Open *Strategic* Autonomy:
Driving growth, sustainability, and competitiveness

Digital Public Policy, Regulation and Competition

2023

Telefónica

Index

1. How can the Spanish Presidency boost Europe's Open *Strategic* Autonomy?

The EU's aspirations to reach Open Strategic Autonomy were first expressed around ten years ago.

- Acting independently
- reducing economic vulnerabilities, and
- preserving a European model of society based on cooperation and inclusion to leave no one behind

Today, this goal is as relevant as ever. Technology, digitalization, and innovation are key areas where Strategic Autonomy hold great potential for Europe: the digital transformation of economies and society represents the opportunity to boost economic dynamism, allocate more investments in digital infrastructures and enable the green transition.

Europe can grow faster, performing better with a fresh agenda based in policies that help businesses to compete globally while coping with European citizens' expectations.

Taking place in the final stretch of the European institutional cycle, before the European Parliament elections in May 2024, and the subsequent appointment of a new Commission, the Spanish Presidency will assume the responsibility for closing the negotiations on the open files related to Europe's strategic pillars to boost competitiveness and citizens' welfare.

Spain will also have the opportunity to influence and shape the agenda of the next European cycle, identifying key priority economic areas on which to act, and accordingly, promoting new initiatives, and the necessary conditions for regulatory and policy

frameworks to be fit for purpose, i.e., to driving growth, sustainability, and competitiveness of the EU.

Hence, the decisions to be taken in 2023 will pave the way to Europe's future, taking firm steps forward on the integration of the Single Market and on the level playing field between Member States and companies. European Industrial policy should make businesses, sectors and economies better equipped and motivated to compete globally. It is about long-lasting shared commitments to uphold Europe's position as a reliable, strong, and resilient global player.

The good news is that policymakers, institutional leadership, business, and civil society share targets of a competitive, digital, green, and social Europe where securing prosperity of the population and fostering European competitiveness go hand in hand. Now, it is time to action and to implement effective, evidence-based, and consistent regulations and policies. Only by a permanent and structured dialogue and cooperation between public and private in an on-going process, the EU and its companies can continue progressing towards a more competitive Europe. And the pandemic has shown that we know how to do this, to work together towards a common goal, in a coordinated and effective way.

With this document, Telefónica elaborates policy recommendations to build upon the European project on Open Strategic Autonomy, i.e., to help Europe to operate more autonomously in strategic areas, cooperate with other parts of the world and always act on the basis of European standards and values.

2. Boosting the growth, sustainability, and *competitiveness* of the European Union

There are many policy areas that are important for driving growth, sustainability, and European competitiveness. Here, we focus on those ones in urgent need of action where technology and innovation are the cornerstones.

A. Resilient and competitive markets in a digital world

The 30th anniversary of the European Single Market (1993-2023) should be a landmark for promoting resilient, dynamic, and competitive markets, which are crucial for boosting growth and competitiveness. Better regulation, which reduces barriers and simplifies administrative burdens, directly impacts the ability of businesses to adapt to technological innovation and market demands.

The 30th anniversary of the European Single Market (1993-2023) should be a landmark for promoting resilient, dynamic, and competitive markets

The Digital Decade 2030 sets the ambition for a more autonomous Europe in the digital world. It outlines the relevance of connectivity and the role of the telecom sector as a "digitizing agent" to achieve Europe's digital and green transition ambitious targets. The telecom sector is contributing directly and transversally to the achievement of these objectives, in particular with regard to connectivity infrastructures, digitalization of public services and businesses and skilled workforce. Moreover, digitalization will help reduce energy dependence.

However, Europe continues to lag behind its economic peers when it comes to digital infrastructures and technologies, the foundation of growth and prosperity for European citizens. Moreover, the deployment of high-capacity connectivity and the leadership in emerging technologies or industries, key drivers of future competitiveness, are becoming a field of fierce global competition. Europe's lack of leadership and tech business scale translates into a widening European technological and connectivity gap vis-à-vis other regions, such as the US and China. This becomes a strategic challenge for the region. It jeopardizes competitiveness across the digital ecosystem and in key industrial sectors.

