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Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on digital networks, amending Regulation (EU) 2015/2120, Directive 2002/58/EC and Decision No 676/2002/EC and repealing Regulation (EU) 2018/1971, Directive (EU) 2018/1972 and Decision No 243/2012/EU (Digital Networks Act)

{SEC(2026) 14 final} - {SWD(2026) 13 final} - {SWD(2026) 14 final}

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons for and objectives of the proposal

As the European Digital Decade Policy Programme ([1]) states, connectivity is crucial for digital transformation, aiming for universal gigabit broadband and 5G in populated areas by 2030. Robust, fast, and secure networks enable digital skills development, business innovation (Artificial Intelligence (AI), cloud), essential e-government/health services. They also make it possible to close the digital divide, ensuring inclusive participation and competitiveness across the EU. Connectivity is not just access. It is about real-time data exchange, vital for the EU to be able to achieve its broader digital goals and for supporting a truly connected, prosperous society.

A modern and simplified legal framework that incentivises the transition from legacy networks to fibre, high quality 5G and 6G networks, and cloud-based infrastructures, as well as increased scale through service provision and cross-border operation, is crucial. This has also been pointed out in the results of the exploratory consultation on the future of the electronic communications sector and its infrastructure (2023) ([2]), and later in the Commission White Paper 'How to master Europe's digital infrastructure needs?' (2024) ([3]), as well as in the response to the Call for Evidence for the Digital Networks Act (2025) ([4]).

Subsequent strategic analyses, including the Letta ([5]), Draghi ([6]) and Niinistö ([7]) reports, and the Commission Communication 'A Competitiveness Compass for the EU' ([8]) also make the point that a cutting edge digital network infrastructure is critical for the future competitiveness of the EU economy, security and social welfare. The availability of high-quality, reliable and secure connectivity for end users and for key economic sectors is a must.

At the same time, the Letta and Draghi reports underlined that the single electronic communications market remains fragmented, and European operators continue to face barriers to operating cross-border and scaling-up, limiting their ability to invest, innovate, and compete with their global counterparts. The current legal framework being a Directive has resulted in national fragmentation and therefore has failed to deliver a true single market. Operators face divergent general authorisation conditions across Member States and a patchwork of national requirements that disincentivise cross-border operations, increase compliance costs and delay the introduction of new technologies.

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1 Decision (EU) 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030 (OJ L 323, 19.12.2022, p. 4).

2 https://digital-strategy.ec.europa.eu/en/consultations/future-electronic-communications-sector-and-its-infrastructure.

3 https://digital-strategy.ec.europa.eu/en/library/white-paper-how-master-europes-digital-infrastructure-needs.

4 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14709-Digital-Networks-Act_en.

5 https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf.

6 https://commission.europa.eu/topics/competitiveness/draghi-report_en.

7 https://commission.europa.eu/topics/defence/safer-together-path-towards-fully-prepared-union_en.

8 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, 'A Competitiveness Compass for the EU', 29.1.2025, COM(2025) 30 final.

Driven by the increasing importance of performance and security requirements for such services, digital networks are undergoing a technological transformation whereby cloud and edge computing capabilities are becoming an integral part of connectivity infrastructure. The adoption of the Digital Networks Act (DNA), accompanied by the review and evaluation of the European Electronic Communications Code (EECC) ([9]) and related legal acts, is an opportunity to simplify and further harmonise the legal framework. This will boost competitiveness and resilience and make for a more integrated single market.

Satellite connectivity is emerging as one of the core enablers of EU strategic autonomy. It is crucial for affordable broadband internet access in remote areas and for the provision of services related to security, crisis management, defence and other critical applications. In the rapidly evolving satellite technological landscape, the EU needs to strengthen its strategic autonomy in satellite communications, including networks and services, to secure and improve resilience while contributing to the single market, something that can be done with harmonised EU satellite authorisation conditions.

In parallel, satellite connectivity must build greater resilience against harmful interference that affects global navigation satellite systems (GNSS) such as Galileo. The EU should be able to respond in a concrete, actionable and operational way to the security threats posed by drones.

To support the achievement of the EU's policy objectives of consumer welfare, industrial competitiveness, security and resilience and sustainability, the DNA aims to incentivise all market players to innovate and invest in advanced connectivity and to promote an ecosystem of connectivity and computing infrastructures that enable the AI continent and foster the single market.

- **Consistency with existing policy provisions in the policy area**

The DNA replaces certain existing EU legislative instruments that govern the connectivity ecosystem: the EECC, the Body of European Regulators for Electronic Communications (BEREC) Regulation ([10]), the Radio Spectrum Policy Programme (RSPP) ([11]), parts of the Open Internet Regulation (OIR) ([12]) and Directive 2002/58/EC (ePrivacy Directive)[13]. The aim of merging these instruments into the DNA in the form of a Regulation is to simplify and better coordinate the rules, enabling providers to operate and innovate in the single market. Providers need simplified and consistent authorisation rules (the EECC), access to fixed networks and spectrum resources (the EECC, the RSPP), and a simplified and harmonised set

9 Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (OJ L 321, 17.12.2018, p. 36).

10 Regulation (EU) 2018/1971 of the European Parliament and of the Council of 11 December 2018 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office), amending Regulation (EU) 2015/2120 and repealing Regulation (EC) No 1211/2009 (OJ L 321, 17.12.2018, p. 1).

11 Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme (OJ L 81, 21.3.2012, p. 7).

12 Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union (OJ L 310, 26.11.2015, p. 1).

13 Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) (OJ L 201, 31.7.2002, p. 37).

of rules for networks and services (the EECC, the OIR). Finally, governance arrangements need to support and enable single market conditions (the EECC, the BEREC Regulation, the RSPP). The proposal also complements the Gigabit Infrastructure Act ([14]), which sets out a framework to support faster and more cost-effective deployment of very high capacity networks (VHCN). The DNA is also consistent with the Roaming Regulation ([15]), which governs roaming charges in the EU. The proposal also complements and is in line with EU competition rules, which are applied on a case-by-case basis (often *ex post*).

In the area of consumer protection, the DNA continues to complement the EU's horizontal consumer protection framework. While maintaining a high level of consumer protection, the DNA proposal simplifies and further harmonises the sector-specific rules for end-user protection in the area of electronic communications. The proposal is fully in line with the Digital Decade Policy Programme, which outlines a vision for Europe's digital transformation until 2030, by designing the regulatory framework in such a way as to achieve secure and sustainable digital infrastructures.

- **Consistency with other Union policies**

This proposal is designed to ensure full complementarity with existing and forthcoming EU proposals in cloud, AI, data, cybersecurity and preparedness, and space. Ensuring coherence across these interconnected policy areas is essential for the EU's ability to build the necessary technological capacities along the entire digital value chain. At the same time, and by strengthening the foundations for a more integrated digital single market and innovative and investment-friendly digital infrastructure ecosystem, the Digital Networks Act is one of the key flagship initiatives under the horizontal strategy to reignite Europe's economy, the EU Competitiveness Compass.

While the DNA does not seek to regulate cloud services, the increasing convergence between electronic communications networks and cloud/edge computing necessitates alignment with the Cloud and AI Development Act (CADA) ([16]), which aims to strengthen EU cloud and edge capabilities through better investment conditions and streamlined permitting procedures. Related EU actions under the AI Continent Action Plan ([17]) on access to AI data and infrastructure and support for sectoral AI applications, reflect the broader transition towards cloud-based and AI-enabled network infrastructures. The initiative is also consistent with the Data Union Strategy ([18]), which enhances access to high-quality data and further develops data-related infrastructure. By improving secure and reliable connectivity, the DNA will support the achievement of those broader objectives.

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14 Regulation (EU) 2024/1309 of the European Parliament and of the Council of 29 April 2024 on measures to reduce the cost of deploying gigabit electronic communications networks, amending Regulation (EU) 2015/2120 and repealing Directive 2014/61/EU (Gigabit Infrastructure Act) (OJ L, 2024/1309, 8.5.2024, ELI: http://data.europa.eu/eli/reg/2024/1309/oj http://data.europa.eu/eli/reg/2024/1309/OJ).

15 Regulation (EU) 2022/612 of the European Parliament and of the Council of 6 April 2022 on roaming on public mobile communications networks within the Union, OJ L 115, 13.4.2022, p. 1.

16 According to the 2026's Commission Work Program, the Commission will adopt a proposal for a Cloud and AI Development Act in Q1 2026 (https://commission.europa.eu/strategy-and-policy/strategy-documents/commission-work-programme/commission-work-programme-2026_en).

17 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 'AI Continent Action Plan', 9.4.2025, COM(2025) 165 final.

18 Communication from the Commission to the European Parliament and the Council, 'Data Union Strategy Unlocking Data For AI', 19.11.2025, COM(2025) 835 final.

Despite work done through the 5G cybersecurity toolbox ([19]), resilience risks in the electronic communications sector persist. Dependencies continue to affect 4G/5G and fixed networks, submarine cables, cloud services and critical sectors. The revision of the Cybersecurity Act ([20]) provides an opportunity to address ICT supply chain risks more systematically. These actions are closely linked to, and mutually reinforcing with, this proposal's focus on enhancing network security and resilience. While cybersecurity and resilience obligations are provided by the NIS2 Directive ([21]) and the Critical Entities Resilience (CER) Directive ([22]),greater EU coordination is still needed. The absence of a sector-specific operational body and of a centralised EU-wide overview of preparedness, early warning crisis management mechanisms, and resilience mapping in electronic communications, further highlights this need.

The proposal is aligned with the objectives of the EU's Economic Security Strategy and the EU Preparedness Union Strategy by strengthening the resilience, redundancy and capabilities of electronic communications networks and services, to ensure the reliable transmission of communications during natural or man-made disruptions, crises or cases of force majeure. In particular, it will support much improved network and service capabilities, including measures to ensure the continuity and uninterrupted availability of emergency communications and the effective functioning of public warning services.

The DNA complements measures proposed under the EU Space Act ([23]). The EU's Strategic Vision for the Space Economy recognises that space-related investments are closely linked to the removal of regulatory barriers. The DNA is therefore seen as a critical building block of the EU single market for space. By eliminating regulatory barriers, this Regulation will improve pan-European access to satellite spectrum and strengthen the single market for satellite communication services, enabling greater scalability and innovation. Investments in satellite infrastructure and the wider value chain are addressed by other EU instruments, including financial support for the multi-orbit infrastructure for resilience, interconnectivity and security by satellite, such as IRIS² constellation (the EU's secure connectivity satellite system) and EU programmes such as the EU's space entrepreneurship CASSINI initiative and InvestEU, which provide funding mechanisms for space operations.

It complements the EU's support for the IRIS^2 satellite constellation, which aims to strengthen EU sovereignty in satellite connectivity and to facilitate the integration of terrestrial and non-terrestrial networks.

The Commission will adopt in 2026 a proposal to establish the European Union Critical Communication System (EUCCS), to be operational by 2030, that will provide broadband-

19 https://digital-strategy.ec.europa.eu/en/library/eu-toolbox-5g-security.

20 Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act) (OJ L 151, 7.6.2019, p. 15).

21 Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive) (OJ L 333, 27.12.2022, p. 80).

22 Directive (EU) 2022/2557 of the European Parliament and of the Council of 14 December 2022 on the resilience of critical entities and repealing Council Directive 2008/114/EC (OJ L 333, 27.12.2022, p. 164).

23 https://defence-industry-space.ec.europa.eu/eu-space-act_en.

based secure communication services for public authorities across the EU and the Schengen area. The DNA proposal complements those efforts by contributing to the EU's overall capacity to respond to security threats and crises.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

• Legal basis

The proposal is based on Article 114 of the Treaty on the Functioning of the European Union (TFEU), as it aims to buttress the single market in electronic communications and to ensure its functioning as well as the functioning of the single market in other EU policy areas involving the use of spectrum.

• Subsidiarity (for non-exclusive competence)

The DNA will have significant added value compared to action taken at Member State level. Strengthening European competitiveness requires access to fast, secure and resilient digital infrastructure across the EU. In a context where the digital connectivity landscape is changing rapidly with the integration of telecom, satellite, cloud and edge computing technology, driven by virtualisation and AI, the EU will only be able to achieve those objectives through a more harmonised legal environment across the EU that avoids fragmentation caused by inconsistent national administrative practices or implementation conditions that limit the opportunities of the single market.

Spectrum, like other resources such as numbers and to some extent land, is a scarce resource whose management and assignment needs to consider national specificities and needs but also the EU's interests. There is therefore a need for more convergent and consistent EU regulation of market entry to eliminate the obstacles that arise due to divergent conditions for the assignment of individual rights of use for spectrum, numbers or land. For the EU to lead the rest of the world on new and improved services, such as 5G, equipment manufacturers and providers of communications services need sufficient scale. This means not only technical harmonisation, but most importantly a single market that develops in a broadly aligned fashion, for services and devices to benefit from stable and harmonised rules.

On satellite connectivity, the inherently global nature of satellite services, which transcend national borders, makes satellite connectivity a policy area in which EU action is more effective than national measures alone. The timely availability and uptake of satellite connectivity, which rely exclusively on access to satellite spectrum across the EU, are critical inputs for European industrial autonomy and play a central role in making the EU more competitive. There is therefore a strong case for the EU to adopt an ambitious, coordinated, EU-wide approach to satellite authorisation, underpinned by appropriate regulatory instruments and complementary measures designed to facilitate and accelerate the achievement of this objective.

The objective of ensuring a timely and orderly transition from legacy copper networks to fibre-based networks cannot be sufficiently achieved by Member States acting alone, as divergent national approaches would risk fragmenting the single market, legal uncertainty for operators active in several Member States, and uneven conditions for investment and end-user protection. EU action is therefore justified to establish a common framework, safeguards and minimum principles governing the transition. At the same time, in line with the principle of subsidiarity, the design, sequencing and implementation of the transition are entrusted to the Member States and national regulatory authorities, which are best placed to take account of

local market conditions, network topologies, consumer needs and geographic specificities. The Regulation thus combines a harmonised EU approach with nationally managed processes, ensuring effectiveness while fully respecting Member States' responsibilities.

EU action is needed to reduce fragmentation of consumer and end-user protection rules, which gives rise to administrative costs for cross-border service providers and hinders the development of innovative services, and results in an uneven and sub-optimal level of consumer protection across the EU.

Overall, the scale of the problems in the digital ecosystem requires an EU legislative initiative because they increasingly have an EU dimension, and can be more efficiently solved at EU level, leading to greater benefits overall, more accelerated and harmonised implementation, and lower costs than if Member States acted alone.

- **Proportionality**

Proportionality is ensured as the proposed measures focus on tackling bottlenecks in in the single market, to create the conditions for new more virtualised and software-based electronic communications networks and services in the Union, in particular by simplifying and harmonising the general authorisation regime. In doing so it supports the achievement of the single market objective of freedom of provision of electronic communications services. It also avoids disrupting the operations of providers who would opt to keep a national (or regional) footprint.

Building upon the successful parts of the existing regulatory framework, the proposal retains the well-functioning significant market power (SMP) regime and the three-criteria test, however, re-focusing intervention on market failures, enabling national regulatory authorities (NRAs) to use more easily symmetric measures, where appropriate, and putting emphasis on using less intrusive regulatory tools where possible. The harmonisation of access products, coupled with well targeted and proportionate regulation, including access to in-building wiring and potentially more, should support greater take-up of Gigabit broadband and higher broadband speeds. The proposed Regulation would enable both a smooth transition from copper to fibre networks and proportionate regulation in a full fibre environment.

Compared to the current framework, the proposal accelerates the transition to fibre networks. Proportionality is ensured by appropriate safeguards for end users and by the fact that the process being reviewed and managed nationally. The competent authorities are responsible for ensuring that adequate broadband services are available, using appropriate safeguards (ensuring comparable quality and comparable prices of retail fibre-based services, coverage by alternative technologies, etc.). This process will be subject to the Commission's scrutiny.

The proposed measures will also entail proportionate governance changes, creating a governance system both for market regulation and spectrum management that is suitable for the new EU-level tasks with a single market dimension and enabling decisions to be made at the most efficient level. The Radio Spectrum Policy Group (RSPG) will become Radio Spectrum Policy Body (RSPB), similar to BEREC. Given the absence of legal personality, both BEREC and RSPB) will not exercise binding decision-making powers. Such competences will remain with the Commission and national regulatory authorities or national authorities responsible for spectrum. BEREC and the RSPB will continue to provide advice, opinions, guidelines and other forms of policymaking support.

To promote greater convergence in spectrum management, significant spectrum assignments will be subject to a mandatory EU spectrum single market mechanism, enabling the Commission, BEREC and the RSPB to comment on draft measures. The Commission could intervene where necessary in situations with potential single market implications. Given the cross-border nature of satellite services, the Commission, supported by the advisory structures, would manage the EU satellite authorisation, including by selecting satellite licensees, if spectrum resources are limited.

The end-user protection rules are simplified and strengthen full harmonisation with targeted exceptions (regarding maximum contract duration for example), but harmonisation is limited to the areas the proposal covers. On universal service obligations (USO), a more harmonised approach to defining adequate internet access service is introduced. The USO scope maintains the availability, ensuring that consumers (and by extension micro-enterprises, small enterprises and not-for-profit organisations) have adequate internet access and voice communication services available at a fixed location. The concept of affordability of adequate internet access and voice communication services, with possible measures for consumers with low income or consumers with special social needs, is also maintained, with a more harmonised approach to to establishing affordability. The USO provisions complement the copper switch-off process and the transition to fibre and will therefore be subject to review.

The solutions will enable relevant stakeholders to capitalise on the synergies of a large Single market and reduce inefficiencies in their operations and investments, in the most timely and effective manner. At the same time, the proposal ensures to operators who opt to provide services in a single Member State continuity of the current rules while benefiting from better and clearer rules on the rights of end users, and a more predictable environment for access to spectrum inputs and to electronic communications networks and services.

- **Choice of the instrument**

The Commission proposes a Regulation as it ensures the removal of single market barriers by harmonising the existing regulatory framework for electronic communications. This includes specific, directly applicable rights and obligations for providers, competent authorities and end-users. It also includes coordinating mechanisms for certain inputs at European level to facilitate the provision of electronic communications networks and services across borders and an adapted general authorisation regime for providers operating in one, several or all Member States. A Regulation is also a valuable resilience tool. In a cross-border connectivity environment, vulnerabilities in one Member State can undermine security across the EU and threats to electronic communications networks and services, whether cyberattacks, physical disruptions or systemic failures, are inherently cross-border. Geopolitical instability requires a rapid, coordinated and EU-wide response, which cannot be ensured if Member States implement measures at different speeds or with varying levels of ambition.

Finally, as set out in the staff working document Annex 11 to the Impact Assessment: Evaluation – Review of the functioning of the European Electronic Communications Code (EECC), the Body of European Regulators for Electronic Communications (BEREC) Regulation, the Open Internet Regulation, and certain aspects of the ePrivacy Directive, experience with the EECC shows that Member States have not been able to address the sectoral challenges in time, due to the long time it took to transpose the EECC into national law. This was particularly the case for spectrum authorisations, as many of the 5G auctions took place many years after the transposition date of the EECC on the basis of outdated legislation. Transposition has also often been accompanied by additional layers of rules resulting in overregulation and gold-plating, making it difficult for companies to grow cross-

border and to scale up. Fragmented national rules under the current Directive have failed to deliver a true single market. Divergent authorisation conditions, end-user rules, and additional national requirements create a patchwork that gives rise to compliance costs and blocks the scaling-scaling-up of innovative cross-border services, despite their significant market potential. As connectivity converges with cloud, edge computing and AI, new business models could flourish, but today's complexity discourages operators from centralising operations, leveraging economies of scale, and deploying pan-European services.

3. RESULTS OF EX POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

- **Ex post evaluations/fitness checks of existing legislation**

Analysis has shown that the EECC, through its objectives of promoting connectivity and access to, and take-up of, very high capacity networks, has helped to achieve and maintain effective competition and to protect end users. However, the EECC, being a directive, has resulted in national fragmentation and has therefore not achieved the completion of the single market. Analysis has also identified the need for some rebalancing of objectives, (investment, demand), as well as the need to consider adding new objectives of greater competitiveness, security, resilience and sustainability.

Several pillars of the EECC are still fit for purpose.

The SMP regime remains the key instrument for *ex -ante* regulation, ensuring that markets work well. However, NRAs have increasingly defined regional or local markets and the overall use of *ex ante* regulation has decreased.

Radio spectrum is of utmost strategic and geopolitical importance. It is essential for enabling communication, driving economic growth and social prosperity, and supporting critical services across various sectors.

The USO in the EECC are a safety net to ensure all consumers in the EU have access to affordable adequate internet and voice communication services.

The provisions on end-user rights are mostly still fit for purpose but some aspects of them could be simplified.

Access regulation is based on competition law principles and on transparent consultation mechanisms with the Commission as the guardian of the Treaties, ensuring that the proposed regulations would not create a barrier to the single market and are compatible with EU law. Such a system promotes regulatory predictability by ensuring a consistent regulatory approach.

The current framework is, in principle, well adapted to addressing instances of significant market power including local monopolies. This is relevant in a full fibre environment in a post-copper world. The number of cases regarding oligopolistic markets, notified under Article 32 EECC, has been very limited. Possible issues in oligopolistic markets have been addressed under the spectrum authorisation regime or under competition law.

There is also room for simplifying some key EECC provisions that have not been applied by regulators (Article 76 on co-investments, Article 77 on the imposition of functional separation) or that have been applied by some regulators but should be further simplified to enable a broader application (Article 61(3) on symmetric regulation, Article 79 on regulatory commitments, Article 80 on wholesale-only networks).

On **copper switch-off**, Article 81 EECC has had limited practical relevance primarily due to the lack of plans announced by incumbent operators and has not significantly helped to accelerate the transition from copper to fibre networks. Instead, its primary purpose has been to provide NRAs with a framework for managing the switch-off process transparently and competitively, ensuring that migrations do not harm competition or end-user rights, and that alternative access products of comparable quality are available.

On **wireless connectivity,** although the EU spectrum policy framework has laid the foundation for coordinated 5G deployment through early harmonisation and binding deadlines for the assignment of spectrum, and has ensured competitive prices for end users, albeit with different levels and some exceptions, the EU is lagging behind in high-quality 5G deployment compared to leading world economies. This has negative implications not only for consumers but also for the EU's industrial competitiveness and innovation. There are many reasons for this. Spectrum assignment conditions remain excessively fragmented and have not ensured consistent investment outcomes. Ill-designed auctions, the insufficiently long duration of licences, a lack of flexibility and incentives to share spectrum and use it more efficiently, have increased the cost of spectrum which, combined with limited mobile revenues and lack of demand, has negatively affected deployment.

The procedural tools of the EECC to help establish the single market for spectrum, and in particular the voluntary peer review of spectrum assignment procedures or the voluntary joint authorisation procedure allowing several Member States to cooperate to grant spectrum usage rights through common conditions and procedures, have been rarely used or ineffective at promoting regulatory predictability and investment. As regards cross-border harmful interferences between Member States, the good offices involvement of the RSPG has brought significant added value according to participants but has not been fully efficient at addressing cross-border coordination issues with third countries or in non-harmonised bands.

Overall, the lack of regulatory predictability and inefficient spectrum use have affected the financial attractiveness of 5G investment projects.

For **satellite services** of a clear cross-border nature, the failure to establish a Single Market is even more apparent. There are no minimum common authorisation conditions or satellite spectrum requirements, or common selection procedures (except for the 2 GHz mobile satellite service (MSS) band), and there is a wide variation in timescales for issuing a licence, different approaches to national coordination with existing services, different fees and different conditions attached to licences. This fragmentation is not conducive to leveraging the strength of the single market to ensure a level playing field in space, is not favourable to scaling up for EU-wide provision of satellite services and makes regulatory forum shopping possible. These barriers affect EU readiness for the direct-to-device challenge in a context where the EU risks being strategically dependent on foreign players for services that are crucial for its security and defence.

The evaluation findings on the **general authorisation provisions** identified the need to further harmonise, update and simplify the general authorisation regime and pave the way for facilitating the deployment of more virtualised, centrally managed networks, software- and cloud-based electronic communications networks and services in the EU.

The provisions on end-user rights are mostly still fit for purpose and there must be continued focus on their enforcement and implementation. At the same time, some updates and simplification could benefit both consumers and service providers, for example, the streamlining of contractual information (Article 102 EECC) and the harmonisation at EU level of some aspects, such as parameters for the quality of services (Article 104 EECC). Some eprivacy Directive provisions concerning the technical facility for calling line

identification and the related rights to privacy are updated in view of the evolution of electronic communications networks and the transition to IP-based ones and thus, covering the originating identification as well. There are also updates related to the automatic call forwarding and automated calling systems and non-itemised billing. Other obsolete provisions about public directories are deleted.

As regards governance, the assessment of the BEREC and the BEREC Office and their contribution to the harmonised implementation of the EECC has been positive overall, in particular as regards the quality of BEREC guidelines and reports, and helped NRAs reach common approaches. Yet BEREC guidelines and exchanges of best practices have still not managed to bring about the single market. As markets, technology and the broader digital ecosystem rapidly evolve, BEREC's mandate should also evolve to encompass new tasks in areas such as resilience, spectrum and satellites. The BEREC Office should also have its capacity increased so it can support BEREC, including on substance, to ensure better alignment with EU policies.

The assessment of the RSPG's contribution to spectrum policy is also positive. Its deliverables related to spectrum for future wireless connectivity, including 6G, spectrum sharing, future use of the ultra high frequency band, World Radiocommunication Conferences and their outcome, satellite connectivity, and climate change have provided valuable input for further Commissions' considerations. However, as the RSPG adopts deliverables in general by consensus, at least on some sensitive matters, it needs to strike a balance between different national interests and EU interests, sometimes to the EU's detriment. RSPG opinions sometimes tend to be too technical and not as political/strategic as its role as a high-level advisory group to the Commission would require. Several limitations have also significantly reduced its impact, such as the voluntary nature of the peer review, or the legal limitations on using its good offices mechanism to address interferences from third countries. Synergies between the RSPG and BEREC work in technical, economic and overall policy areas have not been leveraged.

- **Stakeholder consultations**

The Commission launched a broad exploratory consultation on the future of the electronic communications sector and its infrastructure in 2023. In February 2024, the Commission launched a consultation on its White Paper 'How to master Europe's digital infrastructure needs?'. The White Paper was published on the Commission's 'Have Your Say' website for feedback over an 18-week period and it received 357 responses. A call for evidence was also launched in June 2025 on the objectives and policy options for a DNA proposal. Significant feedback has been received on the call for evidence.

In addition to the call for evidence, the three studies commissioned by the Commission have conducted two rounds of consultations targeting 134 selected stakeholders. The targeted industry stakeholders represented different electronic communications network (ECN) and electronic communications service (ECS) providers and other service providers. Most were fixed network operators but also included a sizeable number of content and application providers (CAPs) and broadcasters.

The White Paper analysed the challenges Europe currently faces in the roll-out of future connectivity networks. It presented possible scenarios for public policy action going forward, including possible future DNA, divided in three strands. Stakeholders agreed on the importance of modern, secure and resilient digital infrastructures for EU competitiveness.

Telco incumbents were positive towards the idea of a regulatory level playing field but raised questions about the regulatory solution. Cloud providers were concerned about being included

within the scope of telecom-specific regulation. Most stakeholders broadly supported reducing reporting obligations and removing unnecessary regulatory burdens. The feedback on the White Paper was crucial in concluding that a new regulatory framework is needed to complete the digital single market in Europe.

In the call for evidence most stakeholders broadly supported reducing reporting obligations and removing unnecessary regulatory burdens.

Member States and NRAs did not see scope for a fully-fledged country of origin regime for electronic communications services because a significant set of national rules would remain. On end-user protection, Member States, NRAs and consumer organisations emphasised that robust consumer protection must be maintained. Most telecom operators and service providers called for simplification and the removal of sector-specific rules.

Traditional telecom operators called for a recalibration of the regulatory framework that currently places them at a disadvantage compared to CAPs. Internet community and consumer groups opposed changes to the open internet rules that would, in their view, risk leading to a two-speed internetInternet.

In access policy the traditional difference between incumbents and access seekers can be noted, with the former calling for deregulation and the latter keeping the current access regime untouched. Some smaller ECN providers (AltNets) advocated for setting a specific EU-wide target date to encourage fibre adoption and environmental benefits. Concerns were raised about potential digital exclusion and market distortions if the switch-off is premature.

On spectrum, Member States and BEREC consider the current spectrum governance model appropriate and are generally reluctant to introduce changes. They are also opposed to centralisation of spectrum authorisation. While they support harmonised spectrum use for its economic benefits, they stress the importance of maintaining flexibility to reflect national market differences. A common European approach to satellite market access is considered essential to unlocking the full potential of satellite connectivity across the EU.

The electronic communications community supports a more investment-friendly spectrum policy that increases certainty and flexibility. It favours longer or indefinite licence durations, tacit renewals, lower spectrum costs, and flexible usage rules. The sector also supports reducing market fragmentation, strengthening peer review, and introducing common authorisation procedures, alongside a clear EU roadmap for spectrum availability. It stresses that market-shaping measures that undermine investment and network differentiation should be avoided. The electronic communications community also supports EU-driven collaboration on emerging technologies, such as satellite direct-to-device (D2D) services.

Alternative telecom stakeholders support greater coordination and harmonisation of spectrum assignment across Member States. An evolving EU roadmap for spectrum availability is also seen as beneficial. They support clear and early-defined conditions for licence renewal, as well as policies promoting spectrum trading and use-it-or-share-it-or-lose-it obligations to ensure more efficient spectrum use. However, they express serious doubts over imposing legal deadlines for spectrum awards.

- **Collection and use of expertise**

The proposal takes into account the following main inputs:

The contributions received to the **exploratory consultation** on the future of the electronic communications sector and its infrastructure, launched in February 2023;

The stakeholders' feedback to the **White Paper - 'How to master Europe's digital infrastructure needs?**' of February 2024;

The stakeholders' feedback received for the **call for evidence on DNA** published in 2025.

Three review studies were conducted to inform this proposal:

Study 2024-025 on 'Completing the Digital Single Market (DSM): Regulatory enablers for cross-border networks - FWC No FW-00141705;

Study 2024-026 on 'Review of Access Regulation under the European Electronic Communications Code and analysis of future Access policy in full fibre environment' - FwC No FW-00141705;

Study 2024-028 on 'Financial conditions, demand and investment needs and their regulatory and policy implications including on the universal service' - FwC No FW-00141705.

In parallel, between March and September 2025, the Commission organised strategic **workshops with BEREC and the RSPG**, to gather the views of high-level representatives from the competent authorities of all Member States. Furthermore, a **workshop** was organised **with BEUC and the correspondent national consumer organisations** in July 2025 to discuss the concerns and challenges for consumers and end-users of electronic communications. In addition, a high number of meetings were held with industrial stakeholders active across the whole digital value chain, and their business associations.

- **Impact assessment**

The impact assessment identified the following options as the best ways to address the problems.

Copper-switch-off and access regulation

The preferred option to accelerate fibre-to-the home (FTTH) network deployment and take-up will be based on national plans to be notified to the Commission. The plans will explain (i) in which areas copper will be switched off and by when; and (ii) the measures to support the transition to fibre. Until 31 December 2035, copper switch off is triggered when the following two conditions are cumulatively met (i) at least 95% of fibre coverage; and (ii) availability of affordable retail connectivity services. After this date, the conditions will not play a role anymore and Member States will be required to mandate the switch-off in all the remaining copper switch-off areas with some exceptions. On access regulation, this option builds on the existing regulatory framework, including both symmetric and asymmetric (SMP-based) measures. Focus will be on regional and local markets.

With respect to the economic and environmental impacts, this would have positive impacts in terms of (i) accumulated GDP increase in the range of EUR 157 - 327 billion above the baseline scenario; (ii) total CO_2 emission reduction below baseline scenario (0.7 million tonnes); and (iii) average download speeds (314 Mbps in 2030 and 743 Mbps in 2035). As for the social impact, the impact of the options cannot be quantified. However, the option is very likely to result in highest positive social impact as it is performing well in terms of FTTH coverage and FTTH take-up rate. On the impact on fundamental rights, the option ranks medium.

Spectrum

The preferred option entails mainly unlimited licence duration by default, with possibility for review clauses and revocation of rights of use, quasi automatic renewals, and the application of pro-investment auction designs. It provides for the possibility to harmonise spectrum authorisation conditions and includes a mandatory spectrum single market procedure at EU level. It ensures increased transparency and predictability of the timing of availability of

spectrum through strategy and roadmaps. This option is the most efficient given that overall benefits significantly outweigh its costs. It would ensure timely deployment of high-quality 5G and future 6G networks. It would have a positive impact on GDP, have spillover effects on vertical sectors and be coherent and complement the copper-switch-off process..

General authorisation and authorisation for satellite services

The preferred option includes a "Single Passport" for networks and services other than satellite and an EU authorisation for satellite spectrum, including selection of licensees in cases of scarcity and enforcement of authorisation conditions. This option would reduce the administrative and compliance costs as well as the reporting costs. Combined with harmonised authorisation conditions and other applicable rules (including end-user rules) and soft measures to facilitate ecosystem cooperation, the preferred option would allow providers to virtualise network operations more easily and provide more consistent cross-border services. The preferred option would therefore enable cooperation on a level playing field with actors in the extended connectivity ecosystem. EU satellite authorisation would allow operators guaranteed access to spectrum in all Member States under the same authorisation conditions, providing them with the means to scale up and provide services across the EU while addressing sovereignty aspects.

Governance

The preferred option builds on the existing set up of BEREC and the BEREC Office and upgrades the RSPG from a Commission expert group to a body with a secretariat provided by the BEREC Office. The Office whose name will be changed to 'Office for Digital Networks' (ODN) will have a new coordination task which will boost the effectiveness of spectrum management. By providing administrative and support services to both BEREC and the Radio Spectrum Policy Body (RSPB), the ODN will strengthen the existing link between the two bodies, enabling better coordination and more coherent outcomes.

Administrative costs

The administrative costs for businesses relate to the obligations and benefits of the copper switch-off and access, plus the simplification areas. The additional administrative obligations related to the conditional copper switch-off lead to an increase in direct recurring administrative costs by 7% (in FTEs per year) and EUR 73 million one-off cost, compared to the current situation. Both the harmonisation of the authorisation conditions and the EU satellite authorisation will result in some one-off costs to adapt to the common conditions. However, overall, the recurrent costs for authorisation and implementation will go down.

- **Regulatory fitness and simplification**

On access regulation, the preferred option would remove a number of provisions relating to SMP regulation such as those regarding co-investment (Article 76 EECC) and functional separation (Articles 77 and 78 EECC). At the same time, enabling the NRAs to impose access to in-house wiring and beyond the first concentration point from own initiative (and not at request as this is currently the case) would simplify the way how access regulation is implemented. This would have the effect of simplifying existing rules and remove the perceived shortcomings and unnecessary complexities and potential lack of coherence associated with those provisions that led to the limited usage of them. Furthermore, the impacts on fibre coverage, take-up and competition of their removal is likely to be limited. This is particularly true for Article 76 EECC, which has been superseded by wider analysis by

NRAs of the implications of commercial arrangements including co-investment in the context of the market analysis procedure. Stakeholders have also recognised the REFIT potential of these provisions.

Furthermore, the proposed option will simplify, strengthen and increase oversight leading to remedies being applied more consistently, which will also benefit the EU single market. Harmonisation of specifications for key wholesale products as well as attention to quality of service guarantees for businesses should simplify the use of access products and also contribute to the development of competition in services for multi-site and multinational businesses.

On spectrum, the consolidation of the relevant RSPP and the EECC provisions presents major benefits for REFIT since it will ensure consistency, by eliminating duplicative and outdated provisions that hinder EU competitiveness in the deployment of innovative services.

The EU authorisation for providing satellite networks and services and use of satellite spectrum presents a potential for major efficiency gains as it would reduce the cost of satellite authorisation for satellite operators and national authorities. A satellite operator wishing to provide services across the EU would not need to follow 27 authorisation processes, respect 27 sets of authorisation conditions, which include diverse and costly reporting obligations and ineffective enforcement measures, and obtain spectrum rights in all Member States.

Rather, the Commission, with the assistance of the ODN, would receive the requests and issue the authorisations to provide satellite services as well as authorisations to use spectrum including individual rights of use of spectrum, either in some Member States where the provider wishes to provide services, or for the EU as a whole. The authorisation conditions, including the reporting elements, would be common across the EU and developed with the assistance of the ODN and the RSPB. The Commission would also ensure selection at EU level in case of spectrum scarcity. Furthermore, there would be a binding EU-level compliance and enforcement framework for ensuring that satellite constellations' access to the EU market complies with the common conditions in line with international law.

Enforcement at the EU level (including withdrawal of the authorisation for the EU entire Single Market) would be to effectively address interference issues while incentivising compliance with the authorisation requirements.

Authorisations for terrestrial networks and services is another key area where improved efficiency potential will be achieved. A major driver for problems with the general authorisation (GA) regime in the EU electronic communications sector arise from the EECC's regulatory flexibility. This flexibility has led to fragmentation and inconsistent application of the GA conditions. The EECC established harmonised GA conditions, but it remained a maximum list and therefore, national discretion was kept on attaching the conditions. Consequently, Member States did not take a common approach to GA regime in terms of types of providers of networks and services and introduced divergent secondary legislation and/or administrative (regulatory) decisions to further detailing the conditions. This situation of a maximum list of 39 conditions in 26 Member States (except for Denmark which has no general authorisation system in place) may result up to 1 014 conditions being set out specified at national level, and for instance, a cross-border operator (present or with a regulatory footprint in 27 Member States) could be required to comply with.

The proposal reduces this fragmentation and limits reporting and compliance obligations by subjecting providers only to streamlined further harmonised conditions and obligations that are established in the Regulation, including coherent with other EU laws and policy initiatives, such as the EU's economic security strategy, for strengthening the trusted and secure provision of networks and services. Furthermore, for companies wishing to provide networks and services in the single market, the proposal, in the form of a Single Passport maintains a streamlined notification-based system but enables providers to operate in one, several or all Member States on the basis of a confirmation by one national regulatory authority. To this end, it sets out the general authorisation conditions, the single passport procedure, and mechanisms for coordination, mutual assistance and consistent enforcement among national regulatory authorities, supported by BEREC and the ODN.

As regards the impact on SMEs, simplified procedures, including a common notification template and a single notification mechanism, are expected to reduce administrative and compliance costs for providers, in particular SMEs. These savings will allow SMEs to redirect resources towards innovation and growth rather than regulatory processes. Greater legal certainty and regulatory predictability further strengthen SMEs' competitiveness and facilitate market entry. SMEs also benefit indirectly from common more flexible access regimes, including simplified access to spectrum and spectrum sharing, which lower entry barriers and support the development and scaling-up of innovative services. This is particularly the case for sectors such as manufacturing, health, agriculture and transport. No disproportionate negative impacts on SMEs are expected. On the contrary, the measures are expected to generate net benefits, including cost savings and improved opportunities for innovation.

- **Fundamental rights**

The proposal's impact on fundamental rights such as the freedom of expression and information, non-discrimination, consumer protection, including the protection of consumers with disabilities, the protection of personal data and the right to privacy, has been analysed. In particular, the Regulation will set a higher level of harmonisation for end-user rights, while maintaining a high level of consumer protection.

The proposal takes full account of the fundamental rights and principles recognised by the Charter of Fundamental Rights of the European Union. In particular, the proposed measures aim at achieving higher levels of connectivity with a modernised set of consumer protection rules. This will in turn ensure non-discriminatory access to any contents and services, including public services, and help promote freedom of expression and freedom to conduct business, and enable Member States to comply with the Charter.

The introduction of a mandatory, but conditional, copper switch-off constitutes a limitation of the freedom to conduct a business under Article 16 of the Charter of Fundamental Rights of the EU. However, such a limitation may be justified where it pursues the general interest objective and complies with the principles of necessity and proportionality. Market developments already show that operators are progressively retiring copper networks on the basis of commercial considerations, suggesting that a structured switch-off is not inherently at odds with their interests. Given the expected social, economic and environmental benefits, the measure appears consistent with the requirement of necessity. Moreover, the proposed sustainability conditions, the option to maintain copper networks for a longer period where the conditions are not met and the possible exception to copper switch-off when the deployment of fibre or other adequate connectivity solution is not possible ensure respect for proportionality.

