BEREC
Body of European Regulators for Electronic Communications

BoR (25) 80

Draft

BEREC strategy 2026 – 2030

Mission statement

BEREC aims at fostering independent, forward looking, consistent and high-quality regulation of digital infrastructures and services for the benefit of Europe and its citizens

5 June 2025

Contents

This document sets out BEREC's strategy for 2026 – 2030 providing guidance to organize and prioritize its work towards clearly defined objectives. It reviews and consolidates the previous three strategies (Strategy 2021 – 2025, the Medium-Term Strategy for relations with other institutions and the Medium-Term Strategy for International Cooperation) along with the Action Plan 2030 setting up BEREC's objectives in view of the latest and expected market, technological and regulatory developments relevant during the next five years. To ensure that its strategy remains relevant and aligned with future developments, BEREC will reassess its strategic priorities over the course of the period.

ABOUT BEREC

The Body of European Regulators for Electronic Communications (BEREC) was established in 2009 and is currently governed by Regulation (EU) 2018/1971(BEREC Regulation). BEREC is composed of all independent National Regulatory Authorities (NRAs) of the European Union (EU). The Agency for Support for BEREC (BEREC Office), seated in Riga, supports BEREC in fulfilling its tasks. The European Commission (EC) is a full member of the Management Board governing the BEREC Office and participates in BEREC's work without voting rights. The BEREC Regulation includes the possibility for NRAs of third countries to take part in BEREC's work albeit without voting rights, if those third countries have signed specific agreements with the Union.

BEREC is the main body for cooperation and exchange of views among the NRAs. It has additionally been tasked to provide its professional expertise, either upon request or on its own initiative, as an advisory body to the European institutions. BEREC's responsibilities include identifying regulatory best practices and developing common positions as well as producing opinions, guidelines and reports with the overall objective of a consistent and fit for purpose application of the regulatory framework for electronic communications. BEREC is an evidence-based body providing independent expert advice and is recognised as fostering the internal market. BEREC has a broad expertise in economic market regulation, built on evidence based analysis. Drawing on such capability, BEREC can effectively engage with the evolving challenges of infrastructures and services.

BEREC cooperates with other Union bodies, third countries and international organisations in accordance with Article 35 of the BEREC Regulation. Within the EU, BEREC maintains a close relationship with several European institutions, bodies and agencies. Beyond the EU, BEREC has also a tradition of working together with regulators in other parts of the world through regular dialogue, on a formal or an informal basis, with its equivalent networks of regulators in other regions of the world, international institutions and third countries NRAs.

BEREC is committed to working to a high level of transparency and accountability. Working practices in this regard include carrying out public consultations on draft documents, public debriefings after every Plenary meeting, and maintaining a structured dialogue with sector related associations and stakeholders by means of workshops, meetings and the annual Stakeholders Forum where BEREC presents its current activities and planned work.

BEREC takes stock of key market and technological developments (section I) along with policy and legislative changes (section II) in order to shape its high-level priorities (section III).

I. MARKET AND TECHNOLOGICAL DEVELOPMENTS

BEREC continuously adapts its approach by keeping pace with technological advancements and market trends in the electronic communications sector as well as with the changes coming along with the technological developments and digital players affecting networks, services, market dynamics, and end-user rights.

Some of the key technological challenges in the sector for the next years include the migration from legacy networks to Very High-Capacity Networks (VHCN) in Europe, the deployment, evolution, and interoperability of **5G, 6G and non-terrestrial networks** (NTNs) that enhance speeds, ultra-low latency functions, and provide greater network capacity and extend network slicing functionalities. These technologies can further enhance and foster the implementation of industrial automation, sensor networks, Internet of Things (IoT), smart cities, and immersive experiences like extended reality (XR) and holographic communication. In addition, artificial intelligence (AI)-driven network management and broader connectivity are expected to be enhanced in the next years.

Furthermore, **NTNs** aim to ensure global basic internet connectivity and could address the digital divide by connecting remote areas and increasingly using constellations of Low Earth Orbit (LEO) satellites with systems operating direct-to-device communications (D2D), while **submarine cables** remain the backbone of global connectivity and are expected to see continued expansion.

Electronic communications and digital technologies, such as AI or data processing services, are reciprocal enablers for their mutual development. Continuous cloud-based implementations and enhancements are reshuffling multiple market segments and value chains that are intertwined or adjacent to the electronic communications sector. **Edge Computing** brings the reduced-latency advantages emanating from the proximity of data processing to end-users, which is supporting real-time analytics for applications like autonomous vehicles, streaming, and industrial IoT. The increasing shift to **Cloud and Virtualization** of electronic communications networks (ECN) sees operators move from hardware-centric networks to flexible, software-defined networks, which facilitates scalability, cost-efficiency, and support for dynamic applications based on AI and IoT. This shift relies heavily on clusters of high-scale, high-performance data centres, which serve as critical hubs for cloud computing, content storage and distribution, and AI processing.