It is paramount for Europe to understand that Open Strategic Autonomy goes beyond energy and extends to the digital world. However, currently the sector is facing a contradictory landscape with a very difficult equation between investment, regulation, and competition policy. It is time to act, to strengthen European economies with fit-for-purpose competition policy and regulation, and to activate the financing of the billions of euros of infrastructure and technology investment that are needed.

It is paramount for Europe to understand that Open Strategic Autonomy goes beyond energy and extends to the digital world

Policy Recommendations | Resilient and competitive markets in a digital world

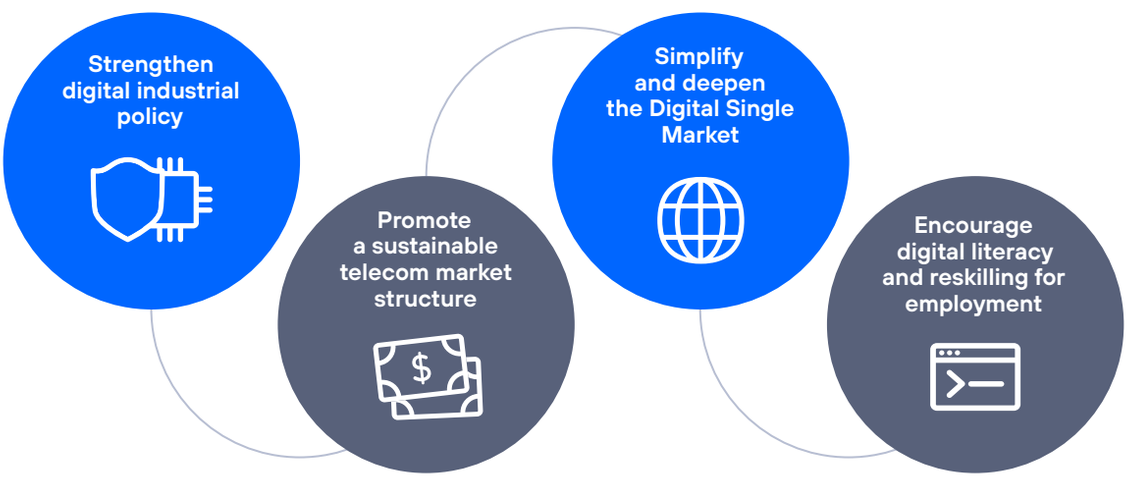
Europe needs a coherent and holistic approach to achieve a regulatory and competition framework, including state aid, that enables competitiveness while ensuring a level playing field between Member States.

1. Strengthen digital industrial policy, aligned with simplified sectoral frameworks, that promote fair competition and remove regulations that hinder the growth of companies. A simplified framework and level playing field for businesses will promote fair competition in Europe, allowing entrepreneurship and businesses to scale up.

2. Encourage a sustainable telecom market structure that would improve dynamic competitive conditions, to achieve Digital Decade targets. In-market mergers will allow operators to create scale at a national level to facilitate return on investment and promote investment and innovation.

3. Simplify and deepen the Digital Single Market by supporting best practices, harmonized regulations, its implementation, and guidelines, to drive modernization and technological progress. This is without prejudice to differences between Member States. Particular emphasis should be placed on data market, privacy, and cybersecurity measures, a basis for a dynamic, resilient, and trusted digital market.

