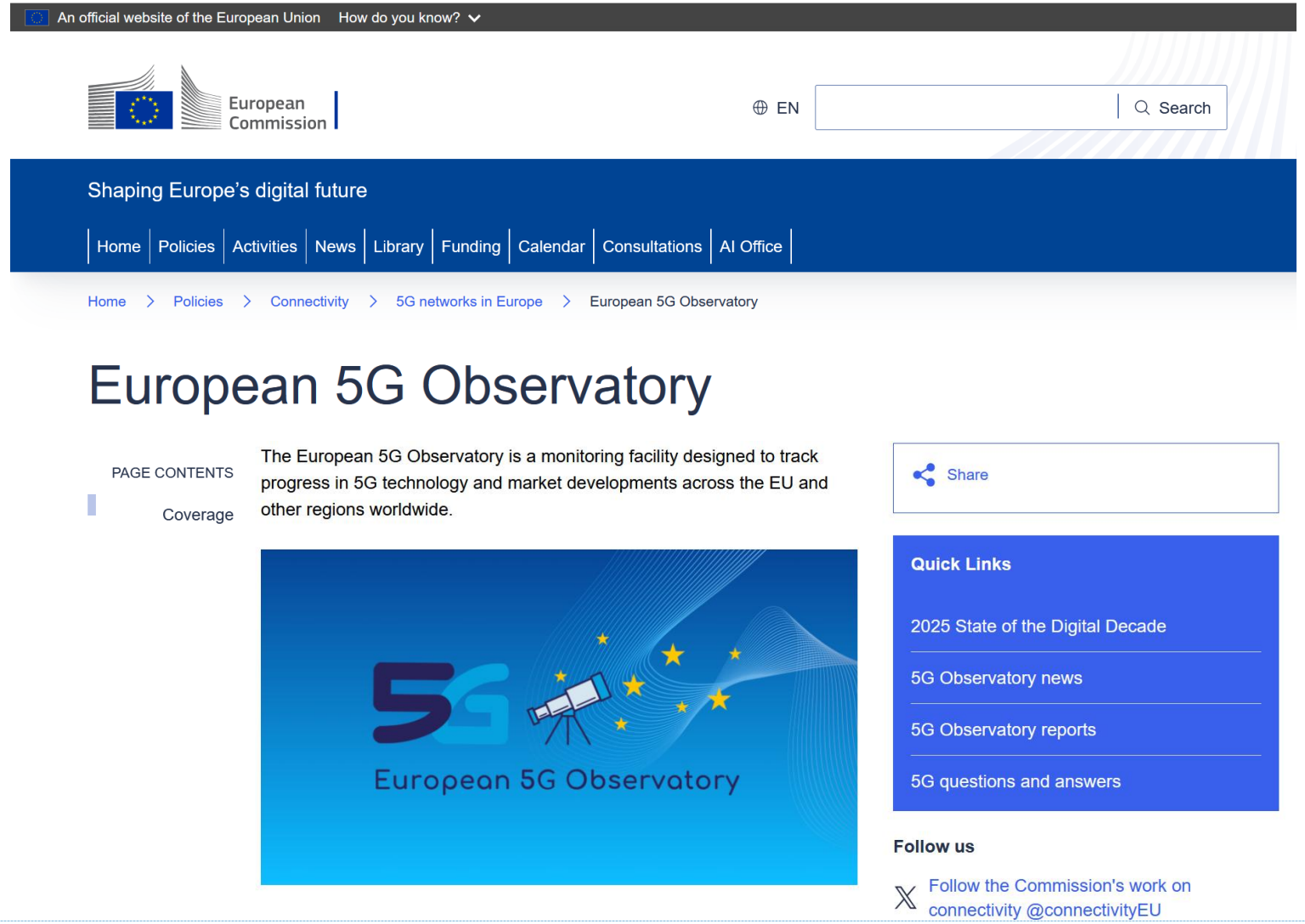
The European 5G Observatory

The new European 5G Observatory is online !



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European 5G Observatory

Objectives of the European 5G Observatory

The European 5G Observatory is a monitoring facility designed to track progress in 5G technology and market developments across the EU and other regions worldwide.

The 5G Observatory offers:

- **Comprehensive data**: the Observatory covers a wide range of metrics, from network coverage to market developments
- **Easy comparisons**: across countries and metrics, to help identify trends and gaps
- **Transparency**: the 5G Observatory's methodology will explain how the data is collected and processed

Moreover, the Observatory contributes to tracking advancements towards the Digital Decade's connectivity targets and comparing progress across countries. In time, 6G early developments will also be reported by the Observatory.