Telecom operators are increasingly leveraging AI to enhance network performance, automate operations, and accelerate digital transformation. Indeed, **AI** is increasingly used, among other use cases, to optimize performances, (i.e. enable predictive maintenance), while on the consumer side AI-driven chatbots are increasingly being used for customer interaction and support.

Increasing demand for **more environmentally sustainable technologies and practices** may require the deployment of energy-efficient infrastructure, recycling programmes, and eco-

friendly manufacturing and services design. **Network security enhancements** include the adoption of zero-trust models, quantum technologies (in a near future), secure authentication models, and continuous monitoring to protect against increasing cybersecurity threats.

As network transformation accelerates, some electronic communications operators redefine their service portfolios, increase their market share and reduce operational costs through **asset restructuring**. Such developments facilitate the entry of business models focused on specific services (e.g. towercos or wholesale-only providers, among many others).

The electronic communications sector is significantly affected by the continuous evolution of the broader digital landscape. The digital ecosystem is developing into a **complex network of heterogeneous partnerships** and agreements among highly diverse actors — often engaged in client–supplier relationships, and at times reliant on key resources (e.g. data processing services and infrastructure) concentrated in a limited number of providers.

Large content and application providers (CAPs) which have deployed their own physical (e.g. CDNs and data centres) and network infrastructure (e.g. submarine cables) now increasingly rely on their own infrastructure to deliver services that were previously sourced from traditional ECN/ECS providers to a large degree. By providing products and services which can sometimes compete and sometimes complement those provided by ESN/ECS operators, large CAPs can influence market dynamics in these markets.

The **convergence** between ECN/S and other digital infrastructure and services may come with multiple challenges, particularly in terms of legal certainty and the consistency of European and national sectoral regulations that, while aiming to the achievement of different public objectives, may overlap. Moreover, electronic communications, cloud/edge computing networks and services, sometimes including AI systems and IoT, are increasingly being provided through customized and integrated solutions. These developments are leading to a convergence between ECN/S and cloud/edge computing. This convergence takes place in a context where cloud services raise new questions for regulators, in terms of market concentration, sovereignty, sustainability, access to resources, user adoption, interoperability, data privacy related issues (i.e. data sovereignty, monetization, security, integrity), and cybersecurity that can impact electronic communications.

Number-based voice and messaging traffic continues to decrease due to the substitution trend by Number Independent Interpersonal Communication Services (**NI-ICS)**. In the case of business markets, increasing demand for **customized value-added services** involving ECN/S and other digital products is observed (e.g. 5G private network solutions including connectivity, IoT, data analytics, AI, sensors, etc).

Standards promote diversity of supply and facilitate the compatibility and interoperability of different technologies and services allowing, ultimately, the comparability of different products. However, those can be strategically used by certain market players to maintain/ erect barriers to entry for competitors or innovators and restrict competition.

II. POLICY AND LEGISLATIVE DEVELOPMENTS

BEREC, as a well-established and experienced actor in the digital sector, fully recognises the need to continuously adapt to evolving conditions and emerging challenges. In this context, BEREC plays a key role in contributing to the development of future European legislation. This will be pursued through a constructive and open dialogue with the EU institutions, drawing on the insights, experiences, and best practices of NRAs, comprehensive stakeholder consultations, and robust data collection efforts aiming to well-informed decision-making processes.

In 2022, the EU established the overarching digital targets of the **Digital Decade Policy Program** to be achieved by 2030. These include ensuring that all end users at a fixed location are covered by a gigabit network and all populated areas are covered by mobile networks with performance at least equivalent to that of 5G. These infrastructure objectives have significantly shaped European policies in the recent years. In line with these digital targets, the Commission presented a set of actions in 2023 aimed to make Gigabit connectivity available to all citizens and businesses across the EU by 2030: the Gigabit Infrastructure Act (**GIA)**, to facilitate network deployments; the **Gigabit Recommendation** providing guidance to NRAs on SMP regulation to incentivise gigabit networks deployment and an exploratory consultation on the future of the connectivity sector and its infrastructure. This last consultation led to the publication of the **White Paper** – "How to master Europe's digital infrastructure needs?" in 2024.

This White Paper sets out the context for future proposals, namely the **review of the European Electronic Communications Code (EECC)**[1] by 21 December 2025 and the **Digital Networks Act (DNA).** At the same time of the White Paper, a **Recommendation on Secure and Resilient Submarine Cable Infrastructures** was issued identifying actions to assess and improve the security and resilience of submarine cable infrastructures and support their deployment and upgrade. In 2025, an **EU Action Plan on Cable Security** to further protect this critical infrastructure was published.