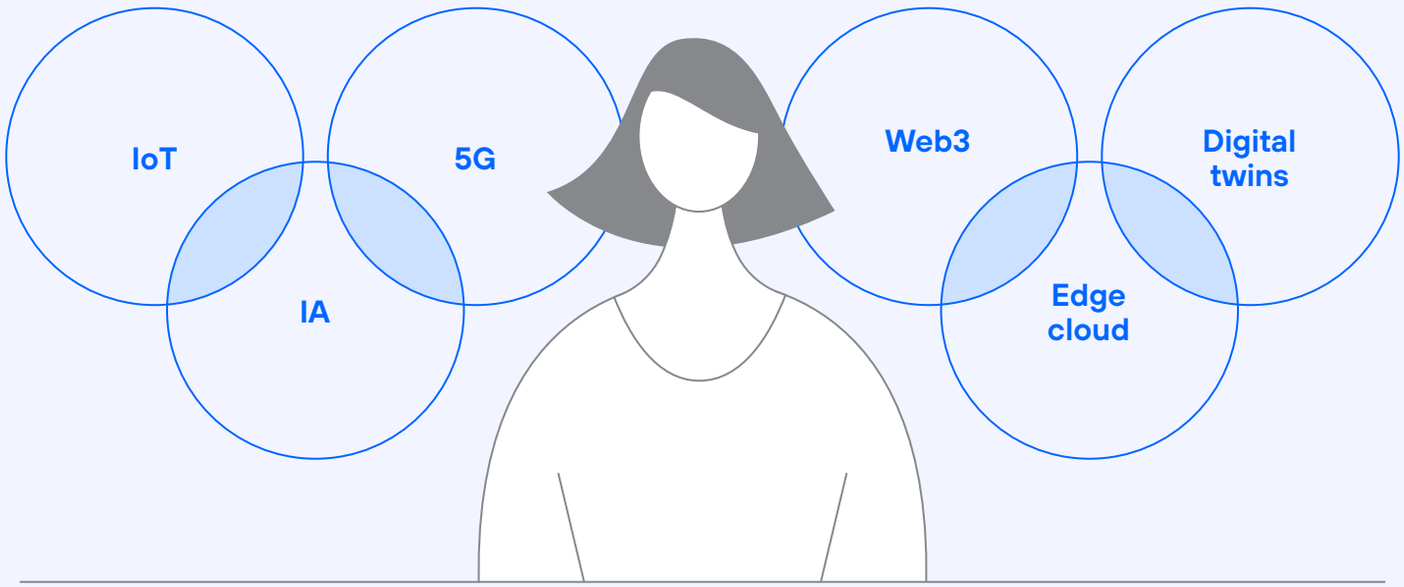
4. Encourage digital literacy and reskilling for employment by incorporating required skills into education systems, up/re-skilling initiatives, and public-private partnering to ensure businesses and individuals have the tools they need to succeed in a digital world.



B. A balanced digital ecosystem to drive digital innovation

Europe faces the challenge to position itself as a world-class digital region ready for the new digital era, in which emerging technologies, such as Internet of Things (IoT), Artificial Intelligence (AI), 5G or immersive technologies and decentralized (e.g., Web3, edge cloud or digital twins), will define new paradigms of user experiences and competitiveness. In combination with connectivity, emerging technologies will bring a new wave of innovative digital services that will benefit business and citizens.

Emerging technologies



Today's network and business model must adapt to the demands of tomorrow. The world is changing, and the business model focused only on charging users for their internet access —for their flat rate speed or mobile data— may not be sufficient for the coming era. This new digital era opens a new phase of investment that raises the timely question of:

- whether infrastructure investment should continue to fall solely on the shoulders of telecom operators
- or if it is time for EU policy decision makers to promote a collective responsibility and ensure that all players in the digital value chain receive a fair return on their contribution for the benefit of innovation

The telecom sector is calling for a fair share for network sustainability to ensure a balanced digital ecosystem in order to meet the digital objectives for Europe and accelerate innovation. Telefónica believes that the current relationships between large traffic originators and telecom operators are not fair and balanced regarding the traffic delivery service through the networks of operators to end users. There is a market failure that needs to be addressed for the benefit of the sustainability of the ecosystem.

The first step to successful innovation is to consolidate a sustainable financing model for networks. It is indisputable that the different agents in the digital value chain (e.g., telecommunications and digital platforms) complement and need each other in order to provide end customers with innovative digital services. Innovation is at the heart of a dynamic market where customers can enjoy new and tailored made services.

Similarly, this virtuous circle of digital innovation would not function properly or be sustainable, if the distribution of the value generated by the digital value chain were unbalanced in favor of some agents. These imbalances would disrupt the iteration in the innovation process, generating negative externalities for the entire digital ecosystem.