What countries are covered:

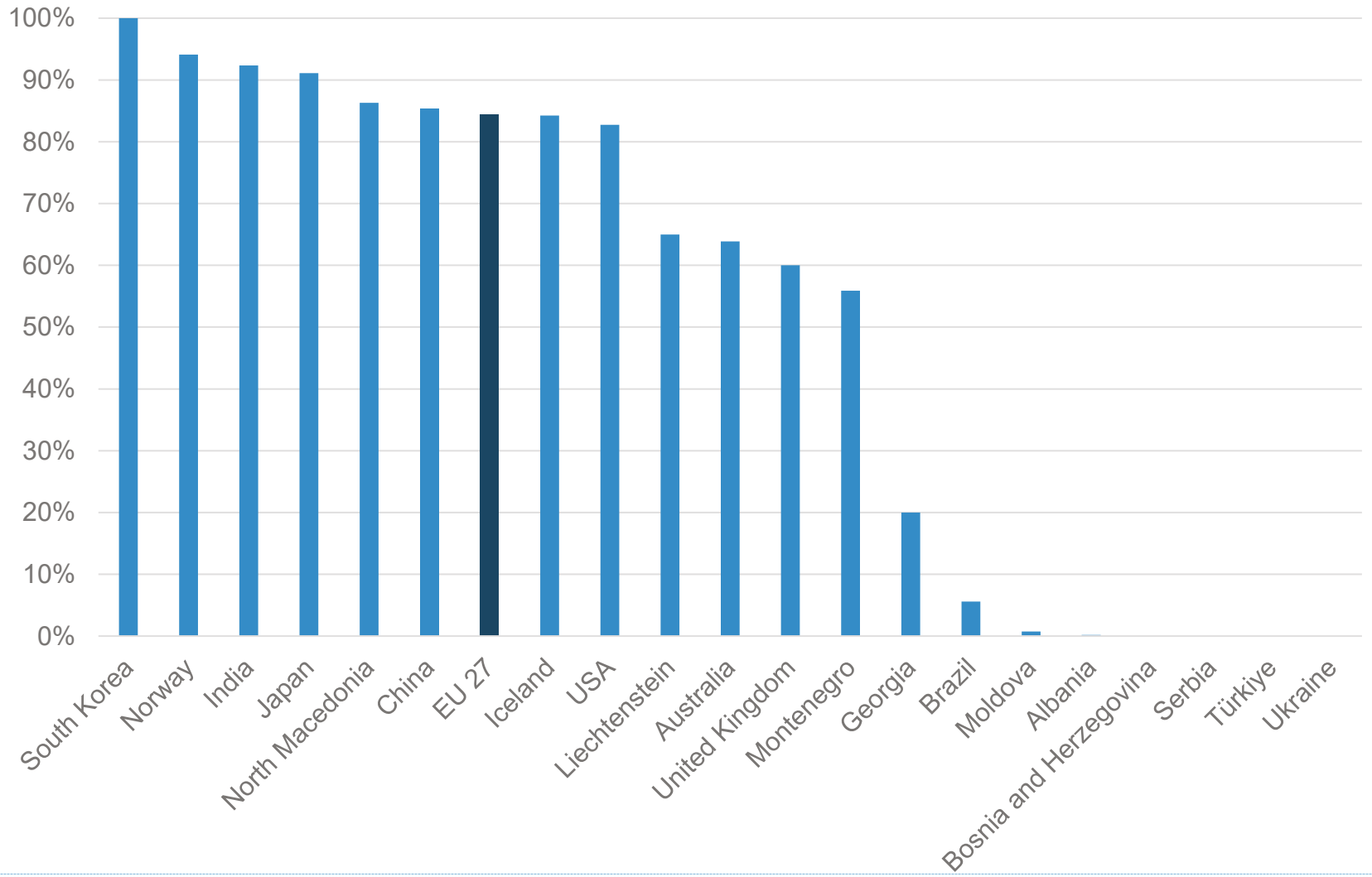
- **27 EU Member States**
- **20 additional non-EU countries**
  - 9 EU candidate countries (Albania, Bosnia and Herzegovina, Georgia, Moldova, Montenegro, North Macedonia, Serbia, Turkey, and Ukraine)
  - 4 EU non member states (Iceland, Liechtenstein, Norway and the UK)
  - 7 international comparison countries (Australia, Brazil, China, India, Japan, South Korea and the United States)

What information is available?

- **5G network coverage**
- **Deployment progress**
- **Quality of service and usage**
- **Spectrum allocation**
- **Infrastructure investment**
- **Market developments**
- **Policy developments**
- **5G verticals** (5G private networks, including its use in 5G)

The rollout of 5G in the EU is on par with the world's major economies

5G geographic coverage, %, Dec 24



- Internationally, the EU27 stands 7th out of the 21 international countries
- One place behind China
- 2 places in front of the USA

- South Korea has already reached country coverage in April 2024

- Close behind, India (92.3%), Japan (91.1%), and Norway (94.1%)