4. BUDGETARY IMPLICATIONS

The proposal's budgetary implications are described in detail in the legislative financial and digital statement accompanying the proposal. Overall, 47 full-time equivalent (FTEs) are required to work on the initiative consisting of 32 establishment plan posts and 15 external staff (CAs and SNEs) to ensure full and effective implementation of the initiative. The need will be met by staff from the DG who are already assigned to the management of the action and/or have been redeployed within the DG or other Commission services. In addition to these existing resources, the initiative requires 5 FTEs of exceptional additional staff, which are requested on top of the current staffing levels in order to ensure full and effective implementation of the initiative. The current budget expenditure line of the BEREC Office will continue to finance the unchanged portion of the ODN, while additional expenditure resulting from the new tasks dedicated to the ODN, described in the proposal, will be financed from satellite spectrum authorisation fees, and, if available, EU numbering authorisation fees, and voluntary and in-kind contributions from Member States.

The proposal also includes tasks that require additional staff for the BEREC Office (to be changed into the Office for Digital Networks - ODN), leading to a total increase of staff with 25 FTE, all financed from fees.

5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

The Commission should monitor the application of this Regulation and evaluate its effectiveness over time. 5 years after entry into force and every five years after that, the Commission should review the functioning of this Regulation and submit a report to the European Parliament and to the Council. Those reviews should evaluate in particular, the market implications of Article 69 and Article 83 and whether the *ex ante* and other intervention powers pursuant to this Regulation are sufficient to enable national regulatory authorities to ensure that competition in electronic communications markets continues to thrive to the benefit of end-users.

National regulatory authorities should also notify the Commission of the names of undertakings designated as having significant market power for the purposes of this Regulation and of the obligations imposed on such undertakings under the Regulation. Any changes affecting the obligations imposed on undertakings, or the undertakings concerned, should be notified to the Commission without delay.

By three years after the date of application of this Regulation, the Commission should review the functioning of the ecosystem cooperation, taking utmost account of the BEREC report on the effects of the application of the guidelines on effective ecosystem cooperation as well as on the functioning of the facility for voluntary conciliation.

In addition, by 30 June 2034, the Commission should review the scope of affordable universal service, and availability of universal service in the light of social, economic and technological developments, including the transition to fibre. The review should take into account the prevailing technologies used by most consumers. The Commission should submit a report to the European Parliament and to the Council setting out the outcomes of the review.

Within two years of this Regulation becoming applicable, the ODN should prepare a report on the single market for electronic communications networks and services. This report should provide an overview of market developments and examine how the measures introduced

under this Regulation affect the functioning of the single market, as well as the market impact of mergers. The draft report should be shared with BEREC and the RSPB for approval before being published. Following this, updated reports should be published yearly to track progress and emerging trends.

- **Explanatory documents (for directives)**

Not applicable.

- **Detailed explanation of the specific provisions of the proposal**

Part I: Scope, objectives and definitions

Part I of this Regulation establishes the horizontal framework governing the organisation of the electronic communications sector within the EU. It defines its subject matter, scope and key concepts, establishing the common definitions that apply to the legal framework in order to ensure legal certainty and consistent application across Member States. It also sets out the general objectives and regulatory principles to guide Member States, national regulatory and other competent authorities, BEREC, the RSPB and the ODN, as well as the Commission, in their work.

Part II: Resilience

Part II introduces a specific framework for network and service resilience and preparedness, recognising electronic communications networks and services and other digital infrastructures are essential to the functioning of society and the economy. To this end, it establishes obligations and cooperation mechanisms to ensure the availability and capabilities of networks and services in situations of major crisis. This includes the continuity of emergency communications and public warnings. It also provides for the adoption of a report by BEREC titled 'Union Preparedness Plan for Digital Infrastructures'. The report will include an assessment, common operational recommendations and crisis management practices. It will also clarify the respective roles of EU bodies and national competent authorities in monitoring, coordination and response, in turn strengthening a coherent and effective EU-wide approach to resilience and preparedness in the electronic communications sector.

Part III: Single market authorisation and passporting

Part III establishes the single passporting framework for electronic communications networks and services under a general authorisation regime. It affirms the freedom to provide such networks and services across the EU as long as the common further conditions and obligations laid down in this Regulation are met. It also maintains a streamlined notification-based system enabling providers to operate in one, several or all Member States on the basis of a single confirmation by one national regulatory authority. The proposal is coherent with other initiatives on strengthened ICT supply chain security requirements. To this end, it sets out the general authorisation conditions, the Single Passport procedure, and mechanisms for coordination, mutual assistance and consistent enforcement among national authorities, supported by BEREC and the ODN. BEREC guidelines, in cooperation with other competent authorities and the Commission, will establish the procedural aspects on the interactions between the providers, national regulatory and other competent authorities as well as the approximation of the applicable conditions and rules in the Member States.

Part IV: Resources, spectrum and numbering

Part IV establishes a comprehensive and forward-looking framework for the management, allocation and use of key electronic communications resources. This includes radio spectrum and numbering resources, recognising their role as strategic public goods essential for connectivity, innovation, security and the functioning of the single market. On radio spectrum, it sets out common principles and objectives for coordinated strategic planning and management at EU level, in line with international obligations, and reinforces mechanisms for cross-border coordination and the resolution of harmful interference. It introduces technology and service neutrality, promotes shared and efficient use of spectrum, and provides for an EU spectrum strategy and roadmaps to ensure predictability, timely availability and alignment with wider EU policy objectives.

This Regulation also harmonises authorisation regimes, conditions for assignment, duration, renewal, transfer and sharing of spectrum rights, strengthens pro-investment and competition-friendly award procedures. Further, it establishes EU-wide tools such as spectrum single market procedure, common authorisation conditions, one-stop-shop procedures and EU authorisations, including a specific framework for satellite networks and services in the EU. In particular, it establishes EU-level authorisations for satellite spectrum as well as its monitoring and enforcement. Moreover, it defines a procedure for granting such authorisations and sets out greater coordination mechanisms for ITU filings along with ensuring coexistence between satellite and terrestrial spectrum allocations within the EU.

In parallel, Part IV provides the framework for pan-European numbering resources and sets the rules governing numbering resources, ensuring their efficient management, availability and extraterritorial use across the EU, supporting EU-wide services, and safeguarding consumer protection and fair access. Taken together, these provisions aim to ensure the efficient, coordinated and future-proof use of scarce resources while boosting legal certainty, reducing fragmentation and enabling the development of innovative, cross-border electronic communications networks and services across the EU.

Part V: Transition to fibre, markets functioning and competition

Part V lays down the rules ensuring the proper functioning of electronic communications markets and the effectiveness of competition across the EU.

First, it introduces a specific framework for the orderly transition from legacy copper networks to FTTH networks. The framework will apply where copper remains in service beyond a defined date. The transition to fibre process will be based on national plans to be notified to the Commission. These national plans will explain (i) in which areas copper will be switched off and by when and (ii) the measures to support the transition to fibre.

In the initial phase, Member States will be required to mandate the copper-switch-off in areas where the following two conditions are cumulatively met: (i) at least 95% of fibre coverage and (ii) availability of affordable retail connectivity services. In the latter phase, the conditions will no longer play a role and Member States will be required to mandate the switch-off in all the remaining copper switch-off areas except in the areas where fibre deployment is not economically viable and no adequate connectivity solution capable of replacing copper-based services is available. Safeguards apply during the entire process in order to maintain continuity and protect consumers.

Part V covers also the framework for access to land and rights of way, interconnection and access, and the application of symmetric and SMP-based regulatory remedies. It clarifies the

rights and obligations of undertakings in negotiating access and interconnection, empowers national regulatory authorities to impose proportionate measures to ensure end-to-end connectivity and interoperability where justified.

This part maintains the main strands of the current system of symmetric and SMP access regulation. As for the SMP, the rules prioritise the 'investment friendly' access regulation of passive networks (ducts and poles where operators deploy own fibre networks) and promote the harmonisation of access products. As far as symmetric access is concerned, the rules aim at stimulating fibre take-up by maintaining access to in-building wiring when requested. In addition, NRAs can use symmetric measures to tackle local bottlenecks by imposing access to local fibre networks. Moreover, the symmetric rules should allow the connection of end users whose premises are not connected through an obligation on fibre operators deploying a network nearby to connect those users.

Part V strengthens single market procedures for draft national measures affecting trade between Member States, ensuring consistent application across the EU through coordinated notification, assessment, and intervention mechanisms.

Part VI: Services

Part VI sets out service-related obligations aimed at ensuring that end-users in the EU can benefit from essential connectivity and common level of protection. It modernises universal service obligations by refreshing, in line with principle 20 of the European Pillar of Social Rights, the right of all consumers, in particular those with low income, to access an affordable adequate internet access service and voice communications services at a fixed location. It sets common procedures on how Member States define 'adequate' connectivity in the light of minimum bandwidth enjoyed by most consumers. These common procedures are supported by BEREC guidance and ensure the bandwidth needed for social and economic participation in society. It also provides a structured approach to affordability, including monitoring of retail price evolution, measures for consumers with low income or special social needs, and specific support to ensure equivalent access for end-users with disabilities, while enabling the Commission to adopt implementing acts on adequate internet access service in the light of the national conditions and criteria and methodology to consider for affordability assessment. A new and more flexible approach to financing is proposed without sector-specific designation or the related funding mechanism.

Part VI further safeguards end-user rights in the digital environment. It preserves open internet access by codifying end-user rights to access and distribute content and to use applications and terminal equipment of their choice. This sits alongside strict net neutrality obligations subject only to narrowly defined and proportionate exceptions and robust supervision by national regulatory authorities, complemented by BEREC reporting and guidelines. It consolidates and updates end-user protection rules that are presented in three chapters.

The chapter 'Rights of consumers' covers consumers and extends to micro-enterprises and not-for-profit organisations (some provisions also apply to small and medium-sized enterprises) and includes sector-specific rules on transparency and contract information (including a contract summary template), contract duration and termination, and bundled offers.

The chapter ‘Rights of end-users’ includes switching and number portability and ensures non-discrimination.

The chapter ‘Facilities and functionalities for end-users’ includes measures against fraudulent activities and ensures critical services such as missing children hotlines, emergency communications and public warning systems, and the use of the European Digital Identity Wallet. Reflecting the technology evolution and new challenges to end-user protection in this regard, the chapter also includes updated rules on calling line identification, originating identification, automatic call forwarding and automated calling systems. It contains provisions on equivalent access and choice for end-users with disabilities.

Part VI also maintains targeted interoperability and ‘must carry’ provisions and empowers the Commission to amend technical annexes by delegated acts in order to update to reflect technological and societal developments.

Part VII: Governance

Part VII establishes the governance framework to ensure the coherent, independent and effective functioning of the single market for electronic communications. It defines the roles, powers and safeguards applicable to national regulatory and other competent authorities, entrusts them with clearly identified tasks, preserves their legal and functional independence from market actors, and provides them with adequate resources and budgetary autonomy. It also lays down common principles on appointment, dismissal, accountability and transparency, as well as obligations for cooperation and coordination at national and cross-border level, in turn boosting regulatory consistency and mutual trust across the EU.

Part VII further consolidates EU-level governance by integrating and strengthening the roles of BEREC, the RSPB and the ODN. It clarifies BEREC’s objectives, tasks and internal organisation, boosting its capacity to promote consistent implementation of the regulatory framework through opinions, guidelines, reports and best practices, supported by structured data collection and market monitoring. And given the geopolitical context, it strengthens BEREC’s competences linked to resilience and preparedness, such as via the adoption of the EU Preparedness Plan for Digital Infrastructures. In parallel, it establishes a more robust framework for strategic radio spectrum governance through the RSPB, defining its advisory and coordination role in EU spectrum policy, cross-border coordination and international engagement, while ensuring close cooperation with BEREC where regulatory and spectrum matters intersect.

Part VII provides a comprehensive organisational, financial and accountability framework for the ODN as a EU body supporting both BEREC and the RSPB. It sets out the ODN’s tasks, governance structure, programming, budgetary and staffing rules, and ensures transparency, sound financial management and effective oversight, including anti-fraud, audit and evaluation mechanisms.

Part VIII: General and final provisions

Part VIII lays down the general, procedural and final provisions that ensure the effective, transparent and common application of this Regulation across the EU. It establishes a comprehensive framework for harmonised provision, exchange and publication of information, empowering national regulatory and other competent authorities, BEREC and the RSPB to request proportionate, justified and timely information from undertakings, including on sustainability, while safeguarding confidentiality, data protection and business

secrets. It further provides for regular geographical surveys of network deployments and forecasts, enabling evidence-based regulatory action, possibly contributing to informed public funding decisions and coordinated planning, including during the transition from legacy to fibre networks.

Part VIII also reinforces openness, participation and regulatory consistency through structured consultation and transparency mechanisms. It requires public consultation on draft measures with significant market impact, accessible consultation procedures and the systematic involvement of end-users, including consumers and end-users with disabilities, and other stakeholders. At the EU level, it introduces harmonisation and standardisation procedures allowing the Commission, with the support of BEREC or the RSPB, to address divergences that risk fragmenting the single market, while promoting interoperable, future-proof technical standards in a technology-neutral manner.

Part VIII provides clear rules on dispute resolution, compliance, enforcement and legal certainty. It establishes out-of-court and regulatory dispute resolution mechanisms at national and cross-border level, complemented by guidance and voluntary conciliation to encourage cooperative, innovative and sustainable ecosystem practices. It sets out proportionate enforcement powers, penalties and safeguards, including rights of appeal, and defines the use of delegated and implementing powers, committee procedures, monitoring, review and transitional arrangements.

2026/0013 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on digital networks, amending Regulation (EU) 2015/2120, Directive 2002/58/EC and Decision No 676/2002/EC and repealing Regulation (EU) 2018/1971, Directive (EU) 2018/1972 and Decision No 243/2012/EU (Digital Networks Act)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee[24],

Having regard to the opinion of the Committee of the Regions[25] ,

Acting in accordance with the ordinary legislative procedure,

Whereas:

(1) Technologies are rapidly evolving, data traffic is growing significantly, and demand for gigabit connectivity is increasing. Modern and sustainable digital infrastructures for connectivity and computing are critical enablers for digitalisation and therefore both for the industrial competitiveness and for society to benefit fully from digital services. For that reason, high-quality, secure and resilient connectivity for everybody and everywhere in the Union is needed, including affordable access for people with low incomes, and across all territories, including rural and remote areas, islands, and mountainous, scarcely populated, or the outermost regions.

(2) The internal market in the area of electronic communications remains fragmented into 27 national markets and European operators continue to face barriers to operating cross-border and scaling-up, limiting their ability to invest, innovate, and compete in the extended connectivity ecosystem on a level-playing field. Other players entering the broader connectivity ecosystem such as content and application providers (‘CAPs’) are benefiting to a large extent from a country-of-establishment regime and therefore operate in the Union in one single market. This uneven level playing field among various actors in the ecosystem has been recognized in the Commission White Paper "How to master Europe's digital infrastructure needs?"[26]. as well as the Letta Report[27].

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24 OJ C , , p. .

25 OJ C , , p.

26 White Paper of the Commission of 21 February 2024, "How to master Europe's digital infrastructure needs?", COM(2024) 81 final.

In this context, the European Council underlined in its conclusions from October 2025 that particular efforts are required to 'deepen the single market for electronic communications'.

(3) Decision (EU) 2022/2481 of the European Parliament and of the Council[28] established the 'Digital Decade Policy Programme" digital targets for 2030. That Programme reflects the expected connectivity targets where all end users at a fixed location are covered by a gigabit network up to the network termination point, and all populated areas are covered by next-generation wireless high-speed networks with performance at least equivalent to that of 5G. To achieve those targets, policies should simplify, speed up, and lower the costs of, deployment of gigabit fixed and wireless networks across the Union, including by reducing the administrative burden for both operators and national administrations.

(4) Directive (EU) 2018/1972 created the European Electronic Communications Code ('EECC'). The EECC, through its objectives of promotion of connectivity and access to, and take-up of, advanced networks, helped achieve or maintain effective competition in the markets for electronic communications networks and services. Member States were required to adopt and publish, by 21 December 2020, the laws, regulations and administrative provisions necessary to implement the EECC into their national law. The full transposition in all 27 Member States was only completed in 2024. Such long delays from the adoption of the Directive to the transposition of that Directive into the legal systems of the Member States are no longer suitable for the rapid transformations of technology in the current geopolitical and economic context, which require rules that can have a fast impact on the market. Moreover, certain national provisions which are related to provisions of the EECC go beyond what would be strictly necessary for the completeness and conformity of the transposition. Therefore, the EECC, being a directive, resulted in national fragmentation and therefore has not delivered a true single market. It is therefore necessary to transform the EECC into a regulation, and to merge the provisions of the EECC with provisions that are related to the objectives but are laid down in other directives, or in regulations or in decisions, including Regulation (EU) 2018/1971 of the European Parliament and of the Council[29]. Therefore Directive 2018/1972, Regulation (EU) 2018/1971, Decision No 243/2012/EU of the European Parliament and of the Council[30], parts of Regulation (EU) 2015/2120 of the European Parliament and of the Council[31] and of

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27 https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf.

28 Decision (EU) 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030 (OJ L 323, 19.12.2022, p. 4, ELI: http://data.europa.eu/eli/dec/2022/2481/oj).

29 Regulation (EU) 2018/1971 of the European Parliament and of the Council of 11 December 2018 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office), amending Regulation (EU) 2015/2120 and repealing Regulation (EC) No 1211/2009 (OJ L 321, 17.12.2018, p. 1, ELI: http://data.europa.eu/eli/reg/2018/1971/oj).

30 Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme, (OJ L 081, 21.3.2012, p. 7, ELI: http://data.europa.eu/eli/dec/2012/243(2)/oj), as amended by Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 (OJ L 321, 17.12.2018, p. 36).

31 Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and retail charges for regulated intra-EU

Directive 2002/58/EC of the European Parliament and of the Council[32] should be merged into one single regulation, the Digital Networks Act.

(5) In its 2024 White Paper "How to master Europe's digital infrastructure needs?'[33] the Commission observed that the connectivity sector is undergoing significant technological changes, where digital infrastructures are becoming cloud- and AI-based and the connectivity ecosystem is broadening to provide new innovative services. It is therefore necessary to take account of the evolution from electronic communications networks towards 'digital networks'.

(6) This Regulation does not cover the content delivered over electronic communications networks using electronic communications services, such as broadcasting content, financial services, and certain information society services, and is without prejudice to measures taken at Union or national level in respect of such services, in accordance with Union law or national law, in order to promote cultural and linguistic diversity and to ensure the defence of media pluralism. The content of television programmes is covered by Directive 2010/13/EU of the European Parliament and of the Council[34]. The regulation of audiovisual policy and content aims at achieving general interest objectives, such as freedom of expression, media pluralism, impartiality, cultural and linguistic diversity, social inclusion, consumer protection and the protection of minors. The separation between the regulation of electronic communications and the regulation of content does not affect the taking into account of the links existing between them, in particular in order to guarantee media pluralism, cultural diversity and consumer protection. Within the limits of their competences, competent authorities should contribute to ensuring the implementation of policies aiming to promote those objectives.

(7) This Regulation does not affect the application to radio equipment of Directive 2014/53/EU of the European Parliament and of the Council[35], but does cover car radio and consumer radio receivers, and consumer digital television equipment. In order to provide safeguards for end-to-end interoperability, it is necessary to regulate certain aspects of radio equipment as defined in Directive 2014/53/EU and of consumer equipment used for digital television, in order to facilitate access for end-users with disabilities. It is important for national regulatory and other competent authorities to encourage network operators and equipment manufacturers to cooperate to facilitate access by end-users with disabilities to electronic communications services. To ensure a coordinated approach with regard to the authorisation regime of radio terminal

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communications and amending Directive 2002/22/EC and Regulation (EU) No 531/2012 (OJ L 310, 26.11.2015, p. 1, ELI: http://data.europa.eu/eli/reg/2015/2120/oj).

32 Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) (OJ L 201, 31.7.2002, p. 37, ELI: http://data.europa.eu/eli/dir/2002/58/oj).

33 COM(2024) 81 final.

34 Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) (OJ L 95, 15.4.2010, p. 1, ELI: http://data.europa.eu/eli/dir/2010/13/oj).

35 Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC (OJ L 153, 22.5.2014, p. 62)., ELI: http://data.europa.eu/eli/dir/2014/53/oj).

equipment, the non-exclusive use of radio spectrum for the self-use of such radio terminal equipment should also be regulated.

(8) The requirements concerning the capabilities of electronic communications networks are constantly increasing. While in the past the focus was mainly on growing bandwidth available overall and to each individual user, other parameters such as downlink and uplink data rates, latency, availability and reliability are becoming increasingly important. The current response towards that demand is to bring optical fibre closer and closer to the end-user, and future 'gigabit networks' require performance parameters which are equivalent to those that a network based on optical fibre elements at least up to the network termination point can deliver. In the case of wireless connection, this corresponds to network performance similar to that achievable based on an optical fibre installation up to the base station, considered to be the network termination point. Such gigabit networks, both fixed and mobile, are capable to provide data rates in the order of at least one gigabit per second in uplink and downlink, as well as other advanced performance parameters like low latency and high stability. The term 'gigabit network' replaces the term 'very high capacity network' with updated performance characteristics corresponding to the technological and market evolution. As a result, by virtue of this Regulation, any reference to 'very high capacity network' as defined in Article 2(2) of Directive (EU) 2018/1972 shall be construed as 'gigabit network' as defined in this Regulation.

(9) Certain electronic communications services under this Regulation could also fall within the scope of the definition of 'information society service' set out in Article 1 of Directive (EU) 2015/1535 of the European Parliament and of the Council[36]. The provisions of that Directive that govern information society services apply to those electronic communications services to the extent that this Regulation or other Union legal acts do not contain more specific provisions applicable to electronic communications services. However, electronic communications services such as voice telephony, messaging services and electronic mail services are covered by this Regulation. The same undertaking, for example an internet service provider, can offer both an electronic communications service, such as access to the internet, and services not covered by this Regulation such as the provision of web-based and not communications-related content.

(10) The same undertaking, for example a cable operator, can offer both an electronic communications service, such as the conveyance of television signals, and services not covered under this Regulation, such as the commercialisation of an offer of sound or television broadcasting content services, and therefore additional obligations can be imposed on such an undertaking in relation to its activity as a content provider or distributor, in accordance with provisions other than those of this Regulation, without prejudice to the conditions laid in an annex to this Regulation.

(11) In order to fall within the scope of the definition of electronic communications service, a service normally needs to be provided in exchange for remuneration. While fully recognising that the protection of personal data is a fundamental right and that therefore personal data cannot be considered a commodity, access, use, or otherwise

[36] Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (OJ L 241, 17.9.2015, p. 1, ELI: http://data.europa.eu/eli/dir/2015/1535/oj).

processing of personal data in the context of the supply of electronic communications services should be treated in same manner as remuneration,where the provider of a service requests and the end-user knowingly provides personal data within the meaning of Regulation (EU) 2016/679 of the European Parliament and of the Council[37] directly or indirectly to the provider. This encompasses situations where the end-user allows access to information without actively supplying it, such as personal data, including the IP address, or other automatically generated information, such as information collected and transmitted by a cookie or similar technologies. The processing of personal data should in any event comply with Union data protection law. In line with the case-law of the Court of Justice of the European Union (Court of Justice) on Article 57 TFEU[38], remuneration also exists within the meaning of the Treaty if the service provider is paid by a third party and not by the service recipient. The concept of remuneration should therefore also encompass situations in which the end-user is exposed to advertisements.

(12) Interpersonal communications services are services that enable interpersonal and interactive exchange of information, covering services like traditional voice calls between two individuals but also all types of emails, messaging services, or group chats. Interpersonal communications services only cover communications between a finite, that is to say not potentially unlimited, number of natural persons, which is determined by the sender of the communication. Communications involving legal persons should fall within the scope of the definition where natural persons act on behalf of those legal persons or are involved at least on one side of the communication. Interactive communication entails that the service allows the recipient of the information to respond. Services which do not meet those requirements, such as linear broadcasting, video on demand, websites, social networks, blogs, or exchange of information between machines, should not be considered to be interpersonal communications services. In exceptional circumstances a service should not be considered to be an interpersonal communications service if the interpersonal and interactive communication facility is a minor and purely ancillary feature to another service and for objective technical reasons cannot be used without that principal service, and its integration is not a means to circumvent the applicability of the rules governing electronic communications services. As elements of an exemption from the definition, the terms ‘minor’ and ‘purely ancillary’ should be interpreted narrowly and from an objective end-user’s perspective. An interpersonal communications feature could be considered to be minor where its objective utility for an end-user is very limited and where it is in reality barely used by end-users. An example of a feature that could be considered to fall outside the scope of the definition of interpersonal communications services might be, in principle, a communication channel in online games, depending on the features of the communication facility of the service.

(13) Interpersonal communications services using numbers from national and international numbering plans connect with publicly assigned numbering resources. Those number-based interpersonal communications services comprise both services to which end-users’ numbers are assigned for the purpose of ensuring end-to-end connectivity and

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37 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1, ELI: http://data.europa.eu/eli/reg/2016/679/oj).

38 Judgment of the Court of Justice of 26 April 1988, Bond van Adverteerders and Others v The Netherlands State, C-352/85, ECLI: EU:C:1988:196.

services enabling end-users to reach persons to whom such numbers have been assigned. The mere use of a number as an identifier should not be considered to be equivalent to the use of a number to connect with publicly assigned numbers and should therefore, in itself, not be considered to be sufficient to qualify a service as a number-based interpersonal communications service. Number-independent interpersonal communications services should be subject to obligations only where public interests require that specific regulatory obligations apply to all types of interpersonal communications services, regardless of whether they use numbers for the provision of their service. It is justified to treat number-based interpersonal communications services differently, as they participate in, and hence also benefit from, a publicly assured interoperable ecosystem.

(14) The network termination point represents a boundary for regulatory purposes between the regulatory framework for electronic communications networks and services and the regulation of telecommunications terminal equipment. Defining the location of the network termination point is the responsibility of the national regulatory authority

(15) The notion of interconnection should be understood as referring primarily to the technical interconnection between networks, irrespective of whether such networks are public electronic communications networks or private networks including those owned or operated by content and application providers, including content-delivery infrastructures. Technological and commercial developments have led to an increased deployment of caches, content delivery nodes, and other techniques that enhance traffic exchange and optimise end-to-end performance, thereby resulting in closer technical cooperation and more frequent interconnection between public and private networks.

(16) The objectives of the new regulatory framework should also be updated to address the challenges of the sector and ensure it can adapt to future developments. With the technological transformation of electronic communications networks towards digital networks integrating cloud and artificial intelligence ('AI') based solutions, the connectivity ecosystem is expanding. Therefore, this Regulation should support the competitiveness of the sector and the ability to master this transformation. It should foster innovation and effective cooperation among the broad range of players in the extended connectivity ecosystem.

(17) With a view to increasing the competitiveness and resilience of the sector, this Regulation should facilitate the development of a single market for electronic communications by introducing simplified and further harmonised measures, facilitating scale-up in the Union, supporting and incentivising innovation and investment in modern, resilient and sustainable networks and services. This should include facilitating cross border provision of electronic communications networks and services, including pan-European satellite communications services as well as the development of trans-European digital networks.

(18) Strengthening the resilience of digital infrastructure and services of the Union is of vital importance in view of increasing preparedness against natural disasters, man-made threats and crises, as well as interference in networks and radio signals. To this end, this Regulation should strengthen the Union's strategic autonomy, ensuring resilient digital infrastructure and services and ensuring preparedness for contingencies, such as physical, cyber and hybrid attacks and natural disasters, making mitigating measures available, improving resilience, in particular redundancy of critical network segments based on the coherent integration of terrestrial and non-

terrestrial networks, and providing for the needed network capabilities for the society to respond to crises.

(19) As bottlenecks and barriers to entry remain at the infrastructure level, including as a consequence of the transition to fibre, it is necessary to ensure sustainable competition through the implementation of a simplified regulatory framework for access that addresses market failure, so that end-users continue to benefit from a larger choice of advanced affordable and high-quality services.

(20) It is necessary to reduce *ex ante* sector-specific rules in the future as competition in the markets develops and, ultimately, to ensure that electronic communications are governed only by competition law. That was the aim since the first regulatory framework for the electronic communications network and services was adopted in 2009. However, the current framework has resulted in national fragmentation and has not achieved the completion of the single market, and therefore more consistency in ante regulatory obligations is needed. Considering that the markets for electronic communications have shown strong competitive dynamics in recent years, it is essential that *ex ante* regulatory obligations are imposed only where there is a market failure on the markets concerned, without prejudice to competition law.

(21) It is also necessary to give appropriate incentives for investment in gigabit networks (including advanced 5G, 6G, fibre, submarine communication cables, backbone networks) that support innovation in content-rich internet services and strengthen the overall competitiveness of the Union. It is therefore vital to promote efficient investment in the development of those networks and solutions, and to support widespread availability and take up of gigabit networks and of electronic communications services, including by the timely transition to a full fibre environment across the Union.

(22) For the Member States, the national regulatory and other competent authorities, and the stakeholders, the connectivity objective translates, on the one hand, into aiming for the highest capacity networks and services economically sustainable in a given area, and, on the other hand, into pursuing territorial cohesion, in the sense of convergence in capacity available in different areas.

(23) In order to closely align the electronic communications framework with the Union objectives regarding its transition to a low-carbon economy, it is necessary to promote sustainable networks and services by supporting attractive investment conditions for energy-efficient and low-carbon networks and solutions. In particular, that objective should be aligned with fostering connectivity enabling energy efficiency and carbon neutrality in other industrial sectors and investment in energy-efficient connectivity infrastructure in line with the updated taxonomy framework and related Union Code of Conduct for Sustainability of Telecommunications Networks. It is also necessary to foster cooperation among the actors involved in end-to-end service delivery as regards efficient management of data traffic.

(24) To achieve the objectives, national regulatory authorities and other competent authorities should, where necessary, coordinate their actions with the authorities of other Member States and with the Body of European Regulators for Electronic Communications (‘BEREC’), the Radio Spectrum Policy Body (‘RSPB’) and the Office for Digital Networks (‘ODN’).

(25) As a follow-up to the Nevers Call of 9 March 2022, Member States conducted a risk assessment of Europe’s communications infrastructures and networks. To mitigate the

identified risks, that assessment put forward a number of strategic and technical recommendations for Member States, the Commission and the European Union Agency for Cybersecurity ('ENISA'), to be implemented with the support of BEREC. Among other strategic recommendations, the risk assessment proposes to (i) assess resilience of international interconnections, (ii) assess criticality, resilience and redundancy of core Internet infrastructure, such as subsea communication cables, and (iii) reinforce Union capabilities and coordinated action to strengthen the resilience of communications infrastructures. To achieve effective preparedness and enhance resilience, cooperation among national competent authorities and Union level bodies should be strengthened, including through common guidance and timely information-sharing.

(26) Electronic communications networks and services form a critical backbone of Union society and economy. While Directive (EU) 2022/2555 of the European Parliament and of the Council [39] addresses the cybersecurity and resilience of essential and important as well as critical entities, there is a need to further enhance the overall resilience, preparedness and continuity of electronic communications at Union level, including in situations involving cross-border or large-scale natural or man-made disruptions, crises or force majeure that may negatively affect the population. The ODN should play a central coordination role as regards resilience in the electronic communications sector, drawing on its expertise, market oversight and Union-wide perspective. As such, the ODN should exchange and coordinate with national regulatory authorities, the Commission and other relevant Union bodies and agencies, including ENISA, as well as, where appropriate, international organisations such as NATO, on issues relating to Union-level assessment, monitoring, analysis and preparedness of electronic communications networks and services and their capability to contribute to the overall resilience of Union society and economy, while fully respecting the roles of ENISA, the Network and Information Systems Cooperation Group ('NIS Cooperation Group') and the European cyber crisis liaison organisation network ('EU-CyCLONe') under the Union cybersecurity and civil protection frameworks.

(27) In this context, the ODN should be tasked with ensuring a coherent, cross-border approach for electronic communications networks and services. The ODN's role should complement and be without prejudice to Directive (EU) 2022/2555, focusing on a system-wide preparedness, interchangeable infrastructures, trans-European network and services continuity and coordinated crisis response.

(28) In the Union, when natural or man-made disruptions, crises or force majeure arise that may negatively affect the population, the availability and specific capabilities of electronic communications networks and services are crucial as they enable the population to receive timely information, maintain social and economic interactions, and access public and emergency-related services, and enable national authorities to communicate with the population and to organise rescue and relief efforts. Without prejudice to Directive (EU) 2022/2555, all providers of public electronic communications networks, publicly available electronic communications services and other providers under the general authorisation regime should therefore adopt

[39] Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive) (OJ L 333, 27.12.2022, p. 80, ELI: http://data.europa.eu/eli/dir/2022/2555/oj).

measures to contribute to ensuring the availability of interpersonal communications services and internet access services when such events arise. Providers of electronic communications networks used, wholly or mainly, for the purpose of providing electronic communications services or information society services available to the public, such as submarine communication cables, could ensure redundancy in such critical situations. They should to the extent it is technically possible and as far as public interest is served, cooperate and contribute to the availability of interpersonal communications services and internet access services, if the publicly available electronic communications networks and services are critically disrupted by the aforementioned large-scale events.

(29) End-users should be able to ask for help or assistance from the competent authorities via emergency communications and receive information from the competent authorities in a manner that they can perceive and understand via public warnings in case of large-scale events that have the potential to negatively affect the population, like catastrophic network breakdowns or in case of force majeure. Similarly, critical communications, that enable emergency services and public authorities in charge of security and safety to fulfil their mission, should be fully available. Consequently, electronic communications networks and services providers should adopt specific measures to ensure uninterrupted electronic communications, including internet traffic, to the extent necessary to effectively convey emergency communications and public warnings from and to all affected end-users or population. Critical communications that are normally provided within a dedicated network of national authorities may be implemented as a specialised service supported by new technologies, like network slicing, which should benefit from sufficient network capacity to ensure quality of service in crisis situations. If necessary to ensure the quality of such services, the related traffic should be prioritised and redundancy for continued availability of critical communications should be ensured. National public safety answering point systems and public warning systems should be designed to be redundant and resilient in case of large-scale events that have the potential to negatively affect the population.

(30) Before significant changes in the networks used to provide access to emergency services are implemented, providers of interpersonal communications services and public safety answering points (‘PSAPs’) should take all necessary steps, including testing and validation of solutions in order to ensure the continued availability and accessibility of emergency communications and caller location information for end-users and to ensure the continued possibility to send public warnings to end-users. Electronic communications networks and service providers should present to the competent authorities of the Member State a roadmap indicating the process of migration, and containing sufficient information to assess the risk posed to the availability of emergency communications services and the potentially affected end-users. Such a roadmap should be provided in order to inform in a timely manner the users of electronic communications services relying on the current technology and to allow them to prepare for, or adapt to, the new technologies and avoid the discontinuation of the electronic communications services on the devices they are using.

(31) As part of long-term resilience enhancing measures, the development of the resilient integrated connectivity should, among others, address the preparedness for adoption of state-of-the-art technology such as the emerging quantum communication technologies, to ensure next generation of secure communications in critical network segments in particular. In this regard, the transition to post-quantum cryptography is

necessary. In addition, quantum communication supported by fibre-based communications networks could play an important role. The European Quantum Communication Infrastructure ('EuroQCI'), designed to become an integral part of the new Union space-based secure communication system (Infrastructure for Resilience, Interconnectivity and Security by Satellite – 'IRIS^2'), could be a driver for the next generation of secure communications to the benefit of governments and businesses across the Union. Thus, the security of sensitive data and critical infrastructure should be reinforced by ensuring timely transition to post-quantum cryptography, by progressively integrating quantum-based systems into existing communications infrastructure and by developing a resilient quantum communication ecosystem and industry in the Union.

(32) In order to ensure the effective preparedness of electronic communications networks and digital infrastructure, as well as the uninterrupted provision of electronic communications services, including in situations of natural or man-made disasters, crises or force majeure, and relying on resilient national and cross-border interconnections, the role of BEREC at Union level in the areas of preparedness and crisis management should be strengthened. In this regard, BEREC should complement Union-level efforts to ensure a high level of preparedness and resilience by adopting a report titled 'Union Preparedness Plan for Digital Infrastructures' (the 'Plan'), prepared by the ODN. The Plan should consist of a comprehensive assessment, operational recommendations and crisis management practices. These should ensure a consistent approach to resilience across the Union including to funding mechanisms ensuring redundancy and enhancing Union-level preparedness for crisis.

(33) The BEREC template for collection of data on resilience of electronic communications networks and services, which should support the preparation of the Plan, should include information about capacity, architecture, capabilities and usage of network segments, which are considered key to ensuring overall resilience and continuity of services at Union scale. This should notably include specific network segments such as international interconnections, aggregation networks, core and backbone networks, submarine communication cables, including their cable landing stations, satellite networks integrated with terrestrial networks which are capable of providing back-up service in the event of unavailability of any of these networks, content delivery networks or networks connecting large data centre facilities. Where information which is classified in accordance with Union law or national law needs to be exchanged, reported or otherwise shared under this Regulation, the rules on the handling of classified information should be applied. Where appropriate, non-classified summaries enabling operational coordination should be allowed to be shared in parallel.

(34) Furthermore, the ODN should contribute, at Union level, to the monitoring, analysis and synthesis of information on architecture, capacity, technical capabilities and resilience of electronic communications networks, and support coordination efforts aimed at ensuring the availability and increased capabilities of electronic communications networks and services during natural or man-made disruptions, crises or force majeure, while fully respecting the national crisis response coordination frameworks. This could include, for instance, identification of areas where redundancy is needed, informing strategic policy and investments decisions to support redundancy, in particular for trans-European digital networks and related future funding programmes, such as proposed as part of the digital window of the European Competitiveness Fund under the multiannual financial framework. The BEREC comprehensive assessment prepared by the ODN should also provide an overview of

reserve network capacities, as well as an overview of existing and emerging mechanisms for traffic prioritisation, including network slicing and other network management and network optimisation solutions which protect and secure communications. Such mechanisms play an important role in ensuring the continuity of essential communications networks and services during situations of increased demand, network congestion, or other communication disruptions, which may occur during crises.

(35) In particular, specialised services enabled by advanced network capabilities, such as network slicing, play an increasingly important role in supporting use cases with heightened requirements for security, reliability and low latency. This includes applications such as the operation of unmanned aircraft systems, including drones, which require assured levels of performance, resilience and isolation from other traffic to ensure safe and secure functioning. The availability of such specialised services can enable public authorities and private operators to deploy security-related and safety-critical applications more effectively, while fostering innovation and efficient use of network resources, in line with Union objectives for security, technological leadership and the development of advanced digital services. Electronic communications networks should be leveraged to enhance detection of drones and other flying assets, whether they are connected to the network or not. In particular, cellular sensing should be progressively developed and deployed on a large scale as an overlay and complementary detection system for civilian and military applications, including detecting, tracking and tracing of airborne threats, as well as detecting interference.

(36) The Union's resilience increasingly depends on future-proof connectivity and reduced strategic dependencies. This calls for a forward-looking approach that strengthens the ability of terrestrial and non-terrestrial (satellite) networks to interconnect and operate seamlessly, including in crisis situations. Resilience can be enhanced through integrated, layered network architectures combining terrestrial networks with non-terrestrial networks ('NTNs'), supported by virtualisation, redundancy and automated network management. Such integration can maintain essential communications where terrestrial infrastructure is damaged or congested and strengthen overall continuity of service. In this context, the ODN should participate in market monitoring and technological developments, identify bottlenecks to interoperability and deployment (including between terrestrial and NTN systems and for emerging technologies), and provide recommendations to support a coherent Union-level approach to resilient connectivity.

(37) The ODN should be able, where appropriate, and in cooperation with relevant bodies and competent authorities, to analyse the threat landscape which the Union electronic communications networks and services are increasingly exposed to. This includes, among others, incidents of harmful radio spectrum interference. Such incidents have increased in recent years in a context of heightened geopolitical tensions and may affect the availability and quality of services, often with cross-border implications. In this context, the ODN should analyse such trends and support competent authorities by issuing operational recommendations. This role should complement national responsibilities and contribute to a coordinated Union-level response.

(38) In order to complement the consistent and coordinated regulatory response at Union level to enhance the preparedness for crisis, BEREC should adopt crisis management practices setting out common procedures and coordination arrangements for national regulatory and other competent authorities, including in crisis management and civil protection in the event of natural or man-made disruptions, crises or force majeure.

