Connect Europe's Input
to own-initiative report on

European technological sovereignty and digital infrastructure

Connect Europe

Connect Europe, representing the leading providers of connectivity networks and services in Europe, wishes to share its initial perspectives on European technological sovereignty and digital infrastructure from the standpoint of the European telecommunications industry, as the ITRE Committee prepares to develop its own-initiative report on these critical matters.

KEY RECOMMENDATIONS

Key Recommendations

- **Enable in-market consolidation as a stepping stone towards the European Single Market.** We should reduce fragmentation and improve operators' ability to innovate and invest into inclusive networks to the benefit of all end-users. Adapt competition policies accordingly to ensure the European industry is on a better, fairer footing when negotiating, partnering and competing with global tech giants.

- **Adopt a new policy approach for the telecom sector, driven by the upcoming Digital Networks Act (DNA),** that fosters sustainable growth and innovation and supports investment in the European industry. Key elements should include a deregulatory push of today's telecoms framework (by overhauling and simplifying existing telecoms rules) to align with competitive market realities while prioritising investment and removing regulatory barriers that hinder cross-border operations and synergies.

- **Revise the radio spectrum framework** to ensure better legal certainty and encourage greater investment in infrastructure. This should be achieved primarily through a longer duration of spectrum usage rights, fair pricing, and ensuring timely access to additional spectrum.

- **Promote European industry cooperation** to foster the development of European solutions in cloud, AI, and virtualization technologies, reducing dependency on non-European providers and strengthening EU's strategic autonomy in key technologies.

- **Support innovation "made in Europe",** by introducing a European preference clause in public procurement, while recognising that providers of European solutions may rely on complex ecosystems and global supply chains.

- **Preserve the current functioning of CEF Digital** to support investment in 5G networks and services, backbones, and submarine cables, while strengthening its budget. Ensure that relevant EU funding is allocated to fostering an ecosystem for network-related innovations, such as Open RAN and edge cloud.

- **Reform the IPCEI funding mechanisms** by reducing bureaucracy and focusing on impactful allocations to support the continued development of AI and edge-cloud technology at scale.

- **Apply the 25% red tape cutting target** to the telecom regulatory framework as well as all EU rules affecting the sector.

1. The Telecom Sector

- Telecommunication networks underpin Europe's socio-economic growth and are crucial to the twin transition and sustainable development of European companies and SMEs. The telecom sector is responsible for achieving the key goals of the European Digital Decade – gigabit connectivity for all by 2030 and full 5G coverage in populated areas, enabling the EU to remain globally competitive in digital technologies and digitalised industries. Continuous investment in our critical infrastructures is also necessary to keep Europe resilient in the face of serious geopolitical challenges and heightened cyber and physical threats.

- Telecoms operators are turning their networks into platforms for innovation by embracing cloud-native architectures, high automation based on AI and Machine Learning, and new network-as-a-service applications. [cfr. Connect Europe-GSMA].

- Conservative estimates point to a €200 billion investment gap to achieve the Digital Decade connectivity targets [cfr. European Commission]. The telecom industry faces significant challenges in bridging this gap, which at the same time limits its ability to invest in new and adjacent technologies (e.g. Open RAN, Edge Cloud, AI) while ensuring a high level of network security. Compared to their peers in other developed economies, European telecoms invest a higher percentage of their earnings. However, the absolute level of investment per customer is lower than in Japan and South Korea, and nearly half that of the US, due to lower revenues [cfr. Connect Europe-Analysys Mason].

- Largely confined to 27 national markets and facing highly fragmented rules, European telecoms struggle to compete with global hyperscalers and tech giants, which leverage scale, scope, and significant investments – estimated at €150 billion annually in cloud capacities [cfr. Synergy Research Group]. At the same time, these tech companies increasingly penetrate the traditional telecommunications and digital infrastructure value chain and provide critical communication networks and services, risking undermining the EU's Strategic Autonomy.