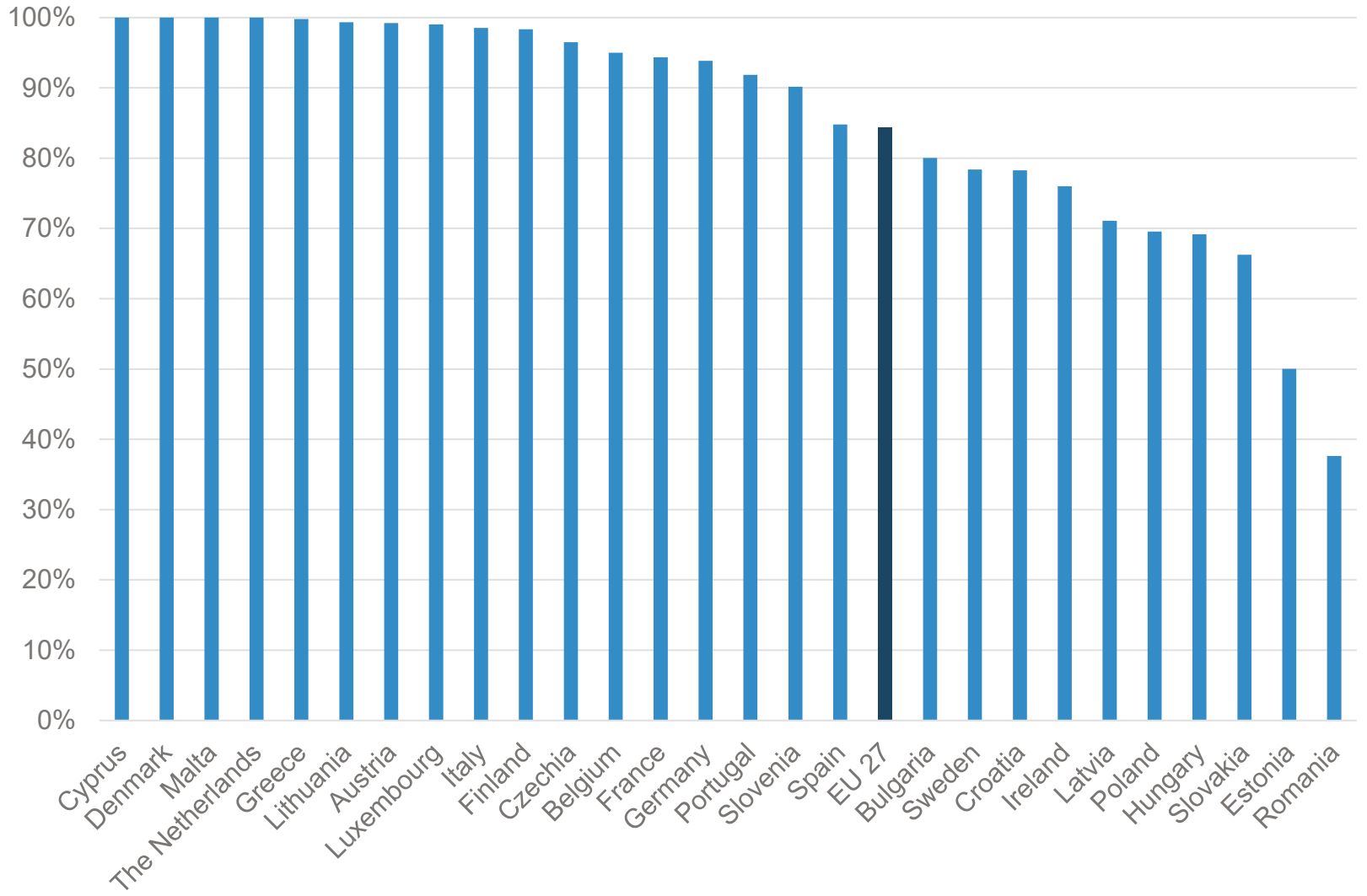
- Countries such as Australia (63.9%), the UK (60.0%), Liechtenstein (65.0%), and Montenegro (55.9%) are in a middle bracket.

- Albania (0.2%) – launched in September 2024 – Moldova (0.7%), Brazil (9.0%), and Georgia (20.0%) show minimal deployment.

