SQUIRE PATTON BOGGS

The European Commission Publishes a New Master Plan for Europe's Digital Infrastructure

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For a global law firm like ours, which has lived four decades of regulatory changes in the communications industry around the world, the European Commission's white paper "How To Master Europe's Digital Infrastructure Needs?" feels both exciting and full of promise, as it speaks of future regulatory intervention to enable "cars communicating with each other, doctors caring for their patients at a distance and other future applications facilitating business and improving the lives of citizens" thanks to "the availability of high-performing digital infrastructures."

There is of course the common, and not entirely unfounded, concern that more regulation might stifle innovation or simply fail to deliver on its goals. To the Commission's own admission, the latest major overhaul of the EU regulatory framework for electronic communications, the EU Electronic Communications Code (Code) "was not successful in many respects."

However, "If not us, who? And if not now, when?" seems to echo throughout the pages of the Commission's white paper. The white paper is different from any previous Commission's proposal in this sector. It is a holistic overview of the opportunities and challenges facing the EU communications industry at the crossroads of "a complex converged ecosystem."

The Commission invites comments on its proposals through an open consultation until June 30, 2024. This article provides a summary of the white paper, the first impressions that it solicited, and the reasons why now is the time for all stakeholders – whether you are an operator or an investor – to start working on a response and help shape Europe's policy for its future digital infrastructure.

The Three Pillars and Twelve Possible Scenarios

Does it sound like an improbable sci-fi movie title? Actually, it is the basis for the Commission's master plan, which relies on three main pillars and, for each pillar, twelve possible (and potentially cumulative) scenarios, as follows:

Pillar I: Creating a European "NextGen Connectivity Hub"

- **Scenario 1** – The Commission will propose, in the forthcoming Horizon Europe Week program, large-scale pilots that set up end-to-end integrated infrastructures and platforms for "Telco Cloud and Edge". In a second step, these pilot infrastructures would be used to test innovative technologies and artificial intelligence (AI) applications for various use cases.
- **Scenario 2** – The possibility of extending €1.2 billion of state aid in Important Project of Common European Interest in Next Generation Cloud Infrastructure and Services (IPCEI CIS) or supplementing it with a new state aid package to be discussed by the Commission's Joint European Forum for Important Projects of Common European Interest (JEF-IPCEI).
- **Scenario 3** – The Commission may consider ways to improve synergies between various policies and tasking the Smart Networks and Services Joint Undertaking (SNS JU) to adopt a coordinating role to support the creation of a next-generation connectivity ecosystem. The SNS JU should liaise with the European Alliance for Industrial Data, Edge and Cloud as appropriate.

Pillar II: Completing the Digital Single Market

- **Scenario 4** – In order to address the converged electronic communications connectivity and services sector and to ensure that its benefits will reach all end-users, the Commission may consider the broadening of the scope and objectives of the current Code to ensure a level playing field and equivalent rights and obligations for all actors and end-users of digital networks and services, including cloud infrastructure and services providers that are currently arguably outside the scope of the Code.
- **Scenario 5** – The Commission may further consider accelerating copper switch-off (fixed deadline 2030 and support for switch off to commence from 2028); a change to access policy by proposing a European wholesale access product; phasing out all other *ex ante* regulation in favor of general competition law; or, alternatively, keeping *ex ante* regulation only for civil infrastructure and lighter access regulation (no-price regulation or ensuring pricing flexibility).

- **Scenario 6** – A more integrated governance structure at EU level for spectrum management and authorization conditions, through a "country of origin" principle, so that each operator would only be subject to the rules of its country of origin within the EU, instead of diverging authorization regimes across the 27 member states.
- **Scenario 7** – The Commission may consider facilitating greening of digital infrastructures through the switch-off of copper and the move to a full-fiber environment and a more efficient use of networks (codecs).

Pillar III: Secure and Resilient Digital Infrastructures for Europe

- **Scenario 8** – The Commission will aim at reinforcing advanced research and investment (R&I) activities in support of new fiber and cable technologies.
- **Scenario 9** – The Commission may consider an amendment to the Connecting Europe Facility Regulation in order to establish a Cable Projects of European Interest (CPEI) labeling system.
- **Scenario 10** – The Commission may consider an equity instrument designed to support CPEIs.
- **Scenario 11** – The Commission may consider implementing a joint EU governance system on submarine cable infrastructures.
- **Scenario 12** – The Commission will aim at harmonizing security requirements in international forums, which may be recognized through a dedicated EU certification scheme.