Those practices should be aligned with existing Union and national crisis management frameworks and support coherent action, including through information sharing with relevant Union-level crisis response and civil protection coordination systems and through cyber-response mechanisms, where cybersecurity incidents are involved. The Plan should also cover aspects related to situational awareness regarding significant disruptions affecting emergency communications, critical communications and the transmission of public warnings in line with obligations stemming from relevant Union law.

(39) Under Directive (EU) 2018/1972, Member States are able to subject the right of providers of public electronic communications networks and services only to a rather flexible general authorisation regime. The objective is to stimulate the development of new networks and services while allowing service providers and consumers to benefit from the economies of scale of the internal market. This Regulation supports this objective and maintains the freedom to provide electronic communications networks and services under general authorisation in the Union.

(40) The general authorisation system currently in place is based on a harmonised but maximum list of conditions that kept the flexibility of the Member States to decide which general authorisation conditions to attach to the general authorisation within their territories, how to further specify them at national level and the possibility to require providers to submit to the national regulatory authority or other competent authorities a notification indicating their intention to start providing the services. The notification was intended to have a declaratory nature and no explicit decision or administrative act by the national regulatory authority was required.

(41) The evaluation of Directive (EU) 2018/1972 has revealed, however, that the lack of a single and coordinated general authorisation, largely developed and implemented at national level and the absence of a uniform and coherent approach to the conditions applicable as well as the notification procedures despite the BEREC harmonised, non-mandatory template, led to regulatory fragmentation and to increased barriers for operators to scale up and operate cross border.

(42) To overcome the challenges posed by Directive (EU) 2018/1972 and enable providers to benefit fully from the internal market for electronic communications, it is necessary to introduce a modern general authorisation regime applicable to all types of electronic communications networks involved in the delivery of publicly available digital services and, with some exceptions, to publicly available electronic communications services.

(43) In relation to the providers of electronic communications networks, the general authorisation system should not apply to certain types of networks that do not have the main purpose to support the provision of publicly available electronic communication or digital services. Examples are networks mainly used for private, internal or closed, predetermined user group communications, including networks used only for internal links between communications infrastructure facilities not mainly intended for publicly available digital services. In relation to the provision of electronic communications services, number-independent interpersonal communications services should remain excluded from the scope of general authorisation. Contrary to other categories of electronic communications networks and services, number-independent interpersonal communications services do not benefit from the use of public numbering resources and do not participate in a publicly assured interoperable ecosystem. It is therefore appropriate to not subject those types of services to the

general authorisation regime. However, number-independent interpersonal communications service providers may be subject to certain obligations under this Regulation.

(44) The general authorisation regime should be subject to compliance with a shorter and updated list of fully harmonised conditions applicable in all Member States, as well as with some other conditions that stem from other Union law or national laws, but that are not yet fully harmonised, such as rules on access to data by law enforcement and judicial authorities, including on lawful interception and data retention and ICT supply chain security requirements in accordance with cybersecurity rules, including the Cybersecurity Act which is to replace Regulation (EU) 2019/881 of the European Parliament and of the Council[40].

(45) Furthermore, providers subject to a general authorisation should submit a notification to the national regulatory authority of the Member State in which they intend to start the provision of electronic communications networks or services or where such networks or services are already provided. They should also be allowed to submit only one notification to one Member State in case they intend to provide networks or services in one or several Member States under the Single Passport regime. Satellite systems should not be subject to the Single Passport, but to a specific procedure at Union level.

(46) The notification should use a mandatory template made available by BEREC. It should consist of a declaration by a natural or legal person to the national regulatory authority of the intention to start the provision of electronic communications networks or services and the submission of limited information further specified by the related BEREC template including identity, contact and business details, information about the networks or services intended to be provided and their geographical area of availability as well as the estimated date for starting the activity.

(47) National regulatory authorities should not impose additional or separate notification requirements. In this regard, national regulatory authorities should not require any additional documents as part of the general authorisation that are not contained in BEREC's notification template. Notification requirements and updates of such requirements should be kept to the minimum.

(48) To encourage the provision of cross-border networks and services, providers should be allowed to submit the notification in any official language of the Union or at least in English.

(49) To contribute to the digitalisation objectives of the Union, all national regulatory authorities should accept notifications online, for example, via an entry point at the website of the relevant authority and, where mandated, through harmonised digital solutions such as business wallets, and should not require providers to use digital certificates limited to the national territory that are not mutually recognised in other Member States and that are not in accordance with the minimum requirements established in Commission Decision 2011/130/EU[41] for the cross-border processing of

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40 Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act) (OJ L 151, 7.6.2019, p. 15, ELI: http://data.europa.eu/eli/reg/2019/881/oj).

41 Commission Decision 2011/130/EU of 25 February 2011 establishing minimum requirements for the cross-border processing of documents signed electronically by competent authorities under Directive

documents signed electronically by competent authorities. For the same reason, providers should not be required to have national representatives to interact with national authorities. In their exchange of information or documents by electronic means, public authorities should fulfil the requirements set out in Regulation (EU) 2024/903 of the European Parliament and of the Council[42].

(50) Competent authorities should not impede the provision of electronic communications networks or services in any way, including on grounds of incompleteness of a notification. The notification to start their activities should not entail administrative costs for the providers of electronic communications networks or services.

(51) In order to support effective cross-border coordination, the ODN should maintain a central database of all notifications. Competent authorities should transmit only complete notifications to the ODN.

(52) Following the notification, national regulatory authorities should confirm to the provider by electronic means the start of the provision of networks or services describing the conditions, rights and obligations applicable in the Member State or Member States where the provider intends to provide the networks or services. When the provider has notified its intention to provide networks or services only within the territory of one Member State, it should comply with the harmonised general authorisation conditions and, as regards any specificities, the conditions applicable in the jurisdiction of that Member State.

(53) The confirmation that providers can start their activities should include information about the rights and obligations of undertakings under the general authorisation. Providers might need such confirmation, for example to apply for rights of use for radio spectrum or numbering resources, obtain access or interconnection and rights to install facilities, including rights of way, in particular to facilitate negotiations with other, regional or local, levels of government or with service providers in other Member States. If a provider so requests, it should also be possible to provide the confirmation in the form of a declaration. Such declarations should not by themselves constitute entitlements to rights, nor should any rights under the general authorisation, rights of use or the exercise of such rights depend upon a declaration. A declaration should serve as a confirmation or proof to other national or regional authorities that the provider is authorised under this Regulation.

(54) When granting rights of use for radio spectrum, for numbering resources or rights to install facilities, the national regulatory authorities should inform the undertakings to which they grant such rights of the relevant conditions for the use of radio spectrum in individual rights of use or in the confirmation for operations under a general authorisation.

(55) Specific obligations imposed on undertakings providing electronic communications networks and electronic communications services in accordance with Union law by virtue of their designation as having significant market power should be imposed separately from the general rights and obligations under the general authorisation.

2006/123/EC of the European Parliament and of the Council on services in the internal market (OJ L 80, 19.3.2014, p. 7, ELI: http://data.europa.eu/eli/dec/2011/130(1)/oj).

[42] Regulation (EU) 2024/903 of the European Parliament and of the Council of 13 March 2024 laying down measures for a high level of public sector interoperability across the Union (Interoperable Europe Act) (OJ L, 2024/903, 22.3.2024, ELI:.http://data.europa.eu/eli/reg/2024/903/oj)

(56) In the case of electronic communications networks not provided to the public, it is appropriate to impose fewer and less strict obligations, if any, than those that are justified for electronic communications networks and services provided to the public. However, they remain bound, among others, by obligations related to public interest such as for network resilience, preparedness, cybersecurity, lawful interception and data retention in accordance with this Regulation or other applicable Union or national legislation which complies with Union law. Although not subject to general authorisation under this Regulation, such obligations may be imposed on providers of number-independent interpersonal communications services.

(57) The Single Passport procedure should facilitate the provision of electronic communications networks and services across Member States. The procedure should end by a confirmation to the provider to start provision of networks or services. It should be possible to issue additional declarations, but only upon request by a provider and following the BEREC guidelines on general authorisation. For example, where needed, under the Single Passport confirmation the provider may ask through the ODN for a declaration describing under which circumstances the provider of electronic communications networks or services under general authorisation has the right to apply for rights to install facilities, negotiate interconnection, and obtain access to interconnection, in order to facilitate the exercise of those rights, for instance, at other public authorities or in relation to other undertakings. Such declarations could describe the criteria and procedure regarding the specific obligations on individual undertakings and should be provided through the ODN by the national regulatory authority of the Member State where networks or services will be provided and upon request by the provider. The BEREC guidelines should specify the details about the possibility to request such declaration.

(58) It is important to ensure the effectiveness of the Single Passport regime. Therefore, national regulatory authorities or other competent authorities of the Member States should be required to cooperate among themselves to support BEREC and the ODN in developing and updating of guidelines and information resources on the harmonised application of general authorisation conditions in the Member States. For this purpose, Member States should designate national single contact points.

(59) The full benefit of the Single Passport regime can only be achieved if national specificities related to the general authorisation conditions are reduced to a minimum. This also applies to rules that are not part of the DNA such as in the areas of cybersecurity or law enforcement. The BEREC guidelines should therefore identify areas where further alignment between national rules or their implementation is necessary. These elements should serve as basis for follow-up by the Commission, competent Union bodies, or other expert groups for dealing with these rules. To support these activities, the designated national single contact points should cooperate closely with the ODN and with each other, on general authorisation conditions related to national legislation and procedures, in compliance with Union law, applicable to the provision of electronic communications networks and services, in particular related to cybersecurity or law enforcement.

(60) In particular, the designated national single contact points should communicate to the ODN any specificities regarding the national implementation of the harmonised general authorisation conditions in their respective Member States, as well as any national procedures put in place to make effective the general authorisation conditions. Where in a Member State there are different authorities responsible for the

enforcement of the general authorisation conditions, those national authorities should work closely with the designated single contact points.

(61) The designated national single contact points should also provide mutual assistance with regard to enforcement of the general authorisation conditions in line with the BEREC guidelines.

(62) The national regulatory authority of the Member State of notification should have the power to impose penalties for the breach of the general authorisation conditions, provided that the national regulatory authority where networks or services are provided has not already imposed penalties for the breach of the same conditions. Penalties should be imposed in accordance with national law and could include, in case of serious breach, and where necessary after consultation with the regulatory authorities of the affected Member States, the withdrawal of the right to provide networks and services in all the Member States covered by the Single Passport. A serious breach could be found, for example, where non-compliance with one or more general authorisation conditions persists despite the remedial actions undertaken by the national regulatory authority or other competent authority. Only in exceptional cases, when a national regulatory authority of the Member State where the networks or services are provided concluded that the breach of the authorisation conditions may have a negative impact in its territory on the grounds of national security or public interest, it should have the right to impose penalties within its jurisdiction. Such exceptional enforcement measure should be taken in coordination with the relevant competent authorities of the Member State of notification.

(63) As an exception, in the case of machine-to-machine services with extraterritorial use of numbering resources, relevant rules of the Member State of notification should apply.

(64) The requirements for the Single Passport should be without prejudice to Member States' powers to block, on a case-by-case basis, access to numbers or services where this is justified by reasons of fraud or misuse.

(65) It should be possible to impose administrative charges on undertakings providing electronic communications services in order to finance the activities of the national regulatory authority or other competent authorities in managing the general authorisation system and the granting of rights of use. Such charges should be limited to cover the actual administrative costs for those activities and should not be imposed on small providers. To that end, transparency should be ensured in the income and expenditure of national regulatory authorities and other competent authorities by means of annual reporting about the total sum of charges collected and the administrative costs incurred, in order to allow undertakings to verify that they are in balance.

(66) Systems for administrative charges should not distort competition or create barriers to market entry. A general authorisation system renders it impossible to attribute administrative costs and hence charges to individual undertakings, except for the granting of rights of use for numbering resources, radio spectrum and for rights to install facilities. An example of a fair, simple and transparent alternative for those charge attribution criteria could be a turnover related distribution key. Where administrative charges are very low, flat rate charges, or charges combining a flat rate basis with a turnover related element could also be appropriate. To the extent that the general authorisation system extends to undertakings with very small market shares, such as community-based network providers, or to service providers the business

model of which generates very limited revenues even in the case of significant market penetration in terms of volumes, Member States should establish an appropriate de minimis threshold for the imposition of administrative charges.

(67) Amendments should be considered as minor amendments, which provides, rights minor amendments are such restriction, withdrawal or amendment should require the prior consultation of the right they are adopted. The current regulatory framework addressing radio spectrum, mainly the European Electronic Communications Code, the Radio Spectrum Decision (Decision No°676/2002/EC) and the Radio Spectrum Policy Programme (Decision No°243/2012/EU) were developed in a different geopolitical context. In this framework, the strategic dimension of radio spectrum has not been sufficiently addressed. Radio spectrum supports vital services like critical communications, emergency communications, air traffic control, maritime navigation, public security and safety networks. As all basic commodities, radio spectrum, and access to it, could become a vulnerability. Moreover, it could be weaponised in the context of armed and economic conflicts, for instance for jamming and spoofing signals and disturbing key military and civil activities from transport to banking.

(68) Radio spectrum is of utmost strategic and geopolitical importance for the Union and its Member States. It is essential to enable communication, drive economic growth and social prosperity, and support security and provision of mission critical services across various sectors. Radio spectrum has become key for the Union's strategic autonomy and security, and its management in a coordinated way is indispensable to ensure Union security, resilience and digital sovereignty. At the same time, a number of Union policies are relying on an appropriate access to and management of spectrum, such as space, connectivity or transport policies. Moreover, an efficient and coordinated management of radio spectrum is key for the deployment of high-quality wireless networks, which are a condition of Union's economic development and competitiveness and of the completion of a single market for electronic communications. Thanks to technological progress, in particular the possibility of satellites to communicate with unmodified user mobile devices, and the convergence between terrestrial and non-terrestrial networks, and between telecom networks, edge and cloud computing, the management of radio spectrum as a common European resource has the potential to maximise its value for the Member States and the Union. It is hence necessary to effectively manage and efficiently use radio spectrum in a strategic way as a common resource.

(69) Due to the development of new wireless technologies and applications, demand for radio spectrum is growing, not just in the area of electronic communications, such as for providing citizens and businesses with ubiquitous gigabit connectivity on the move, but also in other sectors relying on radio spectrum, such as transport, manufacturing, space and energy. To meet growing demand, an appropriate cross-sectorial approach to radio spectrum management is essential to ensure the efficient use of radio spectrum.

(70) Radio spectrum should be managed in a manner that ensures the avoidance of harmful interference. The basic concept of harmful interference should therefore be properly defined to ensure that regulatory intervention is limited to the extent necessary to prevent such interference. Advanced methods for protection against harmful interference and other radio spectrum management methods should be applied in order to avoid, to the extent possible, the application of the non-interference and non-protection principle, i.e. the obligation laid down in ITU Radio Regulations for

stations operating on a secondary basis not to cause harmful interference to primary services, and the principle that they cannot claim protection from interference caused by authorised primary services.

(71) National borders are increasingly irrelevant in determining optimal radio spectrum use. Undue fragmentation amongst national policies results in increased costs and lost market opportunities for radio spectrum users and slows down innovation to the detriment of the proper functioning of the internal market as well as to consumers and the economy as a whole. Strategic planning, coordination and, where appropriate, harmonisation at Union level can help ensure that radio spectrum users derive the full benefits of the internal market and that Union interests can be effectively defended on the global level.

(72) Radio spectrum policy activities in the Union should be without prejudice to measures taken, at Union or national level, in accordance with Union law, to pursue general interest objectives, in particular with regard to public governmental and defence networks, content regulation and audiovisual and media policies, and the right of Member States to organise and use their radio spectrum for public order, public security and defence.

(73) The radio spectrum management rules should be consistent with the work of international and regional organisations dealing with radio spectrum management, such as the International Telecommunication Union ('ITU') and the European Conference of Postal and Telecommunications Administrations ('CEPT'), in order to ensure the effective management of and harmonisation of the use of radio spectrum across the Union and between the Member States and other members of the ITU.

(74) The need to ensure that citizens are not exposed to electromagnetic fields at a level harmful to public health is imperative. National competent authorities should pursue consistency across the Union to address this issue, having particular regard to the precautionary approach taken in Council Recommendation 1999/519/EC[43], in order to work towards ensuring more consistent deployment conditions. National competent authorities should apply the procedure set out in Directive (EU) 2015/1535, where relevant, with a view also to providing transparency to stakeholders and to allowing other Member States and the Commission to react.

(75) Radio spectrum is a scarce public resource with an important public and market value. It is an essential input for all kinds of wireless networks and services, including for radio-based electronic communications networks and services. It should therefore be efficiently allocated and assigned by national regulatory authorities or other competent authorities in accordance with harmonised objectives and principles governing their action as well as objective, transparent and non-discriminatory criteria, taking into account the democratic, social, linguistic and cultural interests related to the use of radio spectrum. Decision No 676/2002/EC of the European Parliament and of the Council[44] establishes a framework for harmonisation of radio spectrum.

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43 1999/519/EC: Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (OJ L 199, 30.7.1999, p. 59, ELI: http://data.europa.eu/eli/reco/1999/519/oj).59, ELI: http://data.europa.eu/eli/reco/1999/519/oj)

44 Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) (OJ L 108, 24.4.2002, p. 1, ELI: http://data.europa.eu/eli/reco/1999/519/oj).

(76) Lack of coordination between Member States and their competent authorities when organising the use of radio spectrum in their territory can, if not solved through bilateral Member States negotiations, create large-scale interference issues severely impacting the development of the digital single market. Member States and their competent authorities should take all necessary measures to avoid cross-border and harmful interference between them. The Radio Spectrum Policy Group ('RSPG') that had been established by Commission Decision 2002/622/EC[45] has been supporting the necessary cross-border coordination and has been the forum for resolving cross-border issues between Member States. However, the RSPG assistance has fallen short in cross-border coordination issues with third countries in general or between Member States involving the non-harmonised radio spectrum (e.g. FM frequencies), as there have been simply not a sufficient legal basis and the tools for the RSPG to act. The process of cross-border coordination should continue, but should be extended to non-harmonised radio spectrum, for instance FM frequencies used for radio broadcasting, as such radio spectrum might also have a high economic, cultural and social value for Union citizens. Moreover, any holder of a radio spectrum usage right should be given the opportunity to initiate the process of assistance to the resolution of the interference, when it is directly impacted from harmful interference in the lawful use of its radio spectrum.

(77) Difficult harmful interference cases between Member States that cannot be solved by direct negotiations, notwithstanding the support of the RSPB, might require the imposition of binding solutions adopted by the Commission, building on the RSPB's proposed solution, to resolve the case definitively or to enforce under Union law a coordinated solution. Such mechanism should apply under specific deadlines ensuring that there is no unjustified delay, and propose appropriate solutions, including the withdrawal of any right that is at the source of the harmful interference situation and the right to damages.

(78) Cross-border interference from third countries has become an increasingly alarming problem at the Union borders and a threat not only to the networks themselves, but also to Union security. For instance, interference to the Global Navigation Satellite System ('GNSS') close to armed conflict areas, such as at the eastern borders of the Union, has serious consequences to transportation, critical infrastructures, electronic communications and finance sectors, because modern infrastructure depends heavily on that system for precise positioning, navigation, and timing ('PNT') data. In such cases, it is not sufficient to rely on efforts at the ITU. There is a need to provide in Union law a solidarity mechanism to more effectively support affected Member States. Under that solidarity mechanism, all Member States should be requested to act together and in line with particular actions defined by the Union together with the RSPB, and intervene alongside the Commission in supporting affected Member States. In the case of persistent and serious harmful interference cases violating international law, the Council may consider adopting restrictive measure under Article 29 TFEU in line with the objectives of the Common Foreign and Security Policy.

(79) Technological developments, in particular next-generation (e.g. 6G) radio technologies as well as AI, improve the viability and reliability of radio spectrum sharing across a

[45] Commission Decision of 11 June 2019 setting up the Radio Spectrum Policy Group and repealing Decision 2002/622/EC (OJ C 196, 12.6.2019, p. 16; Commission Decision 2002/622/EC of 26 July 2002 establishing a Radio Spectrum Policy Group (OJ L 198, 27.7.2002, p. 49, ELI: http://data.europa.eu/eli/dec/2002/622/oj).

wide range of frequency bands, thus providing access to a scarce resource to multiple users, while preventing harmful interference and ensuring adequate protection of incumbent services. An efficient, effective and innovation-driven use of radio spectrum is essential to achieve the Union connectivity targets and to support Union competitiveness. Achieving those objectives requires a regulatory approach that systematically considers shared radio spectrum use as the norm for radio spectrum authorisation based on the principle of 'use it or share it', while exclusive rights of radio spectrum use are applied only where necessary and justified. At the same time, such policy should ensure that radio spectrum sharing is fostering competition, rather than restricting it.

(80) National competent authorities should consider that radio spectrum which is not used in a territory or for a period of time is sharable, unless the holder of the right of use demonstrates that it is not technically feasible to share or that sharing would interfere with, degrade, or otherwise limit the original holder's use of the radio spectrum or that it has plans to use the radio spectrum in a way which does not allow sharing. In order to determine whether the radio spectrum is being used, national competent authorities should take into account several elements, including the deployment plans of the holder of the right in a foreseeable future, and legal obligations under Union law. The conditions for sharing under the principle of 'use it or share it', including the remuneration, the way to determine the duration of the sharing obligation and the technical conditions should be determined in advance when granting the right of use.

(81) National competent authorities should promote the shared use of radio spectrum, in compliance with competition law, by determining the most appropriate authorisation regimes for each scenario and by establishing appropriate and transparent rules and conditions therefor. Shared use of radio spectrum can be based on general authorisations or licence-exempt use allowing, under specific sharing conditions, several users to access and use the same radio spectrum in different geographic areas or at different moments in time. It can also be based on individual rights of use under arrangements such as licensed shared access where all users (existing users and new users) agree on the terms and conditions for shared access, under the supervision of the national competent authorities, in such a way as to ensure a minimum guaranteed radio transmission quality and compliance with competition law. When allowing shared use of radio spectrum under different authorisation regimes, competent authorities should not set widely diverging durations for the shared use to ensure spectrum can be repurposed or reopened for competitive assignment.

(82) While shared use of spectrum promotes its efficient use, it may not be appropriate in all circumstances. National competent authorities should be able to restrict or refrain from proposing the shared use of spectrum for reasons relating to competition and non-discriminatory market access, technical or economic feasibility, the need for exclusive spectrum use to safeguard public safety, national security, defence or the protection of essential services as defined in Directive (EU) 2022/2557 of the European Parliament and of the Council[46]. This includes, where relevant, the deployment of key secure and critical communication systems for Europe, which may require predictable access to spectrum, enhanced resilience and assured performance

[46] Directive (EU) 2022/2557 of the European Parliament and of the Council of 14 December 2022 on the resilience of critical entities and repealing Council Directive 2008/114/EC (OJ L 333, 27.12.2022, p. 164, ELI: http://data.europa.eu/eli/dir/2022/2557/oj).

that cannot be guaranteed under shared use. Any decision to limit or exclude shared used should be duly justified, proportionate, and based on objective criteria.

(83) Flexibility in radio spectrum management and access to radio spectrum is currently ensured through technology and service-neutral authorisations to allow radio spectrum users to choose the best technologies to apply, and services to be provided in radio spectrum bands declared available for electronic communications services in the relevant National Frequency Allocation Plans in accordance with Union law ('the principle of technology neutrality and the principle of service neutrality'). Any administrative determination of technologies and services to be used in a given band should be based on proportionate and non-discriminatory criteria, and should be clearly justified, in the case of services by general interest objectives, and subject to regular review. As such determination would introduce an exception to the technology and service neutrality rule and reduce the freedom to choose the service provided or technology used, any proposal for such determination should be transparent and subject to public consultation.

(84) Restrictions to the principle of technology neutrality should be appropriate and justified by the need to avoid harmful interference, for example by imposing emission masks and power levels, to ensure the protection of public health by limiting public exposure to electromagnetic fields, to ensure the proper functioning of services through an adequate level of technical quality of service, while not necessarily precluding the possibility of using more than one service in the same radio spectrum band, to ensure proper sharing of radio spectrum, in particular where its use is subject only to general authorisation, to safeguard efficient use of radio spectrum, or to fulfil a general interest objective in accordance with Union law.

(85) National competent authorities should be allowed to require the provision of a specific service in a particular radio spectrum band to meet clearly defined objectives such as safety of life, public safety and security, the need to promote social, regional and territorial cohesion, or the avoidance of the inefficient use of radio spectrum. Those objectives should include the promotion of cultural and linguistic diversity and media pluralism, as defined by Member States in accordance with Union law. Except where necessary to protect safety of life, public safety and security, exceptions should not result in certain services having exclusive use, but should rather grant them priority so that, insofar as possible, other services or technologies can coexist in the same radio spectrum band. It lies within the competence of the Member States to define the scope and nature of any exception regarding the promotion of cultural and linguistic diversity and media pluralism.

(86) Where national competent authorities decide, by way of exception, to limit the freedom to provide electronic communications networks and services based on grounds of public policy, public security or public health, they should explain the reasons for such a limitation.

(87) Different Union policy areas rely on radio spectrum, such as electronic communications, research, technological development and space, transport, energy, common security and defence, audiovisual and cultural policies. It should be possible to set policy orientations and objectives for the availability and efficient use of radio spectrum where it is necessary for the completion of the internal market in those Union policy areas. In particular, national competent authorities and the Commission should take all steps necessary to ensure that sufficient radio spectrum is available for the provision of ubiquitous and high-quality connectivity to all Union citizens and

businesses, including when travelling or when they are in rural, remote or offshore areas. They should ensure radio spectrum availability and protect radio spectrum for the implementation of Union programmes related to space, in particular for earth and space observation, satellite navigation and positioning, and secure and resilient satellite communications for governmental users, as well as for transport and transport management systems, and the Common Security and Defence Policy activities. Given the importance of these policies for the EU economy and society, they should also aim to ensure sufficient radio spectrum for audiovisual and content production services, as well as for research and scientific activities.

(88) While such policy orientations and objectives set by the multiannual radio spectrum policy programme, established by Decision No 243/2012/EU[47], are still valid, its actions have been largely completed or became outdated. To avoid duplication and ensure consistency, the objectives from the multiannual Radio Spectrum Policy Programme ('RSPP') should be reflected in this Regulation and Decision No 243/2012/EU should be repealed.

(89) In view to the implementation of the specific current and future Union policies relying on radio spectrum, timely identification of their radio spectrum needs is essential. Considering that, in order to increase regulatory predictability, the precise needs and timing for availability of radio spectrum should be known when such policies are being developed or adopted, the harmonised details of the specific bands involved and the coordinated rules for their availability and use should be specified for each case by the Commission in a strategic document adopted after consulting the RSPB. A Union radio spectrum strategy should be adopted after each ITU World Radiocommunication Conference ('WRC') to provide, inter alia, transparency as to how the different WRC decisions will be incorporated in the Union legal order. The aim of the radio spectrum strategy is to increase the transparency of radio spectrum related activity at Union level and enhance predictability for different competent authorities and market players.

(90) Union radio spectrum strategy could include operational radio spectrum roadmaps defining specific milestones and deadlines for the availability and authorisation of radio spectrum which are to be established through Commission implementing acts when the specific circumstances and needs for radio spectrum are known. When adopting the Union radio spectrum strategy and roadmaps, the Commission should take into consideration Union policy objectives, such as the need to safeguard the Union's strategic autonomy, including common security and defence needs, the Digital Decade connectivity targets, in particular for 5G and advanced wireless networks, the completion of the single market and the need to meet specific technological or quality requirements for cross-border services. In particular, such Union spectrum strategy should identify spectrum (parts of spectrum/bands) which Member States should make available under harmonised procedures and conditions for the purpose of serving Union common security and defence policy. The Commission should also take into account that radio spectrum is a public good with an important social, cultural and economic value, that should be used effectively and efficiently. Union radio spectrum strategy and roadmaps should respect relevant international agreements applicable to radio spectrum, including avoidance of harmful interference,

[47] Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012 establishing a multiannual radio spectrum policy programme (OJ L 81, 21.3.2012, p. 7 ELI: http://data.europa.eu/eli/dec/2012/243(2)/oj).

and should promote the principles of technology and service neutrality and of shared used of radio spectrum, in compliance with competition law. For the Union radio spectrum strategy and roadmaps to make a difference, a process should be established within the RSPB which allows national competent authorities, together with the Commission, to monitor advancement in implementation in Member States and exchange experience, good practices and information. Moreover, synergies should be explored with the monitoring mechanism of the Digital Decade and of the European Semester.

(91) Given the importance for EU competitiveness of the timely introduction of the next-generation (6G) wireless broadband communications, including its non-terrestrial elements, this should be the focus of the first Union radio spectrum strategy and roadmap. Nevertheless, the strategy should also include radio spectrum needs of other Union policies, as they arise, and should be holistic cater for the use not only of licenses, but also of unlicensed use, such as for instance for Radio Local Area Networks ('RLAN').

(92) To tap the full benefit of harmonisation under Decision No 676/2002/EC, the use of harmonised radio spectrum bands should be allowed in a timely and synchronised manner throughout the Union. Allowing the use of a radio spectrum band entails assigning radio spectrum under a general authorisation regime or individual rights of use in order to permit the use of radio spectrum as soon as the assignment process is completed. In order to assign radio spectrum bands, it might be necessary to release a band occupied by other users and to compensate those users for the direct costs of migrating or reallocating the spectrum according to national law. The implementation of a common deadline might however be affected in a particular Member State by issues relating to unresolved cross-border coordination, to the complex technical migration of existing users of a band, to a general interest objective, to the safeguarding of national security and defence or to force majeure. In any case, competent authorities should take all measures necessary to reduce any delay to the minimum in terms of geographical coverage, timing and radio spectrum range. National competent authorities should, depending on relevant circumstances, request the Union to provide legal, political and technical support to resolve radio spectrum coordination issues with neighbouring countries, including candidate and acceding countries.

(93) With the fast development of new wireless technologies and services, including using modern capabilities, such as AI, the Union radio spectrum management should be more agile and pro-active. In this regard, it is important to give innovators and other prospective users the opportunity to initiate the harmonisation process at Union level, if the need is demonstrated for, inter alia, the introduction of new technologies or the elimination of old technologies that make the use of radio spectrum inefficient or harm consumers. An open, transparent and non-discriminatory process should therefore be created for a formal filing and review of requests for harmonisation of spectrum by the Commission. The process should include a public consultation helping the Commission to decide whether to start a new process, and if so with which scope. As a consequence, the Commission should be able to decide whether to start updating or developing a radio spectrum related policy with support of the RSPB or to initiate the development of harmonised technical and operational conditions for the use of a particular radio spectrum band together with the Radio Spectrum Committee pursuant to Decision No 676/2002/EC. The form, content and level of detail to be given in the

requests, details of the process of handling of the requests and, where relevant, any deadlines should be provided in guidelines.

(94) General authorisations for the use of radio spectrum can facilitate the most effective use of radio spectrum and foster innovation in some cases and are pro-competitive, whereas individual rights of use for radio spectrum in other cases may be the most appropriate authorisation regime in the presence of certain specific circumstances. Individual rights of use should be considered, for example, when favourable propagation characteristics of the radio spectrum or the envisaged power level of the transmission imply that general authorisations cannot address the interference concerns in light of the required quality of service. Technical measures, such as solutions to improve receiver resilience, can enable the use of general authorisations or radio spectrum sharing, and possibly avoid systematic recourse to the non-interference and non-protection principle. General authorisations can be combined with individual rights of use. This could be particularly useful for bands which do not have good propagation characteristics, such as the millimetre wave bands. For instance, a band may be assigned under individual rights of use in urban areas, while in rural areas it is made available under general authorisation. In order to promote a consistent approach in the Union, the Commission may adopt a recommendation designating the most appropriate authorisation regime for the use of radio spectrum in a particular harmonised radio spectrum band, or parts thereof.

(95) In general, it is for the competent authorities to decide on the most appropriate authorisation regime to be applied in a particular radio spectrum band or parts thereof. Where there is a risk of diverging solutions that could fragment the internal market, particularly where harmonised conditions for a radio spectrum band are established under Decision No 676/2002/EC, and thereby delay the rollout of wireless systems, the Commission should be empowered to decide, taking account of the opinion of the RSPB, on common solutions, acknowledging the technical harmonisation measures in force. The aim of such decisions is to provide a common toolbox for competent authorities which they should take into account when identifying appropriate consistent authorisation regimes to be applied to a band, or part of a band, depending on factors such as population density, propagation characteristics of the bands, divergence between urban and rural uses, the possible need to protect existing services and the resulting implications for economies of scale in manufacturing.

(96) In order to facilitate the development of advanced services at larger scale, enable a more efficient use of the radio spectrum, and decrease the cost of wireless network deployment, prospective users of radio spectrum for public or non-public networks should be allowed to request that, to the extent possible, the same authorisation conditions apply in the Member States where they use radio spectrum for their networks. The Commission and competent authorities should cooperate with each other, and with the RSPB, to develop common authorisation conditions. The Commission should also have the power to make the use of such conditions binding. The harmonisation of authorisation conditions aims to facilitate the cross-border provision of services and economies of scale.

(97) To promote the provision of pan-European high-quality networks and services or to exploit economies of scale, the Commission should be empowered to authorise a part of radio spectrum at Union level. Every new generation of mobile networks is more expensive to deploy than the previous one. It is hence not economically feasible for all mobile network operators currently active in the Union market to upgrade their networks to 6G. If requested by the Commission, the RSPB should hence assess, in its

opinion on common authorisation conditions, the opportunity of an award of radio spectrum at the Union level and suggest an appropriate authorisation procedure and award conditions, such as, for instance, operation on a wholesale model. The same need could also arise to increase the amount of radio spectrum used for mobile satellite services, by repurposing terrestrial radio spectrum. In order to ensure the provision of pan-European services, such repurposed radio spectrum should also be awarded and authorised at the Union level. Setting the same authorisation conditions at the Union level and, if requested, Union authorisation and harmonised award conditions at the Union level could facilitate the deployment and development of high-quality networks and services, such as satellite communications services provided using radio spectrum allocated for terrestrial services or 6G networks.

(98) In order to reduce bureaucracy and accelerate access to radio spectrum for which the authorisation conditions have been harmonised in more than one Member State, it should be possible to establish a procedure to facilitate the granting of individual rights of use by more than one national regulatory authority, in a coordinated manner and at a single location in the form of a 'one stop shop procedure'. The Commission should be able to recommend ways for competent authorities to deal with such requests in a one-stop-shop manner.

(99) Where the harmonised assignment of radio spectrum to particular undertakings has been agreed at Union level, Member States should strictly implement such agreements in the granting of rights of use for radio spectrum from the National Frequency Allocation Plan.

(100) Sufficiently long duration of rights of use of radio spectrum will increase investment predictability and contribute to faster network roll-out and better services, as well as stability to support radio spectrum trading and leasing. The minimum duration of rights of use for wireless broadband established by Directive (EU) 2018/1972 has not proven sufficient to attract sufficient investments, to allow for business continuity and amortisation of mobile ventures compared to other communication technologies, and to encourage more ambitious deployments of networks and advanced and cross border services.

(101) Investment predictability can hence be better achieved by the provision of rights with indefinite duration, which national competent authorities should have the possibility to subject to periodic reviews, with credible revocation options administered by the competent authorities, including the national competition authorities. At the same time, indefinite duration facilitates the development of a functioning secondary market for radio spectrum trading and leasing. The risk that indefinite duration of rights of use would prevent market entry and reduce competition, availability, quality of services, and investment incentives should however be addressed through strong and credible regulatory safeguards that protect competition and prevent radio spectrum hoarding, such as obligations to provide wholesale access or enable radio spectrum sharing subject to compliance with competition law. By choosing appropriate authorisation conditions - such as 'use-it-or-share-it' or 'use-it-or-lose-it' conditions and rollout obligations - and by enforcing them, the national competent authorities are able to ensure that radio spectrum is not left idle or blocked and is made available to more efficient or innovative competitors. Considering the importance of technical innovation, national competent authorities should be able to provide for rights to use radio spectrum for experimental purposes, including in scientific research projects and experimentations conducted in the lifecycle of the projects funded in the scope of the

EU programmes, subject to specific restrictions and conditions, including duration, strictly justified by the experimental nature of such rights.

(102) As long-term investment planning depends on guarantees for renewals of the rights of use in the same way as on the duration of the rights of use, the renewal should be in principle automatic, unless there are compelling reasons against it. National competent authorities should have the power not to renew the rights of use or to renew them for a shorter period or under changed conditions. This should be the case where certain conditions for refusal or change are met based on criteria that should be restrictively interpreted to provide sufficient guarantees and predictability. Refusal of renewal could be based on public policy objectives under Union law, as well as on the general objectives of this Regulation, including defence and security needs. Any decision not to renew should be subject to an open, non-discriminatory and transparent procedure and be notified under the spectrum single market procedure. In order to ensure legal certainty and respect, legitimate expectations of holders of the rights, the possibility of refusal to renew should be considered within an appropriate timespan prior to the expiry of the rights concerned, of at least 5 years.

(103) Renewals should be accompanied by a review of the annual and one-off fees for the use of radio spectrum to ensure that those fees continue to promote optimal use, taking account, inter alia, of market developments and technological evolution. Such review should be based on the value of the rights of use as resulted from the latest competitive or comparative assignment procedure adjusted to reflect the cost of additional terms and conditions attached thereto, such as coverage or quality of service requirements. The revenues per connection, as well as the overall burden that holders of rights have from all their radio spectrum holdings, should also be taken into account, to avoid that very high prices paid in past auctions continue to overburden holders of rights and prevent them from investing in networks. For reasons of legal certainty, any adjustments to the existing fees should be based on the same principles as those applicable to the fees established in the context of awards of new rights of use.

(104) Transfer of rights of use for radio spectrum can be an effective means of increasing the efficient use of radio spectrum. For the sake of flexibility and efficiency, and to allow valuation of radio spectrum by the market, national competent authorities should by default allow radio spectrum users to transfer or lease their rights of use for radio spectrum to third parties following a simple procedure and subject to the conditions attached to such rights and to competition rules, under the supervision of the national regulatory authorities responsible. The conditions under which an individual right may be transferred or leased by the holder of the right should be specified at the moment of granting that right. In order to facilitate such transfers or leases, provided that technical implementing measures adopted under Decision No 676/2002/EC are respected, Member States should also consider requests to have radio spectrum rights partitioned or disaggregated and conditions for use reviewed. At the same time, it should be possible for the national competent authority to reject the transfer or lease of radio spectrum for reasons of security or sovereignty or other public/policy goals, including promoting or maintaining effective competition, or in the absence of sufficient guarantees that the radio spectrum will be used in accordance with the authorisation conditions or for the intended use.

(105) New concepts of radio spectrum sharing require accurate, real-time data on frequency occupancy to ensure efficient use of radio spectrum and avoidance of interference. A dynamic database focused on specific frequency bands should help identifying underused radio spectrum and support more efficient radio spectrum use and sharing

practices, in line with competition law. Such a dynamic inventory could also contribute to the development and implementation of any operational radio spectrum roadmap.

(106) In line with the case-law of the Court of Justice, national competent authorities should not levy any charges or fees in relation to the provision of networks and electronic communications services other than those provided for by this Regulation. Where the provision of electronic communications relies on public resources the use of which is subject to specific authorisation, national competent authorities should be able to impose fees to ensure optimal use of those resources. Fees should reflect the value of the rights of use taking account inter alia of the economic and technical situation of the market concerned and be set in a manner that ensures efficient assignment and use of radio spectrum. It should be possible, for example, to use such fees to finance activities of national regulatory and other national competent authorities that cannot be covered by administrative charges. Where, in the case of competitive or comparative selection procedures, fees for rights of use for radio spectrum consist entirely or partly of a one-off amount, payment arrangements should ensure that such fees do not in practice lead to selection on the basis of criteria unrelated to the objective of ensuring optimal use of radio spectrum.