- Bosnia Herzegovina, Serbia, Turkiyë and Ukraine had yet to launch 5G

5G geographic coverage in the EU27

5G geographic coverage, %, Dec 24



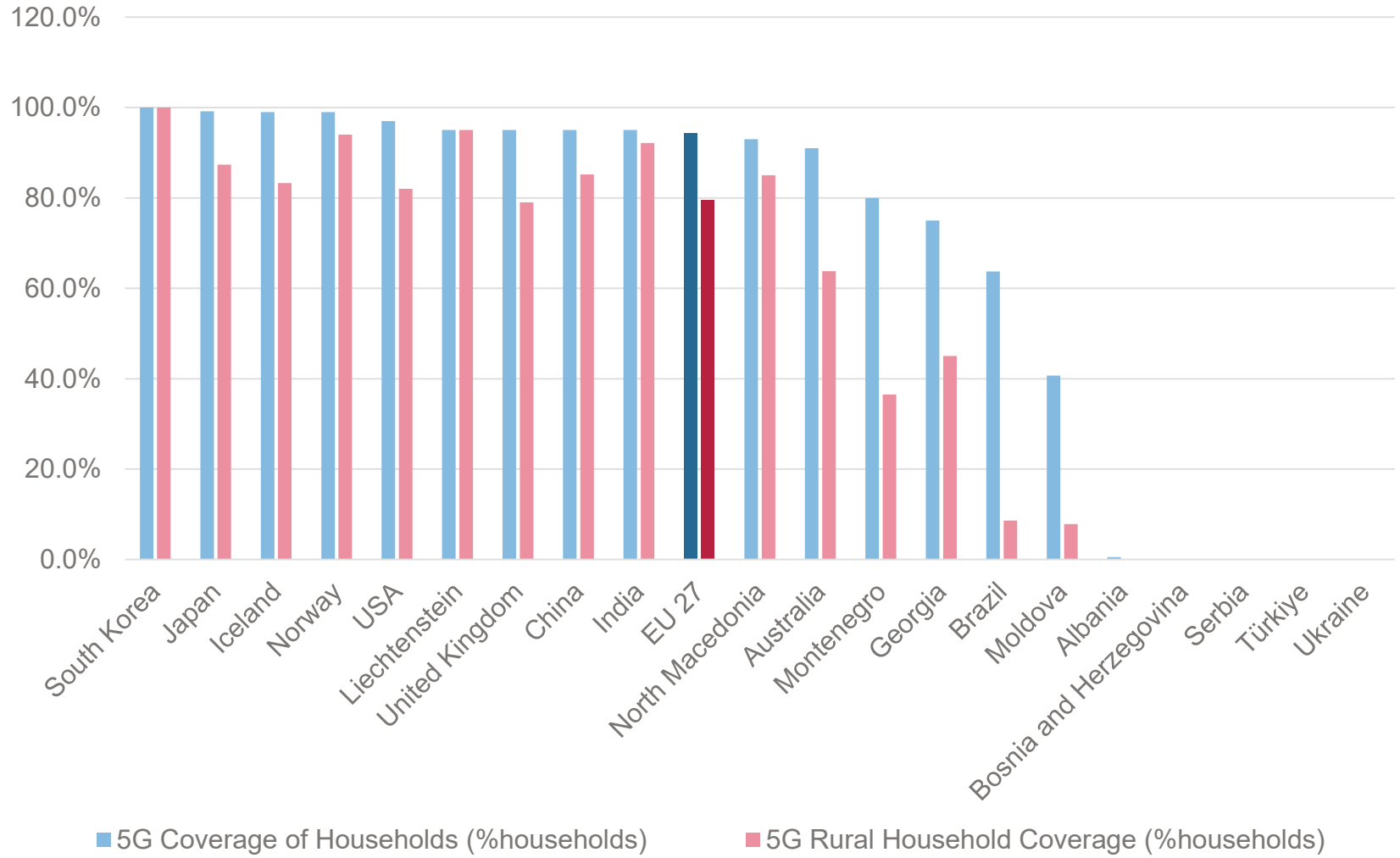
While the EU average of **84.4%** suggests strong overall progress, the gap between full coverage leaders and lagging countries is striking

- nearly **2/3rd** of the Union is close to saturation,
- a handful of states are still in the early stages of deployment.

This unevenness (with EU27 median coverage at **93,9%**) raises challenges for digital cohesion and competitiveness across the EU.

International comparison of 5G coverage of households vs rural coverage

5G household coverage, %, Dec 24



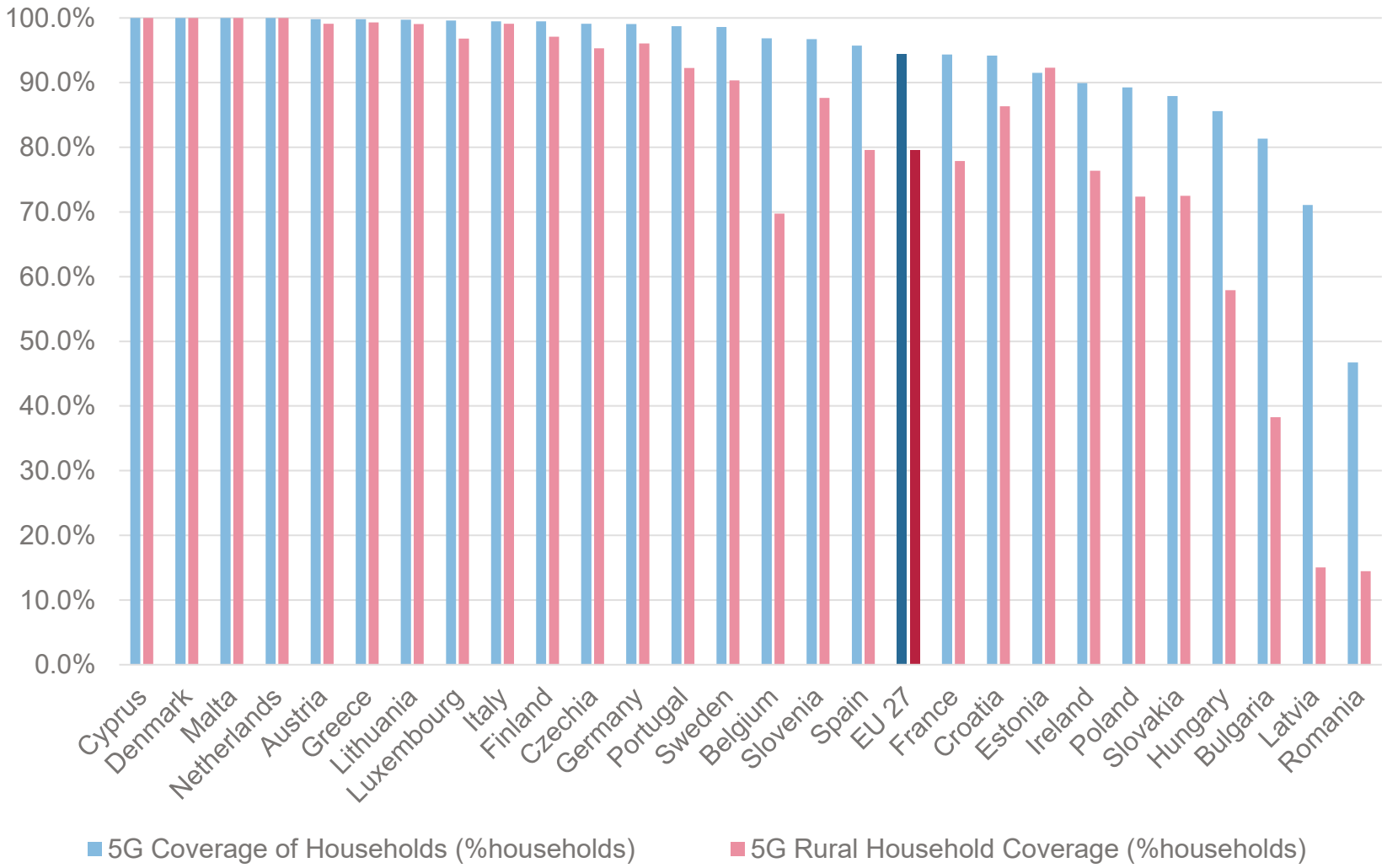
Europe's challenge is not urban households (where coverage is nearly universal) but **rural rollout**, which still falls short compared to the most advanced global peers.