From Copper Through Radio Cells and Fiber to Silicon

In the early days of telephones, switching was done by hand, with rows of women seated in front of walls of plugs, connecting them in different combinations depending on who was calling through copper wires. Today, communications rely on silicon, and a closet's worth of gear can process calls, texts, video and more complex computations (such as AI applications) via radio and fiber networks.

This transformation of modern communications is at the heart of the Commission's white paper. "These transformative technological developments have created a model of network and service provision that relies on … a complex ecosystem, including cloud, content, software and component suppliers, among others. The traditional boundaries between these various actors are increasingly blurred as they form part of what can be described as a computing continuum ranging from chips and other components for high-speed processors up to AI-powered applications managing the network up to its edge."

However, there are several challenges standing between the aspirations of a connected digital future and the current status of digital communications in Europe. The Commission's white paper is meticulous in enumerating them one by one:

- **Digital infrastructure** – Europe is lagging behind other global economies in terms of fiber coverage and home-grown cloud and edge computing. There is no sign that it will catch up by 2030 if left to its own devices.
- **Investment needs** – The private investment gap is estimated to be over €200 billion. The Recovery and Resilience Facility and various broadband state aid measures have been insufficient to stimulate private investment so far.
- **Financial situation** – Low average revenue per user (ARPU), declining return on capital employed (ROCE), risk of overbuilding, and fragmented regulation, make any private investment in EU communications unattractive due to lack of scale.
- **Lack of single market** – The failure of the EU general authorization regime is identified as the first main cause for such fragmentation. In the words of Margrethe Vestager, executive vice president for a Europe Fit for the Digital Age, "In Europe we still have 27 national telco markets with different network architectures, different levels of network coverage, different national spectrum management, and different regulations. This fragmentation is a missed economic opportunity."
- **Convergence and level playing field** – According to the Commission, the second main cause is the Code's failure in creating a level playing field between traditional communications operators and cloud operators, although the majority of communications are nowadays carried over the internet and are cloud based.
- **Sustainability** – The "softwarization" and "cloudification" of the next generation of communications hold the promise of efficiency gains for all sectors, but also present new challenges in terms of energy consumption (e.g. open radio access networks (Open RAN) in cellular networks).
- **Security and resilience** – "In a geopolitical environment increasingly marked by tension and conflict, the growing requirement for security and resilience of key enabling communications technologies and critical infrastructure highlights the need to rely on trusted suppliers." In this context, the commission confirmed that the application of the EU 5G Cybersecurity Toolbox to exclude certain Chinese businesses – favoring instead some of their European counterparts – for 5G network components was "justified". The white paper raises a new security alarm bell with regard to the security and resilience of submarine cable infrastructures, and proposes a set of actions at national and EU levels aimed at improving submarine cable security and resilience, through a better coordination across the EU, both in terms of governance and funding.

The Commission's response to these perceived challenges is set out in the three pillars discussed above, essentially aimed at encouraging private-public partnerships to invest more in EU communications, removing regulatory barriers, creating a level playing field with cloud operators and digital platforms, and enhancing security and resilience.

> In the words of Thierry Breton, Commissioner for Internal Market
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> "Digital network infrastructures are key for a competitive and resilient Europe. The white paper we are presenting today is laying the foundations for a future Digital Networks Act focused on three pillars: investment, regulatory framework, and security. We need to create a level playing field for a true digital single market to unlock the investment needed to build the digital network infrastructures of tomorrow."

Old Battles and New Ones

Public statements and first impressions on the white paper have revealed conflict lines between alternative network providers and incumbents on the one hand, and between traditional communications companies and cloud/digital platforms on the other.

ETNO, which represents the major European telecoms operators (incumbents), welcomed the Commission's plans for a "more innovation-oriented, forward-looking and investment-friendly telecoms policy" and the "clear recognition of scale as an essential requirement." "In a software and cloud-defined world, the current market fragmentation is simply not in Europe's strategic interest," the ETNO statement said.