(107) The methodology for calculating the level of radio spectrum fees in the Union differs considerably between Member States. This discrepancy could make difficult the provision of networks based on radio spectrum in multiple Member States. The Commission should hence publish, on a regular basis, benchmark studies and, as appropriate, develop other guidance with regard to the methodology for calculating radio spectrum annual fees to be imposed by national national competent authorities for terrestrial spectrum. Such methodology should be based on the principles of effective and efficient use of radio spectrum, transparency, non-discrimination and proportionality in relation to their intended purpose, and allow national competent authorities to calculate the exact fee to be applied, which could comprise a fixed annual part (per KHz per category of band) and a percentage of the yearly turnover generated through the use of frequencies. When the Commission determines the methodology, the experience of BEREC and the national regulatory authorities in building suitable cost models will be invaluable and should be taken into account. National competent authorities should make sure that the amount of the fees in any case covers the cost of the management of the radio spectrum.

(108) Any burden imposed on undertakings for rights of use for radio spectrum can influence decisions about whether to seek and put into use radio spectrum resources. National competent authorities should therefore set reserve prices in a way that leads to the efficient assignment of those rights, irrespective of the type of selection procedure used. The Commission may issue a recommendation on a common methodology for defining reserve prices, considering criteria such as the opportunity cost of radio spectrum, the characteristics of the band and the costs associated with the fulfilment of authorisation conditions imposed to further policy objectives. In doing so, the competitive situation of the market concerned including the possible alternative uses of the resources should also be considered. In principle, national competent authorities should not set reserve prices where they impose coverage or quality of service obligations, unless there is a risk of collusion and/or non-serious participation unduly lengthening the procedure, etc. The Commission should be empowered to adopt implementing acts, if the recommendation is not successful to

ensure consistent outcomes in the Union and this jeopardises the ubiquitous deployment of high quality wireless networks in the Union.

(109) Considering the high level of cost of radio spectrum that has originated due to the reliance of auction selection based on the comparative payment of fees, priority should be given to commitments over fees. It should therefore be possible to substitute fees by commitments offered by applicants to implement measures that would directly benefit the deployment of networks and the quality of wireless communications. In practice, this could take the form of advanced payments that would be repaid, or bank guarantees that would be lifted when those commitments are fulfilled.

(110) The requirement to respect the principles of technology and service neutrality in granting rights of use, together with the possibility to transfer rights between undertakings, underpin the freedom and means to deliver electronic communications services to the public, thereby also facilitating the achievement of general interest objectives. This Regulation is without prejudice whether radio spectrum is assigned directly to providers of electronic communications networks or services or to entities that use those networks or services. Such entities may be radio or television broadcast content providers. The responsibility for compliance with the conditions attached to the right of use for radio spectrum and the relevant conditions attached to the general authorisation should in any case lie with the undertaking to which the right of use for radio spectrum has been granted. Certain obligations imposed on broadcasters for the delivery of audiovisual media services may require the use of specific criteria and procedures for the granting of radio spectrum usage rights to meet a specific general interest objective set out by national competent authorities in accordance with Union law. However, the procedure for the granting of such right should in any event be objective, transparent, non-discriminatory and proportionate.

(111) The case-law of the Court of Justice requires that any national restrictions to the rights guaranteed by Article 56 TFEU are objectively justified and proportionate and do not exceed those necessary to achieve their objectives. Moreover, radio spectrum granted without an open procedure should not be used for purposes other than the general interest objective for which they were granted. In such a case, the interested parties should be given the opportunity to comment within a reasonable period.

(112) As part of the application procedure for granting rights, the national competent authorities should verify whether the applicant is able to comply with the conditions to be attached to such rights. Those conditions should be reflected in eligibility criteria set out in objective, transparent, proportionate and non-discriminatory terms prior to the launch of any competitive selection procedure. For the purpose of applying such criteria, it should be possible to require that applicants submit the necessary information to prove their ability to comply with those conditions. Where such information is not provided, the national competent authority should be able to reject the application for the right of use of radio spectrum.

(113) National competent authorities should, prior to the granting of the right, only verify elements that can reasonably be demonstrated by an applicant exercising ordinary care, taking due account of the important public and market value of radio spectrum as a scarce public resource. This should not prevent the national competent authority from carrying out subsequent verification of the fulfilment of eligibility criteria, for example through milestones, where the criteria could not reasonably be met initially. To preserve effective and efficient use of radio spectrum, national competent authorities should not grant rights where their review indicates applicants' inability to

comply with the conditions, without prejudice to the possibility of facilitating time-limited experimental use.

(114) Where demand for a radio spectrum band exceeds the availability and, as a result, a national competent authority concludes that the number of rights of use for radio spectrum is to be limited, appropriate and transparent procedures should apply for the granting of such rights to avoid any discrimination and optimise the use of the scarce resource. Such limitation should be justified, proportionate and based on a thorough assessment of market conditions, giving due weight to the overall benefits for users and to national and internal market objectives. The objectives governing any limitation procedure should be clearly established in advance and, where possible, quantified giving due weight to the need to fulfil national and internal market objectives. When considering the most appropriate selection procedure, national competent authorities should, in accordance with coordination measures taken at Union level, in a timely and transparent manner, consult all interested parties on the justification, objectives and conditions of the procedure, inter alia stating the outcome of any related assessment of the competitive, technical and economic situation of the market. National competent authorities should be able to use, inter alia, competitive or comparative selection procedures for the assignment of radio spectrum, taking into account, inter alia, the competitive, technical and economic situation of the market. In administering such schemes, national competent authorities should take into account the objectives of this Regulation. If a Member State finds that further rights can be made available in a band, it should start the process therefor.

(115) While supporting transparent, non-discriminatory assignment and efficient use of radio spectrum, auctions - as a type of a selection procedure relying on competitive price bidding - could result in creation of an important financial burden on operators if they are not designed properly or the award conditions do not reflect the situation on the market. Therefore, priority should be given to investment-oriented auctions focusing on the achievement of certain quality and coverage commitments rather than on the payment of fees.

(116) The voluntary Peer Review Forum established by Directive (EU) 2018/1972 as an instrument for peer learning has not succeeded in making more convergent use and definition of elements of selection procedures and the conditions attached to the rights of use for radio spectrum, as only about one third of the national measures were reviewed by peers. As those elements and conditions have a significant impact on market conditions and the competitive situation, including conditions for entry and expansion, a new *ex ante* coordination mechanism – a radio spectrum single market procedure – should be established. That procedure should apply to every measure proposed by national competent authorities with a view to undertake a selection procedure or to amend or renew rights of use in relation to harmonised radio spectrum for wireless broadband electronic communications networks and services. Such an *ex ante* mechanism is more efficient than intervention *ex post*, as it can detect in advance measures which are ill justified or disproportionate. The notifying authority should especially explain how any proposed market shaping measure is necessary to maintain or achieve effective competition and outline its likely effects on existing and future investments by market participants, on the basis of a market analysis. If the notifying authority intends to impose a definite duration of a right to use, it should present arguments for how it considers the proposed duration to be sufficient in light of the investments that are needed to achieve the objectives of the assignment procedure and of this Regulation. The Commission should be able to notify any

reservations that it may have on draft market shaping measures, i.e. measures that impact the structure or the level of competition in the market, such as radio spectrum caps, reservations or wholesale access obligations, and should in such case state the reasons for the reservation. The Commission could consider that the measure would create a barrier to the internal market or have seriously doubts about its compatibility with Union law, in particular the objectives of this Regulation. The Commission could also notify any reservations that may arise in the case of a limited duration, where it considers that such duration is insufficient. In its evaluation, the Commission will need to consider any possible impact that duration of rights of use would have on competition. To ensure its effectiveness, the process should provide the Commission with a possibility of a veto on the duration of rights of use and on market shaping measures if deemed necessary. This new radio spectrum single market procedure should replace the Peer Review Forum.

(117) Where they are supported by robust economic evidence and are well designed, market-shaping measures and limited licence durations can play an important role in safeguarding effective competition in electronic communications markets. Measures taken specifically to promote competition when granting or renewing rights of use for radio spectrum should be decided by national regulatory authorities and other national competent authorities, which have the necessary economic, technical and market knowledge. Radio spectrum assignment conditions can influence the competitive situation in electronic communications markets and conditions for entry. Limited access to radio spectrum, in particular when radio spectrum is scarce, can create a barrier to entry or hamper investment, network roll-out, the provision of new services or applications, innovation and competition. New rights of use, including those acquired through transfer or leasing, and the introduction of new flexible criteria for radio spectrum use can also influence existing competition. Where unduly applied, certain conditions used to promote competition can have other effects. For example, radio spectrum caps and reservations can create artificial scarcity, wholesale access obligations can unduly constrain business models in the absence of market power, and limits on transfers can impede the development of secondary markets. Therefore, a consistent and objective competition test for the imposition of such conditions is necessary and should be applied in a coordinated manner. The use of such measures should therefore be based on a thorough and objective assessment, by national regulatory authorities, of the market and the competitive conditions thereof on the basis of a market analysis. National competent authorities should, however, always ensure the effective and efficient use of radio spectrum and avoid distortion of competition through anti-competitive hoarding.

(118) Measures which intervene in the structure of the market, such as radio spectrum caps or reservations, may be imposed only where less intrusive measures, such as wholesale access obligations, are not sufficient to guarantee effective competition at retail level. Before wholesale access obligations are imposed, national competent authorities should assess whether retail markets would be effectively competitive in the absence of wholesale intervention. The assessment should be holistic and take into account a number of parameters, such as but not limited to listed prices for mass market consumer and business products, rebates, including targeted rebates, as well as investments and quality of service. When determining the rights of use subject to such obligations, the national competent authority should consider the capacity available to support wholesale offers.

(119) Massive growth in radio spectrum demand, and in end-user demand for wireless broadband capacity, calls for solutions allowing alternative, complementary, spectrally efficient access solutions, including low-power wireless access systems with a small-area operating range, such as RLANs and networks of low-power small-size cellular access points. Such complementary wireless access systems, in particular publicly accessible RLAN access points, increase access to the internet for end-users and mobile traffic off-loading for mobile operators. RLANs use harmonised radio spectrum without requiring an individual authorisation or a right of use for radio spectrum. To date, most RLAN access points are used by private users as local wireless extension of their fixed broadband connection. End-users, within the limits of their own internet subscription, should not be prevented from sharing access to their RLAN with others, in order to increase the number of available access points, in particular in densely populated areas, maximise wireless data capacity through radio spectrum re-use and create a cost-effective complementary wireless broadband infrastructure accessible to other end-users. Therefore, unnecessary restrictions to the deployment and interlinkage of RLAN access points should be removed.

(120) Public authorities or public service providers that use RLANs in their premises for their personnel, visitors or clients, for example to facilitate access to e-Government services or for information on public transport or road traffic management, should also provide access to such access points for general use by citizens as an ancillary service to services they offer to the public on such premises, to the extent allowed by competition and public procurement rules. Moreover, the provider of such local access to electronic communications networks within or around a private property or a limited public area on a non-commercial basis or as an ancillary service to another activity that is not dependent on such access, such as RLAN hotspots made available to customers of other commercial activities or to the general public in that area, can be subject to compliance with general authorisations for rights of use for radio spectrum but should not be subject to any conditions or requirements attached to general authorisations applicable to providers of public electronic communications networks or services or to obligations regarding end-users or interconnection. However, such a provider should remain subject to the liability rules set out in Regulation (EU) 2022/2065 of the European Parliament and of the Council[48]. Further technologies, such as visible light communications, are emerging and will complement current radio spectrum capabilities of RLANs and wireless access point to include optical visible light-based access points and lead to hybrid local area networks allowing optical wireless communication.

(121) Since low-power small-area wireless access points, such as femtocells, picocells, metrocells or microcells, can be very small and make use of unobtrusive equipment similar to that of domestic RLAN routers, which do not require any permits beyond those necessary for the use of radio spectrum, and considering the positive impact of such access points on the use of radio spectrum and on the development of wireless communications, any restriction to their deployment should be limited to the greatest extent possible. As a result, in order to facilitate the deployment of small-area wireless access points, and without prejudice to any applicable requirement related to radio spectrum management, national competent authorities, in principle, should not subject

[48] Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act) (OJ L 277, 27.10.2022, p. 1, ELI:http://data.europa.eu/eli/reg/2022/2065/oj).

any individual permits to the deployment of such devices on buildings which are not officially protected as part of a designated environment or because of their special architectural or historical merit, except for reasons of public safety. To that end, their characteristics, such as maximum size, weight and emission characteristics, should be specified at Union level in a proportionate way for local deployment and to ensure a high level of protection of public health. For the operation of small-area wireless access points, Article 7 of Directive 2014/53/EU should apply. This is without prejudice to private property rights set out in Union law or national law. The procedure for considering permit applications should be streamlined and without prejudice to any commercial agreements and any administrative charge involved should be limited to the administrative costs relating to the processing of the application. The process of assessing a request for a permit should take as little time as possible, and in principle no longer than four months.

(122) Public buildings and other public infrastructure are visited and used daily by a significant number of end-users who need connectivity to consume Digital Public Services, Digital Transport and other services. Other public infrastructure, such as streetlamps, traffic lights, offer very valuable sites for deploying small cells, for instance, due to their density. Without prejudice to the possibility for national competent authorities to subject the deployment of small-area wireless access points to prior individual permits, operators should have the right of access to those public sites for the purpose of adequately serving demand. National competent authorities should therefore ensure that such public buildings and other public infrastructure are made available on reasonable conditions for the deployment of small cells with a view to complementing Regulation (EU) 2024/1309 of the European Parliament and of the Council[49] and without prejudice to the principles set out in that Regulation. Regulation (EU) 2024/1309 follows a functional approach and imposes obligations of access to physical infrastructure only when it is part of a network and only if it is owned or used by a network operator, thereby leaving many buildings owned or used by public authorities outside its scope. On the contrary, a specific obligation is not necessary for physical infrastructure, such as ducts or poles, used for intelligent transport systems, which are owned by network operators (providers of transport services or providers of public electronic communications networks), and host parts of a network, thus falling within the scope of Regulation (EU) 2024/1309.

(123) Article 4 of Decision No 676/2002/EC related to the function of the Radio Spectrum Committee should be amended. In order to ensure the security and the technological sovereignty of the Union and of its Member States, a mechanism should be established that allows the Commission and Member States to discuss issues and decide on the common position without involvement of third countries and stakeholders. The Commission should therefore be empowered to require Member States to establish, in the Radio Spectrum Committee, common positions related to the development of certain technical implementing measures that might affect the security or the technological sovereignty of the Union or of its Member States, prior to the discussions at the CEPT.

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[49] Regulation (EU) 2024/1309 of the European Parliament and of the Council of 29 April 2024 on measures to reduce the cost of deploying high-speed gigabit electronic communications networks, amending Regulation (EU) 2015/2120 and repealing Directive 2014/61/EU (Gigabit Infrastructure Act), (OJ L 2024/1309, 8.5.2014, ELI: http://data.europa.eu/eli/reg/2024/1309/oj).

(124) Satellite communications play a vital role in ensuring the Union's security, resilience, and strategic autonomy. Recent technological advancements, evolving market dynamics, geopolitical challenges, and competition concerns related to satellite networks necessitate enhanced action at Union level. Satellite operators are increasingly seeking pan-European market access, and regulators are under growing pressure to establish appropriate regulatory frameworks that align with Union policies and objectives. There is a need to simplify and consolidate the rules on the provision of satellite communications networks and services, and use of satellite spectrum, facilitate the creation of cross-border services and networks, and prevent regulatory gaps in conditions to access the Union satellite markets.

(125) In its opinion of 16 June 2021 on the Radio Spectrum Policy Programme, the RSPG emphasised that spectrum policy should support the development of innovative satellite systems ensuring EU-controlled connectivity and the provision of reliable, resilient and cost-effective governmental satellite services. A strengthened Union framework is hence necessary to position the Union as a prominent actor in the global space industry, provide a robust basis for the development and operation of pan-European satellite infrastructures, and ensure the effective enforcement of security and competition safeguards. Further, this framework should be essential to implement the European Preparedness Union Strategy, adopted on 26 March 2025, that stresses inter alia the need to develop minimum preparedness criteria for essential services such as electronic communications services to ensure the resilience of vital societal functions, and to promote dual use by design, in developing secure communications and connectivity across the Union.

(126) In accordance with Article 216(1) TFEU, the Union has external competence and may conclude agreements with international organisations where the Treaties so provide or where this is necessary to achieve the objectives of the Union's policies. The management of radio spectrum and the use of radio frequencies, including for satellite communications, are areas largely regulated by Union legislation adopted on the basis of Article 114 TFEU, in particular Directive (EU) 2019/1872 and Decision No 676/2002/EC. The use of radio spectrum by satellites is inherently international in nature, as it is governed by global coordination mechanisms in the ITU and enables cross-border service provision across multiple countries. At the same time, satellite radio spectrum constitutes a critical asset for global communication markets, influencing competitiveness, investment, and the availability to provide innovative services across the Union. In view of these dual international and market dimensions, a coherent and forward-looking Union approach is necessary to ensure efficient satellite radio spectrum use, effective coordination, and proper functioning of the internal single market.

(127) One of the basic processes to ensure an interference free operation is coordination of satellite networks prior to their launching. In accordance with the ITU Radio Regulations, the administration that is filing a new satellite system should coordinate with all already launched or filed systems that the new satellite system might affect and adjust parameters, so it does not cause harmful interference to such systems. In order to enhance transparency within the Union with regard to ITU filings and registers, national competent authorities should inform the Commission and other national competent authorities in the RSPB of such activities. Moreover, a mechanism should be set up to ensure that an administration may seek support from other national competent authorities and the Union to carry out the ITU coordination in particular where there is risk that Union interest and policies are affected.

(128) Harmonisation and management of radio spectrum for satellite use at the international level through the ITU do not have as an effect the harmonisation of national authorisation procedures for the provision of satellite communications services and for use of related spectrum. Applicable rules and conditions governing satellite networks and satellite communications services remain fragmented across Member States, hindering satellite operators in the Union from achieving the necessary scale to provide cross-border or pan-European connectivity services. Such services are increasingly essential for connecting underserved and remote areas, strengthening resilience, and supporting the deployment of new technologies. To overcome those challenges, the provision of satellite networks and services should be subject to general authorisation at Union level, under conditions developed by the Commission together with the Member States. In view of the diversity of satellite networks and services, such authorisation conditions should better be developed through implementing acts, and in close cooperation with the RSPB, given the vast experience of national spectrum authorities in satellite authorisation. A notification to the Commission under such general authorisation would confer to an undertaking the same rights all over the Union without a need to notify separately in individual Member States.

(129) A harmonised and centralised Union framework for the authorisation of the use of satellite spectrum should be established, with implementation supported by national competent authorities from Member States. Such a framework, granting Union-level rights of use under common conditions, would enhance legal certainty, reduce fragmentation, and strengthen the Union's strategic autonomy, security and sovereignty in satellite communications, while complementing the objectives of the Union Space Act and the Vision for the Union Space Economy. Union-level satellite authorisation, through a procedure involving the Commission and the RSPB, supported by the ODN, in all steps from allocation, licensing to enforcement, would reduce administrative burden, enhance transparency in market access, and ensure consistent management of radio spectrum scarcity and interference. It would safeguard the integrity of the internal market, promote secure and competitive services, and align radio spectrum policies with the Union's strategic objectives, thereby supporting secure, scalable and strategically autonomous satellite communications.

(130) Spectrum used for satellite networks and services should be subject to a Union authorisation granted by the Commission with the assistance of RSPB. A European Table of Allocation of Satellite Frequencies should be adopted to provide transparency to satellite operators as to which spectrum may be accessed for specific satellite services. While for certain satellite spectrum bands, the Commission may decide that their access shall be possible under general authorisation, such as for Internet of Things, for others, individual rights of use should be preferred, in view of the need to avoid harmful interference, ensure quality of service, network resilience and security of communications.

(131) Moreover, in order to enable the provision of pan-European satellite networks and services, the authorisation conditions for the use of satellite spectrum should be the same across the Union. Such authorisation conditions should in particular guarantee the respect of applicable ITU Radio Regulations' rules on satellite coordination and avoidance of harmful interference as well as coordination with other satellite systems, present and future, which is of special importance for the existing and planned satellite systems under Union's programmes. Authorisation conditions for the provision of satellite networks or services should also seek coherence with the Cybersecurity Act

which is to replace Regulation (EU) 2019/881 of the European Parliament and of the Council.

(132) As most satellite spectrum might be efficiently shared between different providers, the majority of Union authorisations would be granted on a first come first served basis. To date, only the holders of the right to use the 2 GHz band for pan-European provision of the Mobile Satellite Service ('MSS') were chosen subject to the Union selection procedure under Decision 626/2008/EC. As other satellite spectrum might become scarce in the future, an appropriate selection procedure should be established in the Regulation to select holders of rights of use in bands in such circumstances. Such procedure should be inspired by the procedure under Decision 626/2008/EC, which sets out a comparative selection procedure. Comparative selection procedures should focus on deploying innovative satellite communications as well as fostering the integration of European technologies within the new space ecosystem. This is crucial for enhancing the Union's industrial and scientific capabilities and strengthening Europe's strategic autonomy and supply chains in the space sector. In certain cases, competitive procedures, such as auctions, may be more appropriate to ensure that spectrum is assigned to the undertakings which could make the best use of it. In such cases, care should be taken to ensure that other policy objectives are appropriately taken into account, such as the need to ensure broad coverage of the Union territory.

(133) In its opinion from 17 June 2025 on the EU-level policy approach to satellite Direct-to-Device connectivity and related Single Market issues, the RSPG identified a need for a safeguarding mechanism to enable Member States to react collectively in the benefit of EU interests to the cases of non-compliance to common requirements of satellite communications services. Indeed, although there is a well-established process, under ITU, for the bilateral resolution of cross-border interference cases between administrations, such process is long and is not accompanied by sufficient guarantees for an effective and timely resolution of the interferences. This Regulation should hence establish the tools to ensure compliance with authorisation conditions set in the Regulation, especially obligations to coordinate and to prevent harmful interference in the Union territory. Moreover, although the authorisation of satellite networks and services and the use of related spectrum should be done at Union level, monitoring compliance with the conditions of the authorisation should benefit from the cooperation between the Commission and national competent authorities, which have jurisdiction, capacity and expertise to check compliance and detect issues of harmful interference.

(134) With the view to ensuring a coordinated monitoring and enforcement of Union authorisations, the Commission should, taking into account the opinion of the RSPB, adopt detailed arrangements setting out the modalities for enforcement. The Commission may also impose fines or periodic penalty payments for violation of authorisation conditions or other provisions of the Title on the use of satellite radio spectrum. Such fines should take into account the gravity and duration of the infringement and, where the infringement consists in the violation of national rules, of any penalties already applied by national authorities. National competent authorities should be able to alert the Commission on any breach of authorisation conditions or provisions of the Title on the use of satellite radio spectrum. In order to ensure compliance, Member States should give full effect in their territory of the decision imposing corrective measures or sanctions, including ultimately preventing an undertaking from providing satellite networks or services in the Union. In such cases, however, it should be possible for a Member State, the connectivity of which would be

seriously disrupted by any suspension or cessation of the activity of a satellite operator, to request the Commission to defer the application of such coordinated measure on its national territory for a renewable period of up to six months.

(135) Technological developments are leading to the progressive integration of terrestrial and non-terrestrial networks into a unified communication architecture, combining ground-based infrastructure with non-terrestrial components, in particular Low Earth Orbit ('LEO') satellite constellations, thereby ensuring ubiquitous, resilient and high-performance connectivity on a global scale. The global competition for standardisation and for access to satellite spectrum for next-generation mobile technologies demonstrates the strategic importance of spectrum as a critical resource. Specific legal provisions in this area are necessary to effectively address these developments, by strengthening the rules governing satellite spectrum management to enable the Union to ensure its strategic autonomy in the deployment of secure and resilient terrestrial and non-terrestrial 5G and 6G networks. At the same time, due to the scarcity of Mobile Satellite Spectrum, there is an increasing need to share spectrum between terrestrial and non-terrestrial users. Such sharing should be done in a way which does not jeopardise the provision of the terrestrial services. To safeguard the unconstrained continuity of the current uses and applications, this Regulation should guarantee that shared use of spectrum between terrestrial and satellite systems can only take place when the primary holder of the terrestrial right of use has agreed and under their responsibility. In a context of integrated satellite and mobile communication services enabled by 6G technologies, traditional boundaries between terrestrial and satellite networks are becoming blurred. Thereforea coordinated and forward-looking regulatory framework is required in order to prevent market fragmentation and spectrum interference, particulary in frequency bands that will be jointly used by both terrestrial mobile and satellite operators.

(136) In view of the implementation of the specific current and future Union policies relying on numbering resources, timely identification of needs for both current and innovative services is essential. The development of the Union internal market results in increasing deployment of cross-border services that often rely on numbering resources. In order for such services to thrive and bring the expected societal benefits and economic growth, regulatory consistency and predictability should be ensured with regard to the planning, allocation and management of numbering resources in the Union. The Commission should deliver a forward-looking numbering strategy, relying on the input of all interested parties and with due consideration of the opinion of BEREC, that would constitute the basis of the Union numbering plan.

(137) The availability of pan-European numbering resources would enable consistency and simplification of the use of numbering resources by providers of cross-border or pan-European services. The Commission, relying on Member States' support, should be able to take measures, including by means of adopting implementing acts, to adopt the Union numbering plan, to enable the application for numbering ranges to the ITU and r to set the conditions that may be attached to the right of use of numbering resources from the Union numbering plan, including the fees for rights of use for such resources and the possibility to transfer such fees to the ODN. While national regulatory authorities should assign the pan-European numbering resources as they are best placed to ensure the enforcement of the conditions attached to the individual rights of use, the ODN, in cooperation with national regulatory authorities, and under the supervision of BEREC, should keep an up-to-date database of the pan-European numbering resources to have a centralised overview of their availability.

(138) The development of pan-European services, in particular machine to machine services, would be further enabled by the availability of harmonised numbers across the Union while the management of these numbering resources by national regulatory authorities in cooperation with the ODN would ensure a single set of conditions to comply with by these service providers. For this purpose, Member States should support the Commission to obtain ranges of numbering resources from the ITU, including by applying for such specific numbering ranges on their behalf. Where there is a need for harmonisation of numbering resources in the Union to support the development of pan-European services or cross-border services, in particular new machine-to-machine-based services such as connected cars, and where the management of these resources in a centralised way by national regulatory authorities in cooperation with the ODN would enable simpler and more transparent allocation procedures for service providers, the Commission should be empowered to adopt implementing acts.

(139) In order to effectively support the free movement of goods, services and persons within the Union, it should be possible to use certain national numbering resources, in particular certain non-geographic numbers, in an extraterritorial manner, that is to say outside the territory of the assigning Member State. In light of the considerable risk of fraud with respect to interpersonal communications, such extraterritorial use should be allowed only for the provision of electronic communications services other than interpersonal communications services. Enforcement of relevant national laws, in particular consumer protection rules and other rules related to the use of numbering resources should be ensured by Member States independently of where the rights of use have been granted and where the numbering resources are used within the Union. national competent

(140) The national regulatory authorities of the Member States where numbering resources from another Member State are used, do not have control over those numbering resources. It is therefore essential that the national regulatory authority of the Member State which grants the rights of extraterritorial use should also ensure the effective protection of the end-users in the Member States where those numbers are used. In order to achieve effective protection, the national regulatory authorities granting rights of extraterritorial use should attach conditions regarding the respect by the provider of consumer protection rules and other rules related to the use of numbering resources in those Member States where the numbering resources will be used.

(141) The national regulatory authorities of those Member States where numbering resources are used should be able to request the support of the national regulatory authorities that granted the rights of use for the numbering resources to assist in enforcing their national rules. Enforcement measures by the national regulatory authorities that granted the rights of use should include dissuasive penalties, in particular in the case of a serious breach the withdrawal of the right of extraterritorial use for the numbering resources assigned to the undertaking concerned. The requirements on extraterritorial use should be without prejudice to the powers of the national regulatory authority to block access to numbers or services where that is justified by reasons of fraud or misuse. The extraterritorial use of numbering resources should be without prejudice to Union rules related to the provision of roaming services, including those relative to preventing anomalous or abusive use of roaming services which are subject to retail price regulation and which benefit from regulated wholesale roaming rates. Member States should be able to enter into specific agreements on extraterritorial use of numbering resources with third countries.

(142) Access to numbering resources on the basis of transparent, objective and non-discriminatory criteria is essential for undertakings to compete in the electronic communications sector. National regulatory authorities should be able to grant rights of use for numbering resources to undertakings other than providers of electronic communications networks or services in light of the increasing relevance of numbers for various Internet of Things services. All elements of national numbering plans should be managed by national regulatory authorities, including point codes used in network addressing.

(143) In order to give the opportunity to interested parties to inform themselves, the decisions on the granting of rights of use for numbering resources should be published. It should be possible to fulfil the publishing requirement by making those decisions publicly accessible via a website.

(144) The originating party should be able to access all numbers included in the national numbering plans of other Member States and to access services using non-geographic numbers, including freephone and premium-rate numbers and pan-European numbering resources within the Union, except where the receiving party has chosen, for commercial reasons, to limit access from certain geographical areas. The originating party should also be able to access numbers from the Universal International Freephone Numbers.

(145) Cross-border access to numbering resources and associated services should not be prevented, except in objectively justified cases, such as to combat fraud or abuse (for example, in connection with certain premium-rate services), when the number is defined as having a national scope only (for example, a national short code) or when it is economically unfeasible. National regulatory authorities should have the powers to block, including in a preventive manner, on the basis of the case-by-case analysis of the risks entailed by a certain pattern of use, access to numbers or services where that is justified by reasons of fraud or misuse. Tariffs charged to parties calling from outside the Member State concerned need not be the same as for those parties calling from inside that Member State. Users should be fully informed in advance and in a clear manner of any charges applicable to freephone numbers, such as international call charges for numbers accessible through standard international dialling codes. Where interconnection or other service revenues are withheld by providers of electronic communications services for reasons of fraud or misuse, Member States should ensure that retained service revenues are refunded to the end-users affected by the relevant fraud or misuse where possible.

(146) High-speed and high-quality connectivity is essential for the cohesion of the Union's society and the competitiveness of the Union economy. Fibre-to-the-home ('FTTH') networks constitute the most future-proof means of providing secure, reliable and energy-efficient fixed connectivity capable of meeting the Union's digital transformation and climate objectives, while also reducing maintenance and operational costs for operators.

(147) To accelerate the transition to fibre, in particular the deployment of FTTH networks and increase the take-up of services provided over those networks, it is necessary to plan and implement the switch-off of legacy copper networks in an orderly and timely manner. To that effect, a structured framework for the progressive and proportionate transition from copper to fibre networks should be established. The use of copper networks in the general interest should be regulated, without prejudice to the ownership of network assets, which should remain governed by national law.

(148) The copper switch-off should respect the principles of predictability, transparency and proportionality. It is therefore necessary to lay down objective conditions, procedural steps and safeguards governing the copper switch-off, while providing for proportionate exceptions. Together with a sufficiently long transition period, those measures protect the interests of end-users, enhance legal certainty for businesses and avoid distortions of competition. That transition period is sufficient to allow copper network operators to organise, prepare for and complete the copper switch-off. This period should also allow copper network operators, where they consider it economically and commercially justified, to upgrade their existing networks to FTTH or deploy FTTH networks. In addition, the deadline of one year from the binding legal act mandating the copper switch-off leaves the copper network operators sufficient time to plan the start of the copper switch-off and implement all the necessary steps prior to this start.

(149) To support a coherent and efficient preparation of the copper switch-off, a coordinated action is needed at Union and national level in those Member States in which copper-based services are still in operation after 30 June 2029. Those Member States play a key role in achieving a rapid and orderly transition to fibre to the benefit of end-users. Each such Member State should draw up a national transition to fibre plan setting out its strategy for the transition to fibre networks. That plan should describe network coverage for the relevant technologies, identify deployment initiatives and specify measures to support a timely and orderly migration from copper to fibre networks.

(150) The transition to fibre plans should support the achievement of Digital Decade connectivity targets, in particular gigabit connectivity. To ensure that investments needs for the transition to fiber networks can be identified with sufficient granularity at an early stage, Member States should take into account the recommendations addressed to them in their Digital Decade Reports to prepare the National and Regional Partnership ('NRP') Plans under the next Multiannual Financial Framework and adjust their national digital decade strategic roadmaps accordingly. Member States should also take into account their evolving needs, in particular in view of the progress with the transition to fiber and the copper switch-off, in the revision of their NRP Plans, as part of the mid-term review[50].

(151) To plan and manage the copper switch-off in a structured and transparent manner, national regulatory authorities should identify specific geographic copper switch-off areas ('CSO areas'), using harmonised criteria based on guidance adopted by the Commission. National regulatory authorities should keep those areas under review in light of network deployment and market developments.

(152) The sustainability condition related to the fibre coverage can be met irrespective of whether such networks are deployed by the incumbent or alternative operators. For the purposes of assessing whether affordable retail connectivity services of comparable quality are available to end-users relying on copper-based services, national regulatory authorities should apply objective and transparent criteria, taking into account national circumstances, local deployment conditions and relevant market data.

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[50] In line with Article 25 of Proposal for a Regulation of the European Parliament and of the Council establishing the European Fund for economic, social and territorial cohesion, agriculture and rural, fisheries and maritime, prosperity and security for the period 2028-2034 and amending Regulation (EU) 2023/955 and Regulation (EU, Euratom) 2024/2509 (COM/2025/565 final).

(153) Member States should aim to start the copper switch-off in a significant proportion of CSO areas well in advance of 31 December 2035. To that effect, they should take appropriate measures, in line with their national transition to fibre plan, to maximise the number of CSO areas where the sustainability conditions are met at an early stage.

(154) Where the sustainability conditions are met, Member States should mandate the copper switch-off within defined time limits, following the publication of the relevant assessments by national regulatory authorities. This progressive approach facilitates orderly migration, reduces uncertainty and allows sufficient time for operators and end-users to adapt.

(155) Where the sustainability conditions are not met in a CSO area, Member States are not obliged to mandate copper switch-off in those areas before 31 December 2035 and copper network may continue to be in service. However, by 31 December 2035, the copper switch-off should, as a rule, be mandated in all CSO areas. This long-term objective provides a clear investment signal while allowing sufficient flexibility to accommodate differences in deployment progress across Member States and regions.

(156) In exceptional cases, where fibre deployment is not economically viable and no adequate connectivity solution capable of replacing copper-based services is available, Member States should be able to refrain from mandating the copper switch-off. Such exceptions are necessary to avoid disproportionate impacts on end-users and ensure the continuity of essential services. In that context, adequate connectivity solutions refer to solutions capable of ensuring the continuity of electronic communications services of a quality comparable to that provided by the copper network in the same area. The availability of such adequate connectivity solutions should be determined by national regulatory authorities on the basis of objective criteria, including quality and affordability, taking into account market conditions.

(157) To ensure a smooth transition and protect end-users, Member States should provide for appropriate safeguards prior to the copper switch-off. Those safeguards should include clear and timely information, as well as measures to ensure the continuity or migration of critical services to functionally equivalent alternatives.

(158) National regulatory authorities should supervise the implementation of the copper switch-off and ensure that operators comply with approved switch-off plans, timelines and communication obligations. Effective, proportionate and dissuasive penalties should be imposed in cases of non-compliance.

(159) It is necessary to give appropriate incentives for investment in gigabit networks that support innovation in content-rich internet services and strengthen the overall competitiveness of the Union. It is therefore vital to promote efficient investment in the development of those networks, while safeguarding competition, as bottlenecks and barriers to entry remain at the infrastructure level, and boosting consumer choice through regulatory predictability and consistency.

(160) Competition can best be fostered through an economically efficient level of investment in new and existing infrastructure, complemented by regulation, where necessary, to ensure consumers and business choices of services. An efficient level of infrastructure-based competition is the extent of infrastructure duplication at which investors can reasonably expect to make a fair return.

(161) It should be ensured that procedures exist for the granting of rights to install facilities that are timely, non-discriminatory and transparent, in order to guarantee the conditions for fair and effective competition. Permits issued to providers of electronic

communications networks and services allowing them to gain access to public or private property are essential factors for the establishment of electronic communications networks or new network elements. Unnecessary complexity and delay in the procedures for granting rights of way may therefore represent important obstacles to the development of competition. Consequently, the acquisition of rights of way by authorised undertakings should be simplified. Competent authorities should coordinate the acquisition of rights of way, making relevant information accessible on their websites.

(162) It is necessary to strengthen the powers of the Member States as regards holders of rights of way to ensure the entry or roll-out of a new network in a fair, efficient and environmentally responsible way and independently of any obligation on an undertaking designated as having significant market power to grant access to its electronic communications network. Improving facility sharing can lower the environmental cost of deploying electronic communications infrastructure and serve public health, public security and meet town and country planning objectives. Competent authorities should therefore have the power to require that the undertakings which have benefited from rights to install facilities on, over or under public or private property share such facilities or property, including physical co-location, after an appropriate period of public consultation, during which all interested parties should be given the opportunity to state their views, in the specific areas where such general interest reasons impose such sharing. That can be the case for instance where the subsoil is highly congested or where a natural barrier needs to be crossed. Competent authorities should in particular be able to impose the sharing of network elements and associated facilities, such as ducts, conduits, masts, manholes, cabinets, antennae, towers and other supporting constructions, buildings or entries into buildings, and a better coordination of civil works on environmental sustainability of electronic communications networks or other public policy grounds. On the contrary, it should be for national regulatory authorities to establish rules for apportioning the costs of the facility or property sharing, to ensure that there is an appropriate reward of risk for the undertakings concerned. For example, in a symmetric context, any guidance issued by the Commission or BEREC, pursuant to Article 3, Article 5(6) and Article 11(6) of Regulation (EU) 2024/1309 should be taken into account, as appropriate. In light of the obligations imposed by Regulation (EU) 2024/1309, the competent authorities, in particular local authorities, should also establish appropriate coordination procedures, in cooperation with national regulatory authorities, with respect to public works and other appropriate public facilities or property, including procedures ensuring that interested parties have information concerning appropriate public facilities or property and ongoing and planned public works, that they are notified in a timely manner of such works, and that sharing is facilitated to the maximum extent possible.

(163) Where mobile operators are required to share towers or masts for environmental reasons, such mandated sharing could lead to a reduction in the maximum transmitted power levels allowed for each operator for reasons of public health, and this in turn could require operators to install more transmission sites to ensure national coverage. Competent authorities should seek to reconcile the environmental and public health considerations in question, taking due account of the precautionary approach.

(164) The obligations on access and interconnection should only apply to public electronic communications networks. Providers of electronic communications networks other than public should not be subject to those obligations. They may, however, benefit from access to public networks subject to conditions laid down by Member States.

However, as a means of end-to-end traffic delivery, providers of electronic communications networks other than public increasingly hand-over traffic to providers of public electronic communications networks in the form of peering or transit. In certain cases, such traffic may give rise to disproportionate or unsustainable investment needs for the receiving providers of public electronic communications networks. Such situations should be addressed in accordance with the guidelines to facilitate ecosystem cooperation adopted by BEREC and, where appropriate, through the foreseen facility for voluntary conciliation.

(165) In an open and competitive market, there should be no restrictions that prevent undertakings from negotiating access and interconnection arrangements between themselves, in particular on cross-border agreements, subject to the competition rules laid down in the TFEU. In the context of achieving a more efficient, truly pan-European market, with effective competition, more choice and competitive services to end-users, undertakings which receive requests for access or interconnection from other undertakings that are subject to general authorisation in order to provide electronic communications networks or services to the public should in principle conclude such agreements on a commercial basis, and negotiate in good faith.

(166) In markets where there continue to be large differences in negotiating power between undertakings, and where some undertakings rely on infrastructure provided by others for delivery of their services, it is appropriate to establish a regulatory framework to ensure that the market functions effectively. National regulatory authorities should have the power to secure, where commercial negotiation fails, adequate access and interconnection and interoperability of services in the interest of end-users. In particular, they should ensure end-to-end connectivity by imposing proportionate obligations on undertakings that are subject to the general authorisation and that control access to end-users. Control of means of access may entail ownership or control of the physical link to the end-user (either fixed or mobile), or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point. This would be the case for example if network operators were to restrict unreasonably end-user choice for access to internet portals and services.

(167) In light of the principle of non-discrimination, national regulatory authorities should ensure that all undertakings, irrespective of their size and business model, whether vertically integrated or separated, can interconnect on reasonable terms and conditions, with a view to providing end-to-end connectivity and access to the internet.

(168) National legal or administrative measures that link the terms and conditions for access or interconnection to the activities of the party seeking interconnection, and specifically to the degree of its investment in network infrastructure, and not to the interconnection or access services provided, may cause market distortion and may therefore not be compatible with competition rules.