- EU27 is globally competitive on household coverage (94.3%), close to China, the US, and India.
- Rural households are the weak spot: at 79.6%, the EU trails leaders like South Korea, Norway, and India, where rural coverage is above 90%.

The digital divide is widest outside the EU in countries like Brazil, Moldova, Montenegro, and much of the Western Balkans, where rural areas are barely connected.

Comparison of 5G coverage of households vs rural coverage (EU27)

5G household coverage, %, Dec 24



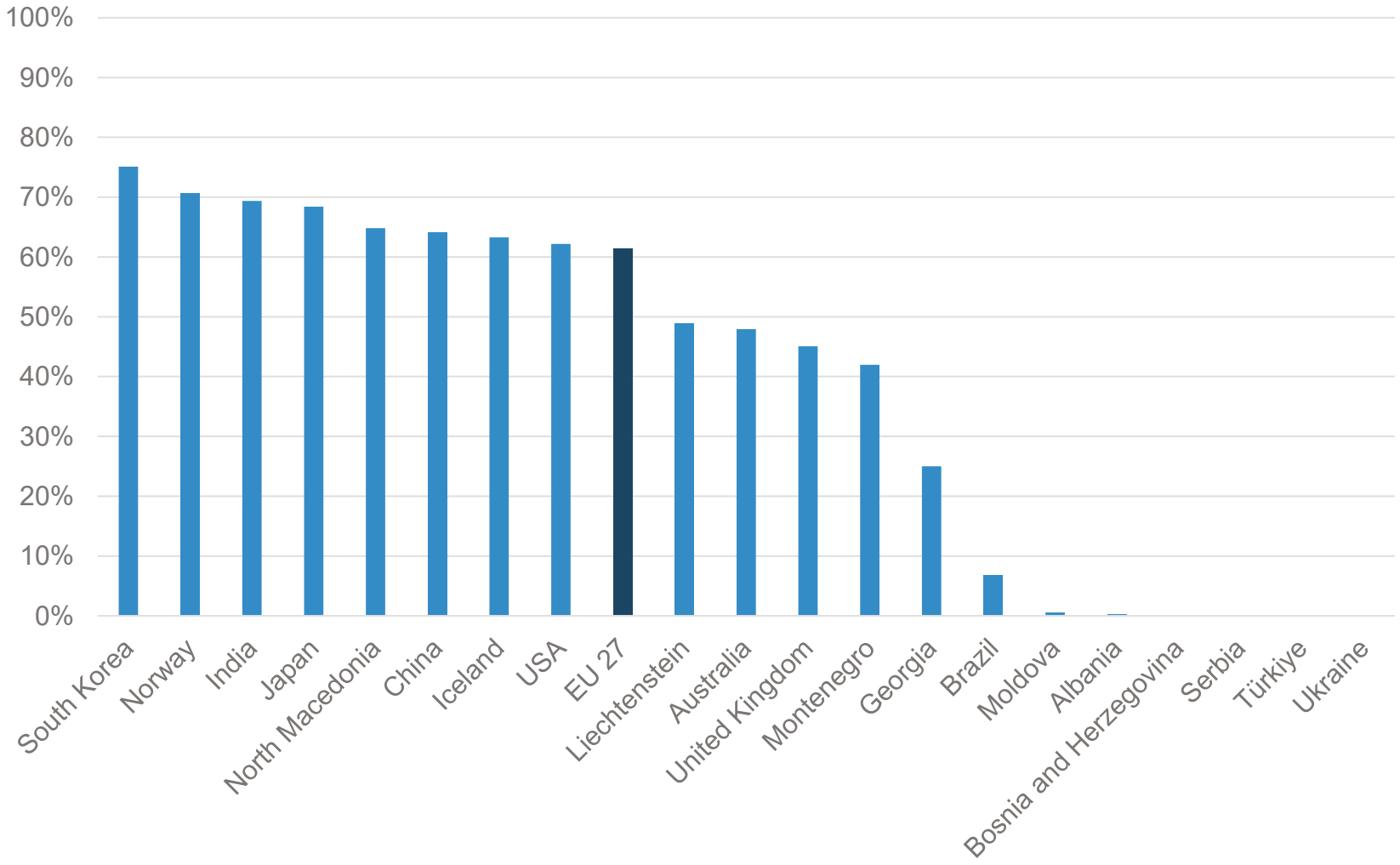
While the EU is approaching universal household coverage overall, rural households remain systematically disadvantaged.