The EU is also enhancing secure communication services across Europe. In 2022, the third flagship space program, following Galileo and Copernicus, **Infrastructure for Resilience, Interconnectivity, and Security by Satellite (IRIS²)** was presented. This initiative will provide for secure communications, enhance connectivity in underserved areas and reinforce the EU technological sovereignty.

After the adoption of the EECC in 2018, **EU legislation on digital markets and services** has rapidly evolved with the enactment of several key regulations, including the Digital Markets Act (DMA, 2022), the Data Governance Act (DGA, 2022), the Digital Services Act (DSA, 2022), the Data Act (DA, 2023), Cybersecurity of Network and Information Systems Directive (NIS 2, 2022), the Critical Entities Resilience Directive (CER, 2022), the European Media Freedom Act (EMFA, 2024), the Cyber Resilience Act (CRA, 2024) and the Artificial Intelligence Act

[1] On June 2024, BEREC published its Opinion on the White Paper https://www.berec.europa.eu/en/news/latest-news/berec-contributes-to-the-ec-public-consultation-on-the-white-paper

(AIA, 2024), among others. The new digital regulations have established several specialized groups with competencies in the digital domain, including the DMA High-Level Group, the European Data Innovation Board (EDIB), the European Board for Digital Services, the European Artificial Intelligence Board (AIB), and the European Board for Media Services (EBMS).

Throughout 2024, three **high-level reports** (Letta, Draghi and Niinistö) were published outlining measures to strengthen the internal market, enhance EU economic competitiveness, and ensure common security. While these reports take a broad, cross-sectoral approach, they all address at varying levels issues affecting electronic communications regulation.

Building on the recommendations of these reports, the EC introduced an **EU Competitiveness Compass for the EU** in January 2025 as a roadmap to restore Europe's global competitiveness while ensuring secure and sustainable prosperity. The Compass emphasizes regulatory simplification and single-market integration and includes key initiatives to accelerate infrastructure investment, such as the DNA, the EU Cloud and AI Development Act, the Space Act, and measures to strengthen the EU's role in AI.

Based on the Digital Decade Policy Programme and the Fit for 55 package, several legislative proposals on **environmental matters** were adopted or are being developed, from which some tackle also the digital sector.

Additionally, the EC will review the **Roaming Regulation** by June 2025 and has begun preparatory work to develop a **Digital Fairness Act** (DFA) proposal, which will complement the DSA,. This legislation will tackle unethical techniques and commercial practices related to dark patterns, marketing by social media influencers, the addictive design of digital products and online profiling. The review of the **DSA** is due in 2027 and the one on the **DMA** every 3 years from 2026. The EC has also just launched the Data Union Strategy initiative, which seeks to simplify data rules in order to allow businesses and administrations to share data more seamlessly and at scale.

BEREC keeps committed to providing data and expertise to support the development of the regulatory framework, without prejudice to EC rights of initiative, prerogatives and the competences of the co-legislators (Council and the European Parliament).

III. HIGH-LEVEL STRATEGIC PRIORITIES

BEREC's tasks align with the four overarching objectives of the EECC: i) incentivising connectivity, access and take-up of VHCN; ii) promoting competition; iii) contributing to the development of the internal market; and iv) ensuring the interests of the citizens of the Union. These four objectives, intended to promote as well efficient investment and innovation serve as the strategic foundation of the assignments set out in BEREC's multi-annual work programmes and its guiding force. BEREC structures its annual work programmes on the basis of these objectives. In BEREC's 2030 Action Plan, it converted these objectives into building blocks (termed "Priorities") to shape the regulatory activities in the coming years. Along these lines, one amendment and addition to the so named Priority 4 of the BEREC's 2030 Action Plan is set out as follows: Contributing to environmentally sustainable, secure and

resilient digital infrastructures (and is set out in more detail at Priority 4 below). BEREC also recognises that the Priorities 1 to 5 are interlinked and should be taken into account in the round to maintain a coherent mission-driven roadmap for advancing Europe's digital transition.

Priority 1. Promoting full connectivity and the Digital Single Market

Given the growing and multifaceted importance of connectivity, BEREC will continue its role in promoting connectivity, adopting a comprehensive approach that encompasses all key infrastructures (land, space and submarine), including fixed, wireless, emerging virtual and cloud-related developments as well as the underlying empowering digital infrastructures and technologies.