(169) Network operators who control access to their own customers do so on the basis of unique numbers or addresses from a published numbering or addressing range. Other network operators need to be able to deliver traffic to those customers, and so need to be able to interconnect directly or indirectly to each other. It is therefore appropriate to lay down rights and obligations to negotiate interconnection.

(170) Interoperability is of benefit to end-users and is an important aim of the EU regulatory framework. Encouraging interoperability is one of the objectives for national regulatory and other competent authorities as set out in that framework. That

framework should also provide for the Commission to publish a list of standards or specifications covering the provision of services, technical interfaces or network functions, as the basis for encouraging harmonisation in electronic communications. Member States should encourage the use of published standards or specifications to the extent strictly necessary to ensure interoperability of services and to improve freedom of choice for users.

(171) Currently both end-to-end connectivity and access to emergency services depend on end-users using number-based interpersonal communications services. An increased exclusive use of number-independent interpersonal communications services by an increasing number of end-users could entail a lack of sufficient interoperability between communications services. As a consequence, significant barriers to market entry and obstacles to further onward innovation could emerge and appreciably threaten effective end-to-end connectivity between end-users.

(172) Where such interoperability issues arise, the Commission should be able to request a BEREC report providing a factual assessment of the market situation at Union and Member State level. Taking account of the BEREC report and other available evidence and taking into account the effects on the internal market, the Commission should decide whether there is a need for regulatory intervention, including by national regulatory authorities or other competent authorities. If the Commission considers that such regulatory intervention is necessary at Union level or should be considered by national regulatory or other competent authorities, it should be empowered to adopt implementing acts specifying the nature and scope of possible regulatory interventions, including by national regulatory or other competent authorities, including in particular obligations to publish and allow the use, modification and redistribution of relevant information by authorities and providers and measures to impose the mandatory use of standards or specifications on all or on specific providers.

(173) National regulatory authorities should assess, in light of the specific national circumstances, whether any intervention is necessary and justified to ensure end-to-end-connectivity, and if so, impose proportionate obligations, in accordance with the Commission's implementing acts, on those providers of number-independent interpersonal communications services with a significant level of coverage and user-uptake. Providers with a limited number of end-users or limited geographic coverage which would contribute only marginally to achieving that goal, should normally not be subject to such interoperability obligations.

(174) In situations where undertakings are deprived of access to viable alternatives to non-replicable wiring, cables and associated facilities inside buildings or up to the first concentration or distribution point and in order to promote competitive outcomes in the interest of end-users, national regulatory authorities should have the power to impose access obligations on all undertakings, irrespective of a designation as having significant market power. In that regard, national regulatory authorities should take into consideration all technical and economic barriers to future replication of networks. However, as such obligations can in certain cases be intrusive, can undermine incentives for investments, and can have the effect of strengthening the position of players with significant market power, they should be imposed only where justified and proportionate to achieving sustainable competition in the relevant markets. The mere fact that more than one such infrastructure already exists should not necessarily be interpreted as showing that its assets are replicable. Where necessary in combination with such access obligations, undertakings should also be able to rely on

the obligations to provide access to physical infrastructure on the basis of Regulation (EU) 2024/1309. Any obligations imposed by the national regulatory authority and any decisions taken by other competent authorities under Regulation (EU) 2024/1309 to ensure access to in-building physical infrastructure or to physical infrastructure up to the access point should be consistent.

(175) National regulatory authorities should be able, to the extent necessary, to impose obligations on undertakings to provide access to the certain facilities, namely application programming interfaces ('APIs') and electronic programme guides ('EPGs'), to ensure not only accessibility for end-users to digital radio and television broadcast services but also to related complementary services, including programme related services which are specifically designed to improve accessibility for end-users with disabilities, and programme related connected television services.

(176) It is important that when national regulatory authorities assess the concentration or distribution point up to which they intend to impose access, they choose a point in accordance with BEREC guidelines. Selecting, where possible, a point nearer to end-users will be more beneficial to infrastructure competition and the roll-out of gigabit networks. It could also be justified to impose access obligations to wiring and cables beyond the first concentration or distribution point, where it is demonstrated that replication faces high and non-transitory physical or economic barriers, leading to competition problems or market failures at the retail level to the detriment of end-users. The assessment of the replicability of network elements requires a market analysis, but the national regulatory authority should not be required to impose those obligations. On the other hand, such market analysis requires a sufficient economic assessment of market conditions, to establish whether the criteria necessary to impose obligations beyond the first concentration or distribution point are met. Such access obligations are more likely to be necessary in geographical areas where the business case for alternative infrastructure rollout is not viable or riskier, for example because of low population density. Conversely, normally a high concentration of households might indicate that the imposition of such obligations is unnecessary.

(177) National regulatory authorities should consider whether such symmetric obligations have the potential to strengthen the position of undertakings designated as having significant market power. National regulatory authorities should be able to impose access to active or virtual network elements used for service provision on such infrastructure beyond the first concentration or distribution point if access to passive elements would be economically inefficient or physically impracticable, and if the national regulatory authority considers that, absent such an intervention, the purpose of the access obligation would be circumvented. In order to enhance consistent regulatory practice across the Union, the Commission should be empowered to require the national regulatory authority to withdraw its draft measures extending access obligations beyond the first concentration or distribution point.

(178) In order to comply with the principle of proportionality, it can be appropriate for national regulatory authorities to exempt certain categories of undertakings from obligations going beyond the first concentration or distribution point, which should be determined by national regulatory authorities, on the grounds that an access obligation not based on an undertaking's designation as having significant market power would risk compromising their business case for recently deployed network elements, in particular by small local projects. Wholesale-only undertakings should not be subject to such access obligations if they offer an effective alternative access on a commercial basis to a gigabit network, on fair, non-discriminatory and reasonable terms and

conditions, including as regards price. It should be possible to extend that exemption to other providers on the same terms. The exemption should not apply to providers that are in receipt of public funding.

(179) Sharing of passive infrastructure used in the provision of wireless electronic communications services in compliance with competition law principles can be particularly useful to maximise gigabit connectivity throughout the Union, especially in less densely populated areas where replication is impracticable and end-users risk being deprived of such connectivity. National regulatory authorities should, by way of exception, be able to impose such sharing or localised roaming access, in accordance with Union law, if that possibility has been clearly established in the original conditions for the granting of the right of use and they demonstrate the benefits of such sharing in terms of overcoming insurmountable economic or physical obstacles and access to networks or services is therefore severely deficient or absent, and taking into account several factors, including in particular the need for coverage along major transport paths, choice and a higher quality of service for end-users as well as the need to maintain infrastructure roll-out incentives. In circumstances where there is no access by end-users, and sharing of passive infrastructure alone does not suffice to address the situation, the national regulatory authorities should be able to impose obligations on the sharing of active infrastructure. In so doing, national regulatory authorities or other competent authorities should retain the flexibility to choose the most appropriate sharing or access obligation which should be proportionate and justified based on the nature of the problem identified.

(180) While it is appropriate in some circumstances for a national regulatory authority or other competent authority to impose obligations on undertakings irrespective of a designation of significant market power in order to achieve goals such as end-to-end connectivity or interoperability of services, it is necessary to ensure that such obligations are imposed in accordance with the regulatory framework and, in particular, applicable notification procedures. Such obligations should be imposed only where justified in order to secure the objectives, and where they are objectively justified, transparent, proportionate and non-discriminatory in accordance with the relevant notification procedures.

(181) In the context of the transition to fibre, it is crucial to ensure that end-users are connected to the available fibre networks that pass their premises within a reasonable time frame.

(182) In order to ensure the connection of end-users, national regulatory authorities should oblige any provider of electronic communications networks to deploy, with reasonable additional build-out, a connecting link between the requesting end-user’s home and the nearest distribution or connection point intended to serve their premises.

(183) In principle the prices charged for this connection should not exceed the usual connection fees in the Member State concerned. However, national regulatory authorities may allow an additional fee, having regard to the geographic conditions and any other relevant conditions, provided that the costs paid by the end-users are fair and reasonable and may intervene to set maximum prices where needed. National regulatory authorities should be allowed to use existing contracts and commercial terms and conditions agreed between retail services providers and end-users as a benchmark to determine whether prices, and terms and conditions are fair and reasonable.

(184) The transition to fibre, the need to ensure that end-users are connected to fibre in their homes and the reported difficulties that operators encounter in deploying fibre in multi-dwelling buildings to address end-users' demand justify an exception to Article 11(4) of Regulation (EU) 2024/1309. In such circumstances, where connecting the requesting end-user requires deploying in-building wiring and associated facilities within a multi-dwelling unit, the owners or the administrators of the unit should not be allowed to refuse such deployment. However, to avoid excessive intrusions in private properties and unnecessary duplication of infrastructure within their building, they should be entitled to refuse the deployment of a second in-building wiring and associated facilities. National regulatory authorities should then ensure that access to the network is provided on a symmetric basis.

(185) In order to overcome insurmountable economic or physical obstacles for providing end-users with services or networks which rely on the use of radio spectrum and where mobile coverage gaps persist, this may require the access and sharing of passive infrastructure, or, where this is not sufficient, the sharing of active infrastructure, or localised roaming access agreements. Without prejudice to sharing obligations attached to the rights of use on the basis of provisions on authorisation and assignment of rights of use, and in particular measures to promote competition, where national regulatory or other competent authorities intend to take measures to impose the sharing of passive infrastructure, or when passive access and sharing are not sufficient, active infrastructure sharing or localised roaming access agreements, they may, however, also be called to consider the possible risk for market participants in underserved areas.

(186) Competition rules alone may not always be sufficient to ensure cultural diversity and media pluralism in the area of digital television. Technological and market developments make it necessary to review obligations to provide conditional access on fair, reasonable and non-discriminatory terms on a regular basis, by a Member State for its national market, in particular to determine whether it is justified to extend obligations to EPGs and APIs, to the extent necessary to ensure accessibility for end-users to specified digital broadcasting services. Member States should therefore be able to specify the digital broadcasting services to which access by end-users is to be ensured by any legislative, regulatory or administrative means that they consider to be necessary.

(187) Member States should also be able to permit their national regulatory authority to review obligations in relation to conditional access to digital broadcasting services in order to assess through a market analysis whether to withdraw or amend conditions for undertakings that do not have significant market power on the relevant market. Such a withdrawal or amendment should not adversely affect access for end-users to such services or the prospects for effective competition.

(188) There is a need for *ex ante* obligations in certain circumstances in order to ensure the development of a competitive market, the conditions of which favour the deployment and take-up of gigabit networks and services, and the maximisation of end-user benefits. In assessing the need for *ex ante* regulatory intervention, national regulatory authorities should take into account whether wholesale access is available to any interested undertaking on the basis of either already existing regulation (in particular based on Regulation (EU) 2024/1309) or commercial conditions permitting sustainable competitive outcomes for end-users on the retail market. If those access possibilities are not sufficiently significant , the national regulatory authority should assess without delay whether it is necessary to impose the obligations on undertakings

designated as having significant market power. It is essential that *ex ante* regulatory obligations are imposed on a wholesale market only where there are one or more undertakings with significant market power, with a view to ensuring sustainable competition and where Union and national competition law are not sufficient to address the problem. The concept of significant market power should be in line with the concept of dominance as defined in the case-law of the Court of Justice.

(189) The Commission has drawn up guidelines at Union level in accordance with the principles of competition law for national regulatory authorities to follow in assessing whether competition is effective in a given market and in assessing significant market power. National regulatory authorities should analyse whether a given product or service market is effectively competitive in a given geographical area, which could be the whole or a part of the territory of the Member State concerned or neighbouring parts of territories of Member States considered together. An analysis of effective competition should include an analysis as to whether the market is prospectively competitive, and thus whether any lack of effective competition is durable. The Commission should review the guidelines regularly, in particular on the occasion of a review of the existing law, taking into account the case-law of the Court of Justice, economic literature and actual market experience and with a view to ensuring that they remain appropriate in a rapidly developing market. National regulatory authorities should cooperate with each other where the relevant market is found to be transnational.

(190) In its regular assessment of the market trends in the Union, the Commission should take into account the feedback of stakeholders. The results of the stakeholders' consultation should be made publicly available in a report. In its assessment of whether the adoption of a Commission Recommendation on relevant product and service markets ('the markets Recommendation') is required, the Commission will assess whether any relevant product and service market meets the three criteria test. The Commission may adopt the markets Recommendation, after public consultation, including with national regulatory authorities, and taking account of the opinion of BEREC.

(191) National regulatory authorities should define relevant geographic markets within their territory taking into account the markets Recommendation when such a Recommendation is adopted pursuant to this Regulation and taking into account national and local circumstances. Therefore, national regulatory authorities should at least analyse the markets that are contained in the markets Recommendation, including those markets that are listed but no longer regulated in the specific national or local context. National regulatory authorities should also analyse markets that are not contained in the markets Recommendation, but that are regulated within the territory of their jurisdiction on the basis of previous market analyses, or other markets, if they have sufficient grounds to consider that the three criteria are met. National regulatory authorities should also decide whether there is a need to conduct a market review based on the results of information gathered in the context of the geographical survey exercise.

(192) In some circumstances, geographic markets are defined as national or sub-national, for example due to the national or local nature of network roll-out which determines the boundaries of undertakings' potential market power in respect of wholesale supply, but there is still a significant transnational demand from one or more categories of end-users. That can in particular be the case for demand from business end-users with multisite facility operations in different Member States. If that transnational demand is

not sufficiently met by suppliers, for example if they are fragmented along national borders or locally, a potential internal market barrier arises. Therefore, BEREC should provide guidelines to national regulatory authorities on common regulatory approaches to ensure that transnational demand can be met in a satisfactory way, providing a basis for the interoperability of wholesale access products across the Union and permitting efficiencies and economies of scale despite the fragmented supply side. BEREC's guidelines should shape the choices of national regulatory authorities in pursuing the internal market objective when imposing regulatory obligations on undertakings designated as having significant market power at national level while providing guidance for the harmonisation of technical specifications of wholesale access products capable of meeting such identified transnational demand, in the interest of the internal market.

(193) In determining whether an undertaking has significant market power in a specific market, national regulatory authorities should act in accordance with Union law and take account of the Commission guidelines on market analysis and the assessment of significant market power.

(194) For national regulatory authorities, the starting point for the identification of wholesale markets susceptible to *ex ante* regulation should be the analysis of corresponding retail markets. The analysis of effective competition at the retail and at the wholesale level should be conducted from a forward-looking perspective over a given time horizon, and should be guided by competition law, including, as appropriate, the relevant case law of the Court of Justice. If it is concluded that a retail market would be effectively competitive in the absence of *ex ante* wholesale regulation on the corresponding relevant markets, this should lead the national regulatory authority to conclude that regulation is no longer needed at the relevant wholesale level.

(195) National regulatory authorities should ensure that markets are analysed in a consistent manner and, where possible, at the same time. Moreover, the notification should be comprehensive, including the market definition, SMP designation and correlated remedies to ensure that the remedies imposed are proportionate and reflect the actual market situation and to ensure transparency for the market participants to the greatest extent.

(196) Wholesale regulation should solve problems at the retail level. National regulatory authorities should conduct its assessment for each individual wholesale market considered for regulation, starting with remedies for access to civil infrastructure, as such remedies are usually conducive to more sustainable competition including infrastructure competition, and thereafter analysing any wholesale markets considered susceptible to *ex ante* regulation in order of their likely suitability to address identified competition problems at retail level. When deciding on the specific remedy to be imposed, national regulatory authorities should consider the consequences of imposing any specific remedy which, if feasible only on certain network topologies, could constitute a disincentive for the deployment of gigabit networks in the interest of end-users.

(197) Without prejudice to the principle of technology neutrality, the national regulatory authorities should provide incentives through the remedies imposed, and, where possible, before the roll-out of infrastructure, for the development of flexible and open network architecture, which would reduce eventually the burden and complexity of remedies imposed at a later stage. At each stage of the assessment, before the national regulatory authority determines whether any additional, more burdensome, remedy

should be imposed, it should seek to determine whether the retail market concerned would be effectively competitive, also taking into account any relevant commercial arrangements or other wholesale market circumstances, including other types of regulation already in force, and of any regulation already considered to be appropriate by the national regulatory authority for an undertaking designated as having significant market power. Such an assessment, aiming to ensure that only the most appropriate remedies necessary to effectively address any problems identified in the market analysis are imposed, does not preclude a national regulatory authority from finding that a mix of such remedies together, even if of differing intensity, in line with the proportionality principle, offers the least intrusive way of addressing the problem. Even if such differences do not result in the definition of distinct geographic markets, they should be able to justify differentiation in the appropriate remedies imposed in light of the differing intensity of competitive constraints.

(198) When a national regulatory authority withdraws wholesale regulation, it should define an appropriate notice period to ensure a sustainable transition to a de-regulated market. In defining such a notice period, the national regulatory authority should take into account the existing agreements between access providers and access seekers that have been entered into on the basis of the imposed regulatory obligations. In particular, such agreements can provide a contractual legal protection to access seekers for a determined period. The national regulatory authority shall also take into account the effective possibility for market participants to take up any commercial wholesale access or co-investment offers which can be present in the market and the need to avoid an extended period of possible regulatory arbitrage. Transition arrangements established by the national regulatory authority should consider the extent and timing of regulatory oversight of pre-existing agreements, once the notice period starts.

(199) In order to provide market players with certainty as to regulatory conditions, a time limit for market reviews is necessary. It is important to conduct a market analysis on a regular basis and within a reasonable and appropriate timeframe. There is a risk that failure by a national regulatory authority to analyse a market within the time-limit jeopardises the internal market.

(200) Due to the high level of technological innovation and highly dynamic markets in the electronic communications sector, there is a need to adapt regulation rapidly in a coordinated and harmonised way at Union level, as experience has shown that divergence among the national regulatory authorities in the implementation of the regulatory framework may create a barrier to the internal market.

(201) In the interest of greater stability and predictability of regulatory measures, the maximum period allowed between market analyses should remain five years, provided market changes in the intervening period do not require a new analysis and without prejudice to the possibility of imposing interim measures. National regulatory authorities should comply with its obligation to analyse markets and notified the corresponding draft measure at a minimum every five years, to ensure that the applicable regulation reflects competitive condition in the market. This is why, only a notification including a new assessment of the market definition and of significant market power should be considered to be starting a new five-year market cycle.

(202) The imposition of a specific obligation on an undertaking designated as having significant market power does not require an additional market analysis but rather a justification that the obligation in question is appropriate and proportionate in relation

to the nature of the problem identified on the market in question, and on the related retail market.

(203) When assessing the proportionality of the obligations and conditions to be imposed, national regulatory authorities should take into account the different competitive conditions existing in the different areas within their Member States having regard in particular to the results of the conducted geographical survey.

(204) Reviews of obligations imposed on undertakings designated as having significant market power during the timeframe of a market analysis should allow national regulatory authorities to take into account the impact on competitive conditions of new market developments. Transparency, non-discrimination, accounting separation, price control and cost accounting could be envisaged as complements to the imposition of the Union harmonised access products. Where obligations are imposed on undertakings that require them to meet reasonable requests for access to and use of networks elements and associated facilities, such requests should be refused only on the basis of objective criteria such as technical feasibility or the need to maintain network integrity. Where access is refused, the aggrieved party should be able to submit the case to the dispute resolutions procedures under this Regulation. An undertaking with mandated access obligations cannot be required to provide types of access which it is not within its power to provide. The imposition by national regulatory authorities of mandated access that increases competition in the short term should not reduce incentives for competitors to invest in alternative facilities that will secure more sustainable competition or higher performance and end-user benefits in the long term. When choosing the least intrusive regulatory intervention, and in line with the principle of proportionality, national regulatory authorities could, for example, decide to review the obligations imposed on undertakings designated as having significant market power and amend any previous decision, including by withdrawing obligations, imposing or not imposing new access obligations if this is in the interests of users and sustainable service competition. Since technical details of access obligation may play a key role in the ability to effectively replicate the access providers' services and compete at retail level, national regulatory authorities should be able to impose technical and operational conditions on the provider or beneficiaries of mandated access in accordance with Union law. In particular the imposition of technical standards should comply with Directive (EU) 2015/1535. National regulatory authorities should, when imposing obligations for access to new and enhanced infrastructures, ensure that access conditions reflect the circumstances underlying the investment decision, taking into account, among others, the roll-out costs, the expected rate of take up of the new products and services and the expected retail price levels. Moreover, in order to provide planning certainty to investors, national regulatory authorities should be able to set, if applicable, terms and conditions ed provided they have no discriminatory effect. Any access conditions imposed should respect the need to preserve effective competition in services to consumers and businesses.

(205) Mandating access to network infrastructure can be justified as a means of increasing competition, but national regulatory authorities need to balance the rights of an infrastructure owner to exploit its infrastructure for its own benefit, and the rights of other service providers to access facilities that are essential for the provision of services. Mandating access to network infrastructure can be justified as a means of increasing competition, but national regulatory authorities need to balance the rights of an infrastructure owner to exploit its infrastructure for its own benefit, and the rights

of other service providers to access facilities that are essential for the provision of competing services. Price control may be necessary when market analysis in a particular market reveals ineffective competition. In particular, undertakings designated as having significant market power should avoid a price squeeze whereby the difference between their retail prices and the interconnection or access prices charged to competitors who provide similar retail services is not adequate to ensure sustainable competition. When a national regulatory authority calculates costs incurred in establishing a service mandated under this Regulation, it is appropriate to allow a reasonable return on the capital employed by the operators having significant market power, including appropriate labour and building costs, with the value of capital adjusted where necessary to reflect the current valuation of assets and efficiency of operations. The method of cost recovery should be appropriate to the circumstances taking account of the need to promote efficiency, sustainable competition and deployment of gigabit networks and should take in account gigabit connectivity. National regulatory authorities should be able to decide to maintain or not to impose regulated wholesale access prices on next-generation networks if sufficient competition safeguards are present. More specifically, to prevent excessive prices in markets where there are undertakings designated as having significant market power, pricing flexibility should be accompanied by additional safeguards to protect competition and end-user interests, such as strict non-discrimination obligations, measures to ensure technical and economic replicability of downstream products, and a demonstrable retail price constraint resulting from infrastructure competition or a price anchor stemming from other regulated access products, or both. Those competitive safeguards do not prejudice the identification by national regulatory authorities of other circumstances under which it would be appropriate not to impose regulated access prices for certain wholesale inputs, such as where high price elasticity of end-user demand makes it unprofitable for the undertaking designated as having significant market power to charge prices appreciably above the competitive level or where lower population density reduces the incentives for the development of gigabit networks and the national regulatory authority establishes that effective and non-discriminatory access is ensured through obligations imposed.

(206) Civil engineering assets that can host an electronic communications network are crucial for the successful roll-out of new networks because of the high cost of duplicating them, and the significant savings that can be made when they can be reused. Therefore, in addition to the rules on physical infrastructure laid down in Regulation (EU) 2024/1309, a specific remedy is necessary in those circumstances where civil engineering assets are owned by an undertaking designated as having significant market power. Where civil engineering assets exist and are reusable, the positive effect of achieving effective access to them on the roll-out of competing infrastructure is very high, and it is therefore necessary to ensure that access to such assets can be used as a self-standing remedy for the improvement of competitive and deployment dynamics in any downstream market, to be considered before assessing the need to impose any other potential remedies, and not just as an ancillary remedy to other wholesale products or services or as a remedy limited to undertakings availing themselves of such other wholesale products or services. National regulatory authorities should value reusable legacy civil engineering assets on the basis of the regulatory accounting value net of the accumulated depreciation at the time of calculation, indexed by an appropriate price index, such as the retail price index, and excluding those assets which are fully depreciated, over a period of not less than 40 years, but still in use. When also based on the information gathered on deployment of

gigabit infrastructures, it results that access to physical infrastructure it is a crucial precondition for the deployed networks and thus for the downstream market, the identification of a separate physical infrastructure market may be considered also to provide long term regulatory predictability.

(207) In order to foster the achievement of an internal market in the area of digital networks and services, it is essential to further harmonise, wherever possible, access products. Therefore, this regulation should provide the requirements according to which a wholesale access product could be considered as a European harmonised wholesale access product, which could be imposed by national regulatory authorities of all Member States. Harmonised access products may include FTTH unbundling, virtual unbundled local access as the products typically imposed in the wholesale markets serving mass customers. In addition, such harmonised products could include ethernet leased lines and quality of service parameters in the markets serving business customers when needed.

(208) National regulatory authorities should accordingly assess whether the replacement of obligations previously imposed on undertakings with significant market power to provide wholesale access to gigabit networks with an obligation to supply a European harmonised access product would be appropriate and proportionate.

(209) In consideration of the constantly evolving market and technological developments, the Commission should be empowered to adopt implementing acts to define the technical requirements of European access products as needs be.

(210) Where a national regulatory authority has concluded that a European harmonised access product would be appropriate and proportionate, it should impose it on the undertaking with significant power concerned. The imposition of the European harmonised access products should take precedence over the imposition of any other remedies. National regulatory authorities should impose obligations of access to, and use of, specific networks elements and associated facilities only where a European harmonised access product would not be sufficient to address the competitive problems on a specific market.

(211) The pricing of access to newly built civil-engineering infrastructure of the undertakings designated as having significant market power for the deployment of gigabit networks by alternative operators could have an impact on the SMP operator's incentives to build new civil-engineering infrastructure with sufficient capacity to host alternative networks. The price for access to the newly built civil-engineering infrastructure should reflect current market conditions and should be based on the full actual costs incurred by the SMP operator, as long as strict non-discrimination is ensured in the terms and conditions of access to such infrastructure. Such an approach would provide the right incentives for investing in new civil-engineering infrastructure. Moreover, depending on market circumstances, building significant new civil-engineering infrastructure may represent for the SMP operator a risk-investment profile higher than the risk profile associated with the reuse of legacy civil-engineering infrastructure. That risk profile would involve risks in terms of incurred costs and in terms of expected revenues, which should be assessed by the NRAs. However, where equivalence of access obligation (equivalence of input or output) is effectively implemented and there is a proven retail market price constraint, complemented by economic replicability of downstream products, national regulatory authorities should in principle refrain from imposing regulated prices. Such obligations should consist, for instance, of technical and economic replicability tests,

combined with monitoring mechanisms. The retail market price constraint could arise from infrastructural competition, clear commitments made by alternative providers to deploy gigabit networks in underserved areas as resulting from geographical surveys, and regulated anchor products subject to cost orientation. Where a national regulatory authority imposes obligations to implement a cost-accounting system in order to support price controls, it should be able to undertake an annual audit to ensure compliance with that cost-accounting system, provided that it has the necessary qualified staff, or to require such an audit to be carried out by another qualified body, independent of the undertaking concerned. The charging system in the Union for wholesale voice call termination is based on Calling Party Network Pays. An analysis of demand and supply substitutability shows that currently or in the foreseeable future, there are no substitutes at wholesale level which might constrain the setting of charges for termination in a given network. Taking into account the two-way access nature of termination markets, further potential competition problems include cross-subsidisation between operators. Those potential competition problems are common to both fixed and mobile voice call termination markets. Therefore, in light of the ability and incentives of terminating operators to raise prices substantially above cost, cost orientation is considered to be the most appropriate intervention to address this concern over the medium term. Future market developments may alter the dynamics of those markets to the extent that regulation would no longer be necessary.

(212) In order to reduce the regulatory burden in addressing the competition problems relating to wholesale voice call termination consistently across the Union, the Commission should continue to establish, by means of a delegated act, a single maximum voice termination rate for mobile services and a single maximum voice termination rate for fixed services that apply Union-wide. Detailed criteria and parameters on the basis of which the values of voice call termination rates are set, should be laid down. Termination rates across the Union have decreased consistently and are expected to continue to do so.

(213) In order to take account of market, social and technological developments, including evolution of technical standards, to manage the risks posed to security of networks and services and to ensure effective access to emergency services through emergency communications, the power to adopt delegated acts in accordance with Article 290 TFEU should be delegated to the Commission in respect of setting a single maximum Union-wide voice termination rate in fixed and mobile markets; fraud preventing measures; measures related to adopting measures related to emergency communications in the Union; and amending the annexes to this Regulation in order to take account of technological and social development or changes in market demand. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making[51]. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

[51] OJ L 123, 12.5.2016, p. 1, ELI: http://data.europa.eu/eli/agree_interinstit/2016/512/oj.

(214) It is already possible today in some markets that as part of the market analysis the undertakings designated as having significant market power are able to offer commitments which aim to address competition problems identified by the national regulatory authority and which the national regulatory authority then takes into account in deciding on the appropriate regulatory obligations. Such remedies may also consist in transferring local access network assets or a substantial part thereof to a separate legal entity under different ownership or in the establishment of a separate business entity. Any new market developments should be taken into account in deciding on the most appropriate remedies capable of ensuring long-term effectiveness. However, and without prejudice to the provisions on the regulatory treatment of wholesale-only undertakings, the nature of the commitments offered as such does not limit the discretion accorded to the national regulatory authority to impose remedies on undertakings designated as having significant market power. In order to enhance transparency and to provide legal certainty across the Union, the procedure for undertakings to offer commitments and for the national regulatory authorities to assess them, taking into account the views of market participants by means of a market test, and where appropriate to make them binding on the committing undertaking and enforceable by the national regulatory authority, should be laid down in this Regulation. Unless the national regulatory authority has made commitments binding and decided not to impose obligations, that procedure is without prejudice to the application of the market analysis procedure and the obligation to impose appropriate and proportionate remedies to address the identified market failure.

(215) National regulatory authorities should be able to make the commitments binding, wholly or in part, for a specific period which should not exceed the period for which they are offered, after having conducted a market test by means of a public consultation of interested parties. Where the commitments have been made binding, the national regulatory authority should consider the consequences of this decision in its market analysis and take them into account when choosing the most appropriate regulatory measures. National regulatory authorities should assess the commitments made in a forward-looking perspective of sustainability, in particular when choosing the period for which they are made binding, and should have regard to the need to ensure stable and predictable market conditions. Binding commitments related to voluntary separation by a vertically integrated undertaking which has been designated as having significant market power in one or more relevant markets can add predictability and transparency by setting out the process of implementation of the planned separation of an undertaking designated as having significant market power. To assist the national regulatory authorities in overseeing the parties' compliance, the commitments may include the appointment of a monitoring trustee, whose identity and mandate should be approved by the national regulatory authority, and the obligation on the undertaking offering them to provide periodic implementation reports.

(216) Network owners whose business model is limited to the provision of wholesale services to others, can be beneficial to the creation of a thriving wholesale market, with positive effects on retail competition downstream. Furthermore, their business model, although less attractive for short term investors, can be attractive to potential financial investors in less volatile infrastructure assets and with longer term perspectives on deployment of gigabit networks. Nevertheless, the presence of a wholesale-only undertaking does not necessarily lead to effectively competitive retail markets, and wholesale-only undertakings can be designated as having significant market power in particular product and geographic markets. Certain competition risks arising from the behaviour of undertakings following wholesale-only business models

might be lower than for vertically integrated undertakings, provided the wholesale-only model is genuine and no incentives to discriminate between downstream providers exist. The regulatory response should therefore be commensurately less intrusive, but should preserve in particular the possibility to introduce obligations in relation to fair and reasonable pricing. On the other hand, national regulatory authorities should be able to intervene if competition problems have arisen to the detriment of end-users. This would be particularly important in those areas where, after completion of the copper switch-off process, a wholesale-only undertaking may remain as the sole provider of a gigabit network. An undertaking active on a wholesale market that supplies retail services solely to business users larger than small and medium-sized enterprises should be regarded as a wholesale-only undertaking.

(217) The Union mechanism allowing the Commission to require national regulatory authorities to withdraw planned measures concerning market definition and the designation of undertakings as having significant market power has contributed significantly to a consistent approach in identifying the circumstances in which *ex ante* regulation may be applied and those in which the undertakings are subject to such regulation. The experience of the procedures, under Article 32 and 33 of Directive (EU) 2018/1972 has shown that inconsistencies in the national regulatory authorities' application of remedies under similar market conditions undermine the internal market in electronic communications. Therefore, it is still necessary to empower the Commission and BEREC, within their respective responsibilities, to ensure a higher level of consistency in the application of remedies concerning draft measures proposed by national regulatory authorities. With regard to draft measures relating to the extension of obligations beyond the first concentration or distribution point, where needed to address high and non-transitory economic or physical barriers to replication, on undertakings irrespective of a designation as having significant market power, or to the regulatory treatment of new gigabit network elements, it is still necessary that the Commission should be able to require a national regulatory authority to withdraw a draft measure. In order to benefit from the expertise of national regulatory authorities on the market analysis, the Commission should consult BEREC prior to adoption of its decisions or recommendations.

(218) In assessing draft measures, the Commission should continue to be bound by a clear deadline, to ensure a thorough yet swift assessment. However, it is no longer justified to provide for different deadlines for the assessment of market reviews, on the one hand, and of remedies, on the other hand. A single deadline for both assessments would improve consistency and contribute to the creation of a simplified and more efficient regulatory framework.

(219) Transparency in the application of the Union mechanism for consolidating the internal market for electronic communications should be increased in the interest of citizens and stakeholders and to enable parties concerned to make their views known, including by way of requiring national regulatory authorities to publish any draft measure at the same time as it is communicated to the Commission, to BEREC, and to the national regulatory authorities in other Member States. Any such draft measure should be reasoned and should contain a detailed market analysis.

(220) The national consultation of interested parties should be conducted prior to the consultation at Union level for the purposes of consolidating the internal market for electronic communications and within the procedure for the consistent application of remedies, in order to allow the views of interested parties to be reflected in the consultation at Union level. This would also avoid the need for a second consultation

at Union level in the event of changes to a planned measure as a result of the national consultation.

(221) National regulatory authorities should be required to cooperate with each other, with BEREC and with the Commission, in a transparent manner, to ensure the consistent application, in all Member States, of this Regulation.

(222) The discretion of national regulatory authorities needs to be reconciled with the development of consistent regulatory practices and the consistent application of the regulatory framework in order to contribute effectively to the development and completion of the internal market. National regulatory authorities should therefore support the relevant internal market activities of the Commission and of BEREC.

(223) Measures that could affect trade between Member States are measures that could have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States in a manner which might create a barrier to the internal market. They comprise measures that have a significant impact on undertakings or users in other Member States, which include: measures which affect prices for users in other Member States; measures which affect the ability of an undertaking established in another Member State to provide an electronic communications service, and in particular measures which affect the ability to offer services on a transnational basis; and measures which affect market structure or access, leading to repercussions for undertakings in other Member States. Tackling such measures is of utmost importance as this regulation strives to progressively achieve an internal market for electronic communications and digital networks.

(224) When the Commission has taken a decision requiring a national regulatory authority to withdraw a planned measure, national regulatory authorities should withdraw its draft measure or submit a revised measure to the Commission. A deadline for the national regulatory authority should be laid down for the notification of the revised measure to the Commission in order to inform market players of the duration of the market review and in order to increase legal certainty.

(225) While it is essential that national regulatory authorities are given adequate time to conduct thorough market analyses/reviews, they should also be enabled to promptly address situations requiring urgent measures.

(226) Therefore, an exception to the general timeline provided for market reviews should be established to allow national regulatory authorities to adopt provisional measures. Such provisional measures should apply for a limited period of time and should not be used more than once to address the same problem.

(227) Having regard to the short time-limits in the consultation mechanism at Union level, powers should be conferred on the Commission to adopt recommendations or guidelines to simplify the procedures for exchanging information between the Commission and national regulatory authorities, for example in cases concerning stable markets, or involving only minor changes to previously notified measures. Powers should also be conferred on the Commission in order to allow for the introduction of a notification exemption in order to streamline procedures in certain cases. Finally, the Commission should be able to adopt, as necessary, having taken account of the opinion of BEREC, recommendations in relation to the identification of the relevant product and service markets, the notifications under the procedure for consolidating the internal market and the harmonised application of the provisions of the regulatory framework.

(228) The increased competition and choice for communications services have gradually led to reduction of the universal service scope. Elements such as directories or provision of public pay phones have been phased out of the universal service scope. Therefore, the concept of universal service should continue to evolve to reflect advances in technology, market developments and changes in user demand.

(229) Universal service should remain a safety net to ensure that a set of at least the minimum services is available to all and at an affordable price to consumers, where a risk of social exclusion arising from the lack of such access prevents citizens from full social and economic participation in society.

(230) A fundamental requirement of universal service is to ensure that all consumers have access at an affordable price to an adequate internet access and voice communications services at a fixed location. Where there are limitations for access Member States may also consider to ensure affordability of adequate internet access and voice communications services other than at a fixed location, where they consider that this is necessary to ensure consumers' full social and economic participation in society. Particular attention should be paid to ensuring that consumers with disabilities have equivalent access at a fixed location. There should be no limitations on the technical means by which the adequate internet access and voice communications services at a fixed location are provided, allowing for wired or wireless technologies in a technologically neutral way, nor any limitations on which undertakings provide part or all of universal service obligations.

(231) The speed of internet access experienced by a given user depends on a number of factors, including the providers of internet connectivity as well as the given application for which a connection is being used. It is for the Member States, taking into account BEREC guidelines, to define adequate internet access in light of the minimum bandwidth enjoyed by the majority of consumers within a Member State's territory in order to allow an adequate level of social inclusion and participation in the digital economy and society in their territory. The adequate internet access service should have sufficient bandwidth to support access to and use of at least basic services that reflect the services used by the majority of consumers. To that end, in order to contribute towards a consistent application in the Member States, the BEREC guidelines should take into account the development in the use of the internet to identify those online services used by a majority of consumers across the Union and necessary for social and economic participation in society. BEREC should take into account the data collected annually by the national regulatory authorities on the evolution and level of retail prices of adequate internet access services and voice communications services at a quality specified in the respective national territories. Before issuing the guidelines, BEREC should consult stakeholders, including civil society organisations representing vulnerable consumers. The Commission should be empowered to adopt implementing acts to determine the adequate internet access service and the bandwidth necessary for social and economic participation in society. The end-user rights applicable to electronic communications services should also apply to any adequate internet access and voice communications services.

(232) National regulatory authorities in coordination with other competent authorities should monitor the evolution and details of retail prices for adequate internet access and voice communications services used by consumers to assess the need for affordability measures. Such monitoring should be carried out not more than annually to ensure that it would not represent an excessive administrative burden for either national regulatory and other competent authorities or providers of such services. The monitoring could

include the details of offers of tariff options or packages for consumers with low income, or special social needs, including consumers with disabilities, and should be the basis for establishing affordability measures.

(233) The need for affordability measures varies between Member States and a harmonised approach for the criteria and methodology to be considered for assessing the affordability of adequate internet access and voice communications services should ensure the consistency of approaches, while taking into account the distinct situations across Member States. For harmonising the criteria and methodology to consider for assessing affordability, the Commission should be empowered to adopt implementing acts. The criteria should include, amongst other factors, the most affordable price available in the market and its percentage of consumer income taking into account consumers with low income or special social needs. Furthermore, the economic and social aspects to be taken into account should also include purchasing power and national support schemes, especially for vulnerable consumers.

(234) An affordable price means a price defined by Member States at national level considering the common criteria and methodology set in the Commission implementing act. Where Member States establish that retail prices for adequate internet access and voice communications services are not affordable to consumers with low income or special social needs, including older people, consumers with disabilities and consumers living in rural or geographically isolated areas, they should take appropriate measures. To that end, Member States could provide those consumers with direct support for communication purposes, which could be part of social allowances, vouchers, or direct payments to those consumers. Alternatively, or in addition, Member States could require all providers of such services to offer basic tariff options or packages, including reduced monthly subscription fees.

(235) Such special tariff options or packages to deal with the needs of consumers with low income or with special social needs should provide adequate internet access and voice communications services, without additional bundled services, in order to reduce impact on the functioning of the market.

(236) Where a Member State requires providers to offer to consumers with a low income or special social needs tariff options or packages different from those provided under normal commercial conditions, those tariff options or packages should be provided by all providers of internet access and voice communications services., Requiring all providers of internet access and voice communications services to offer tariff options or packages should not result in excessive administrative or financial burden for those providers or Member States.