● **Policy Recommendations** | A balanced digital ecosystem to drive digital innovation

1. Establish a Fair Share for Network Sustainability approach that seeks to ensure that stakeholders in the digital value chain contribute fairly to the costs of maintaining and expanding network infrastructure, more efficient also from an ecological point of view. Now is the time to promote a legislative proposal with the objective of restoring balance in the negotiations between large traffic generators and telecom operators for fair compensation. This balance is necessary for the smooth functioning of the Internet value chain for the benefit of end users.

2. Support innovation end-to-end from R&D to scale up innovation and reach mass commercialization.

3. Incentivize cross-sectoral co-investment and co-innovation partnerships between industries and in particular telcos, with sensitive sectors for European growth and prosperity such as healthcare, transportation, and energy, leveraging emerging technologies like IoT and AI.

4. Promote pro-innovation policies and regulation based on a level playing field with a horizontal framework covering privacy, consumer, and security.

5. Foster EU creative sovereignty by encouraging and protecting European Intellectual Property Rights in the digital economy while providing legal certainty and harmonisation to these valuable and relevant intangible assets.

C. Digitally enabled green transition

Digitalization is a key pillar in the roadmap towards meeting environmental objectives. Sectors as diverse as manufacturing, transport, healthcare, and public administration can only achieve carbon neutrality by accelerating their digital transformation.

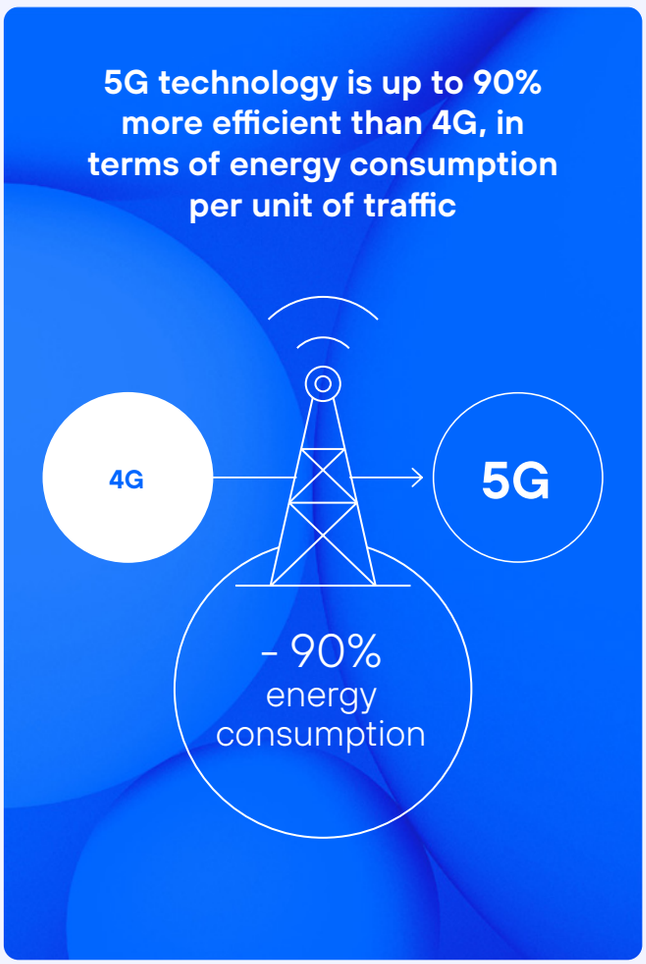
The Information and Communication Technology (ICT) sector has a major role to play in keeping emissions in line with climate targets: while ICT accounts for a carbon footprint of around 1.4 percent of overall emissions, it has the potential to cut global green-house emission by 30% by 2030.

Sectors as diverse as manufacturing, transport, healthcare, and public administration can only achieve carbon neutrality by accelerating their digital transformation

New high-capacity and energy-efficient network architecture, enable the achievement of sustainability and decarbonization goals of several sectors sooner. Connectivity and digitalization enable more efficient consumption of resources and energy, which translates into significant reductions in greenhouse gas emissions in sectors such as transport, industry and cities. In this sense, the use of digital services based on connectivity has proven to have a potential to reduce emissions greater than the impact they entail (for example, Telefónica's digital solutions have avoided the emission of 81.7 million tons of CO2eq in 2022).