BEREC will aim to ensure the harmonised application of European legislation, to incentivise operators to invest efficiently by fostering predictability and to empower EU citizens and businesses to benefit from high-quality connectivity at affordable prices. Together, these actions aim to further the development of the Digital Single Market. At the same time, BEREC will support policies and regulatory instruments strengthening competition and efficient infrastructure investment as well as innovation. BEREC will also contribute to more horizontal legislative processes by drawing on national experiences and data-driven digital tools, in order to ensure consistent regulatory implementation of all applicable rules regarding connectivity. In line with the EU Digital Decade targets for 2030, BEREC's work is focusing on promoting access to connectivity infrastructures, enhancing coverage and take-up, while supporting standardization and interoperability efforts.

With specific regard to VHCN, BEREC will continue to prioritize initiatives that improve the development and adoption of secure, competitive, and reliable very high-capacity networks both fixed and wireless across Europe. To this end, BEREC will continue providing guidance for access to infrastructures to facilitate VHCN deployment and faster take-up. BEREC will uphold a pro-efficient investment and pro-competitive ex ante access regulation, whether symmetric or asymmetric to achieve widespread connectivity.

BEREC will also provide for the consistent implementation of related legislative obligations and incentives to deploy advanced networks i.e. EECC provisions in relation to setting common standards and criteria and the implementation of the GIA. BEREC will continue to support NRAs in their work regarding the migration to fibre networks and copper switch-off balancing the incentives to move swiftly towards advanced networks while ensuring the rights of end-users and access seekers in the process. In addition, BEREC will contribute to work regarding the migration to 5G SA (Standalone) and to the set-up of 6G networks. BEREC will also follow if backhauling demand for these networks is met. BEREC will continue to examine the development of relevant digital infrastructures and services such as cloud-based network infrastructure, data centres, data processing services or content delivery networks (CDNs).

In line with its comprehensive approach to connectivity, BEREC will continue to analyse key network trends in wireless connectivity, with focuses on examining shared mobile and wireless access, seamless connectivity between mobile and fixed networks, assessing the impact of edge computing, cloudification, softwarization, and 'as-a-service' models including Application Programming Interface (API) developments. Many interesting trends involve cutting-edge

functions of 5G SA and future 6G networks as well as their potential to nourish data driven ecosystems, such as those based on IoT data collection, and BEREC stands ready to contribute to assessing.

Additionally, developments in connectivity triggered by the growing impact of NTN communications is an area that continues to be of interest to BEREC. Satellite communications developments imply considerations regarding jurisdiction, interoperability, spectrum management, standardization, interference and competition. As MNOs increase cooperation with satellite operators, further questions regarding competition dynamics, end users' rights, cybersecurity or lawful interception arise. As a result, the evolving strategic function of non-terrestrial networks (NTNs), their interplay with terrestrial infrastructures, and the broader implications they may play in the provision of connectivity are topics that BEREC stands ready to contribute to.

On the side of connectivity provided by submarine cables, BEREC will continue to follow their roll out and resilience.

BEREC will also continue to play a fundamental role in relation to the Roaming Regulation, which represents a key pillar of the European Single Market. It will actively contribute to the future implementation, monitoring, and review of the Regulation through robust data collection, stakeholder engagement, and the provision of expert input aimed at further enhancing the effective functioning of the Regulation at both wholesale and retail levels. BEREC will also maintain its focus on addressing issues related to rest-of-the-world roaming, with particular attention to ensuring adequate safeguards and transparency for roaming users. Furthermore, BEREC will support developments in the regulation of intra-EU communications by providing its expertise and data-driven insights, thereby contributing to the further advancement of the internal market in the interest of end-users.

Priority 2. Supporting competition-driven and open digital ecosystems

Open and competitive markets are fundamental drivers of innovation, investment, and end-user welfare. Sector-specific regulation in electronic communications markets transformed monopolistic into more competitive markets, allowing consumer choice and incentivizing investment in cutting-edge networks and innovative services. While significant progress has been made in lowering barriers to entry across most markets, challenges remain.

BEREC stands ready to address this priority based on its established multidisciplinary expertise, grounded in sound analysis, in support of competition-driven and open digital ecosystems.

On the one hand, *ex-ante* market regulation on ECN/S continues to provide targeted and flexible regulation by imposing tailored and proportionate remedies to the problems identified. BEREC will continue to offer its expertise to assess markets, facilitating deregulation where competition is effective, while prioritizing measures to stimulate competition and efficient investment in less competitive regions, particularly rural and underserved areas. Some of the specific issues that BEREC aims to address about market regulation in the coming years

include the following: i) geographical segmentation; ii) access to civil engineering or physical infrastructure, as it remains crucial in some Member States to complement the GIA for VHCN deployment; ii) business services, considering barriers to entry such as the complexities of the services or multi-site provision. Considering potential market developments leading to consolidation and the emergence of tight oligopolies, BEREC will assess regulatory approaches to address issues in such market structures.