The divide is small or non-existent in leading countries like Denmark, Cyprus, and the Netherlands, but significant in others such as Hungary, Bulgaria, Latvia, and Romania.

Bridging this rural gap is crucial if 5G is to serve as a foundation for inclusive digital transformation.

Indoor coverage: a pressing challenge (international comparison)

Dec 2024



The EU27 average (61.3%) places Europe in the middle of the global pack:

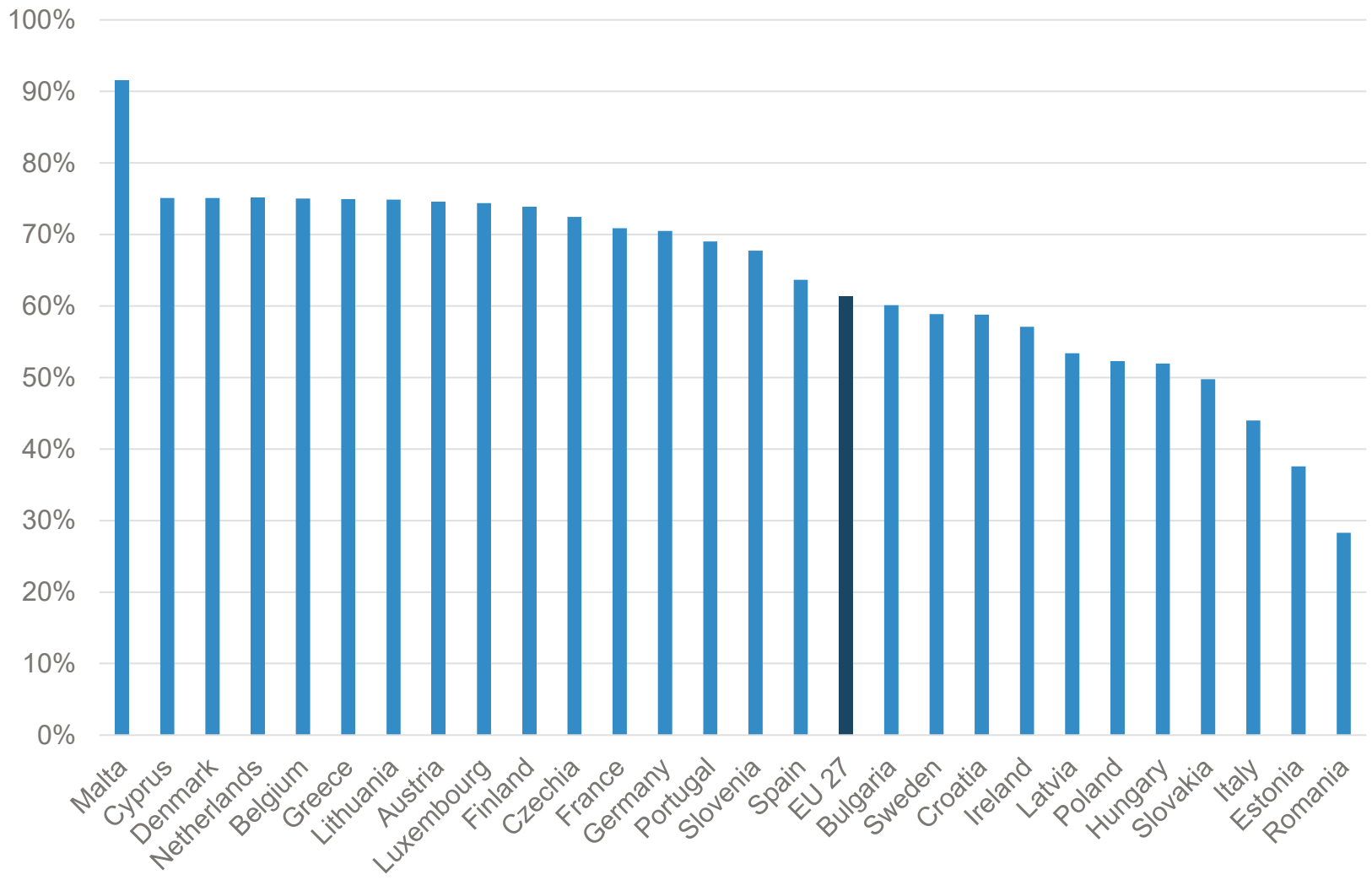
- behind Asia's leaders (South Korea, Japan, India, China) and Norway,
- but ahead of countries like the UK, Australia, and most of the Balkans.

The real global benchmark is Asia, where indoor coverage consistently exceeds 65%.

The EU's challenge is to narrow the gap with Asia's frontrunners while maintaining its advantage over regions where indoor coverage is still minimal.

Indoor coverage: a pressing challenge (EU27)

Dec 2024



The EU27 average (61.3%) highlights that indoor coverage is far weaker than household coverage (94.3%).

