

**Time is tight for
telcos on 5G
strategies—
even as the
European
rollout lags**

Kearney's 5G Readiness Index reveals that Europe's telcos need strategies for rolling out 5G if the region hopes to catch up with the United States and other markets.

While European operators have talked about bringing 5G services to customers for some time now, actually doing it is new territory. It's demanding far more than 4G when it comes to planning, investments, and strategies, and the monetization potential is far greater, too. Of all the regions in the world, Europe may need to realize this most. The second year of Kearney's 5G Readiness Index reveals that Europe still lags other parts of the world in getting ready for a full-scale 5G rollout. It is coming, however, and when it arrives, the European telcos that have taken leaps now will reap its full benefits then.

A country's 5G readiness depends on three factors:

- **Spectrum availability.** Is 5G available in all three bands: low, mid, and high (mmWave)?
- **Deployment.** What share of operators have launched 5G services in each band class, and how many have a standalone 5G core?
- **Commercialization.** What steps have operators taken to capture a 5G share of all mobile subscriptions?

Our 2022 5G Readiness Index considers all of the above factors and more. (We expanded the survey this year. See sidebar: A note on methodology.) Since the first edition of our Index in 2021, we have seen launches of standalone 5G cores in more countries that enable telcos to offer customers innovative new services using capabilities such as low latency, massive concurrent connections, and network slicing. Maximizing their efficacy will depend on dynamic ecosystems that have yet to be created. These could become de facto standards or even create new control points in the value chain.

Hence, the importance of being at the forefront of 5G innovation and not simply a buyer of someone else's. Getting there will require understanding what it takes for your country and your market to be 5G ready.

A note on methodology

For a more comprehensive look at 5G's evolution, Kearney updated its 5G Readiness Index for 2022. It is now based on the overall maturity of the telecom and mobile markets, socioeconomic development, and 5G spectrum availability, deployment traction, and commercialization. We added more countries from the Americas, Asia, and the Middle East for broader context against Europe's positioning.

The Index now includes the 28 countries listed in figure 1 on page 2. To be included, countries must have launched 5G by the fourth quarter of 2021. Finally, we changed how we calculated some criteria and their weightings compared with the 2021 Index, which means scores are not directly comparable.

The 2022 5G Readiness Index: the United States leads, and Europe is still sluggish

“Europe is falling behind on 5G!” is a cry we heard at the latest Mobile World Congress. The [Kearney 5G Readiness Index 2021](#) reflected it, and our 2022 Index confirms it, at least for now (see figure 1).

Overall, 11 out of 28 countries we now track have at least one operator with a standalone 5G core launched. Asia leads with seven countries, while Europe trails with just Finland and Germany reaching this point. Only in two countries have all operators launched standalone cores—Singapore and China—opening up their markets for a 5G transformation.

This year’s Index reveals that only 10 countries have made high band spectrum available, and operators in just five of them (the **United States, Australia, South Korea, Thailand, and Japan**) have launched full commercial services within it. So far, no European countries have gotten this far, although select services have been launched on limited mmWave licenses, including in Germany. The lack of availability of mmWave spectrum is disappointing because its advantages are the cornerstone of new, high speed 5G-enabled services.

Figure 1
Kearney’s 2022 5G Readiness Index reveals that Europe is still lagging other countries



Source: Kearney analysis

The Index identified more key developments during the past year:

- The **United States** continues to push ahead of other countries. Its regulator has provided spectrum in all three band classes, and national operators have made the most of it by launching services. One operator has launched a standalone 5G core. **Canada** also has an operator offering 5G services via its new standalone core.
- **South Korea**, which ranked second in the 2021 Index, has dropped to fifth because it has not made low band spectrum available, despite high subscriber penetration.
- Most **Nordic countries** are pulling ahead, thanks to wider spectrum availability and broader deployment across bands, but **Sweden** is held back by the lack of mmWave spectrum as full availability of 26 GHz isn't planned before 2025. This slows Sweden down and risks muting consumer excitement.
- **Germany** moved from laggard to leader of the EU4 (France, Germany, Italy, and Spain) plus the United Kingdom, thanks to operators launching 5G in multiple bands. Only one operator has launched a 5G standalone core.
- **France** now trails other larger European countries because of its late launch of 5G (November 2020) and customers' apparent limited interest in it.
- A strong showing in the Middle East (**Saudi Arabia**, **United Arab Emirates**, and **Qatar**) is a testament to their networks' quality and strong rollouts. Penetration is 9 to 11 percent. A Saudi operator has launched a standalone 5G core.
- **Australia** was one of the first countries to launch 5G, has continuously expanded spectrum access across all bands, and enjoys successful commercialization. It has 18 percent 5G penetration, the second highest in the Index.