BEREC will also consider the consequences of market developments such as consolidation, vertical separations or assets divestment including the assessment of their impact on the end-users, the value chain and investment incentives as well as the role of emerging new players or providers in adjacent markets.

On the other hand, ECN/S provision cannot be considered in isolation from the digital services and infrastructures (e.g. IP interconnection, data processing services, AI, CDNs or social networks, etc.), which encompass the internet ecosystem.

BEREC contributes actively to the development and implementation of the DMA, being part of the DMA High Level Group and cooperating closely with the EC in the implementation of interoperability obligations imposed on NI-ICS providers designated as gatekeeper. Drawing on its experience on ECN/S, BEREC will continue monitoring developments in digital markets and contribute to the implementation of digital regulations (particularly the DA and the DMA) and their evolution, including the upcoming DMA review in 2026.

Additionally, BEREC will continue to closely follow developments in the field of AI, including, among other aspects, the opportunities and challenges it presents within the electronic communications sector, as well as its potential impact on the openness of the internet. In doing so, BEREC will collect insights from market developments and relevant stakeholders, thereby contributing expertise that may support the further refinement and improvement of the European regulatory framework on AI.

EU legislation impacting digital services and infrastructures is closely intertwined and need to be applied in a coherent and efficient manner, fostering legal certainty and avoiding unnecessary red tape for the stakeholders. With a view to simplification, BEREC will be committed to provide advice for fostering the alignment of forthcoming digital frameworks, namely the DNA and the Cloud and AI Development Act, with existing regulations such as the DA or the DMA. BEREC will therefore work towards the compatibility of the definitions and scope of these different texts to enhance legal certainty and reduce compliance targets for the ECN/S stakeholders. Additionally, BEREC will seek for coordination among all relevant bodies to safeguard coherence, providing clear and consistent guidelines to the users and providers, facilitate compliance, enable a predictable environment for cross sectoral regulatory dialogue and build evidence-based regulatory proposals.

Priority 3. Empowering end-users

BEREC will continue considering market and technical developments from an end-user perspective to ensure transparency, enabling end-users to make informed decisions.

The electronic communications sector is evolving rapidly with the introduction of new digital services and innovative applications. Social networks and NI-ICS are increasingly entwined with traditional electronic communications, blurring the boundaries between service categories. In this context it is essential to keep end-user rights updated, to adapt obligations, and contract terms to remain relevant considering evolving services and providers' business models.

BEREC will continue providing a structured framework for the consistent implementation of the Open Internet Regulation (OIR) in line with the BEREC Open Internet Guidelines particularly focusing on new differentiated services and quality of services (QoS), network slicing, transparency obligations, traffic management practices or specialised services.

Special attention will be paid to address digital exclusion. Affordability and connectivity continue to be the primary demands from electronic communications end-users, the latter serving as the gateway to digital services and platforms. Additionally, BEREC will assess potential new sources of digital divide that may emerge due to new technologies and other elements of the electronic communications ecosystems. This includes considering insights from behavioural economics to address growing consumer vulnerabilities arising from design choices and behavioural strategies employed by market players. Promoting accessibility for all end-users will remain at the forefront of BEREC's efforts to achieve the highest level of protection and digital inclusion.

While end users are increasingly being given the opportunity of benefitting from new and enhanced connectivity thanks to the migration to VHCN, the process for phasing out legacy networks will have to be closely monitored to prevent negative impacts. At the same time, ensuring the availability, continuity and interoperability of Number Based Interpersonal Communication Services (NB-ICS) such as voice calls and SMS remains relevant, particularly in the transition to advanced mobile technologies and phasing out of legacy networks. As voice and messaging services are increasingly shifting towards NI-ICS, it is important to maintain the current standards of end-users' protection and a level playing field for functionally equivalent services.

BEREC will also continue striving to enhance end-users' trust and safety in electronic communication services. Preventing fraud in the digital environment is requiring additional efforts and strong cooperation among all stakeholders.

The increased use of AI is bringing both opportunities and challenges for end-users such as innovative solutions to improve accessibility for users with disabilities, but also the increasingly sophisticated fraudulent practices. BEREC is following those developments and is contributing from its experience and expertise in the sector to ensure that end-users benefit from the advantages of AI, while minimizing its risks.

Priority 4. Contributing to environmentally sustainable, secure and resilient digital infrastructures

BEREC will focus on environmental sustainability, security and resilience of ECN/S as strategic horizontal considerations to the existing objectives of the EECC. BEREC will work to

support the development of a secure, resilient and environmentally sustainable electronic communications ecosystem where ensuring continuity of communications services requires coordinated strategic, operational, and technical measures and their harmonized implementation.