(237) In light of the reduced scope of universal service obligations, there is a limited need to use sector-specific designations. Public financial support may prove necessary to cover some or all of the specific net costs incurred in discharging the universal service obligations, including a reasonable profit, while avoiding overcompensation. In this case, given the existence of State aid rules for public funding, in particular for services of general economic interest ('SGEI package')[52], the sector specific rules on the

[52] Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest (OJ C8, 11.01.2012, p. 4); Commission Decision 2025/2630/EU of 16 December 2025 on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general

designation of undertakings and calculation of possible compensation for the provision of universal service for electronic communications should be repealed. If any public compensation is granted for the provision of universal service obligations, it is to comply with the applicable State aid rules, in particular Articles 106(2), 107 and 108 TFEU and the SGEI package. The simplification concerning the removal of the sector-specific designation of the universal service obligation and the related net costs calculation method could increase Member States' flexibility when choosing the method of financing of universal service obligations, possibly reducing the administrative burden for providers while ensuring compatibility with the internal market.

(238) Affordability should not be a barrier to consumers' access to the minimum set of connectivity services. A right to contract with a provider should mean that consumers with low income or special social needs entitled to social tariff options or packages should have the possibility to enter into a contract for the provision of affordable adequate internet access and voice communications services at least at a fixed location. In order to minimise the financial risks such as non-payment of bills, providers should be free to provide the contract under pre-payment terms, on the basis of affordable individual pre-paid units.

(239) Affordability for individual consumers should be founded upon their right to contract with a provider. Other rights, for example, itemised billing, the availability of a number for an adequate period and ability to monitor and control expenditure are end-user rights in this Regulation for all consumers and should apply also to consumers benefiting from universal service affordability measures.

(240) Consumers should not be obliged to access services they do not want, and it should therefore be possible for eligible consumers to restrict, on request, the affordable universal service to voice communications services.

(241) Member States should introduce measures to promote the creation of a market for affordable products and services incorporating facilities for consumers with disabilities, including equipment with assistive technologies. This can be achieved, inter alia, by referring to European standards, or by supporting the implementation of requirements under Directive (EU) 2019/882 of the European Parliament and of the Council[53]. Member States should introduce appropriate measures and take specific measures for instance if the market is not delivering affordable products and services incorporating facilities for consumers with disabilities under normal economic conditions. Those measures could include direct financial support to consumers. The cost to consumers with disabilities of relay services should be equivalent to the average cost of voice communications services.

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economic interest (OJ L, 2025/2630, 19.12.2025, ELI: http://data.europa.eu/eli/dec/2025/2630/oj); Communication from the Commission — European Union framework for State aid in the form of public service compensation (2011) (OJ C 8, 11.1.2012, p. 15); and Commission Regulation (EU) 2023/2832 of 13 December 2023 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid granted to undertakings providing services of general economic interest (OJ L, 2023/2832, 15.12.2023, ELI: http://data.europa.eu/eli/reg/2023/2832/oj).

53 Directive (EU) 2019/882 of the European Parliament and of the Council of 17 April 2019 on the accessibility requirements for products and services (OJ L 151, 7.6.2019, p. 70, ELI: http://data.europa.eu/eli/dir/2019/882/oj).

(242) Relay services refer to services which enable two-way communication between remote end-users of different modes of communication (for example text, sign, speech) by providing conversion between those modes of communication, normally by a human operator. Real time text is defined in accordance with Directive (EU) 2019/882. Where a Member State decides to compensate the undertakings providing basic tariff options or packages, for example when the provision results in unfair financial burden, it should ensure the compatibility of such a measure with the internal market, including competition rules.

(243) For data communications at data rates that are sufficient to permit an adequate internet access, fixed-line connections are nearly universally available and used by a majority of citizens of the Union and services based on wireless technologies have even greater reach. However, there are differences between Member States as regards availability and affordability of adequate internet access services at a fixed location across urban and rural areas.

(244) The market has a leading role to play in ensuring availability of internet access with constantly growing capacity. In areas where the market would not deliver, other public policy tools to support availability of adequate internet access connections appear, in principle, more cost-effective and less market-distortive than universal service obligations, for example recourse to financial instruments such as those available under the InvestEU programme and the Connecting Europe Broadband Fund supported by the Connecting Europe Facility, the use of Union public funding managed by Member States, national funding and attaching coverage obligations to rights of use for radio spectrum to support the deployment of broadband networks in less densely populated areas. One of the objectives of public policy measures may also be to enable end-users to purchase adequate internet access services they would otherwise not buy, for instance, where appropriate, through direct support or connectivity vouchers for financing of monthly fees, standard set-up connection costs, necessary terminal equipment or limited in-house wiring, e.g. when necessary and ancillary to the provision of the service. When a Member State intends to grant financial support for this purpose, it should ensure the compatibility of such a measure with the internal market, including competition rules.

(245) If, after carrying out a due assessment, taking into account the results of the geographical survey of networks deployment conducted by the competent authority, it is shown that neither the market nor public intervention mechanisms are likely to provide consumers, microenterprises, small enterprises or not-for-profit organisations in certain areas with a connection capable of delivering adequate internet access service as defined by Member States and voice communications services at a fixed location, the Member State should be able to exceptionally entrust different providers or sets of providers of those services in the different relevant parts of the national territory. In addition to the geographical survey, Member States should be able to use, where necessary, any additional evidence to establish to what extent adequate internet access and voice communications services are available at a fixed location. That additional evidence could include data available to the national regulatory authorities through the market analysis procedure and data collected from users. Member States should be able to restrict universal service obligations in support of availability of adequate internet access services to the end-user's primary location or residence.

(246) Where, in order to ensure the availability of an adequate internet access and voice communications services when such a service cannot be ensured under normal commercial circumstances or other public policy tools, a Member State decides to

entrust one or more undertakings to guarantee such availability throughout the national territory or parts of it and to grant financial support for this purpose, it should ensure the compatibility of such a measure with the internal market, including competition rules.

(247) Requirements to ensure nation-wide territorial coverage imposed in an entrustment procedure are likely to exclude or dissuade certain undertakings from applying for being universal service providers. Entrusting providers with universal service obligations for an excessive or indefinite period might also lead to an exclusion of certain providers. Where a Member State decides to entrust all providers the provision of tariff options or packages for affordability purposes, it could entrust only one or some of them the provision of the availability element of universal service.

(248) Following the gradual reduction of the scope of the universal service, provision of public payphones and directories and directory enquiry services under the universal service regime has continued to phase out. This renders the provisions of Directive (EU) 2018/1972 on the status of the existing universal services beyond the scope of Directive (EU) 2018/1972 obsolete.

(249) The affordability of adequate internet access and voice communications services is related to the information which users receive regarding usage expenses as well as the relative cost of usage compared to other services and is also related to their ability to control expenditure. Those facilities by providers of affordable universal service to eligible consumers include, among others, the possibility for consumers selectively to block certain calls, such as high-priced calls to premium services, to control expenditure via pre-payment means, and to offset up-front connection fees.

(250) Except in cases of persistent late payment or non-payment of bills, consumers entitled to affordable tariffs should, pending resolution of the dispute, be protected from immediate disconnection from the network on the grounds of an unpaid bill and, in particular, in the case of disputes over high bills for premium-rate services, continue to have access to essential voice communications services and a minimum service level of internet access.

(251) In order to provide stability and support a gradual transition from sector-specific rules for organising and financing the universal service to the legal framework applicable to SGEI, existing designations of undertakings for the provision of universal service in Member States on the basis of Directive (EU) 2018/1972 should not be affected, provided they were in force 6 months after the date of entry into force of this Regulation. They should maintain their status until the expiry of such designations, provided the services or comparable services are not available under normal commercial circumstances.

(252) Future social, economic and technological developments, including transition to fibre, might change the need for the availability or affordability of universal service. BEREC should therefore monitor the availability and affordability regarding adequate internet access and voice communications in Member States, and publish an opinion including an assessment of the impact of such developments on the application in practice of the provisions of this Regulation. The BEREC opinion could take into account the possible safeguards adopted by Member States for consumers with low income or special social needs in the context of the copper switch-off. The Commission, taking account of BEREC's opinion, should submit a report in particular with a view to proposing that the scope of the rules on the availability or affordability of universal service should be changed or redefined.

(253) Regulation (EU) 2015/2120 established common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights and aimed to protect end-users and simultaneously to guarantee the continued functioning of the internet ecosystem as an engine of innovation.

(254) The present reframing of the European regulatory framework for electronic networks and services in this Regulation offers an occasion to merge the provisions for measures concerning the open internet contained in Regulation (EU) 2015/2120 into this Regulation, without touching upon the fundamental principles of equal and non-discriminatory treatment of traffic in the provision of internet access services, as well as the right of end-users to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice.

(255) The second Report from the Commission to the European Parliament and the Council on the implementation of Regulation (EU) 2015/2120 confirmed that the principles governing open internet access continue to be fit for purpose and to strike an appropriate balance between protecting end-users and enabling technological progress. However, in light of the significant evolution of networking technologies since 2015, there is a need to define the conditions under which specialised business services should be offered. Those specialised business services are becoming integral part of network offering for interconnecting data centres, in provision of edge computing and for AI services. The provision of low latency and guaranteed quality of service are essential features of specialised business services. Critical government services should also be considered as priority services in order to make sure that electronic communications networks are meeting increased demand for security and defence needs, such as detection response and mobility. While BEREC is empowered to issue guidelines to support consistent implementation by national regulatory authorities, additional guidance at Union level may be necessary to ensure a harmonised approach to emerging services and technologies, including network slicing, experimental services and differentiated industrial use-cases. Empowering the Commission to adopt implementing act on the implementation of specialised services should therefore contribute to legal certainty and regulatory coherence across the Union, by providing clear criteria for compliance, including, inter alia, quality-of-service parameters or minimum levels to be ensured for general internet access services. Such implementing act should complement BEREC guidelines, support uniform application of the framework, and encourage investment and innovation in advanced connectivity services and in the business-to-business segment in particular, thereby strengthening the competitiveness of the Union's digital economy as well as ensuring prioritisation of critical government services.

(256) In order to facilitate comparability across the Union and to reduce compliance cost, BEREC should adopt guidelines on relevant quality of service parameters for internet access services which national regulatory authorities in coordination with other competent authorities should take into utmost account when enforcing the quality of service obligations relevant to the end-user rights. In its guidelines for internet access services, BEREC should specify the quality of service parameters to be measured for the purposes of information requirements for contracts and for information to be published for transparency, considering standards and technical specifications issued by European and international standardisation bodies. The parameters should include at least parameters for the monitoring mechanism for internet access services, relevant parameters for end-users with disabilities, download and upload speeds pursuant to

required information on speeds for information for contracts with internet access services and for information to be published, latency, jitter and packet loss. The relevant parameters for end-users with disabilities should include also parameters for interpersonal communications services.

(257) Divergent implementation of the rules on end-user protection has created significant internal market barriers affecting both providers of electronic communications services and end-users. Those barriers should be reduced by the applicability of the same rules ensuring a high common level of protection across the Union. A calibrated full harmonisation of the end-user rights covered by this Regulation should considerably increase legal certainty for both end-users and providers of electronic communications services and should significantly lower entry barriers and unnecessary compliance burden stemming from the fragmentation of the rules. Full harmonisation helps to overcome barriers to the functioning of the internal market resulting from such national provisions concerning end-user rights which at the same time protect national providers against competition from other Member States. Full harmonisation of their rights increases the trust of end-users in the internal market as they benefit from an equally high level of protection when using electronic communications services, not only in their Member State but also while living, working or travelling in other Member States.

(258) Contracts are an important tool for end-users to ensure transparency of information and legal certainty. Most service providers in a competitive environment will conclude contracts with their customers for reasons of commercial desirability. The obligations on information requirements for contracts cover internet access services and interpersonal communications services. Services consisting wholly or mainly in the conveyance of signals, such as transmission services used for machine-to-machine services, are not covered by the additional information requirements for contracts. The information requirements, which might also be required pursuant to Directive 2011/83/EU of the European Parliament and of the Council[54], should not lead to duplication of the information within pre-contractual and contractual documents. Relevant information provided in respect of this Directive, including any more prescriptive and more detailed informational requirements, should be considered to fulfil the corresponding requirements pursuant to Directive 2011/83/EU. In addition, the requirements of existing Union consumer protection law relating to contracts, in particular Council Directive 93/13/EEC[55], and Directive 2011/83/EU, apply to consumer transactions relating to electronic communications networks and services. Regulation 2016/679 on data protection applies to processing of personal data.

(259) Some of those end-user protection provisions which apply only to consumers, namely those on contract information, maximum contract duration and bundles, should benefit not only consumers, but also microenterprises and not-for-profit organisations as defined in Union law or national law. The bargaining position of those categories of enterprises and organisations is comparable to that of consumers, and they should

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54 Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/ 577/EEC and Directive 97/7/EC of the European Parliament and of the Council (OJ L 304, 22.11.2011, p. 64, ELI: http://data.europa.eu/eli/dir/2011/83/oj).

55 Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts (OJ L 95, 21.4.1993, p. 29, ELI: http://data.europa.eu/eli/dir/1993/13/oj).

therefore benefit from the same level of protection unless they explicitly waive those rights. Obligations on contract information in this Regulation, including those of Directive 2011/83/EU that are referred to in this Regulation, should apply irrespective of whether any payment is made and of the amount of the payment to be made by the customer. The obligations on contract information, including those contained in Directive 2011/83/EU, should apply automatically to microenterprises, and not-for-profit organisations unless they prefer negotiating individualised contract terms with providers of electronic communications services. As opposed to microenterprises and not-for-profit organisations, larger enterprises usually have stronger bargaining power and do, therefore, not depend on the same contractual information requirements as consumers. The provisions on provider switching and number portability, which are important also for larger enterprises should continue to apply to all end-users. Not-for-profit organisations are legal entities that do not earn a profit for their owners or members. Typically, not-for-profit organisations are charities or other types of public interest organisations. Hence, considering the comparable situation, it is legitimate to treat such organisations in the same way as microenterprises under this Regulation, insofar as end-user rights are concerned. Furthermore, consumers entitled to affordable tariffs based on universal service are entitled to the same level of protection as all other consumers.

(260) The specificities of the electronic communications sector require, beyond horizontal contract rules, a limited number of additional end-user protection provisions. End-users should be informed, among others, of quality of service levels offered, conditions for promotions and termination of contracts, applicable tariff plans and tariffs for services subject to particular pricing conditions. That information is relevant for providers of internet access services and publicly available interpersonal communications services. A provider of publicly available electronic communications services should not be subject to the obligations on information requirements for contracts where that provider, and affiliated companies or persons, do not receive any remuneration directly or indirectly linked to the provision of electronic communications services, such as where a university gives visitors free access to its Wi-Fi network on campus without receiving any remuneration, whether through payment from the users or through advertising revenues. This should not affect information requirements in accordance with Union data protection law.

(261) It is essential that the required relevant information is provided prior to the conclusion of the contract and in clear and understandable language and on a durable medium or, where not feasible and without prejudice to the definition or the requirements concerning durable medium set out in Directive 2011/83/EU, in a document, made available by the provider and notified to the user, that is easy to download, open and consult on devices commonly used by consumers. Providers should also present a summary of the essential contract terms. The pre-contractually provided information as well as the summary should constitute an integral part of the final contract. The contract summary should be concise and easily readable, ideally no longer than the equivalent of one single-sided A4 page or, where a number of different services are bundled into a single contract, the equivalent of up to three single-sided A4 pages. In order to respond to technological, social and market developments and to reduce compliance cost, the Commission may adopt implementing acts for such contract summaries to be used by the providers in line with the main elements of information requirements set out in this Regulation.

(262) Without prejudice to the substantive obligation on the provider related to security, the contract should specify the type of action the provider might take in the case of security incidents, threats or vulnerabilities. In addition, the contract should also specify any compensation and refund arrangements available if a provider responds inadequately to a security incident, including where a security incident, notified to the provider, takes place due to known software or hardware vulnerabilities, for which patches have been issued by the manufacturer or developer and the service provider has not applied those patches or taken any other appropriate countermeasure.

(263) The provisions on safeguarding of open internet access should be complemented by effective end-user provisions which address issues particularly linked to internet access services and enable consumers to make informed choices. Providers of internet access services should inform consumers in a clear manner how traffic management practices deployed might have an impact on the quality of internet access services, consumers' privacy and the protection of personal data as well as about the possible impact of services other than internet access services to which they subscribe, on the quality and availability of their respective internet access services. In order to empower consumers in such situations, providers of internet access services should therefore inform consumers in the contract of the speed which they are able realistically to deliver. The normally available speed is understood to be the speed that an end-user could expect to receive most of the time when accessing the service. Providers of internet access services should also inform consumers of available remedies in accordance with national law in the event of non-compliance of performance. Any significant and continuous or regularly recurring difference, where established by a monitoring mechanism certified by the national regulatory authority, between the actual performance of the service and the performance indicated in the contract should be deemed to constitute non-conformity of performance for the purposes of determining the remedies available to the consumer in accordance with national law. The methodology should be established in the guidelines of BEREC.

(264) End-users are often not aware of the cost of their consumption behaviour or have difficulties in estimating their time or data consumption when using electronic communications services. In order to increase transparency and to allow for better control of their communications budget, it is important to provide end-users with facilities that enable them to track their consumption in a timely manner. In addition, in order to protect against 'bill-shocks', providers should provide free-of-charge alerts in case of atypical or excessive consumption patterns including in relation to premium rate services and other services subject to particular pricing conditions. Itemised bills on the usage of internet access should indicate only the time, duration and amount of consumption during a usage session but not indicate the websites or internet end-points connected to during such a usage session. Under Directive (EU) 2018/1972 Member States were able to ensure that competent authorities in coordination, where relevant, with national regulatory authorities are able to require providers of internet access service or publicly available number-based interpersonal communications services to make available all or part of additional facilities included in Directive (EU) 2018/1972. Member States were also able to go beyond the facilities in order to ensure a higher level of consumer protection. These additional facilities should be provided for universal service consumers benefiting from affordability measures. In addition, itemised billing, where applicable, and certain cost control measures are obligatory facilities to be provided to all consumers free of charge. Member States should not introduce in their national law other diverging requirements for additional facilities. However, Member States should be able to maintain provisions on those facilities that

were set out in Directive (EU) 2018/1972, including facilities requiring providers to provide additional information on the consumption level and temporarily prevent further use of the relevant service in excess of a financial or volume limit.

(265) The availability of transparent, up-to-date and comparable information on offers and services is a key element for consumers in competitive markets where several providers offer services. Consumers should be able to compare the prices of various services offered on the market easily on the basis of information published in an easily accessible form. In order to allow them to make price and service comparisons easily, providers of internet access services or publicly available interpersonal communications services should publish for greater transparency information, including tariffs, quality of service, conditions on terminal equipment supplied, and other relevant information. Enterprises typically rely on negotiated contract terms and do not depend on the same requirements of publication of offers as consumers.

(266) Providers of interpersonal communications services that have an obligation to provide access to emergency services through emergency communications, in exceptional circumstances, namely due to a lack of technical feasibility, might not be able to provide access to emergency services or caller location, or to both. In such cases, they should inform their customers adequately in the contract. Such providers should provide their customers with clear and transparent information in the initial contract and update it in the event of any change in the provision of access to emergency services, for example in invoices. That information should include any limitations on territorial coverage, on the basis of the planned technical operating parameters of the communications service and the available infrastructure. Where the service is not provided over a connection which is managed to give a specified quality of service, the information should also include the level of reliability of the access and of caller location information compared to a service that is provided over such a connection, taking into account current technology and quality standards, as well as any quality of service parameters specified under this Regulation.

(267) Following the increased possibilities of end-users to search and compare a broad range of offers using advanced digital search tools, private or public, the obligatory provision of comparison tools by the relevant competent authorities has become less relevant. Comparison tools, such as websites, are an effective means for end-users to assess the merits of different providers of internet access services and interpersonal communications services, where provided against recurring or consumption-based direct monetary payments, and to obtain impartial information, in particular by comparing prices, tariffs, and quality parameters in one place. Competent authorities could certify such tools, upon request by the provider of the tool, in order to ensure they are operationally independent from service providers and no service provider is given favourable treatment in search results.

(268) In order to take full advantage of the competitive environment, consumers should be able to make informed choices and to change providers when it is in their best interest to do so. It is essential to ensure that they are able to do so without being hindered by legal, technical or practical obstacles, including contractual conditions, procedures and charges. That does not preclude providers from setting reasonable minimum contractual periods of up to 24 months in consumer contracts. However, Member States should have the possibility to maintain provisions for a shorter maximum duration and to permit consumers to change tariff plans or terminate the contract within the contract period without incurring additional costs in light of national conditions, such as levels of competition and stability of network investments.

Independently from the electronic communications service contract, consumers might prefer and benefit from a longer reimbursement period for physical connections. Such consumer commitments can be an important factor in facilitating deployment of gigabit networks up to or very close to end-user premises, including through demand aggregation schemes which enable network investors to reduce initial take-up risks. However, the rights of consumers to switch between providers of electronic communications services, should not be restricted by such reimbursement periods in contracts on physical connections and such contracts should not cover terminal or internet access equipment, such as handsets, routers or modems. The equal treatment of entities, including operators, financing the deployment of a gigabit physical connection to the premises of an end-user, including where such financing is by way of an instalment contract should be ensured. The obligations on contract duration should apply to microenterprises, and not-for-profit organisations unless they prefer negotiating individualised contract terms with providers of electronic communications services. As opposed to microenterprises, larger enterprises usually have stronger bargaining power and do, therefore, not depend on the same requirements for contract duration as consumers. The obligations on contract termination should apply to microenterprises, small enterprises, medium enterprises and not-for profit organizations, unless they prefer to negotiating individualised contract terms with the provider of electronic communications services.

(269) Automatic prolongation of contracts for electronic communications services is possible. In those cases, consumers should be able to terminate their contract without incurring any costs after the expiry of the initial contract term.

(270) Any changes to the contractual conditions proposed by providers of publicly available electronic communications services other than number-independent interpersonal communications services, which are not to the benefit of the consumer, for example in relation to charges, tariffs, data volume limitations, data speeds, coverage, or the processing of personal data on lawful grounds pursuant to Union data protection law other than consent, should give rise to the right of the consumer to terminate the contract without incurring any costs, even if they are combined with some beneficial changes. Any change to the contractual conditions by the provider should therefore entitle the consumer to terminate the contract unless each change is in itself beneficial to the consumer, or the changes are of a purely administrative nature, such as a change in the provider's address, and have no negative effect on the consumer, or the changes are strictly imposed by legislative or regulatory changes, such as new contract information requirements imposed by Union law or national law. Whether a change is exclusively to the benefit of the consumer should be assessed on the basis of objective criteria. The consumer's right to terminate the contract should be excluded only if the provider is able to demonstrate that all contract changes are exclusively to the benefit of the consumer or are of a purely administrative nature without any negative effect on the consumer.

(271) Where a lawful price-indexation clause, specified according to the information requirements for contracts that require to describe the method by which price may lawfully vary, is an integral part of the contract, its implementation would not constitute a change in contractual conditions but the application of an existing contract provision, where the clause is in accordance with Union and national law.

(272) Consumers should be notified of any changes to the contractual conditions by means of a durable medium. The provisions on contract termination should be without prejudice to other provisions of Union law or national law concerning the grounds on

which contracts can be terminated or on which contractual terms and conditions can be changed by the service provider or by the consumer.

(273) With respect to terminal equipment, the customer contract should specify any conditions imposed by the provider on the use of the equipment, such as by way of 'SIM-locking' mobile devices, if such conditions are not prohibited under national law, and any charges due on termination of the contract, whether before or on the agreed expiry date, including any cost imposed in order to retain the equipment. Where the consumer chooses to retain terminal equipment bundled at the moment of the contract conclusion, any compensation due should not exceed its pro rata temporis value calculated on the basis of the value at the moment of the contract conclusion, or on the remaining part of the service fee until the end of the contract, whichever amount is smaller. Any restriction to the usage of terminal equipment on other networks should be lifted, free of charge, by the provider at the latest upon payment of such compensation.

(274) Bundles comprising at least either an internet access service or a publicly available number-based interpersonal communications service, as well as other services, such as publicly available number-independent interpersonal communications services, linear broadcasting and machine-to-machine services, or terminal equipment, have become increasingly widespread and are an important element of competition. For the purposes of this Regulation, a bundle should be considered to exist in situations where the elements of the bundle are provided or sold by the same provider under the same or a closely related or linked contract. While bundles often bring about benefits for consumers, they can make switching more difficult or costly and raise risks of contractual 'lock-in'. Where different services and terminal equipment within a bundle are subject to divergent rules on contract termination and switching or on contractual commitments regarding the acquisition of terminal equipment, consumers are effectively hampered in their rights under this Regulation to switch to competitive offers for the entire bundle or parts of it. Certain essential provisions of this Regulation regarding contract summary information, transparency, contract duration and termination and switching should, therefore, apply to all elements of a bundle, including terminal equipment, other services such as digital content or digital services, and electronic communications services which are not directly covered by the scope of those provisions. All end-user obligations applicable to a given electronic communications service when provided or sold as a stand-alone service should also be applicable when it is part of a bundle with at least an internet access service or a publicly available number-based interpersonal communications service. Other contractual issues, such as the remedies applicable in the event of non-conformity with the contract, should be governed by the rules applicable to the respective element of the bundle, for instance by the rules of contracts for the sales of goods or for the supply of digital content. However, a right to terminate any element of a bundle comprising at least an internet access service or a publicly available number-based interpersonal communications service before the end of the agreed contract term because of a lack of conformity or a failure to supply should give a consumer the right to terminate all elements of the bundle. Also, in order to maintain their capacity to switch easily providers, consumers should not be locked in with a provider by means of a contractual de facto extension of the initial contract period.

(275) The possibility of switching between providers is key for effective competition in a competitive environment. The availability of transparent, accurate and timely information on switching should increase the end-users' confidence in switching and

make them more willing to engage actively in the competitive process. Service providers should ensure continuity of service so that end-users are able to switch providers without being hindered by the risk of a loss of service and, where technically possible, allow for switching on the date requested by end-users. In exceptional circumstances, switching might not be possible for objective technical reasons such as in situations where the secure functioning of terminal equipment or its integrity would otherwise be endangered. This could possibly be the case for SIM cards or eSIMs that are embedded in terminal equipment and that are used for both transmission of machine-to-machine services as well as for internet access. An example for this could be a car where the same eSIM is used for updating the car's automotive software as well as for internet access for the infotainment system.

(276) Number portability is a key facilitator of consumer choice and effective competition in competitive electronic communications markets. End-users who so request should be able to retain their numbers independently of the provider of service and for a limited time between the switching of providers of service. The provision of this facility between connections to the public telephone network at fixed and non-fixed locations is not covered by the provider switching and number portability provisions.

(277) The impact of number portability is considerably strengthened when there is transparent tariff information, both for end-users who port their numbers and for end-users who call those who have ported their numbers. National regulatory authorities should, where feasible, facilitate appropriate tariff transparency as part of the implementation of number portability.

(278) When ensuring that pricing for interconnection related to the provision of number portability is cost-oriented, national regulatory authorities should also be able to take account of prices available in comparable markets.

(279) Number portability should be implemented with the minimum delay, so that the number is functionally activated within one working day and the end-user does not experience a loss of service lasting longer than one working day from the agreed date. The right to port the number should be attributed to the end-user who has the relevant (pre- or post-paid) contract with the provider. In order to facilitate a one-stop-shop enabling a seamless switching experience for end- users, the switching process should be led by the receiving provider of electronic communications to the public. In order to contribute to a consistent application of provider switching and number portability rules in Member States, BEREC should issue guidelines on the global process of the switching and of the porting of numbers, taking into account technological developments. This should include, where available, a requirement for the porting to be completed though over-the-air provisioning, unless an end-user requests otherwise as well as details on the compensation process in case of delays in, or abuse of, porting and switching processes, missed service and installation appointments or failure by the provider to comply with the obligations related to switching and number portability.

(280) Member States should define rules on penalties in the case of the failure of a provider to comply with the obligations on switching and porting laid down in this Regulation, including delays in, or abuses of, porting by, or on behalf of, a provider. Experience in certain Member States has shown that there is a risk of end-users being switched to another provider without having given their consent. While that is a matter that should primarily be addressed by law enforcement authorities, Member States should be able to impose appropriate penalties, as are necessary to minimise such risks, and to ensure that end-users are protected throughout the switching process without making the

process less attractive for them. The right to port numbers should not be restricted by contractual conditions.

(281) In order to ensure that switching and porting take place within the time-limits provided for in this Regulation, Member States should be able to provide for the compensation of end-users by providers in an easy and timely manner where an agreement between a provider and an end-user is not respected. Such measures should be proportionate to the length of the delay in complying with the agreement. Those measures could include compensation for delays exceeding one working day in activation of service, porting of a number, or loss of service, and where providers miss agreed service or installation appointments. Additional compensation could also be in the form of an automatic reduction of the remuneration where the transferring provider is to continue providing its services until the services of the receiving provider are activated.

(282) In accordance with the principle of proportionality, a number of provisions on end-user rights in this Regulation should not apply to microenterprises which provide only number-independent interpersonal communications services. According to the case law of the Court of Justice[56], the definition of small and medium-sized enterprises, which includes microenterprises, is to be interpreted strictly. In order to include only enterprises that are genuinely independent microenterprises, it is necessary to examine the structure of microenterprises which form an economic group, the power of which exceeds the power of a microenterprise, and to ensure that the definition of microenterprise is not circumvented by purely formal means.

(283) The completion of the internal market for electronic communications requires the removal of barriers for end-users to have cross-border access to electronic communications services across the Union. Providers of electronic communications to the public should not deny or restrict access or discriminate against end-users. Differentiation should, however, be possible based on and within the boundaries set by the Union law, for example the measures provided for in Regulation (EU) 2022/612 to prevent abusive or anomalous use of regulated retail roaming services.

(284) End-users are increasingly vulnerable to fraudulent activities carried out through interpersonal communications services. Several Member States have introduced national measures to combat evolving fraud schemes, such as CLI spoofing, phishing, smishing, and vishing. However, those measures remain uncoordinated and reflect primarily national perspectives, enabling fraudsters to shift their activities to jurisdictions where such practices are not effectively addressed. The ODN should enable the gathering of relevant information and best practices to enable BEREC to issue technical and legal guidelines on the measures that could effectively protect end-users against fraudulent activities in the Union. The BEREC guidelines should enable Member States adopt coordinated measures to be implemented by interpersonal communications services, with full respect of Union legislation on personal data protection. The Commission should be empowered to adopt delegated acts to supplement the effectiveness of measures that interpersonal communications services put in place to protect end-users against fraudulent activities.

(285) Considering the particular aspects related to the reporting of missing children, Member States should maintain their commitment to ensure that a well-functioning service for reporting missing children is actually available in their territories under the number

[56] Judgment of the Court (Seventh Chamber) of 27 February 2014, HaTeFo v Finanzamt Haldensleben, C-110/013 (ECLI: EU:C:2014:114).

‘116000’. Member States should take appropriate measures to ensure that a sufficient level of service quality in operating the ‘116000’ number is achieved.

(286) In parallel with the missing children hotline number ‘116000’, many Member States also ensure that children have access to a child-friendly service operating a helpline that helps children in need of care and protection through the use of the ‘116111’ number. Such Member States and the Commission should ensure that awareness is raised among citizens, and in particular among children and among national child protection systems, about the existence of the ‘116111’ helpline.

(287) In order to address public interest issues with respect to the use of internet access services and publicly available number-based interpersonal communications services and to encourage protection of the rights and freedoms of others, Member States should be able to produce and disseminate or have disseminated, with the aid of providers of such services, public-interest information related to the use of such services. It should be possible to include public-interest information regarding the most common infringements and their legal consequences, for instance regarding copyright infringement, other unlawful uses and the dissemination of harmful content, and advice and means of protection against risks to personal security, for example those arising from disclosure of personal information in certain circumstances, as well as risks to privacy and personal data, and the availability of easy-to-use and configurable software or software options allowing protection for children or vulnerable persons. In addition, end-users should be made aware of the risks to personal security, privacy and personal data when using internet access services and publicly available interpersonal communications services, including protection against fraudulent activities perpetrated via those services and should be informed be informed on the ways they can protect themselves against those risks. The information could be coordinated by way of a cooperation procedure. Such public-interest information should be updated where necessary and should be presented in easily comprehensible formats, as determined by each Member State, and on national public authority websites. Member States should be able to oblige providers of internet access services and publicly available number-based interpersonal communications services to disseminate this standardised information to all of their customers in a manner considered to be appropriate by the national public authorities. Dissemination of such public-interest information should, however, not impose an excessive burden on providers. If it does so, Member States should require such dissemination by the means used by providers in communications with end-users made in the ordinary course of business.

(288) In the absence of relevant rules of Union law, content, applications and services are considered to be lawful or harmful in accordance with national substantive and procedural law. Providers of electronic communications networks or services should act in accordance with requirements under Regulation (EU) 2022/2065 whether content, applications or services are lawful or harmful. This Regulation and Directive 2002/58/EC are without prejudice to Regulation (EU) 2022/2065, which, amongst other, contains a ‘mere conduit’ rule for intermediary service providers, as defined therein.

(289) End-users should be able to access emergency services through emergency communications free of charge and without having to use any means of payment, from any device which enables number-based interpersonal communications services, including when travelling within the Union. Emergency communications are a means of communication that includes voice communications services, messaging, video or

other types of communications, for example real-time text, total conversation and relay services. Member States, taking into account the capabilities and technical equipment of the PSAPs, should be able to determine which number-based interpersonal communications services are appropriate for emergency services, including the possibility to limit those options to voice communications services and their equivalent for end-users with disabilities, or to add additional options as agreed with national PSAPs. Emergency communication can be triggered on behalf of a person by an in-vehicle system system as an eCall as defined in Regulation (EU) 2015/758. The European Digital Identity Walletsissued under Regulation (EU) 910/2014 of the European Parliament and of the Council[57] enables end-users to access a digital hub for essential services. Therefore, Member States have to ensure that end-users will be also able to originate an emergency communication by using their digital wallet.

(290) Emergency communications and caller location information have to be routed to the most appropriate PSAP without delay to enable the appropriate answering and handling of the emergency communications. Effective routing of emergency communications should be ensured also in the context of the technological migration from circuit-switched to packet-switched technologies. The most appropriate PSAP is normally determined by the Member State on the basis of a territorial competence to handle emergency communications or the competence to handle a certain type of communication, for example a PSAP equipped to handle real-time text or sign-language communication. Interpersonal communications services provided through packet-switched technologies providing voice, text – including real-time text –, and video may be routed in the public network domain or PSAP domain. Depending on the national organisation of PSAPs, while the emergency communication reaches PSAP system through the public networks, further routing may be necessary within the PSAP IP network to reach the most appropriate PSAP. In order to guarantee the availability of effective emergency communications to the benefit of all end-users, Member States should ensure the timeliness of routing to the most appropriate PSAP of all types of emergency communications and of caller location information mandated on their territory. Member States should be able to mandate access to emergency services through emergency communications from number-independent interpersonal communications services as long as the national PSAP system allows for receiving these communications by routing to the most appropriate PSAP and for the receipt of caller location information. This may include the designation by a Member State of a single IP gateway for receiving emergency communications. Nonetheless, such providers should inform end-users when access to the single European emergency number ‘112’ or to caller location information is not supported.

(291) Member States should consider the PSAP’s ability to handle emergency communications in more than one language.

(292) Member States should take specific measures to ensure that emergency services, including the single European emergency number ‘112’, are equally accessible to end-users with disabilities, in particular deaf, hearing-impaired, speech-impaired and deaf-blind end-users and in accordance with Directive (EU) 2019/882. The principle of equivalence implies that end-users with disabilities should be able to access

[57] Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (OJ L 257, 28.8.2014, p. 73, ELI: http://data.europa.eu/eli/reg/2014/910/oj).

emergency services through emergency communications in a functionally equivalent manner to that in which other end-users access emergency services, in particular by calling the '112' number via voice-based services.

(293) Caller location information, which applies to all emergency communications, improves the level of protection and the security of end-users and assists the emergency services in the discharge of their duties, provided that the transfer of emergency communication and associated data to the emergency services concerned is to be guaranteed by the national system of PSAPs. The reception and use of caller location information, which includes both network-based location information where the network that ensures the connectivity provides that information to the service provider or the PSAP and enhanced handset caller location information, where the radio equipment device makes it available for transmission, should comply with all other requirements of Union law on the processing of personal data . Undertakings that provide network-based location should make caller location information available to emergency services as soon as the call reaches that service, independently of the technology used. However, handset-based location technologies have proven to be significantly more accurate and cost effective due to the availability of data provided by the European Geostationary Navigation Overlay Service and Galileo Satellite system and other Global Navigation Satellite Systems and Wi-Fi data. Therefore, handset-derived caller location information should complement network-based location information even if the handset-derived location becomes available only after the emergency communication is set up. Member States should ensure that, where available, the handset-derived caller location information is made available to the most appropriate PSAP. This might not be always possible, for example when the location is not available on the handset or through the interpersonal communications service used, or when it is not technically feasible to obtain that information. Furthermore, Member States should ensure that the PSAPs are able to retrieve and manage the caller location information available, where feasible. The establishment and transmission of caller location information should be free of charge for both the end-user and the authority handling the emergency communication irrespective of the means of establishment, for example through the handset or the network, or the means of transmission, for example through voice channel, SMS or IP-based.

(294) It is important to increase awareness of the single European emergency number '112' in order to improve the level of protection and security of citizens travelling in the Union. To that end, citizens should be made fully aware, when travelling in any Member State, in particular through information provided in international bus terminals, train stations, ports or airports and in telephone directories, end-user and billing material, that the single European emergency number '112' can be used as a single emergency number throughout the Union. This is primarily the responsibility of the Member States, but the Commission should continue both to support and to supplement initiatives of the Member States to heighten awareness of the single European emergency number '112' and periodically to evaluate the public's awareness of it and the evolution of its use.

(295) In order to respond to technological developments concerning access to emergency services by using the digital wallet, accurate caller location information, equivalent access for end-users with disabilities and call routing to the most appropriate PSAP, the Commission should be empowered to adopt by means of a delegated act measures necessary to ensure effective emergency communications in the Union. Such measures

should be without prejudice to the organisation of emergency services of Member States.

(296) A citizen in one Member State who needs to contact the emergency services in another Member State cannot do so because the home country PSAP may not have any contact information of the PSAP systemin other Member States. A Union-wide, secure database of numbers to reach the PSAP systems in each Member State should therefore be maintained. To that end, the ODN should maintain a secure database of E.164 numbers to contact Member State's PSAP systems, in order to ensure that the PSAPs in one Member State can be contacted by the PSAP in another.

(297) Mobile number-based interpersonal communications service providers have an important role in the national preparedness strategies, therefore public warnings should be transmitted by those providers to all end-users concerned. The end-users concerned should be considered to be those who are located in the geographic areas potentially being affected by imminent or developing major emergencies and disasters during the warning period, as determined by the competent authorities.

(298) Where the effective reach of all end-users concerned, independently of their place or Member State of residence, is ensured and fulfils the highest level of data security, Member States should be able to provide for the transmission of public warnings by using the European Digital Identity Wallets issued under Regulation (EU) 910/2014. while ensuring that the citizens of the Union are effectively protected when travelling in another Member State.

(299) Originating identification means identification information of the communication originator or endpoint of an electronic communications service such as Voice over Internet Protocol ('VoIP') in packet-switched networks that may be transmitted to the terminal of the receiving party or end-user when the communication is being set up. In circuit-switched networks, the presentation of the calling party's number to the called party prior to the call being established is known as calling line identification.

(300) The originating identification may use identifiers as signalling protocols other than E.164 numbers or national numbering plans to transmit identification of the originator or the endpoint to the terminal equipment of the called or receiving party when the call or the communication is being set up. The interconnecting providers, including providers of transit services, should ensure the transfer of the authentic originating identification or calling line identification information in the national and international interconnection agreements according to the national or international regulations or rules of the countries involved.

(301) It is necessary to protect the right of the calling party to withhold the presentation of the identification of the line/originating identification from which the call is being made ('CLIR') and the right of the called party to reject calls from unidentified lines. Certain end-users, in particular help lines, and similar organisations, have an interest in guaranteeing the anonymity of their callers.

(302) A public safety answering point that displays a generic line identification when responding to an emergency communication should not be considered as an unidentified line.

(303) As regards connected line identification, it is necessary to protect the right and the legitimate interest of the called party to withhold the presentation of the identification of the line to which the calling party is actually connected ('COLR').

(304) Using a specific code or prefix should not relieve the legal or natural persons sending direct marketing call from the obligation to present their calling line or originating identification.