While it is true that Internet traffic has increased exponentially over the last decades, this has only led to a moderate increase in the energy consumption of networks and data centers, even decreasing the energy demand per unit of traffic.

In 2021, Ericsson and Telefónica conducted a joint study on energy efficiency of telecommunications networks. The tests, which took place in Spain and Brazil, showed that 5G technology is up to 90% more efficient than 4G, in terms of energy consumption per unit of traffic. The associated carbon emissions have been reduced even further due to the increased use of renewable energy. In 2022, Telefónica carried out a life cycle analysis of its networks, the results of which showed that the environmental impact of 4G/5G is seven times lower than that of 2G/3G. It also showed that the environmental impact of fibre is five times lower than copper per access and 18 times lower per PetaBite (PB).



In the case of Europe, these new technological capabilities will allow reaching climate neutrality by 2050, as stipulated in the European Green Deal.

A central area of EU leadership at global level has been the establishment of a taxonomy of sustainable finance. The taxonomy is a regulatory framework that offers a series of definitions and criteria to determine whether certain economic activities can be considered sustainable or not and, therefore, allows to evaluate more accurately and coherently whether an economic activity achieves the objectives of investors committed to sustainable investment strategies.

It is one of the main levers to support investment in environmentally sustainable activities and is complementary to several regulatory instruments, such as the forthcoming Corporate Sustainability Reporting Directive (CSRD).

Unfortunately, though, the Taxonomy Regulation fails to capture appropriately the role that digitalization could play in the green transition. This weakens its potential impact on redirecting capital towards sustainable activities. Currently, the existing text on technologies and digital services in the Annex to the Delegated Act does not fully consider the complete inclusion of communication networks. They only consider specific digital solutions and the connectivity dedicated to those solutions.

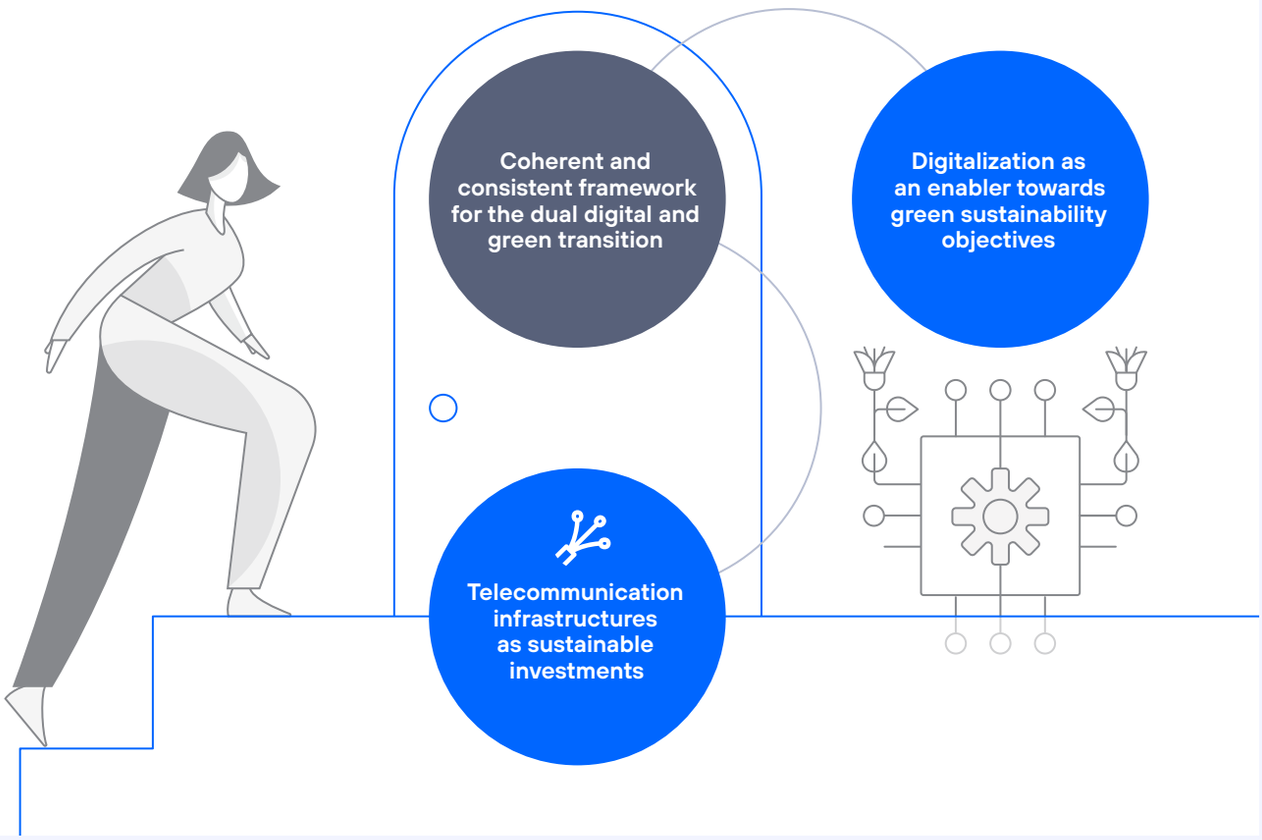
The recognition of the role of the telecom networks in supporting the achievement of green objectives is insufficient throughout the development of the EU sustainable finance taxonomy.