BEREC's vision under this strategic priority is that the telecoms sector in Europe designs and builds future-proof digital infrastructures which minimise Green House Gas (GHG) emissions and which use resources in a sustainable manner. These infrastructures should also be sufficiently robust and adaptable to withstand cyber-security challenges and to respond to crises.

BEREC considers that resilient communication networks are essential for the functioning of society and the economy, particularly during crises. This applies to both physical (terrestrial and NTN) and virtual networks. Current and future communications networks must be resilient in the face of (cyber)security attacks, physical incidents and the increasing prevalence of extreme adverse weather conditions due to climate change.

The sound management of ECN means that resilience must be embedded in the infrastructure, as consumers and businesses depend on always-on connectivity for their daily activities and responding to emergencies. Thus, it is crucial to maintain high levels of reliability amid challenges posed by climate change, geopolitical tensions, and technological transitions. BEREC will also focus on collecting best practices in establishing reasonable back-up capacities and cooperation schemes for mitigating the impacts of serious incidents.

Environmental Sustainability

Advancing environmental sustainability generally represents a crucial societal priority and is of critical importance for the long-term viability of network deployments. BEREC's work, will reflect a comprehensive approach to sustainability considering technological and regulatory advancements in relation to the broader digital infrastructures such as data centres. BEREC also highlights that digital technologies are key elements for responding to the climate challenge and achieving international and European environmental goals including the Paris Agreement and the European Green Deal. In that respect, connectivity would be a critical enabler for the decarbonisation of other sectors including energy, transportation and agriculture. At the same time, it is important that the underlying digital infrastructures and technologies are also sustainable.

In this context, BEREC supports the concept that providers of ECN/S should take the associated environmental impact of new deployments into account. Furthermore, ECN/S providers should also consider best practices, including eco-design principles and fit for purpose data collection regarding environmental impact.

The environmental sustainability vis-à-vis ECN/S can be viewed as two distinct yet interrelated areas: i) mitigation, which refers to reducing and/or minimizing the negative environmental impact caused by human activity, and ii) adaptation, which refers to the resilience of networks in the face of likely increasing extreme adverse weather events caused by climate change.

The environmental sustainability of the digital infrastructures and user equipment has to consider GHG emissions, the use of resources, such as water, raw materials etc. The analysis has to be multicriteria, multi-stage and multi-component, based on Life Cycle Assessment (LCA).

While BEREC acknowledges the environmental sustainability opportunities brought about by new and emerging technologies and services (e.g., AI optimisation improving energy efficiency in networks, network virtualization reducing the amount of critical raw materials needed to deploy networks), it is also aware of the environmental footprint of these technologies and services. Commonly agreed methodologies and indicators to measure and report on the environmental impact of ECN/S and digital products will be essential to enable data-driven decision making in the ICT sector in line with the EU's Green Deal Industrial Plan. BEREC will investigate the main factors of the digital environmental footprint, identifying a robust yet relevant and efficient set of widely endorsed, science-based indicators and harmonised methodologies. BEREC remains committed to contribute to the work on sustainability indicators in the context of the EU Code of Conduct for the sustainability of telecommunications networks, in order to enable data-driven decision-making, based on the advancements in the regulatory framework.

Cybersecurity and resilience

In the context of evolving geopolitical dynamics and in light of natural disasters increasingly driven by climate change, cybersecurity and resilience have become matters of utmost importance for safeguarding communications and data across Europe. These aspects are more critical than ever, both for current networks and for those of the future.

The new security obligations introduced by the NIS2 and CER Directives represent significant instruments for addressing challenges related to security and resilience. However, they also have a considerable impact on operators' costs, market competition, and ultimately on consumer pricing. BEREC, the NIS Cooperation Group, and ENISA are engaged in ongoing exchanges aimed at sharing insights and supporting effective compliance.

Looking ahead, technological advancements such as the deployment of 6G and the development of quantum communication networks over the coming decades will introduce further challenges. While quantum computing poses a threat to existing encryption protocols used in today's communication networks -necessitating a transition to quantum-resistant cryptographic solutions - quantum communication networks are expected to enhance security by providing resilience capable of withstanding quantum attacks.

BEREC acknowledges that cybersecurity and resilience in the context ECN/S is a highly multifaceted issue. Risks arise not only at the software level, but also in relation to hardware and physical infrastructure, all of which must be duly considered.

BEREC considers that ensuring service continuity requires the implementation of strategic, operational, and technical measures to mitigate risks. Telecommunications infrastructure must be designed with resilience in mind, capable of addressing a wide range of threats and vulnerabilities. In this regard, BEREC can serve as a valuable forum for NRAs to exchange views, share experiences on national resilience strategies, and disseminate best practices.