The GSMA (representing the interests of mobile network operators worldwide) said, "We welcome the publication of the European Commission's white paper on addressing Europe's digital infrastructure needs, which sets out a number of forward-looking options for reinvigorating investment in Europe's networks. Such investment has never been a higher priority for the European economy."

By contrast, representatives of the altnets criticized the proposal primarily because of its top-down approach to industrial policy. "Forced consolidation as a politically motivated response to the need for investment jeopardizes fair competition and has negative long-term effects on innovation and service quality," warned VATM, for example.

However, conflict lines between altnets and incumbents are not new and have existed since the early days of liberalization in Europe. The Commission's white paper seems to show that the Commission is ready to move on – one of the scenarios contemplated by the white paper is a radical proposal to remove some asymmetric *ex ante* access regulation, if not all *ex ante* access regulation, in favor of the application of competition law alone.

By contrast, the Commission's new focus seems to lie in creating a level playing field for the "complex converged ecosystem" of "telco cloud", in more harmonization across the EU when it comes to market entry, and security/resilience.

Telco Cloud

The idea of expanding the Code (and related universal service funding provisions) to cloud and digital platform operators was first hinted at by Thierry Breton last year. The telecommunications industry had then argued that the large digital platforms that use the traditional communications infrastructure and generate data traffic should contribute to the costs of network expansion (fair share). On the other hand, the digital platforms counterargued that additional fees would only increase costs for consumers. The white paper goes a step further by proposing to extend the Code to cover all forms of cloud infrastructure and services, not just asking digital platforms to pay a fair share of network investment. CCIA Europe, which represents the interests of digital platforms, calls for the idea of extending the scope of the current Code to be "evidence-based."

Single Market

As recognized by the white paper, the implementation of the Code's general authorization regime at Member State level has resulted in a patchwork of different approaches for spectrum and number rights assignments as well as in divergent notification, filings and reporting requirements that hinder the EU Single Market. Our firm is acutely aware of this issue for our global communications clients and already provides a one-stop shop solution across the EU/EEA to try to mitigate the negative consequences of the divergent application of the Code's general authorization regime by the Member States. While our tool provides a short-term solution, the Commission's idea of a longer-term solution is particularly welcome.

This divergence of regulatory requirements acts as a significant barrier to entry and expansion for pan-European communications solutions providers, which strive to provide pan-European communications solutions to business customers present in more than one Member State.

The introduction of further harmonization measures that would eliminate the risk of different notification, filing and reporting requirements, and introduce a single streamlined form and procedure for the same services (in particular for network-independent interpersonal communications services) in all Member States would be a quick and efficient way to promote a truly pan-European market for electronic communications, especially for business customers. Such exploitation of economies of scale would in turn attract more investment to the EU and promote innovation.

Moreover, the white paper's well intended plans to create a central EU assignment process for spectrum rights, or at least certain spectrum rights, could equally apply to the right to use numbers, or at least certain numbers, particularly with regard to the emergence of new and innovative industrial internet of things (IIOT) use cases for numbering resources that have traditionally been subject to subassignment restrictions due to spoofing concerns.

Security and Resilience of Digital Systems

Finally, the Commission has also published a draft recommendation to national EU governments to improve the security and resilience of strategic submarine cable infrastructures. The document aims to improve coordination within the EU, for example by streamlining procedures for the granting of authorizations. Again, the theme is now new (see "Digital Networks Resilience and Security"), but the Commission's call for action has a reinvigorated sense of urgency.

Conclusion

"As we are at the crossroads of major technological and regulatory developments, it is of tantamount importance to debate these developments broadly with all stakeholders and like-minded partners. Hence, with this white paper, the Commission launches a broad consultation … and provides them with an opportunity to contribute to the Commission's future proposals in this domain."

Whether you are an operator or an investor, the white paper is worth reading and reflecting upon. The outcome of this public consultation will shape Europe's future digital infrastructure.

How We Can Help

If you have any questions on the white paper, please contact us in confidence. With us as your trusted advisers by your side, you will be able to spot, assess and understand the risk and opportunities for your organisation from the white paper. We can support you with any legal or policy request you may have.

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