Small and compact countries (Malta, Cyprus, Denmark, Netherlands) outperform, since fewer base stations are needed to achieve full indoor reach.

Larger economies like Germany and France have pushed indoor coverage above average, but gaps persist in rural and older urban buildings.

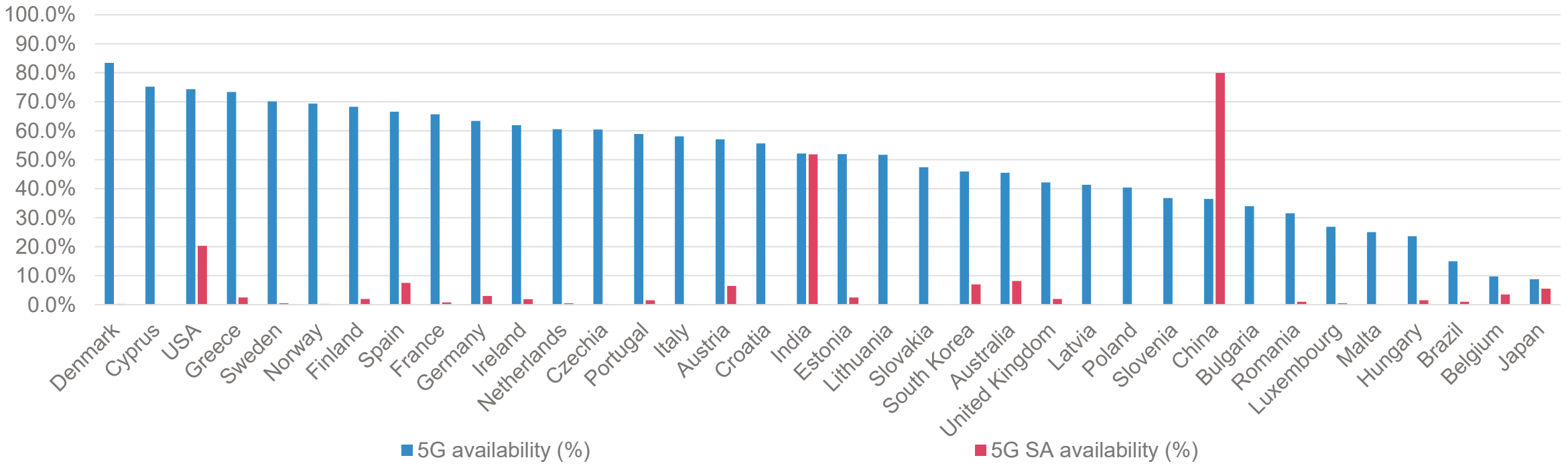
Eastern and Southeastern Europe lag far behind, with Romania, Estonia, and Slovakia showing how late rollout, lower investment capacity, and more challenging infrastructure environments hinder indoor penetration.

Moving to the demand-side: 5G NSA and SA availability

Dec 2024

Europe has achieved widespread 5G coverage on NSA, but is lagging heavily in SA rollout, which is where advanced features (low latency, slicing, enterprise use cases) become possible.

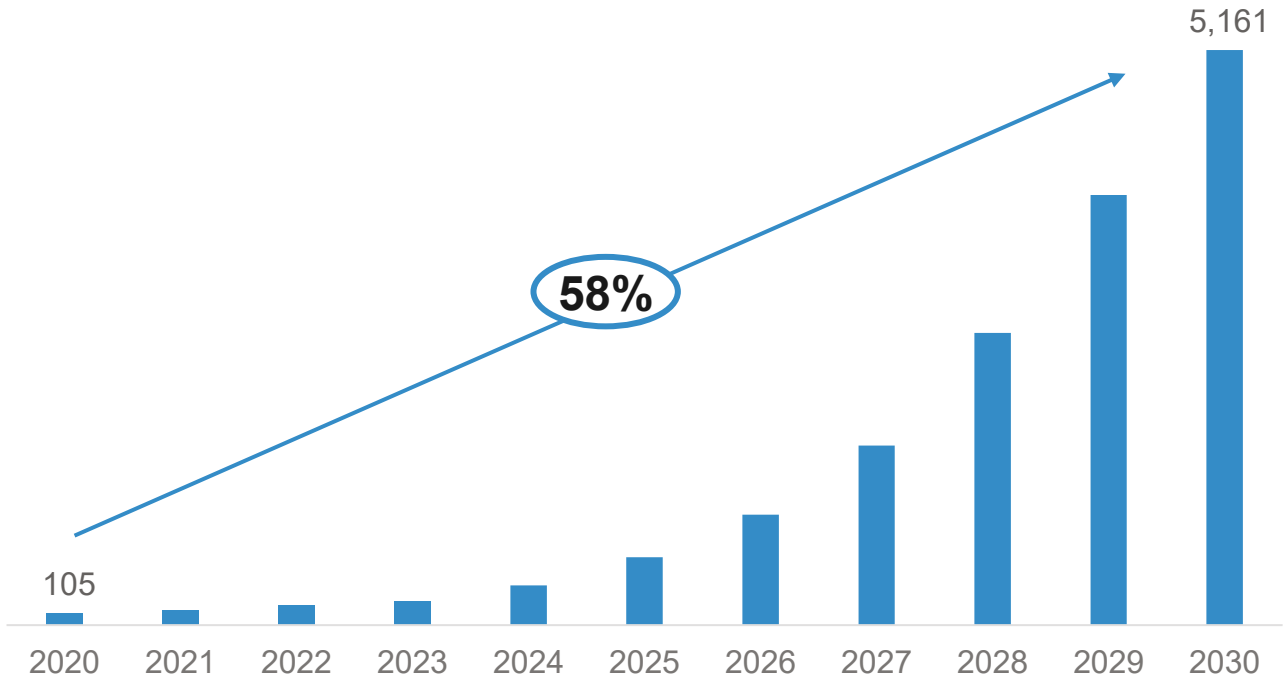
Compared internationally, the EU is mid-table on total 5G coverage but near the bottom on SA. The US, China, and India have pulled ahead, and even smaller economies like Australia are ahead in SA adoption.