Such exchange could help foster a common understanding of cybersecurity and resilience in relation to ECN/S, including the necessary levels of protection, associated implementation measures and costs, and potential approaches to overcoming emerging challenges.

In particular, BEREC will focus on enhancing the resilience of networks against hybrid threats, including those that target or exploit the supply chain. Through its work in this area, BEREC underscores the importance of ongoing improvements in crisis management, legislative frameworks, and energy resilience.

Priority 5. Strengthening BEREC's capabilities and continuous improvement

BEREC's Action Plan 2030 sets the ambition of strengthening BEREC's agility, independence, inclusiveness, and efficiency as a centre of expertise. In line with this vision, BEREC is continuously reviewing and improving its working practices to promote greater efficiency, high-quality deliverables, transparency and environmental sustainability.

Given the high **cybersecurity** threat BEREC and the BEREC Office are facing due to the mandate of BEREC and the location of the BEREC Office, further efforts will be dedicated to enhancing cybersecurity. In addition, BEREC's data also needs to be carefully secured and so the best practices in data warehousing will be employed.

Data-driven regulation has proved to be effective in regulating the electronic communications sector. Providing robust and relevant data provides evidence for BEREC's analysis, opinions and reports, which are also built upon the experience and the expertise of its members. Thus, the data and the information gathered by BEREC is an important tool to carry out NRAs' tasks and inform policymakers and stakeholders and steer the market in the right direction to better enable end-users to benefit from choice, quality and competitive prices.

Regulatory activity should be proportionate, targeted, and mindful of implementation costs for all stakeholders. BEREC is considering means to **simplify and reduce bureaucracy** across all areas of its work, both on its own initiatives and when providing advice to EU institutions. More specifically, BEREC will continue promoting the harmonization of data collection across the EU to minimize administrative burden for stakeholders while strengthening the internal market. To this end, BEREC will seek to leverage the latest automation and IT tools.

BEREC and its members have successfully developed and implemented **regulatory tools** for non-discrimination, access remedies and price control, transparency measures in relation to end-users and undertakings, and number portability. BEREC will continue to be at the forefront of sharing and developing regulatory best practices and guidelines for ECN/S. BEREC will explore the potential of adopting state-of-the-art ICT, including AI tools, to ease its tasks and reduce the burden on stakeholders.

BEREC prioritizes **effective communication** to ensure transparency, build trust, and strengthen its relationships with stakeholders and key target audience. By fostering open dialogue and delivering clear and consistent messages, BEREC enhances its engagement, supports informed decision-making, and upholds its commitment to be accountable. BEREC remains committed to continuously improving its interaction with all stakeholders and ensuring

all BEREC outputs remain relevant. BEREC will aim to ensure its work processes remain transparent and that it reaches the relevant audience. BEREC aims to maintain a high level of trust from stakeholders and position itself as a trusted third party in stakeholder dialogues and in its engagement with the EU Institutions and other parties.

IV. INSTITUTIONAL AND INTERNATIONAL COOPERATION

In line with its mandate under Article 35 of the BEREC Regulation, institutional and international relations are aligned with the EU's external relations policy and strategic priorities and an integral part of its annual work programme.

Cooperation with EU institutions and international organisations is increasingly relevant for addressing challenges in the digital markets. BEREC will continue its efforts to foster dialogue and collaboration with networks and institutions and policymakers involved in digital regulation as well as with NRAs beyond the EU. Where relevant, BEREC will continue to seek to establish formal working arrangements.

Institutional cooperation

BEREC cooperates regularly with the **RSPG** in the context of the radio spectrum peer review process established by the EECC as well as with the **NIS Cooperation Group** and **ENISA** for the implementation of the 5G toolbox and the cybersecurity Action Plan designed in Nevers, France in 2022. BEREC collaborates with the European Conference of Postal and Telecommunications Administrations (**CEPT**) on numbering related matters. BEREC contributes to the implementation of the DMA as a member of the **High- Level Group**.

BEREC will continue to collaborate and exchange information with other European regulatory cooperation platforms and bodies operating both in adjacent and different economic sectors. The exchange of views about practical issues of digital regulation is increasingly important to ensure the coherent and efficient implementation of European legislation. In view of the sectoral developments, BEREC will have to strengthen its relations with the **EDIB**, in charge of the DA implementation, in the context of network cloudification, with the European Agency for Space Programme (**EU SPA**) considering the increasing relevance of market access through NTNs and the **EEA** (European Environment Agency) in relation with BEREC's activities in sectoral environmental sustainability. Other relevant bodies in the implementation of digital and market policies will be the European Data Protection Board (**EDPB**) and the European Competition Network (**ECN**). BEREC recognizes the importance of collaboration as well with relevant standardization bodies. BEREC intends to increase exchanges with the European Telecommunications Standards Institute **(ETSI)**, the European Committee for Standardization (**CEN**) and the European Committee for Electrotechnical Standardization (**CENELEC**), on topics for which BEREC is competent such as quality of service and experience, infrastructure sharing, sustainability or the implementation of the EECC standardization provisions. Finally, BEREC's objectives to harmonize and streamline indicators and data collection would benefit from further cooperation with **Eurostat**.