- Recent examples include negotiations between the Italian government and SpaceX for a €1.6 billion deal to deliver encrypted telecom services via the Starlink satellite network, and Meta's $10 billion project to build a submarine cable around the world.

- More broadly, large tech companies have fundamentally changed the internet's architecture, transforming much of it from a decentralised, open network to a proprietary, closed delivery network for their content and applications. Leveraging their infrastructure composed of subsea and fibre cables, data centres, and CDNs, they have built de facto the world's largest data networks and, on that basis, entered the electronic communication market [cfr. BEREC]. This direct competition is evident in markets such as voice telephony, messaging, private networks, B2B connectivity, and television services. The upcoming revision of the European Electronic Communication Code (EECC) and proposal for a Digital Networks Act (DNA) must reflect this new market reality, particularly when defining the scope of relevant actors in the ecosystem.

- European technological sovereignty in digital infrastructure requires a robust and thriving telecommunications sector. To achieve this, we must reverse the course on the sector's lack of return on investment, high market fragmentation, unsustainable regulatory burdens, and lack of a level playing field despite intense competition from non-European global tech giants. This results in unbalanced relations across the value chain, limiting telecoms' ability to reach fair agreements with these tech giants.

Key measures to enhance the competitiveness of the EU telecoms sector should include:

a) A novel, forward-looking approach to competition policy that, while continuing to protect fair competition and consumer welfare, should also consider the potential long-term benefits of in-market mergers, particularly in terms of investment, innovation, sustainability, and economic security in the single market. European telecoms face scale limitations due to restrictive competition policies that currently hinder in-market consolidation. As a result, the EU has 34 mobile network operators (MNOs) and 351 non-investment-based virtual operators (MVNOs), compared to three MNOs in the US (plus 70 MVNOs) and four MNOs in China (plus 16 MVNOs). [cfr. Mario Draghi's Report].

b) A step change in telecom-specific regulation is needed, as there has been very little conceptual evolution since the early 2000s. This regulation was designed to finalise the process of de-monopolising networks built in the mid-20th century. However, it is no longer suitable for Europe in 2025, where hundreds of operators, both big and small, build their own networks using the latest technologies, such as optical fibre, and compete fiercely for customers. In light of these new market realities of intense competition, the sector needs to be largely deregulated, generally relying on general competition law instead of ex ante market regulation, alongside simplification and better harmonisation.

c) Radio spectrum policy's approach must promote investments. For too long, spectrum has been viewed as a cash cow for state budgets, with costly auctions held every 10-15 years and a highly fragmented set of rules across the EU. As a result, since 2000, a total of € 179 billion has been paid for using radio frequencies, diverting funds from investment and innovation and creating a significant debt burden on EU telecoms. EU operators need a more harmonised framework that ensures longer license durations, proper awards procedures, efficient assignment of available spectrum for public mobile networks, and a reduction in the spectrum cost burden.

2. The Telecom Ecosystem

As Mario Draghi clearly stated in his report, the EU must urgently address the underinvestment problem and the lack of a strong European ecosystem in critical connectivity technologies, which are essential for the evolution of digital infrastructure. With cloud and edge services at the core of their transformation, connectivity networks are evolving rapidly and turning into platforms for innovation. They will increasingly rely on cloud computing, artificial intelligence, virtualization, and other technologies that are, to date, primarily "Made in America" or "Made in Asia". Meanwhile, Europe's share of the global ICT market has fallen by 10% in less than a decade [cfr. Enrico Letta's Report]. As a result, the EU now depends on third countries for over 80% of its digital products, services, infrastructure, and intellectual property [cfr. Mario Draghi's Report]. Furthermore, Draghi recommends encouraging the possibility of reaching commercial contractual agreements between telecom operators and large platforms, by including a regulated mandatory final arbitration in case of failed negotiations.