Availability is how often users are really on 5G (NSA or SA). Sources come from Ookla reports or from an estimate based on OpenSignal reports

Revenue from private 5G networks* in Europe is expected to increase by 58% annually.

Market for private 5G networks in Europe (*including non-EU countries*) *MEUR*

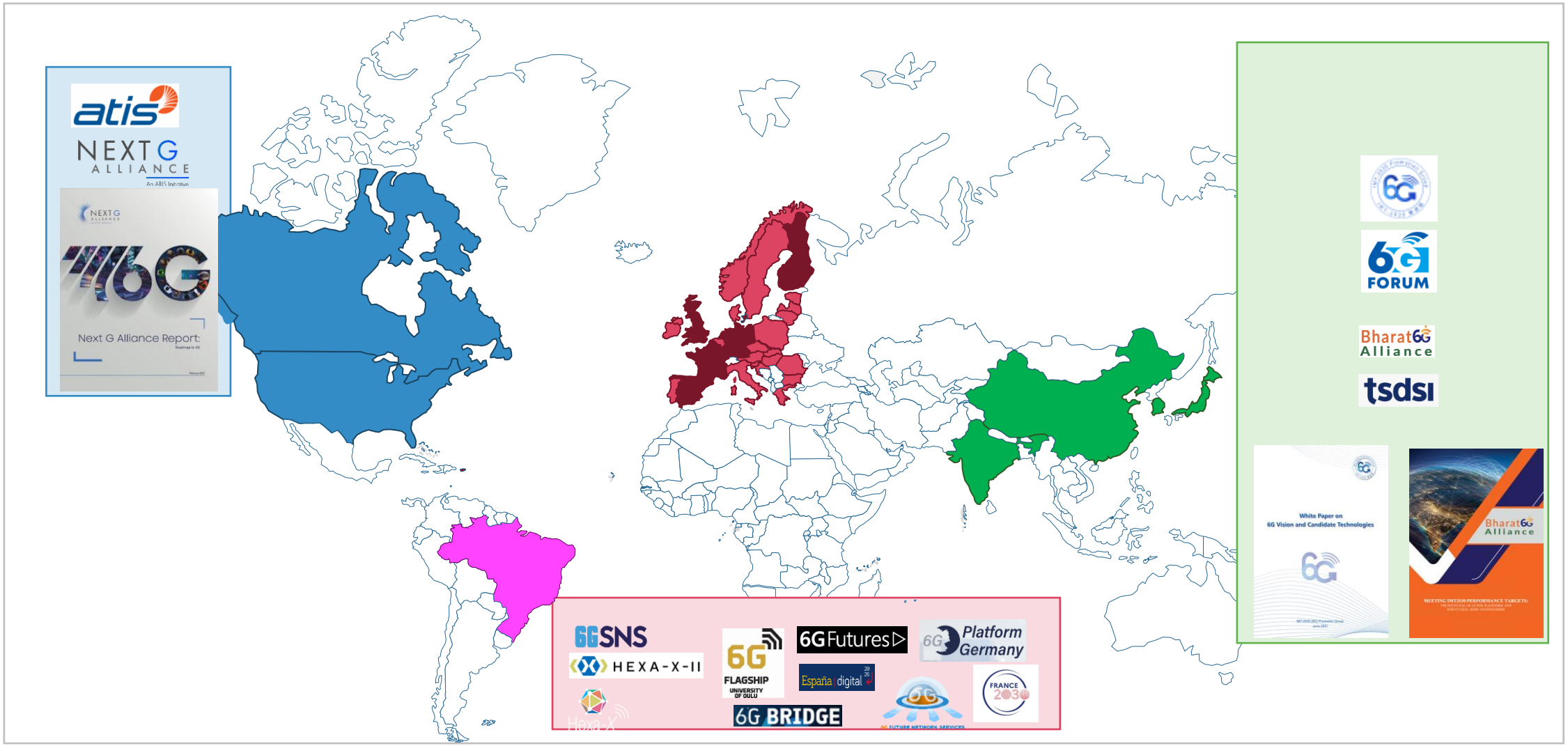


Currently, ~200 private 5G networks are deployed in the EU.

Source: IDATE, *Private 5G in Europe*

** only network-related revenues (core network, RAN, connection and transport)*

The battle to influence 6G standards is on



Source: IDATE, *World 5G markets and 6G emergence*, September 2025

THANK YOU

European 5G Observatory |
Shaping Europe's digital future