Policy recommendations | Digitally enabled green transition

1. Build a coherent and consistent framework to foster the twin digital and green transition. All elements of European policies aimed at fostering the twin transition must be aligned for legal certainty. In this sense, EU sustainable finance policy must be a driver to support European priorities to accelerate the twin transition as set in the EU Green Deal and the EU New Generation Funds.

2. Recognize the digitalization as an essential enabler for the achievement of other sectors sustainability and climate change targets. This will incentivize investment in digital solutions that can contribute to a more sustainable economy. Investors would have a clearer understanding of the potential sustainability benefits of digital investments and could make more informed investment decisions.

3. Include the full enabling potential of electronic communications networks through the climate delegated act, taking into consideration not only the substantial efforts made by European telecommunications network operators to reduce their emissions and environmental impact, but also the fact that next-generation telecommunications networks are an inevitable and fundamental component in the greening of the entire economy. Investors would have a clearer understanding of the potential sustainability benefits of digital investments and could make more informed investment decisions.



3. Summary of *recommendations*

Competitive Europe

1. Simplify and align regulation and policies with industrial policy to boost investment in technology and innovation, while securing a level-playing field between Member States.

2. Enable efficient market structures, allowing return on investment to deploy future European networks.

3. Explore new mechanisms for a fair share contribution on the internet value chain, enabling two sided markets, to further sustain network investment.

4. Boost innovation, with a European agenda that favours innovation-friendly policies, encourages cross-sectoral partnerships, and a comprehensive industrial policy that supports end-to-end growth, from R&D to scale-up and mass commercialisation.

Digital Europe

1. Promote SMEs and public administrations digital adoption.

2. Foster digital trust with particular emphasis on the implementation of common data and cybersecurity strategies, aligned with European values.

3. Promote greater level playing field with horizontal frameworks covering privacy, consumer, and security, while removing sector-specific regulations.

4. Protect and strengthen the European creative ecosystem and promote local Intellectual Property Rights.

Social Europe

1. Strengthen public-private cooperation to achieve the adequate training of European citizens to increase employability and attract talent.

2. Promote lifelong learning and digital empowerment through upskilling and reskilling.

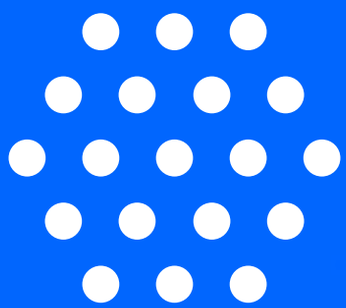
Green Europe

1. Align all EU policies to create a comprehensive framework to boost the twin, digital and green, transitions.

2. Recognize the digitalization as an essential enabler for the achievement of other sectors sustainability and climate change targets.

3. Include last generation high capacity and energy efficient telecom networks (5G & fibre) into the EU taxonomy for sustainability activities as the backbone of the digitalization.

Open *Strategic* Autonomy: Driving growth, sustainability, and competitiveness



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