We also uncovered the following findings:

- Take-up (as a percentage of total subscribers in the first quarter, 2022) is paltry across Europe. **Switzerland** is the best with 13 percent but launched in April 2019. **Belgium** is the worst offender at 1.7 percent of connections. Take-up is 31 percent in **South Korea**.
- In **South Korea**, the government has announced a push for creating an ecosystem of companies that innovate and leverage 5G (aiming for 1,800 5G service firms by 2026). They understand operators won't be solo drivers but enablers.
- Rollout of new capacity in the **United States** allows operators to launch impactful services, such as 5G fixed wireless access (FWA). One operator is using 5G to equip ambulances with high-quality video feeds that medical professionals can view while patients are en route.

Europe is behind, but not irreparably so. Vigilance and focus are required, together with operators' preparation to win with 5G when their countries have reached ready status.

How telcos can win with 5G

European operators will need to do two things to reap 5G’s full benefits:

Execute a rapid technology transition to 5G, anchored by a standalone core. The core is essential. If you haven’t deployed it already, do so at the earliest opportunity to unlock all the innovative new products and services that 5G will offer. As soon as the radio access network (RAN) and core network infrastructure are online, be aggressive in promoting network capabilities to partners and third-party developers, working together to adopt new business models.

Monetize 5G step-by-step, building up to an ecosystem of products, services, and partners. This is about achieving the highest aspirations possible for monetization, but the path must be charted carefully. Initial steps on basic pricing can take place early, but tackling intermediate and advanced pricing structures will take discipline, vision, and some risks (see figure 2).

Right now, 5G lacks killer uses cases to drive customer uptake. Without seductive 5G products or services, people won’t see its benefits. Yet, operators wonder whether advancing investment in 5G is wise. It’s classic chicken-and-egg, but it will start somewhere, spearheaded by first-mover operators along with third-party providers that will figure out what will make everyone want 5G. Plan monetization first with small steps, and then plan the ecosystem to realize its potential.

It still may seem like early days in the 5G journey, but time grows shorter for European telcos to catch up with the United States and other markets. Getting your strategy rolling now is the only way to take advantage of the European market when it becomes fully 5G ready.

Figure 2

A methodical approach can help telcos fully monetize 5G

Illustrative and conceptual

Monetization aspiration
The higher the ambition, the more discipline will be required to maintain pricing.

	Description	Offering
Level 3	Expose network capabilities as APIs through platform-facing third-party developers to achieve a B2B2X model.	Become the go-to platform for 5G developers, and enable the developer community to effortlessly use network APIs in apps (such as a low-latency in-app purchase in a game for more fluid game play).
Level 2	Develop a dynamic pricing construct that adjusts on-the-spot pricing to actual network performance conditions.	Articulate a dynamic pricing construct to subscribers who will have to trust that the offer is fair and provides a valuable service. (For example, offer fast lane for a small fee when the network is congested.)
Level 1	Implement a network performance-based tiering structure to differentiate data subscription plans across the portfolio.	Design a data plan portfolio around speed, latency, and (if permitted) QOS expectations. This could work in concert with data bucket allowances or as a replacement of such a structure.
Level 0	Drive an ARPU uplift and margin expansion from pricing 5G subscription plans above existing levels.	Maintain a flat performance structure. Consider charging customers more when upgrading from 4G to 5G devices or when requesting 5G-like speeds.

On becoming a 5G ecosystem curator

The network is becoming increasingly software based; this creates an opportunity to expose advanced network capabilities to third-party developers through an API platform. The provider will organize, support, and engage the developer community, serving as the enabler of the emerging ecosystem. This new B2B2X business will result in a two-sided business model to both achieve platform economics and also drive the underlying business.

Note: B2B2X is business to business to X, a business model in which a company can deliver services to a variety of users. API is application Programming Interface; ARPU is average revenue per user; QOS is quality of service.

Source: Kearney analysis

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