Focus on Cloud & Connectivity for AI

- We welcome the enhanced focus on AI development under the new Commission. Europe cannot afford to miss out on the benefits of AI adoption. However, the advent of increasingly powerful generative AI models also bears new risks, particularly the growing dependence on third-country providers.

- The EU should therefore support the deployment of advanced connectivity networks and sovereign compute infrastructure (both centralised and distributed) for AI training and inference.

- We welcome the European Commission's plans for a Cloud and AI Development Act in this regard. However, this initiative should be expedited and take a holistic approach, not only focusing on building highly centralised computing environments ('AI Gigafactories'), but also investing in distributed cloud computing and the necessary connectivity infrastructure, including edge cloud infrastructure. The transformative potential of AI relies on the robust and scalable networks built and maintained by telecom operators. By scaling edge computing, improving latency performance, and ensuring network scalability, European operators are providing the infrastructure necessary for AI-driven innovations to thrive.

- Demand for distributed data storage and processing is rising, driven by the deployment of fibre and 5G, the emergence of more advanced use cases and the continuous increase in connected devices. The EC expects 80% of data to be processed at the edge [cfr. European Commission]. The expansion of AI will also drive further development in edge computing.

- The common edge cloud federation pursued by IPCEI CIS is a key step toward driving large-scale investment in edge computing and strengthening the European edge cloud ecosystem. However, IPCEI CIS has been hindered by long approval times and the complexity of the system. Furthermore, it is designed to support the first industrial deployment of edge cloud solutions, not large-scale rollout. As a result, it fails to close the significant funding gap compared to hyperscale cloud investments.

- Future IPCEI funding should be enhanced with additional EU resources; the approval of additional projects should be expedited; and implementation should be closely coordinated at EU level.

Focus on Open RAN

- Open RAN remains a key area of strategic interest for operators in the EU and globally, with large-scale deployments already underway.

- Telecom operators are increasingly investing in Open RAN due to its ability to diversify the RAN supply chain and innovation base, and reduce the risk of vendor lock-in and increase network resilience.

- With a total of 62 trials and commercial deployments by the end of 2024, Europe (16) is ahead of North America (10), but behind Asia and Japan (24) [cfr. State of Digital Communications Report].

- Developing an EU Open RAN ecosystem is a key priority. While EU vendors still hold a strong position in the RAN supply chain, Asia and the US are establishing leadership in open and disaggregated network technologies. For Europe, it is strategically crucial to avoid falling behind in the development of this network architecture. Funding for Open RAN testing, evaluation, and R&D through open labs should be encouraged.

Key measures to enhance the competitiveness of the EU telecoms ecosystem should include:

a) Support innovation "made in Europe", particularly by steering European public procurement towards European companies. Public procurement accounts for nearly 14 percent of EU GDP and can make a significant contribution in stimulating demand for EU tech, e.g. in the areas of cloud and AI. Nevertheless, it should be recognised that providers of European technology solutions and services often rely on complex ecosystems and global supply chains.

b) Reform the governance of European funding to streamline processes, allocate sufficient resources, and stimulate demand for European solutions – especially in sensitive sectors –while consistently advancing our strategic objectives. In particular, strengthen, improve, and accelerate IPCEIs as a state aid instrument, and explore the adoption of new infrastructure-focused IPCEIs for edge cloud and AI. Create a one-stop-shop for connectivity funding, cut red tape, and expedite approval procedures.

c) Act on the promise to cut red tape by 25%, as simplification is essential for all companies in the connectivity ecosystem. This should begin with the Omnibus package to be released on 26 February, focusing on Corporate Sustainability Reporting Directive (CSRD), Corporate Sustainability Due Diligence Directive (CS3D), and the taxonomy, which we strongly support. Similarly, the rules applied to telecom networks should be reassessed with this objective in mind, not only within the telecom regulatory framework but also for other sector-specific regulations, including those on cybersecurity.