(305) There is justification for overriding the elimination of calling line or originating identification presentation in specific cases. End-users' rights to privacy and protection of personal data with regard to calling line/originating identification should be restricted where this is necessary to trace malicious and nuisance calls upon complaint against such use to the competent authorities or when originating an emergency communication and with regard to calling line or originating identification and location data where this is necessary to enable emergency services and PSAPs to effectively answer and handle emergency communications.

(306) Technology exists that enables providers of electronic communications services to limit the reception of malicious, nuisance or other fraudulent calls by end-users in different ways, including blocking of silent calls, and to assist competent authorities in tracing such calls. These calls could include calls originating from invalid numbers, i.e. numbers that do not exist in the numbering plan, or valid numbers that are not allocated to a provider of a number-based interpersonal communications service or that are not assigned to an end-user. Providers of publicly available interpersonal communications services should protect end-users by offering them, free of charge, the possibility to request the blocking of such calls, where technically feasible, or the stopping of automatic call forwarding by a third party to the end-user's terminal equipment. To this end, providers should deploy state of the art technology such as authentication solutions. Providers should make end-users aware of the existence of such functionalities through information accompanying the contract and by other means, for instance, by publication on their webpage, where appropriate. The possibility to block unwanted calls should be deemed to be technically feasible unless the provider demonstrates objective technical obstacles, which may exist, for instance, in PSTN networks. Number-independent interpersonal communications service providers should be able to take authentication measures to verify the users in accordance with Directive (EU) 2022/2555.

(307) Publicly available directories consist of any directory or service containing information of end-users, such as phone numbers (including mobile phone numbers), email address, contact details and includes inquiry services. The main function of directory services is to enable to identify such persons. The increasing availability and use of digital alternatives like online search engines, social media and online directories that offer an up-to-date way to find contact information do not justify maintaining the obligation on number-based interpersonal communications services providers. In addition, many directory enquiry services are now available as apps or online, allowing users to search for information digitally. Furthermore, it is appropriate for ensuring a high level of protection of the right to privacy and to protection of the personal data that end-users who are natural persons are asked for consent before their personal data are included in a directory. Different from natural persons, legitimate interests of legal entities related to their data being included in a directory should be also protected. The application of Directive 2002/58/EC showed divergent practices across Member States as regards the exercise of the choice of end-users that are natural persons for inclusion of their personal data in a directory. Sometimes, Member States provide that end-users have the right to object the inclusion of their personal data in their national laws or the withdrawal of consent of a natural person is not shared with third parties processing personal data from the

directories, which may not only lower the level of protection throughout the Union, but also expose end-users to fraudulent practices by malicious actors. Requesting consent, including for sharing contact details in an electronic or paper form irrespective of the provider should be in accordance with Regulation (EU) 2016/679.

(308) In line with the objectives of the Charter and the obligations enshrined in the United Nations Convention on the Rights of Persons with Disabilities, the regulatory framework should ensure that all end-users, including end-users with disabilities, older people, and users with special social needs, have easy and equivalent access to affordable high-quality services regardless of their place of residence within the Union. Declaration 22 annexed to the Treaty of Amsterdam[58] provides that the institutions of the Union are to take account of the needs of persons with disabilities in drawing up measures under Article 114 TFEU.

(309) In order to ensure that end-users with disabilities benefit from competition and the choice of service providers enjoyed by the majority of end-users, competent authorities should specify, where appropriate and in light of national conditions, and after consulting end-users with disabilities, consumer protection requirements for end-users with disabilities to be met by providers of publicly available electronic communications services. Such requirements can include, in particular, that providers ensure that end-users with disabilities take advantage of their services on equivalent terms and conditions, including prices, tariffs and quality, as those offered to their other end-users, irrespective of any additional costs incurred by those providers. In taking the measures on equivalent access and choice, competent authorities should encourage compliance with the relevant standards and specifications laid down in accordance with the provisions of this Regulation on standardisation. The consumer protection requirements for end-users with disabilities may be applied also to wholesale arrangements between providers. In order to avoid creating an excessive burden on service providers competent authorities should verify, whether the objectives of equivalent access and choice can be achieved without such measures.

(310) End-users should be able to enjoy a guarantee of interoperability in respect of all equipment sold in the Union for the reception of radio in new vehicles of category M and of digital television. Member States should be able to require minimum harmonised standards in respect of such equipment. Such standards could be adapted from time to time in light of technological and market developments.

(311) Where Member States decide to adopt measures in accordance with Directive (EU) 2015/1535 for the interoperability of consumer radio receivers, the impact on the market for low-value radio broadcast receivers should be limited and receivers should be capable of receiving and reproducing radio services provided via digital terrestrial radio broadcasting or via IP networks, in order to ensure that interoperability is maintained. This may also improve public safety, by enabling users to rely on a wider set of technologies for accessing and receiving emergency information in the Member States.

(312) The provisions on interoperability of consumer radio and television equipment do not prevent car radio receivers in new vehicles of category M from being capable of receiving and reproducing radio services provided via analogue terrestrial radio broadcasting and those provisions do not prevent Member States from imposing

[58] OJ C 340, 10.11.1997, p. 115, ELI: http://data.europa.eu/eli/treaty/ams/fna_1/dcl_22/sign.

obligations to ensure that digital radio receivers are capable of receiving and reproducing analogue terrestrial radio broadcasts.

(313) Without prejudice to Union law, this Regulation should not prevent Member States from adopting technical regulations related to digital terrestrial television equipment, to prepare the migration of consumers to new terrestrial broadcasting standards, and avoid the supply of equipment that would not be compliant with the standards to be rolled out.

(314) Member States should continue to be able to lay down proportionate 'must carry' obligations on undertakings under their jurisdiction, in the interest of legitimate public policy considerations, but such obligations should only be imposed where they are necessary to meet general interest objectives clearly defined by Member States in accordance with Union law and should be proportionate and transparent. It should be possible to apply 'must carry' obligations to specified radio and television broadcast channels and complementary services supplied by a specified media service provider. Obligations imposed by Member States should be proportionate and transparent in light of clearly defined general interest objectives. Member States should provide an objective justification for the 'must carry' obligations that they impose in their national law in order to ensure that such obligations are transparent, proportionate and clearly defined. The obligations should be designed in a way which provides sufficient incentives for efficient investment in infrastructure.

(315) Electronic communications networks and services used for the distribution of radio or television broadcasts to the public include cable, IPTV, satellite and terrestrial broadcasting networks. They might also include other networks to the extent that a significant number of end-users use such networks as their principal means to receive radio and television broadcasts. 'Must carry' obligations related to analogue television broadcast transmissions should be considered only where the lack of such an obligation would cause significant disruption for a significant number of end-users or where there are no other means of transmission for specified television broadcast channels. 'Must carry' obligations can include the transmission of services specifically designed to enable equivalent access by end-users with disabilities. Accordingly complementary services include services designed to improve accessibility for end-users with disabilities, such as videotext, subtitling for end-users who are deaf or hard of hearing, audio description, spoken subtitles and sign language interpretation, and could include access to the related raw-data where necessary. In light of the growing provision and reception of connected television services and the continued importance of EPGs for end-user choice the transmission of programme-related data necessary to support connected television and EPG functionalities can be included in 'must carry' obligations. It should be possible for such programme-related data to include information about the programme content and how to access it, but not the programme content itself.

(316) 'Must carry' obligations should be subject to review by Member States taking into account technological and market evolution and in order to ensure that they continue to be proportionate to the objectives to be achieved. Such obligations could, where appropriate, entail a provision for proportionate remuneration which should be set out in national law. Where that is the case, national law should also determine the applicable methodology for calculating appropriate remuneration. That methodology should avoid inconsistency with access remedies that may be imposed by national regulatory authorities on providers of transmission services used for broadcasting which have been designated as having significant market power. However, where a

fixed-term contract provides for a different methodology, it should be possible to continue to apply that methodology for the duration of the contract. In the absence of a national provision on remuneration, providers of radio or television broadcast channels and providers of electronic communications networks used for the transmission of those radio or television broadcast channels should be able to agree contractually on a proportionate remuneration.

(317) The regulatory framework and its governance structures, including the Commission, national regulatory and other competent authorities, BEREC and the BEREC Office, have delivered good results in terms of harmonisation of the internal market. However, national markets are still fragmented and an internal market for electronic networks and services has not been achieved. This affects providers of electronic communications engaged in cross-border business or active in a significant number of Member States, including where BEREC guidelines exist. The evaluation identified in particular three problematic issues, first, the strong national influence on BEREC that may affect the impact of its output on the internal market, second, the asymmetric extension of national regulatory authorities' competences creating inconsistencies in national regulatory authorities' contributions to BEREC work, and third, resource constraints and structural weaknesses which affect BEREC's ability to carry out the tasks assigned to it. Therefore, the governance framework needs to evolve to support the completion of the internal market for electronic communications throughout the Union, by ensuring consistent approaches in the application of rules and more coordination among national regulatory and other competent authorities at national level, among Union bodies and offices at Union level and between the national and the Union level.

(318) Certain tasks should be undertaken only by national regulatory authorities, namely, bodies which are independent both from the sector and from any external intervention or political pressure. To ensure that national regulatory authorities are all competent to carry out necessary tasks and that BEREC outputs represent the position of the Member States well, those tasks should be extended to, for example, tasks related to the handling of the notifications and Single Passport procedure under the general authorisation regime, tasks related to the implementation of measures for the transition to fibre or related to the support on preparedness and resilience. In particular, given their expertise in market regulation and competition, national regulatory authorities should be competent to decide on market shaping and competition aspects of spectrum assignment procedures. Unless otherwise provided, Member States should be able to assign other regulatory tasks provided for in this Regulation either to the national regulatory authorities or to other competent authorities. Member States should promote the stability of competences of the national regulatory authorities with regard to the assignment of tasks which resulted from the transposition of the Union electronic communications regulatory framework, in particular those related to market competition or market entry. Where tasks are assigned to other competent authorities, those other competent authorities should seek to consult the national regulatory authorities before taking a decision. Pursuant to the principle of good cooperation, national regulatory and other competent authorities should exchange information for the exercise of their tasks.

(319) Member States should notify the Commission of the identity of the national regulatory and other competent authorities. For authorities competent for granting rights of way, it should be possible to fulfil the notification requirement by a reference to the single information point established pursuant to Regulation (EU) 2024/1309.

(320) In accordance with the principle of the separation of regulatory and operational functions, Member States should guarantee the independence of the national regulatory and other competent authorities with a view to ensuring the impartiality of their decisions. This requirement of independence is without prejudice to the institutional autonomy and constitutional obligations of the Member States or to the principle of neutrality with regard to the rules in Member States governing the system of property ownership laid down in Article 345 TFEU.

(321) In order to ensure an effective application of the regulatory framework and to increase their authority and the predictability of its decisions, a national regulatory authority should be protected against external intervention or political pressure liable to jeopardise its independent assessment of matters coming before it. Such outside influence makes a national legislative body unsuited to act as a national regulatory authority under the regulatory framework. For that purpose, Member States should lay down rules at the outset regarding the grounds for the dismissal of the head of the national regulatory authority in order to remove any reasonable doubt as to the neutrality of that body and its imperviousness to external factors. In order to avoid arbitrary dismissals, dismissed members should have the right to request that the competent courts verify the existence of a valid reason to dismiss, among those provided for in this Regulation. Such dismissals should relate only to the personal or professional qualifications of the head or member. It is important that national regulatory authorities have their own budget allowing them, in particular, to recruit a sufficient number of qualified staff. In order to ensure transparency, that budget should be published annually. Within the limits of their budget, they should have autonomy in managing their resources, human and financial. In order to ensure impartiality, Member States that retain ownership of, or control of, undertakings contributing to the budget of the national regulatory or other competent authorities through administrative charges should ensure that there is effective structural separation of activities associated with the exercise of ownership or control from the exercise of control over the budget.

(322) There is a need to further reinforce the independence of the national regulatory authorities to ensure the imperviousness of its head and members to external pressure, by providing minimum appointment qualifications, and a minimum duration for their mandate. Furthermore, to address the risk of regulatory capture, ensure continuity and enhance independence, Member States should consider limiting the possibility of renewing the mandates of the head or members of the board and set up an appropriate rotation scheme for the board and the top management. This could be arranged, for instance, by appointing the first members of the collegiate body for different periods in order for their mandates, as well as that of their successors, not to lapse at the same moment.

(323) National regulatory authorities should be accountable for, and should be required to report on, the way in which they are exercising their tasks. That obligation should normally take the form of an annual reporting obligation rather than ad hoc reporting requests, which, if disproportionate, could limit their independence or hinder them in the exercise of their tasks.

(324) National regulatory authorities should have adequate financial and human resources to carry out the tasks assigned to them. To strengthen BEREC, make it more representative and safeguard its expertise, experience and knowledge of the specific situation in the full range of national markets, each Member State should ensure that

its national regulatory authority has adequate financial and human resources required to participate fully in the work of BEREC.

(325) BEREC was first established by the Commission in 2002[59] as a Commission expert working group, the European Regulators Group for Electronic Communications Networks and Services ('ERG'), to advise and assist the Commission in consolidating the internal market for electronic communications networks and services by ensuring the development of consistent regulatory practice and the consistent application of the Union's regulatory framework for electronic communications. Regulation (EC) No 1211/2009 of the European Parliament and of the Council[60] established BEREC as a Union body, composed of national regulatory authorities, replacing the ERG, and supported by the Office, a Community body with legal personality established to carry out the tasks referred to in that Regulation, in particular the provision of professional and administrative support services to BEREC. In order to support BEREC efficiently, the Office was given legal, administrative and financial autonomy. Regulation (EU) 2018/1971 established the Agency for Support for BEREC ('BEREC Office') as a Union agency for the support of BEREC. Overall, the evaluation of BEREC and the BEREC Office has shown that both had been effective in delivering on their tasks and objectives, and therefore the setup worked well and can be preserved.

(326) In order to carry out its tasks, BEREC should pool expertise from national regulatory authorities and staff from the ODN. BEREC should aim to ensure the participation of all national regulatory authorities in the fulfilment of its regulatory tasks and its functioning.

(327) BEREC acts as a forum for cooperation among national regulatory authorities and between national regulatory authorities and the Commission in the exercise of the full range of their respective responsibilities under the Union regulatory framework. BEREC also serves as a body for reflection, debate and advice for the European Parliament, the Council and the Commission in the field of electronic communications.

(328) The Union institutions and the national regulatory authorities should benefit from BEREC's assistance and advice, including on the relevant regulatory impact of any issue concerning the overall dynamics of digital markets or with regard to their relationship, discussions and exchanges with, and the dissemination of regulatory best practices to, third parties. In addition to its contribution to the Commission's public consultation, BEREC should, when requested, advise the Commission in the preparation of legislative proposals. BEREC should also be able to provide advice to the European Parliament and to the Council, on their request or on its own initiative.

(329) In light of the increasing convergence between the sectors providing electronic communications services, and the horizontal dimension of regulatory issues related to their development, BEREC and the ODN should cooperate with, and without prejudice to the role of, national regulatory authorities, other Union bodies, offices, agencies and advisory groups, in particular the RSPB, the European Data Protection

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[59] Commission Decision 2002/627/EC of 29 July 2002 establishing the European Regulators Group for Electronic Communications Networks and Services (OJ L 200, 30.7.2002, p. 38, ELI: http://data.europa.eu/eli/dec/2002/627/oj).

[60] Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office (OJ L 337, 18.12.2009, p. 1, ELI: http://data.europa.eu/eli/reg/2009/1211/oj).

Supervisor established by Regulation (EU) 2018/1725 of the European Parliament and of the Council[61], the European Data Protection Board established by Regulation (EU) 2016/679, the European Regulators Group for Audiovisual Media Services established by the Directive 2010/13/EU of the European Parliament and the Council, the European Union Agency for Network and Information Security established by Regulation (EU) 526/2013 of the European Parliament and of the Council[62], the European GNSS Agency established by Regulation (EU) No 912/2010 of the European Parliament and of the Council[63], the Consumer Protection Cooperation Network established pursuant to Regulation (EC) No 2006/2004 of the European Parliament and the Council[64], the European Competition Network and European standardisation organisations, as well as with existing committees (such as the Communications Committee and the Radio Spectrum Committee). Where appropriate, BEREC and the ODN should also cooperate with relevant competent authorities of Member States responsible for competition, consumer protection, cybersecurity and data protection, and with the competent authorities of third countries, in particular, regulatory authorities competent in the field of electronic communications or groups of those authorities, as well as with international organisations when necessary for the carrying out of their tasks. BEREC should also be able to consult interested parties by means of public consultation.

(330) BEREC, as a technical body with expertise on electronic communications and composed of representatives from national regulatory authorities and the Commission, is best placed to be entrusted with tasks such as contributing to efficient internal market procedures for draft national measures as regards market regulation, providing the necessary guidelines to national regulatory and other competent authorities in order to ensure common criteria and a consistent regulatory approach. The ODN should be equipped to support BEREC in all its regulatory tasks. This is without prejudice to the tasks established for national regulatory authorities, which are closest to the electronic communications markets and their local conditions.

(331) To contribute to the objectives of this Regulation, in addition to its current tasks, BEREC should promote effective cooperation among providers of electronic communications networks and undertakings active in closely related sectors, by issuing guidelines on facilitating ecosystem cooperation on technical and commercial matters related to the provision of electronic communications services or information

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61 Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39, ELI: http://data.europa.eu/eli/reg/2018/1725/oj).

62 Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act) (OJ L 151, p. 15, ELI: http://data.europa.eu/eli/reg/2019/881/oj).

63 Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU (OJ L 170, , p. 69, ELI: http://data.europa.eu/eli/reg/2021/696/oj).

64 Regulation (EU) 2017/2394 of the European Parliament and of the Council of 12 December 2017 on cooperation between national authorities responsible for the enforcement of consumer protection laws and repealing Regulation (EC) No 2006/2004 (OJ L 345, p. 1, ELI: http://data.europa.eu/eli/reg/2017/2394/oj).

society services and of innovative products and services to the benefit, in particular, of end-users, in compliance with competition law rules. BEREC should also be entrusted with new tasks on resilience and preparedness, including the adoption of a Union Preparedness Plan for Digital Infrastructures prepared by the ODN. BEREC should also adopt guidelines on technical and legal measures that could effectively protect end-users against fraudulent activities in the Union.

(332) The members of the BEREC Board of Regulators should be appointed by national regulatory authorities normally from among the heads of the national regulatory authority or members of its collegiate body. The rotation of the role of Chair of the BEREC Board of Regulators is intended to ensure continuity of BEREC's work. A rotation of the roles of Vice-Chairs is also promoted.

(333) BEREC should be able to act in the interests of the Union, independently from any external intervention, including political pressure or commercial interference. It is therefore important to ensure that the persons appointed to the Board of Regulators enjoy the highest guarantees of personal and functional independence. The head of a national regulatory authority, a member of its collegiate body, or the replacement of either of them, enjoy such a level of personal and functional independence. More specifically, they should act independently and objectively, should not seek or take instructions in the exercise of their functions, and should be protected against arbitrary dismissal. The function of the alternate on the Board of Regulators could also be performed by the head of the national regulatory authority, a member of its collegiate body, the replacement of either of them, or by another member of staff of the national regulatory authority, who acts on behalf of, and in accordance with the scope of the mandate of, the member of the Board of Regulators replaced.

(334) BEREC should provide expertise and establish confidence by virtue of its independence, the quality of its advice and information, the transparency of its procedures and methods of operation, and its diligence in carrying out its tasks with the support of the ODN. BEREC's independence should not prevent its Board of Regulators from deliberating on the basis of drafts prepared by working groups under its guidance.

(335) The RSPG was first established by Decision 2002/622/EC to contribute to the development of the internal market and to support the development of a Union-level radio spectrum policy. Decision 2002/622/EC was later replaced by Commission Decision of 11 June 2019. The RSPG assists and advises the Commission on radio spectrum policy issues. Those include radio spectrum availability, harmonisation and allocation of radio spectrum, provision of information concerning allocation, availability and use of radio spectrum, methods for granting rights to use radio spectrum, refarming, relocation, valuation and efficient use of radio spectrum and the protection of human health. The RSPG provides advice to the European Parliament and to the Council upon their request on matters of radio spectrum. The RSPG has become the forum for the coordination of implementation by Member States of their obligations related to radio spectrum under by Directive (EU) 2018/1972 and plays a central role in fields essential for the internal market, such as cross-border radio spectrum coordination and standardisation.

(336) In general, the RSPG deliverables provided valuable input for further Commission's considerations, contributed to the development of the internal market and to support the development of a Union-level radio spectrum policy, and were welcomed by stakeholders. However, the RSPG in its opinions did not fully exploit its mandate to

advise Union institutions on broader aspects of radio spectrum policy in general (e.g. economic, political, cultural, strategic, security, health and social issues), partly due to a lack of a proper support structure. The close cooperation between BEREC and the RSPG where radio spectrum issues have regulatory implications envisaged by Directive (EU) 2018/1972, was in practice limited to few joint opinions or reports. Both BEREC and RSPG relied on the resources of their members for the work on substance, which means that any constraints that the national authorities have, be it of budgetary nature, staffing or workload, are reflected in their ability to effectively contribute to the work of BEREC and RSPG.

(337) New tasks under this Regulation, such as in the area of use of radio spectrum by satellites and in the spectrum single market procedure, call for strengthening the RSPG. It should evolve from the Commission advisory group to become similar to BEREC, with adequate administrative and professional support by the ODN. This Regulation thus establishes the RSPB which replaces the RSPG. The RSPB should continue to have advisory role in the development of a radio spectrum policy in the Union. The Commission or the European Parliament or the Council may at any time request the RSPB to adopt an opinion or a report on any radio spectrum policy issue. In its opinions, the RSPB should take into account inter alia technical, economic, political, cultural, strategic, health and social aspects, as well as the various potentially conflicting needs of radio spectrum users with a view to ensuring that a fair, non-discriminatory and proportionate balance is achieved. Furthermore, the RSPB should assume new tasks under this Regulation.

(338) Since the tasks related to radio spectrum policy require expertise from different national competent authorities with responsibility on spectrum issues, including from bodies making political decisions, the RSPB tasks cannot be conferred to BEREC, which is composed of national regulatory authorities which do not necessarilly have competences in spectrum policy matters.

(339) RSPB should be composed of the RSPB Board and working groups. The working groups should make preparatory work for the RSPB Board deliberation in a similar way as the subgroups have been for the RSPG.

(340) The RSPB Board should include high-level experts from the Member States with responsibility for strategic radio spectrum policy. These experts could come from national regulatory or other competent authorities. At RSPB meetings, national delegations should present a consolidated and coordinated national view, no matter if responsibility for radio spectrum are shared between different national bodies, not only in relation to the internal market but also to public order, public security, civil protection and defence policies as such policies may influence the organisation of radio spectrum as a whole.

(341) The current RSPG’s arrangement that a Chair has a term of office of two years and that at its end, he or she is replaced by a Deputy-Chair proved beneficial for ensuring continuity of the RSPG work. Therefore, a similar arrangement should continue for a Chair and a Vice-Chair of the RSPB Board.

(342) The CEPT should be invited as an observer of the RSPB's work considering that the activities of the RSPB have a significant impact on radio spectrum at pan-European level and that CEPT and its affiliate bodies have extensive technical expertise in radio spectrum management. Drawing on CEPT's expertise is also appropriate based on mandates granted thereto pursuant to the Decision No 676/2002/EC in order to develop technical implementing measures in the areas of radio spectrum allocation and

information availability. In view of the importance of European standardisation for the development of equipment using radio spectrum, it is likewise important to associate as observer the European Telecommunications Standardisation Institute ('ETSI').

(343) In addition, where necessary, and on a case-by-case basis, the BEREC Board of Regulators, the RSPB Board and the ODN Management Board should be able to invite any person whose opinion may be of relevance, for example in light of their role and expertise, to participate in their meetings as an observer. Such observer status should not be permanent and consequently, an invite to participate in the meetings of the Board of Regulators, the RSPB Board or the Management Board should be issued for a specific meeting. Given the sensitive and confidential nature of certain discussions that BEREC and RSPB members may be required to have to carry out tasks such as for example related to resilience or with a strong Union dimension, it is necessary to empower the Commission to request that the participation to BEREC and RSPB meeting is restricted. The same possibility to request to limit participation should be given to the Chairs of BEREC and of the RSPB which may make such request in agreement with the Director of the ODN.

(344) The BEREC Board of Regulators, the RSPB Board and the ODN Management Board should hold at least two ordinary meetings a year. Given past experience and the enhanced role of BEREC and the RSPB, the BEREC Board of Regulators, RSPB Board and the ODN Management Board may need to hold additional meetings. To further enhance cooperation between BEREC and the RSPB, joint meetings of the Board of Regulator and RSPB Board may be convened to discuss matters of relevance for both BEREC and the RSPB.

(345) In order to further increase the single market dimension of BEREC and the RSPB guidelines, opinions, reports and other documents, the single majority should become the rule for voting.

(346) Experience has shown that most of BEREC's and RSPB's tasks are better carried out through working groups. BEREC working groups should always ensure equal consideration of all national regulatory authorities' views and contributions, while RSPB working groups should ensure equal consideration of all RSPB members' views and contributions. National regulatory and, where relevant, competent authorities responsible for radio spectrum should promptly respond to nomination requests in order to ensure the quick establishment of working groups, in particular those related to procedures with time-limits. The working groups should be open to the participation of experts from the Commission. To further enhance the impact of BEREC's and RSPB's output on the internal market, professional staff from the ODN should also systematically support and contribute to the working groups' activities. The BEREC Board of Regulators and the RSPB Board should therefore set up working groups, through the ODN, and appoint their Chairs, representing where possible different national regulatory and, where relevant, competent authorities responsible for radio spectrum, and the ODN in light of expertise and availability of the ODN staff.

(347) In the internal market procedure, where the BEREC working group is assessing a draft national measure proposed by a national regulatory authority and developing a draft opinion, if relevant, it should not be influenced by the views of the national regulatory authority that proposed the measure itself or of the Commission. Likewise, the RSPB and BEREC working groups dealing with the notified draft national measures in the spectrum single market procedure should not be influenced either by views of a competent authority proposing the measure or of the Commission. Therefore, by way

of exception, the experts from the Commission and relevant national regulatory authority or competent authority responsible for spectrum should not attend the meetings of the relevant BEREC or RSPB working group.

(348) The RSPG has played an important role in the Union's preparation for WRCs through identifying together with the Commission items of the WRCs' agendas that might affect Union law, policies or programmes and recommending the position the Union should take at the WRCs. As these recommendations should not be influenced by any non-EU administration, members of the relevant RSPG subgroup are only experts from Member States and the Commission. Such arrangement should continue after the tasks of the RSPG are taken over by the RSPB.

(349) Where appropriate and depending on the allocation of tasks to authorities in each Member State, other competent authorities should be invited to participate and their views should be taken into consideration in the relevant BEREC working group where their expertise is needed. If experts from other competent authorities are unable to attend such meetings, national regulatory authorities should demonstrate that their views have been taken into account. In any event, the independence of BEREC should be maintained. As a rule, BEREC and the RSPB working groups should have specific mandates and should be dissolved as soon as they complete their mandate. In this way, the work of BEREC and the RSPB would be more flexible and experts would be engaged where and for time needed. On the other hand, it should be possible to create permanent BEREC or RSPB working groups where their activities are recurrent.

(350) The RSPG's current practice to work on the basis of a biennial work programme proved positive as it provided for two-years continuity of activities without creating unnecessary administrative burden. It allowed engaging the national experts more rationally by organising the RSPG activity depending on urgency and sensitivity of the activity thus allowing all the activities to be completed at least within the two-year period. This good practice should continue with the RSPB and should be adopted also by BEREC. The Commission should be able to request BEREC or the RSPB for an opinion at any time within a biennial cycle even if an activity based on the request would continue in the next biennial cycle.

(351) In order to reduce administrative burden, BEREC and the RSPB should each adopt a report on their activities every two years, in line with their respective work programmes.

(352) In order to ensure a coherent and consistent application of the Union regulatory framework for electronic communications and radio spectrum policy, it is necessary to strengthen the cooperation between BEREC and the RSPB. Given the increasing interdependence between electronic communications regulation and radio spectrum management, structured, regular and systematic cooperation, including through joint meetings and joint working groups, is essential to avoid regulatory fragmentation, enhance policy coherence and support the effective functioning of the internal market.

(353) To enhance the cooperation between BEREC and the RSPB, the Chair of the BEREC Board of Regulators and the Chair of the RSPB Board should meet at least twice a year. To address issues identified as needing close cooperation between BEREC and RSPB, the Chairs should make proposals to their respective boards for joint activities, including to set up joint task forces. The issues identified to be subject to close cooperation should also be described in the work programmes of BEREC and the RSPB. The areas where more cooperation is advisable could include regulatory issues of mutual interest, in particular market regulation and competition related to radio

spectrum, as well as satellites communications, verticals, 5G and 6G networks and future mobile communications.

(354) The role of the BEREC Office, currently providing mainly administrative support to BEREC, should be enhanced to provide BEREC and the RSPB with support on administrative matters and with expertise on the merits of the tasks assigned to them. To this aim, the BEREC Office's structure should be adapted and its budgetary resources increased. The new official name of the BEREC Office should be 'Office for Digital Networks'. The designation 'ODN' should be used as the Agency's short name.

(355) In light of the increasing complexity and strategic importance of electronic communications networks and digital network infrastructures, and of their growing interdependence with radio spectrum policy, it is necessary to establish a reinforced Union-level support structure. The ODN should play a central role in providing expertise, analytical capacity and coordination supporting BEREC and the RSPB, while fully respecting their respective mandates and independence. Strengthened and structured support at Union level is essential to ensure the consistent application of Union law, enhance regulatory and policy coherence, avoid fragmentation of the internal market and support the effective implementation of Union digital objectives.

(356) The ODN should provide all necessary professional and administrative support for the work of BEREC and the RSPB, including financial, organisational and logistical support, and should contribute to BEREC and RSPB's work.

(357) To ensure that BEREC receives sufficient support on its tasks and to strengthen the impact on the internal market of its output, this Regulation should assign the ODN clear and defined role and tasks, such as to actively participate and contribute to all the activities of BEREC working groups, prepare the Plan to strengthen the resilience and preparedness of electronic communications networks, services and other digital infrastructures at Union level in the event of natural or man-made disruptions, crises or force majeure which may have a significant adverse impact on the population or the functioning of the internal market, and to support the coordination among national regulatory authorities and other competent authorities to facilitate the issuance of single authorisations to operate within the Union. Given that to carry out the tasks assigned to it in support of BEREC, the RSPB or the Commission, the ODN needs to collect data and analyse it, it is appropriate to entrust the ODN with the task to issue informative annual reports on the progress towards the single market for electronic communications. Such reports should describe the state of the market, the market structure, and the impact of the measures implemented under this Regulation on the internal market, including the *ex post* effects of mergers on the market. The Commission may take them into account when preparing Digital Decade reports.

(358) The ODN should also be entrusted with tasks in support of the RSPB, for example to provide analytical, administrative and logistical support to the RSPB Board and its working groups in carrying out the tasks assigned to them by this Regulation. The ODN should also assist the Commission and the RSPB in the process of granting the Union authorisation for the provision of satellite networks and services and the use of radio spectrum for satellite, and upon Commission request, it should assist it in conducting a selection procedure at Union level. The ODN should also act as a where a one stop shop procedure is created by the Commission to facilitate the granting of radio spectrum under common authorisation conditions.

(359) Given it is replacing the BEREC Office, the ODN should be a body of the Union with legal personality and enjoy legal, administrative and financial autonomy. As a Union decentralised agency, the ODN should operate within its mandate and the existing institutional framework. It should not be seen as representing a Union position to an outside audience or as committing the Union to legal obligations. Its seat should remain in Riga, as decided by the Representatives of the Governments of the Member States[65]. The first Seat Agreement between the Government of the Republic of Latvia and the Office entered into force on 5 August 2011. It was subsequently replaced by a new Headquarters Agreement signed on 21 December 2020, in accordance with the provisions of Article 47 of Regulation (EU) 2018/1971.

(360) The ODN should be composed of a Management Board and a Director.

(361) The Management Board of the ODN should decide on administrative matters, such as the budget, staff and audits, and the BEREC Board of Regulators should focus r on regulatory matters relating to BEREC's tasks. The Management Board should be composed of the representatives of the national regulatory authorities, of the Commission and of the RSPB. In principle, the representatives of the national regulatory authorities on the Management Board should be the same persons as those appointed to the BEREC Board of Regulators, but national regulatory authorities should be able to appoint other representatives fulfilling the same requirements. Given that the ODN is tasked to support also the RSPB, the RSPB Chair should be a member of the Management Board, to ensure that the needs of the RSPB are adequately addressed.

(362) This Regulation provides for the Management Board to delegate relevant appointing authority powers to the Director, who is authorised to sub-delegate those powers. This is intended to contribute to the efficient management of the staff single point of contact for submission of applications and notifications of the ODN.

(363) The Director should remain the representative of the ODN with regard to legal and administrative matters. The Management Board should appoint the Director, subject to the positive opinion of the representative of the RSPB and following an open and transparent selection procedure in order to guarantee a rigorous evaluation of the candidates and a high level of independence.

(364) The ODN should be adequately staffed for the purpose of carrying out its duties. All tasks assigned to the ODN, including professional and administrative services supporting BEREC and RSPB in carrying out their tasks, together with compliance with the financial, staff and other applicable regulations, and the increased weight of operational tasks required of the ODN vis-à-vis administrative ones should be duly assessed and reflected in the resource programming.

(365) Because of its legal nature as a Union body, Commission Delegated Regulation (EU) No 2019/715[66] should apply to the ODN.

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65 Decision taken by common accord between the Representatives of the Governments of the Member States of 31 May 2010 on the location of the seat of the Office of the Body of European Regulators for Electronic Communications (BEREC) (2010/349/EU), OJ L 156, 23.6.2010, p. 12.

66 Commission Delegated Regulation (EU) 2019/715 of 18 December 2018 on the framework financial regulation for the bodies set up under the TFEU and Euratom Treaty and referred to in Article 70 of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council (OJ L 122, 10.5.2019, p. 1, ELI: http://data.europa.eu/eli/reg_del/2019/715/oj).

(366) In order to guarantee the ODN's autonomy and independence, and in order to provide support to the work of BEREC and RSPB, the ODN should have its own budget. The budget should be adequate and should reflect the additional tasks assigned and the enhanced role of BEREC, RSPB and the ODN. The ODN should be mainly financed from the general budget of the Union. However, to ensure that it has adequate budget to carry out its tasks, the ODN should be able to levy fees from undertakings for obtaining and maintaining Union satellite authorisations and pan-European numbering resources. The level of those fees and the modalities for payments should be set by the Commission in implementing acts. The financing of the ODN should be subject to an agreement by the budgetary authority as set out in point 27 of the Inter-institutional Agreement of 16 December 2020 between the European Parliament, the Council of the European Union and the European Commission[67]. In order to further extend the consistent implementation of the regulatory framework for electronic communications, the BEREC Board of Regulators, the RSPB Board, the working groups, where relevant, and the Management Board should be open to the participation of authorities of third countries competent in the field of electronic communications or spectrum policy where those third countries have entered into agreements with the Union to that effect, such as EEA EFTA States and candidate countries.

(367) BEREC and the RSPB should be entitled to establish working arrangements with competent Union bodies, offices, agencies and advisory groups, with competent authorities of third countries and with international organisations, which should not create legal obligations. The goal of such working arrangements could be, for instance, to develop cooperative relationships and exchange views on regulatory issues. The Commission should ensure that the necessary working arrangements are consistent with Union policy and priorities, and that BEREC and the RSPB operate within their mandate and the existing institutional framework and are not seen as representing the Union position to an outside audience or as committing the Union to international obligations. Participation in the work of BEREC, the RSPB and the ODN without the right to vote of the authorities of third countries with primary responsibility in the field of electronic communications or spectrum, should only be possible when relevant working arrangements are in place.

(368) In order to further extend the consistent implementation of the regulatory framework for electronic communications, the BEREC Board of Regulators, the RSPB Board, the working groups and the Management Board should be open to the participation of authorities of third countries competent in the field of electronic communications or spectrum policy where those third countries have entered into agreements with the Union to that effect, such as EEA EFTA States and candidate countries.

(369) In order to ensure a high level of confidentiality and to avoid conflicts of interests, the rules on those matters applying to members of the organisational bodies of BEREC, the RSPB and the ODN should apply to their alternates.

(370) NRAs should cooperate with BEREC and the ODN and should provide them with timely and accurate information to ensure that BEREC and the ODN are able to fulfil

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67 Interinstitutional Agreement of 16 December 2020 between the European Parliament, the Council of the European Union and the European Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management, as well as on new own resources, including a roadmap towards the introduction of new own resources (OJ L 433I, 22.12.2020, p. 28, ELI: http://data.europa.eu/eli/agree_interinstit/2020/1222/oj)

their tasks. BEREC and the ODN should also, pursuant to the principle of sincere cooperation, share with the Commission, the NRAs and other competent authorities all necessary information. Where relevant, the confidentiality of information should be ensured. When assessing whether a request is duly justified, BEREC should take into consideration whether the information requested is related to the carrying out of tasks exclusively attributed to the relevant authorities. The same would apply to RSPB and competent authorities responsible for radio spectrum mutatis mutandis.

(371) The ODN should establish a common information and communication system to avoid duplication of information requests and facilitate communications between all authorities involved.

(372) The Commission should carry out a regular evaluation of the operation of BEREC, the RSPB and the ODN and the effectiveness of their institutional structure in a changing digital environment. If, as the outcome of that evaluation, the Commission finds that the institutional structure established by this Regulation is ineffective for the achievement of its objectives, in particular, to ensure the consistent implementation of the regulatory framework for electronic communications, it should propose necessary amendments.

(373) The BEREC Office which was established as a decentralised agency with legal personality by Regulation (EU) 2018/1971, is succeeded by the ODN established by this Regulation as regards all ownership, agreements, including the seat determination, legal obligations, employment contracts, financial commitments and liabilities. In order to ensure continuity in the work of BEREC, the RSPG and the ODN, the current members of the BEREC Board of Regulators, of the RSPG and the Director and the members of the Management Board of the BEREC Office should continue in office until the end of their term of office.

(374) National regulatory authorities, other competent authorities and BEREC need to gather information from market players in order to carry out their tasks effectively, including assessing the compliance of general terms and conditions with this Regulation without suspending the applicability of those terms and conditions during the assessment. It may, by way of exception, also be necessary to gather information from other undertakings active in sectors that are closely related to the electronic communications services sector, such as content providers, that hold information which could be necessary for them to exercise their tasks under Union law. It might also be necessary to gather such information on behalf of the Commission, to allow it to fulfil its respective obligations under Union law. Requests for information should be proportionate and not impose an undue burden on undertakings. Information gathered by national regulatory and other competent authorities should be publicly available, except in so far as it is confidential in accordance with national rules on public access to information and subject to Union and national rules on commercial confidentiality.

(375) In order to ensure that national regulatory authorities carry out their regulatory tasks in an effective manner, the data which they gather should include accounting data on the retail markets that are associated with wholesale markets where an undertaking is designated as having significant market power and as such are regulated by the national regulatory authority. The data should also include data which enable the national regulatory authority to assess compliance with conditions attached to rights of use, the possible impact of planned upgrades or changes to network topology on the development of competition or on wholesale products made available to other parties. Information regarding compliance with coverage obligations attached to rights of use

for radio spectrum is key to ensure completeness of the geographical surveys of network deployments. In that respect, the competent authority should be able to require that information is provided at disaggregated local level with a granularity adequate to conduct a geographical survey of networks. Common templates and approaches should be developed for the reporting of financial, statistical data, networks and service categories and other market information by services providers. Changes to reporting requirements, once established, should be minimised wherever possible.