International cooperation

The global nature of digital services means that policies, legislation and regulation from other parts of the world is becoming important. BEREC benefits from cooperation with NRAs and with other international regulatory networks, policymakers and institutions involved in electronic communications matters based outside Europe. This cooperation allows the exchange of views on cross-border and common issues as well as closely following global trends in technology and changing business models. Moreover, regions beyond the EU and non-EU regulatory networks have been expressing great interest in the European regulatory approach.

BEREC's international activities complement the policies of the EU in terms of both cooperation topics and the priority regions with which to cooperate. BEREC has contributed to European initiatives such as the technical support to the implementation of the Western Balkans regional roaming agreement following the request of the EC. BEREC will seek to continue supporting EU initiatives, such as the Global Gateway, with its expertise and in close cooperation with the EC.

BEREC aims to continue and further strengthen its long history of cooperation with NRAs' regulatory networks in other regions, namely **EMERG** (European Mediterranean Regulators Group), **REGULATEL** (Latin American Forum of Telecommunications Regulatory Entities) and **EaPeReg** (Eastern Partnership Regulators' Network). Furthermore, BEREC has also signed memorandums of understanding (MoUs) with the NRAs of the United States (**FCC**), Canada (**CRTC**) and India (**TRAI**).

Finally, BEREC also cooperates in electronic communications matters with other international institutions such as the International Telecommunication Union (**ITU**) and the Organisation for Economic Co-operation and Development (**OECD**).

ANNEX – ACRONYMS

AI - Artificial Intelligence
AIA - Artificial Intelligence Act
AIB – Artificial Intelligence Board
API - Application Programming Interface
BEREC - Body of European Regulators for Electronic Communications
BEREC Office - Agency for Support for BEREC
DA - Data Act
DFA - Digital Fairness Act
DGA - Data Governance Act
DMA - Digital Markets Act
DNA - Digital Networks Act
DSA - Digital Services Act
D2D - Direct-to-Device
CAPs - Content and Application Providers
CDN - Content Delivery Networks
CEN - European Committee for Standardization
CENELEC - European Committee for Electrotechnical Standardization
CEPT - European Conference of Postal and Telecommunications Administrations
CER - Critical Entities Resilience Directive
CRA - Cyber Resilience Act
CRTC - Canadian Radio-television and Telecommunications Commission CPC Network - Consumer Protection Cooperation Network
EaPeReg - Eastern Partnership Electronic Communications Regulators Network
EBMS - European Board for Media Services
EC- European Commission
ECN - European Competition Network
ECN/S - Electronic Communications Networks and Services
EDPB - European Data Protection Board
EDPS - European Data Protection Supervisor
EDIB - European Data Innovation Board
EEA - European Environment Agency
EECC - European Electronic Communications Code
EMERG - European Mediterranean Regulators Group
EMFA - European Media Freedom Act
ENISA - European Union Agency of Cybersecurity (formerly, European Network and Information Security Agency)
ETSI - European Telecommunications Standards Institute
EU - European Union
EU SPA - European Agency for Space Programme
FCC - Federal Communications Commission of the United States of America
FTTH - fibre to the home
FWA - Fixed Wireless Access
GHG - Green House Gas
GIA - Gigabit Infrastructure Act
ITU - International Telecommunication Union
IoT - Internet of Things
IRIS² - Infrastructure for Resilience, Interconnectivity, and Security by Satellite
MoU - Memorandum of Understanding
NB-ICS – Number Based Interpersonal Communication Services
NI-ICS - Number Independent Interpersonal Communication Services
NIS 2 - Network and Information Systems Directive
NRAs - National Regulatory Authorities
NTN - Non-Terrestrial Networks
LCA - Life Cycle Assessment
LEO - Low Earth Orbit
OECD - Organization for Economic Cooperation and Development
OIR - Open Internet Regulation
SMP – Significant Market Power
Regulatel - Latin American Forum of Telecommunications Regulatory Entities
RSPG - Radio Spectrum Policy Group
TRAI - Telecom Regulatory Authority of India
VHCN - Very High-Capacity Networks
XR - Extended Reality
5G SA – 5G Standalone