(376) In order to support Union sustainability objectives, it is vital that the Union attracts investments into sustainable activities in the field of electronic communications networks and services. Such regulations as, but not limited to, Regulation (EU) 2020/852 of the European Parliament and of the Council[68] and under Directive (EU) 2022/2464 of the European Parliament and of the Council[69] allow financial and non-financial undertakings to share a common definition of economic activities that can be considered sustainable. Electronic communications networks are covered notably by the Union Code of Conduct for the sustainability of telecommunications networks, as planned under the Commission's Communication of 18 October 2022 entitled 'Digitalising the energy system - EU action plan'. In line with the once-only principle, it is necessary that national regulatory and other competent authorities assess whether the information on sustainability already provided by undertakings pursuant to Union law is sufficient for them and BEREC to carry out their regulatory tasks under Union law. In this regard, BEREC should, as part of its horizontal guidelines on information and reporting, map the sustainability related reporting obligations. BEREC should cooperate with other competent authorities to ensure efficient data gathering and processing from other sustainability related reports required by Union law or national law in the application of Union law, with the view to minimising the administrative burden and reusing the existing relevant data.

(377) It should be possible to exchange information that is considered to be confidential by a competent authority, in accordance with Union and national rules on confidentiality and business secrets and on the protection of personal data, with the Commission, BEREC and any other authorities where such exchange is necessary. The information exchanged should be limited to that which is relevant and proportionate to the purpose of such an exchange.

(378) Member States' obligations to provide information for the defence of Union interests under international agreements as well as reporting obligations under law that is not specific to the electronic communications sector such as competition law should not be affected.

(379) To alleviate the burden of information requests from network and service providers and the competent authority concerned, BEREC should adopt guidelines on the scope of information and reporting requests, templates, formats, timing and frequency. BEREC guidelines should harmonise regular and systematic reporting related to

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[68] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13, ELI: http://data.europa.eu/eli/reg/2020/852/oj).

[69] Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (OJ L 322, 16.12.2022, p. 15, ELI: http://data.europa.eu/eli/dir/2022/2464/oj).

general authorisation, individual rights of use for scarce resources and specific obligations and should not be required more than once per year and should be subject to BEREC templates as well. Any information requests and reporting obligations should be proportionate, objectively justified and limited to what is strictly necessary. In particular, duplication of requests for information by the competent authority and by BEREC, and the systematic and regular proof of compliance with all conditions under a general authorisation or a right of use, should be avoided. Undertakings should be made aware of the intended use of the information sought. Provision of information should not be a condition for market access. For statistical purposes and to maintain accurate information in the notifications database, a notification may be required from providers of electronic communications networks or services when they cease activities.

(380) Regulatory intervention must rely on detailed information regarding network roll-out in order to be effective and to target the areas where it is needed. That information is essential for the purpose of promoting investment, increasing connectivity across the Union and providing information to all relevant authorities and citizens. It should include surveys regarding both deployment of gigabit networks as well as significant upgrades or extensions of networks which might not match the performance characteristics of gigabit networks in all respects, such as roll-out of fibre to the cabinet coupled with active technologies like vectoring. The gathering of information should also support the process of copper switch-off with all the relevant information. The relevant forecasts should concern periods of up to three years. The level of detail and territorial granularity of the information that competent authorities should gather should be guided by the specific regulatory objective and should be adequate for the regulatory purposes that it serves. Therefore, the size of the territorial unit will also vary between Member States, depending on the regulatory needs in the specific national circumstances, and on the availability of local data. National regulatory and other competent authorities should be guided by BEREC guidelines on best practice to approach such a task, and such guidelines will be able to rely on the existing experience of national regulatory and/or other competent authorities in conducting geographical surveys of networks roll-out. Without prejudice to the respect of confidential information and business secrets, competent authorities should, where the information is not already available on the market, make data directly accessible in an open format in accordance with Directive (EU) 2019/1024 of the European Parliament and of the Council[70] and without restrictions on reuse the information gathered in such surveys and should make available tools to end-users as regards quality of service to contribute towards the improvement of their awareness of the available connectivity services. In gathering any of that information, all authorities concerned should respect the principle of confidentiality and should avoid causing a competitive disadvantage to any undertaking.

(381) Where geographical surveys, possibly in combination with other relevant data, show competition issues, national regulatory authorities should be able to conduct a market review when justified.

(382) Reliable information on the deployment of broadband networks is essential for the precise targeting of State aid, the verification of universal service obligations, and the

[70] Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (OJ L 172, 26.6.2019, p. 56, ELI: http://data.europa.eu/eli/dir/2019/1024/oj).

effective promotion of competition. Periodic surveys may fail to capture the dynamic nature of fibre rollouts. Therefore, best practices suggest evolving the mapping of network deployments from a static survey to a continuous survey, ideally based on APIs-based data ingestion model, creating a 'real-time digital twin' of Union connectivity that includes both terrestrial and non-terrestrial (satellite) connectivity.

(383) In order to comply with State aid rules, the subsidised network must provide, inter alia, an adequate step change compared to existing and planned networks that already exist or are forecast to be deployed. This may require mapping of concrete speed thresholds.

(384) Accurate calculation of availability (premises passed), readiness (premises connected) and take-up (premises activated) of the geographical reach of gigabit networks connectivity coverage, take-up rates as well as market shares require a precise denominator. To ensure the robustness of these calculations, national regulatory authorities and other competent authorities should have access to the authoritative count of households and physical premises per address point, as held by National Statistical Institutes or Cadastral Authorities. Access to this reliable data is essential to calculate accurate connectivity coverage and penetration rates for the monitoring of Digital Decade targets and to ensure robust and consistent market analysis across the Union.

(385) Access to gigabit networks is a prerequisite for social inclusion and economic development, yet demand-side factors significantly influence market contestability and investment viability. To effectively perform market analyses, define relevant markets, and target public interventions, national regulatory authorities should be able to distinguish between 'infrastructure gaps' (where networks are absent) and 'adoption gaps' (where networks exist but remain unused). Therefore, it may be useful to compare geospatial network data and socio-economic micro-data to assess the possible constraints affecting coverage, demand, and digital inclusion.

(386) Data concerning household composition, age structure, and disposable income could be relevant for assessing demand elasticity and potential barriers to the adoption of broadband services. Furthermore, where available income and poverty indicators may be used for the automatic verification of eligibility for social vouchers. The processing of these metrics would allow Member States to target public subsidies to support the most vulnerable citizens while limiting any possible distortion of competition.

(387) Experience has shown that technical barriers often persist within the final connection to the user, distinct from the near network deployment. Therefore, statistical data regarding physical building characteristics, including construction year, dwelling type (multi-dwelling units vs single dwelling units), and tenancy status, is relevant. Access to this data could enable regulators to identify 'vertical bottlenecks', such as internal wiring costs which may act as barriers to investments, and to adjust cost models for wholesale access pricing accordingly.

(388) To effectively perform regulatory tasks, including the definition of sub-national geographic markets and the targeting of State aid, national regulatory authorities may require the processing of geospatial network data in combination with granular socio-economic and physical micro-data at the level of individual address points. Where processing of personal data is necessary to pursue those tasks, such processing is carried out pursuant to Article 6(1), point e) and Article 6(3) of Regulation (EU)

2016/679. To ensure full compliance with the principles of statistical confidentiality laid down in Regulation (EC) No 223/2009[71], this Regulation should promote the use of a Secure Processing Environment (SPE) or equivalent secure technical interfaces. That environment ensures that while analysis is performed on micro-data for accuracy, no confidential data is disclosed to the regulatory authority, and any public reporting derived from this analysis must be aggregated to a level that prevents the re-identification of specific statistical units, typically ensuring a minimum threshold of at least three units.

(389) To ensure consistency across the internal market, BEREC should be able to update its guidelines to specify the technical standards for the Secure Processing Environment and the data definitions for the socio-economic indicators, ensuring that the burden on National Statistical Institutes is minimized through standardised APIs.

(390) While market participants can change their deployment plans for unpredictable, objective and justifiable reasons, competent authorities should intervene, including where public funding is affected, and, where appropriate, impose penalties if they have been provided, knowingly or due to gross negligence, by an undertaking or public authority with misleading erroneous or incomplete information. Regarding penalties, gross negligence should refer to a situation where an undertaking or a public authority provides misleading, erroneous or incomplete information due to its behaviour or internal organisation which falls significantly below due diligence regarding the information provided. Gross negligence should not require that the undertaking or public authority knows that the information provided is misleading, erroneous or incomplete, but, rather, that it would have known, had it acted or been organised with due diligence. It is important that the penalties are sufficiently dissuasive in light of the negative impact on competition and on publicly funded projects. The provisions on penalties should be without prejudice to any rights to claim compensation for damages in accordance with national law.

(391) Bridging the digital divide in the Union is essential to enable all citizens of the Union to have access to the internet and digital services. To that end, in the case of specific and well-defined areas, the relevant authorities should have the possibility to invite undertakings and public authorities to declare their intention to deploy gigabit networks in those areas, allowing them sufficient time to provide a thoroughly considered response. The information included in the forecasts should reflect the economic prospects of the electronic communications networks sector and investment intentions of undertakings at the time when the data are gathered, in order to allow the identification of available connectivity in different areas. Where an undertaking or public authority declares an intention to deploy in an area, the national regulatory or other competent authority should be able to require other undertakings and public authorities to declare whether or not they intend to deploy gigabit networks. That procedure, that relies on market participants responding truthfully and in good faith, should create transparency for undertakings and public authorities that have expressed their interest in deploying in this area, so that, when designing their business plans,

[71] Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics and repealing Regulation (EC, Euratom) No 1101/2008 of the European Parliament and of the Council on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities, Council Regulation (EC) No 322/97 on Community Statistics, and Council Decision 89/382/EEC, Euratom establishing a Committee on the Statistical Programmes of the European Communities (OJ L 87, 31.3.2009, p. 164, ELI: http://data.europa.eu/eli/reg/2009/223/oj).

they can assess the likely competition that they will face from other networks. In the interests of predictable investment conditions, competent authorities should be able to share information with undertakings and public authorities expressing interest in deploying gigabit networks on whether other types of network upgrades, are present or foreseen in the area in question.

(392) It is important that national regulatory and other competent authorities consult all interested parties on proposed decisions, give them sufficient time to the complexity of the matter to provide their comments, and take account of their comments before adopting a final decision. In order to ensure that decisions at national level do not have an adverse effect on the functioning of the internal market or other TFEU objectives, national regulatory authorities should also notify certain specific draft decisions concerning, in particular market functioning and competition to the Commission and other national regulatory authorities to give them the opportunity to comment. It is appropriate for competent authorities to consult interested parties in the cases defined in this Regulation on all draft measures which have an effect on trade between Member States.

(393) In the context of a competitive environment, the views of interested parties, including users and consumers, should be taken into account. In order to appropriately address the interests of citizens, Member States should put in place an appropriate consultation mechanism. Such a mechanism could take the form of a body which would, independently of the national regulatory authority and service providers, carry out research into consumer-related issues, such as consumer behaviour and mechanisms for changing suppliers, and which would operate in a transparent manner and contribute to the existing mechanisms for stakeholder consultation. Furthermore, a mechanism could be established for the purpose of enabling appropriate cooperation on issues relating to the promotion of lawful content. Any cooperation procedures agreed pursuant to such a mechanism should, however, not allow for the systematic surveillance of internet use.

(394) Standardisation should remain primarily a market-driven process. However, there may still be situations where it is appropriate to require compliance with specified standards at Union level in order to improve interoperability, freedom of choice for users and encourage interconnectivity in the internal market. At national level, Member States are subject to Directive (EU) 2015/1535. Standardisation procedures under this Regulation should be without prejudice to Directives 2014/30/EU[72] and 2014/35/EU[73] of the European Parliament and of the Council, and Directive 2014/53/EU.

(395) Radio spectrum harmonisation and coordination, and equipment regulation supported by standardisation on the basis of Directive 2014/53/EU[74], are complementary and

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[72] Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (OJ L 96, 29.3.2014, p. 79, ELI: http://data.europa.eu/eli/dir/2014/30/oj).

[73] Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (OJ L 96, 29.3.2014, p. 357, ELI: http://data.europa.eu/eli/dir/2014/35/oj).

[74] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC (OJ L 153, 22.5.2014, p. 62, ELI: http://data.europa.eu/eli/dir/2014/53/oj).

need to be coordinated closely to meet their joint objectives effectively, with the support of the RSPB. Coordination between the content and timing of mandates to CEPT under Decision No 676/2002/EC and standardisation requests to standardisation bodies, such as the European Telecommunications Standards Institute, including with regard to radio receivers parameters, should facilitate the introduction of future systems, support radio spectrum sharing opportunities and ensure efficient radio spectrum management.

(396) Standardisation requests to standardisation bodies, such as the European Telecommunications Standards Institute, including with regard to radio receivers parameters, should facilitate the introduction of future systems, support radio spectrum sharing opportunities and ensure efficient radio spectrum management.

(397) The Union and the Member States have entered into commitments in relation to standards and the regulatory framework of telecommunications networks and services in the World Trade Organization.

(398) Out-of-court dispute resolution procedures may constitute a fast and cost-efficient way for end-users to enforce their rights, in particular for consumers and microenterprises and small enterprises as defined in the Annex to Commission Recommendation 2003/361/EC[75]. Member States should enable the national regulatory authority or another competent authority responsible for, or at least one independent body with proven expertise in dealing with, end-user rights to act as an alternative dispute resolution entity. With respect to such dispute resolutions, the authorities or other bodies notified as alternative dispute resolution entities should fully meet the quality requirements of the Directive 2013/11/EU of the European Parliament and of the Council[76], notably, it should not be subject to any instructions. As many Member States have established dispute resolution procedures also for end-users other than consumers, to whom Directive 2013/11/EU of the European Parliament and of the Council does not apply, it is reasonable to maintain the sector-specific dispute resolution procedure for both consumers and, where Member States extend it, also for other end-users, in particular microenterprises and small enterprises. In relation to out-of-court dispute resolution, Member States should be able to maintain or introduce rules that go beyond those laid down by Directive 2013/11/EU in order to ensure a higher level of consumer protection.

(399) In the event of a dispute between undertakings in the same Member State in an area covered by this Regulation, for example relating to obligations for access and interconnection or to the means of transferring end-user lists, an aggrieved party that has negotiated in good faith but failed to reach agreement should be able to call on the national regulatory authority to resolve the dispute. National regulatory authorities should be able to impose a solution on the parties. The intervention of a national regulatory authority in the resolution of a dispute between providers of electronic communications networks to the public or services or associated facilities in a Member State should seek to ensure compliance with the obligations arising under this Regulation.

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75 Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36, ELI: http://data.europa.eu/eli/reco/2003/361/oj).

76 Directive 2013/11/EU of the European Parliament and of the Council of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Directive on consumer ADR) (OJ L 165, 18.6.2013, p. 63, ELI: http://data.europa.eu/eli/dir/2013/11/oj).

(400) In addition to the rights of recourse granted under Union law or national law, there is a need for a simple procedure to be initiated at the request of either party in a dispute, to resolve cross-border disputes between undertakings providing, or authorised to provide, electronic communications networks or services in different Member States.

(401) One important task assigned to BEREC is to adopt, where appropriate, opinions in relation to cross-border disputes. National regulatory authorities should therefore fully reflect any opinion submitted by BEREC in their measures imposing any obligation on an undertaking or otherwise resolving the dispute in such cases.

(402) Technology and market developments in electronic communications networks and services and cloud and AI based networks and services are leading to increased interaction, cooperation and commercial agreements among a broad range of undertakings, including electronic communications service providers, CAPs, software and AI developers as well as network equipment and device manufacturers. In light of those developments BEREC should assist undertakings through guidelines, covering, inter alia, best practices for facilitating cooperation among market players in the broader connectivity ecosystem in compliance with competition law rules. The guidelines should be forward looking and enable future break-through innovation and development of use-cases contributing to the Union's objectives under the Competitiveness Compass. BEREC, with the support of the ODN, may work closely with industry representatives and other relevant stakeholders. To that end, BEREC may establish a dedicated stakeholder cooperation group to facilitate structured dialogue, exchange of best practices and technical expertise, and to support the consistent and effective implementation of the guidelines.

(403) Cooperation aspects under those BEREC guidelines should include service-level agreements between network providers, aspects related to fair, reasonable and proportionate use of the resources of the other party, in particular in cases such as the handover of IP traffic via interconnection, peering and transit for the purpose of providing information society services or electronic communications services in an efficient, economically sustainable, and reliable way, in particular, to the benefit of the end-user. Notably, agreements between those actors concerning the hand-over of traffic should not lead to disproportionate or economically unsustainable investment needs for network providers, and the benefits arising from increased traffic should be shared in a manner conducive to continued investment, innovation and network resilience. Accordingly, the guidelines should cover practices that allow for beneficial technical collaboration across the broader connectivity and digital services ecosystem.

(404) The BEREC guidelines should also encompass the exchange of information on expected traffic patterns, including peaks, and in general traffic forecasting, in order to support optimised network planning and congestion management. Furthermore, the guidelines should address additional aspects of energy-efficient, economically sustainable and reliable traffic delivery from an end-to-end perspective, including the promotion of a more harmonised use of data compression techniques, such as codecs, in order to reduce energy consumption and improve network usage efficiency. At the same time, and with the objective of incentivising provision of innovative services, the BEREC guidelines may also provide guidance on co-innovation frameworks, between electronic communications networks and other undertakings active in the electronic communications or closely related sectors. In addition, the guidelines may provide good practices for neutral host and multi-cloud deployment in electronic communications networks, lowering barriers for AI developers and content providers to innovate, in accordance with Regulation 2023/2854 of the European Parliament and

of the Council, promote interoperability standards and other relevant measures to incentivise deployment of innovative products and services requiring cooperation between electronic communications networks providers or between such providers and other undertakings active in the electronic communications or closely related sectors. Such innovative products and services may include, among others, joint deployment of edge computing services to bring cloud resources needed for delivery of low-latency services closer to mobile subscribers, provision of enterprise/industrial IoT platforms requiring collaboration between cloud and electronic communication providers, or electronic communications network providers and content and application providers co-deploying caches inside networks to optimise streaming. Matters addressed in those guidelines, including issues relating to interconnection between publicly available electronic communications networks and networks owned by undertakings other than publicly available electronic communications networks, should not be subject to dispute resolution mechanism, which should be limited to the enforcement of obligations laid down in this Regulation and which should not extend to arrangements of a cooperative or voluntary nature.

(405) In order to promote effective cooperation between providers of electronic communications networks and other undertakings active in the electronic communications or closely related sectors, it is appropriate to establish a voluntary conciliation procedure to facilitate dialogue on technical and commercial arrangements. Such a procedure provides a structured and neutral forum, supported by national regulatory authorities in cooperation with BEREC to encourage amicable solutions and reduce the likelihood of protracted disputes and enhance regulatory consistency. In order to ensure a coherent and harmonised application of this voluntary conciliation procedure across the Union, close cooperation with BEREC should be ensured throughout the procedure, including in the conciliation meeting and its report. In particular, BEREC should provide an opinion on individual cases brought forward by the parties in the context of conciliation procedures led by national regulatory authorities. In addition, the guidelines on ecosystem cooperation should provide guidance to national regulatory authorities on the assessment of the relevant commercial and technical matters, as well as on options for effective cooperation between the parties. By encouraging cooperation and mutual understanding, this procedure can contribute to the more efficient, economically sustainable and reliable delivery of IP traffic, support interoperability and quality of services, and facilitate the deployment of innovative services based on collaboration, while preserving contractual freedom.

(406) Member States might need to amend rights, conditions, procedures, charges and fees relating to general authorisations and rights of use where this is objectively justified. Such proposed amendments should be duly notified to all interested parties in good time, giving them adequate opportunity to express their views. Unnecessary procedures should be avoided in the case of minor amendments to existing rights to install facilities or rights of use for radio spectrum or for numbering resources when such amendments do not have an impact on third parties' interests. Minor amendments to rights and obligations are amendments which are mainly administrative, do not change the substantial nature of the general authorisations and the individual rights of use and thus cannot generate any competitive advantage over other undertakings.

(407) Considering the importance of ensuring legal certainty and in order to promote regulatory predictability to provide a safe environment for investments, in particular for new wireless broadband communications, any restriction or withdrawal of any

existing rights of use for radio spectrum or for numbering resources or right to install facilities should be subject to predictable and transparent justifications and procedures. Hence, stricter requirements or a notification mechanism could be imposed in particular where rights of use have been assigned pursuant to competitive or comparative procedures and in the case of harmonised radio spectrum bands to be used for wireless broadband electronic communications services ('wireless broadband services'). Justifications referring to effective and efficient use of radio spectrum and technological evolution could rely on technical implementing measures adopted under Decision No 676/2002/EC. Furthermore, except where proposed amendments are minor, where general authorisations and individual rights of use for radio spectrum need to be restricted, withdrawn or amended without the consent of the holder of the right, this can take place after consulting interested parties. As restrictions or withdrawals of general authorisations or rights may have significant consequences for their holders, the competent authorities should take particular care and assess in advance the potential harm that such measures may cause before adopting such measures.

(408) Competent authorities should monitor and secure compliance with the terms and conditions of the radio spectrum general authorisation and rights of use, and in particular to ensure effective and efficient use of radio spectrum and compliance with coverage and quality of service obligations, through administrative penalties including financial penalties and injunctions and withdrawals of rights of use in the event of breaches of those terms and conditions. Undertakings should provide the most accurate and complete information possible to competent authorities to allow them to fulfil their surveillance tasks.

(409) Any party subject to a decision of a competent authority, including a decision not to deal with applications for the granting of rights to install facilities, should have the right to appeal to a body that is independent of the parties involved and of any external intervention or political pressure. That appeal procedure should be without prejudice to the division of competences within national judicial systems and to the rights of legal entities or natural persons under national law. In any case, Member States should grant effective judicial review against such decisions.

(410) To ensure legal certainty for market players, appeal bodies should carry out their functions effectively. In particular, appeal proceedings should not be unduly lengthy. Interim measures suspending the effect of the decision of a competent authority should be granted only in urgent cases to prevent serious and irreparable damage to the party applying for those measures and only where the balance of interests so requires.

(411) In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission to adopt decisions to resolve cross-border harmful interference between Member States; to identify a harmonised or coordinated approach for the purpose of addressing inconsistent implementation of general regulatory approaches by national regulatory authorities on the regulation of electronic communications markets, as well as numbering, including number ranges, portability of numbers and identifiers, number and address translation systems, and access to emergency services through the single European emergency number '112'; to make the implementation of standards or specifications compulsory, or remove standards or specifications from the compulsory part of the list of standards; to adopt the technical and organisational measures to appropriately manage the risks posed to security of networks and services, as well as the circumstances, format and procedures applicable to notification of security incidents; to specify relevant details

relating to tradable individual rights publicly available in a standardised electronic format when the rights of use for radio spectrum are created to specify the physical and technical characteristics of small-area wireless access points; to authorise or prevent a national regulatory authority from imposing on undertakings designated as having significant market power certain obligations for access or interconnection; to harmonise specific numbers or numbering ranges to address unmet cross-border or pan-European demand for numbering resources; and to specify the contract summary template to be provided to consumers. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council[77].

(412) The publication of information by Member States should ensure that market players and potential market entrants understand their rights and obligations, and know where to find the relevant detailed information. Publication in the national gazette helps interested parties in other Member States to find the relevant information.

(413) To determine the correct application of Union law, the Commission needs to know which undertakings have been designated as having significant market power and which obligations have been placed upon market players by national regulatory authorities. In addition to publication of that information at national level, it is therefore necessary for Member States to submit that information to the Commission. Where Member States are required to send information to the Commission, they should be able to do so by electronic means, subject to agreement on appropriate authentication procedures.

(414) The Commission should review the functioning of this Regulation periodically, in particular to determine whether amendments are needed in light of changing technological or market conditions. When reviewing the functioning of this Regulation, the Commission should assess whether, in light of developments in the market and with regard to both competition and consumer protection, there is a continued need for the provisions on sector-specific *ex ante* regulation or whether those provisions should be amended or repealed.

(415) The European Data Protection Supervisor was consulted in accordance with Article 42(1) of Regulation (EU) 2018/1725 and delivered their opinion on [dd month 2026].

(416) There is a need to provide for a transitional period for the Commission to set up the Union satellite authorisation regime which should replace the national ones. During this period, the Commission should define the conditions applicable to the provision of satellite networks and satellite communications services and the use of spectrum and set up the procedure, including timelines and practicalities, for undertakings to submit their Union authorisation requests. Moreover, there should be sufficient time for holders of rights of use or users of spectrum under national law to request Union authorisation and for the Commission to process such requests.

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77 Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13, ELI: http://data.europa.eu/eli/reg/2011/182/oj).

HAVE ADOPTED THIS REGULATION:

1. PART I - SCOPE, OBJECTIVES AND DEFINITIONS

Article 1

Subject matter

1. This Regulation establishes rules for the provision of electronic communications networks, electronic communications services, associated facilities and associated services, the strategic planning and management of radio spectrum and certain aspects of terminal equipment.
2. This Regulation also establishes a governance framework for the electronic communications sector composed of the national regulatory and other competent authorities, the Body of European Regulators for Electronic Communications ('BEREC'), the Radio Spectrum Policy Body ('RSPB'), and the Office for Digital Networks ('ODN'), laying down the tasks of BEREC, the RSPB and the ODN as well as those of national regulatory authorities and, where applicable, of other competent authorities, and establishes a set of procedures for the application of the relevant legal framework throughout the Union.

Article 2

Definitions

For the purposes of this Regulation, the following definitions apply:

(1) 'electronic communications network' means transmission systems, whether or not based on a permanent infrastructure or centralised administration capacity, and, where applicable, switching or routing equipment and other resources, including network elements which are not active, which permit the conveyance of signals by wire, radio, optical or other electromagnetic means, including satellite networks, fixed and mobile networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed;

(2) 'gigabit network' means either an electronic communications network which consists wholly of optical fibre elements up to the network termination point, or an electronic communications network which is capable of delivering, under usual peak-time conditions, similar network performance in terms of available downlink and uplink bandwidth, resilience, error-related parameters, and latency and its variation;

This definition replaces the definition of 'very high capacity network' of Article 2(2) of Directive (EU) 2018/1972;

(3) 'electronic communications service' means a service normally provided for remuneration via electronic communications networks, which encompasses, with the exception of services providing or exercising editorial control over content transmitted using electronic communications networks and services, the following types of services:

(a) internet access service;

(b) interpersonal communications service;

(c) services consisting wholly or mainly in the conveyance of signals such as transmission services used for the provision of machine-to-machine services and for broadcasting;

(4) ‘premises passed’ means end users’ premises for which an operator has deployed its access network up to serving point (i.e. the first concentration or distribution point intended to serve that premises), such that, from receipt of the request, the operator can make the access service available within four weeks with reasonable additional built out (i.e. by carrying out only the standard premises-specific final drop connection and activation, without extending the access network beyond the serving point;

(5) ‘premises connected’ means an end-user’s premises where the access network infrastructure has been physically extended from the serving point and terminated inside the end user’s premises;

(6) ‘essential copper-based service’ means an electronic communications service delivered over legacy copper access infrastructure to the extent that it supports mission critical or essential functions, such as emergency communication, telecare systems, alarms and monitoring control systems, used by the water, energy and transport industries;

(7) ‘internet access service’ means a publicly available service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used;

(8) ‘interpersonal communications service’ means a service normally provided for remuneration that enables direct interpersonal and interactive exchange of information via electronic communications networks between a finite number of persons, whereby the persons initiating or participating in the communication determine its recipient(s), and does not include services which enable interpersonal and interactive communication merely as a minor ancillary feature that is intrinsically linked to another service;

(9) ‘number-based interpersonal communications service’ means an interpersonal communications service which connects with publicly assigned numbering resources, namely, a number or numbers in national or international numbering plans, or which enables communication with a number or numbers in national or international numbering plans;

(10) ‘number-independent interpersonal communications service’ means an interpersonal communications service which does not connect with publicly assigned numbering resources, namely, a number or numbers in national or international numbering plans, or which does not enable communication with a number or numbers in national or international numbering plans;

(11) ‘public electronic communications network’ means an electronic communications network used wholly or mainly for the provision of publicly available electronic communications services which support the transfer of information between network termination points;

(12) ‘network termination point’ means the physical point at which an end-user is provided with access to a public electronic communications network, and which, in the case of networks involving switching or routing, is identified by means of a specific network address, which may be linked to an end-user’s number or name;

(13) ‘associated facilities’ means associated services, physical infrastructures and other facilities or elements associated with an electronic communications network or an electronic communications service which enable or support the provision of services via that network or service, or have the potential to do so, and includes buildings or entries to buildings, building wiring, antennae, towers and other supporting constructions, ducts, conduits, masts, manholes and cabinets;

(14) ‘associated service’ means a service associated with an electronic communications network or an electronic communications service which enables or supports the provision, self-provision or automated provision of services via that network or service, or has the potential to do so, and includes number translation or systems offering equivalent functionality, conditional access systems and electronic programme guides (EPGs), as well as other services such as identity, location and presence services;

(15) ‘conditional access system’ means any technical measure, authentication system and/or arrangement whereby access to a protected radio or television broadcasting service in intelligible form is made conditional upon subscription or another form of prior individual authorisation;

(16) ‘user’ means a natural or legal person using or requesting a publicly available electronic communications service;

(17) ‘end-user’ means a user not providing public electronic communications networks or publicly available electronic communications services;

(18) ‘consumer’ means any natural person who uses or requests a publicly available electronic communications service for purposes which are outside his or her trade, business, craft or profession;

(19) ‘provision of electronic communications networks’ means the establishment, operation, control or making available of such networks;

(20) ‘application programming interface’ or ‘API’ means the software interface between applications, made available by broadcasters or service providers, and the resources in the set-top boxes intended for connection to television sets or in integrated digital television or digital radio sets;

(21) ‘radio spectrum allocation’ means the designation of a given radio spectrum band for use by one or more types of radio communications services, where appropriate, under specified conditions;

(22) ‘harmful interference’ means interference which endangers the functioning of a radio navigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts a radio communications service operating in accordance with the applicable international, Union or national regulations;

(23) ‘general authorisation’ means a legal framework ensuring rights and laying down obligations for the provision of electronic communications networks or services in the internal market, in accordance with this Regulation;

(24) ‘small-area wireless access point’ means low-power wireless network access equipment of a small size operating within a small range, using licensed radio spectrum or licence-exempt radio spectrum or a combination thereof, which may be used as part of a public electronic communications network, which may be equipped with one or more low visual impact antennae, and which allows wireless access by

users to electronic communications networks regardless of the underlying network topology, be it mobile or fixed;

(25) ‘radio local area network’ or ‘RLAN’ means a low-power wireless access system, operating within a small range, with a low risk of interference with other such systems deployed in close proximity by other users, using, on a non-exclusive basis, harmonised radio spectrum;

(26) ‘harmonised radio spectrum’ means radio spectrum for which harmonised technical conditions relating to its availability and efficient use have been established by way of implementing measures in accordance with Article 4 of Decision No 676/2002/EC;

(27) ‘shared use of radio spectrum’ means access, on an equal or hierarchical order of protection, by two or more technologies or users, to the same radio spectrum bands or channels, in order to ensure the efficient use thereof, which can be based on a defined sharing arrangement between users, authorised on the basis of a general authorisation, individual rights of use for radio spectrum or a combination thereof; it includes regulatory approaches such as licensed shared access that guarantee to all users predictable and reliable sharing conditions;

(28) ‘access’ means the making available of facilities or services to another undertaking, under defined conditions, either on an exclusive or a non-exclusive basis, for the purpose of providing electronic communications services, information society services or broadcast content services; it covers, inter alia: access to electronic communications networks and network elements and associated facilities, which may involve the connection of equipment, by fixed or non-fixed means (in particular this includes access to the local loop and to facilities and services necessary to provide services over the local loop); access to physical infrastructure including buildings, ducts and masts; access to relevant software systems including operational support systems; access to information systems or databases for pre-ordering, provisioning, ordering, maintaining and repair requests, and billing; access to number translation or systems offering equivalent functionality; access to fixed and mobile networks, in particular for roaming; access to conditional access systems for digital television services and access to virtual network services;

(29) ‘interconnection’ means a specific type of access implemented between providers of electronic communications networks by means of the physical and logical linking of electronic communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with users of the same or another undertaking, or to access services provided by another undertaking where such services are provided by the parties involved or other parties who have access to the network;

(30) ‘operator’ means an undertaking providing or authorised to provide a public electronic communications network or an associated facility;

(31) ‘local loop’ means the physical path used by electronic communications signals connecting the network termination point to a distribution frame or equivalent facility in the fixed public electronic communications network;

(32) ‘call’ means a connection established by means of a publicly available interpersonal communications service allowing two-way voice communication;

(33) ‘voice communications service’ means a publicly available electronic communications service for originating and receiving, directly or indirectly, national

or national and international calls through a number or numbers in a national or international numbering plan;

(34) ‘geographic number’ means a number from the national numbering plan where part of its digit structure contains geographic significance used for routing calls to the physical location of the network termination point;

(35) ‘non-geographic number’ means a number from the national numbering plan that is not a geographic number, such as mobile, freephone and premium-rate numbers;

(36) ‘total conversation service’ means a multimedia real-time conversation service that provides bidirectional symmetric real-time transfer of motion video, real-time text and voice between users in two or more locations;

(37) ‘public safety answering point’ or ‘PSAP’ means a physical location where emergency communication is received under the responsibility of a public authority or a private organisation recognised by the Member State;

(38) ‘most appropriate PSAP’ means a PSAP established by responsible authorities to which emergency communication is routed and that is competent to convey contextual information to emergency services from the relevant area of intervention;

(39) ‘emergency communication’ means communication by means of interpersonal communications services between an end-user and the PSAP with the goal to request and receive emergency relief from emergency services.

(40) ‘effective emergency communication’ means emergency communication that ensures timely communication between the end-user and the most appropriate PSAP, and makes available in a timely manner contextual information, including caller location information;

(41) ‘contextual information’ means the information conveyed through emergency communication by the end-user or derived and transmitted automatically from the terminal equipment of the end-user or the relevant network in order to enable the timely identification of the intervention resources of emergency services and the fast arrival of emergency services at the intervention scene;

(42) ‘emergency service’ means a service, recognised as such by the Member State, that provides immediate and rapid assistance in situations where there is, in particular, a direct risk to life or limb, to individual or public health or safety, to private or public property or to the environment, in accordance with national law;

(43) ‘caller location information’ means, in a public mobile network, the data processed, derived from network infrastructure or handsets, indicating the geographic position of an end-user’s mobile terminal equipment, and, in a public fixed network, the data about the physical address of the network termination point;

(44) ‘terminal equipment’ means terminal equipment as defined in Article 1, point (1), of Commission Directive 2008/63/EC[78];

(45) ‘satellite communications services’ means services whose provision makes use, wholly or partly, of the establishment of radiocommunications from satellite ground stations or their complementary ground and airborne components to space station

[78] Commission Directive 2008/63/EC of 20 June 2008 on competition in the markets in telecommunications terminal equipment (OJ L 162, 21.6.2008, p. 20, ELI: http://data.europa.eu/eli/dir/2008/63/oj).

('uplinks'), and/or the establishment of radiocommunications from a space station to satellite ground stations or their complementary ground and airborne components ('downlinks');

(46) 'provision of satellite networks' means the establishment and operation of satellite systems, satellite ground stations and, where applicable, their complementary ground and airborne components;

(47) 'satellite ground station' means equipment on Earth which is capable of being used either for transmission-only, or for transmission and reception ('transmit-receive'), or for reception only ('receive-only'), of radiocommunication signals by means of satellites or other space-based systems. This includes, but is not limited to, ground stations, terminals and terrestrial-based equipment needed to communicate with satellites or other space stations;

(48) 'complementary ground and airborne components' means ground-based or airborne stations of satellite networks used at fixed or changing locations, in order to improve the availability of satellite communications services in geographical areas within the footprint of the system's satellite(s), where communications with one or more space stations cannot be ensured with the required quality;

(49) 'personal data' means personal data as defined in Article 4, point (1), of Regulation (EU) 2016/679;

(50) 'consent' means consent as defined in Article 4, point (11), of Regulation (EU) 2016/679.

Article 3

General objectives and principles

1. In the context of this Regulation, Member States, national regulatory and other competent authorities, as well as BEREC, the RSPB, the ODN and the Commission, shall, in accordance with their respective competences, pursue the following general objectives which are not listed in order of priority:

   (a) reinforce the competitiveness of the connectivity sector and industry at-large by facilitating investments in advanced digital infrastructures, including cloud and AI based solutions, by enabling innovative services, including quality-assured and reliable services, and by facilitating cooperation among players in the broader digital ecosystem;

   (b) develop a single market for electronic communications facilitating network operation and service provision across borders within the Union, the development of trans-European digital networks and the provision of innovative electronic communications networks and services including pan-European satellite communications services;

   (c) reinforce the resilience and preparedness of electronic communications networks and services at Union level, by fostering cooperation among public authorities and providers of electronic communications networks or services in building the necessary resilience capacities, and in ensuring security and defence interests of the Union and its Member States;

   (d) promote investment in connectivity and widespread availability, access to and take-up of gigabit networks, including fixed, mobile and wireless

networks, to the benefit of all citizens and businesses of the Union, in terms of price, quality and choice;

(e) ensure the provision of high-quality, affordable and publicly available electronic communications services to all end-users through effective competition in electronic communications networks and associated facilities, including efficient infrastructure-based competition, and in electronic communications services and associated services throughout the Union;

(f) promote the interests of the citizens of the Union and safeguard the protection of end-users' rights, including the equal and non-discriminatory treatment of traffic in the provision of internet access services, so that all end-users continue to benefit from a large choice of advanced affordable and high-quality services; and guarantee a high and common level of protection in particular in particular for vulnerable consumers, including affordable pricing, choice and equivalent access;

(g) promote sustainability by facilitating investments in energy-efficient and low-carbon digital networks and solutions and incentivise end-to-end traffic efficiency;

(h) support the objectives of other Union policies relying on radio spectrum including space and common security and defence policy.

2. When exercising their competences or carrying out their tasks in the pursuit of the general objectives, national regulatory and other competent authorities, BEREC, the RSPB, the ODN and the Commission shall act impartially, objectively, transparently and in a non-discriminatory and proportionate manner. In particular, they shall apply the following principles:

(a) promote regulatory predictability to guarantee consistent regulatory approaches, through mutual cooperation;

(b) ensure that, in similar circumstances, measures are applied consistently and that there is no discrimination in the treatment of providers of electronic communications networks or services;

(c) take due account of the potential regulatory and administrative burden imposed by regulatory decisions and strive to limit them as much as possible;

(d) apply Union law in a technologically neutral fashion, to the extent that this is consistent with the achievement of the general objectives set out in this Article;

(e) take due account of the variety of conditions relating to infrastructure, competition, the circumstances of end-users and, in particular, consumers in the various geographic areas within a Member State.

2. PART II - RESILIENCE

Article 4

Role of electronic communications networks and services in ensuring resilience

Taking into account the essential role of electronic communications networks and services for the overall resilience of Union society and economy, providers of electronic communications networks or services referred to in Article 5(1) of this Regulation, BEREC, the ODN, national regulatory and competent authorities designated pursuant to Article 8(1) of Directive (EU) 2022/2555, national crisis management and civil protection authorities, including cyber crisis management authorities designated pursuant to Article 9(1) of Directive (EU) 2022/2555, shall contribute, within their respective competences, to the anticipation, prevention and response to natural or man-made disruptions, crises or force majeure that may negatively affect the population, through the coherent implementation of preparedness-related obligations under this Regulation and in line with the relevant Union and national civil protection, crisis management and response mechanisms.

Article 5

Availability and capabilities of electronic communications networks and services

1. Providers of public electronic communications networks, publicly available electronic communications services and other providers referred to in Article 9(2), national regulatory authorities, national competent authorities designated pursuant to Article 8(1) of Directive (EU) 2022/2555[79] and other competent authorities including, where relevant, national crisis management and civil protection authorities, including cyber crisis management authorities designated pursuant to Article 9(1) of Directive (EU) 2022/2555, shall cooperate to ensure the continuous availability of electronic communications networks and services as well as their necessary capabilities to anticipate, prevent, prepare for and respond to natural or man-made disruptions, crises or force majeure that may negatively affect the population.

   In doing so, authorities and providers referred to in the first subparagraph shall take into utmost account the BEREC Union Preparedness Plan for Digital Infrastructures referred to in Article 6.

2. Without prejudice to Directive (EU) 2022/2555, providers referred to in paragraph 1 of this Article and PSAPs shall take all necessary measures, with consideration of the BEREC Union Preparedness Plan for Digital Infrastructures referred to in Article 6 of this Regulation, to ensure uninterrupted availability of critical communications and emergency communications, as well as uninterrupted transmission of public warnings, in the case of natural or man-made disruptions, crises or force majeure that may negatively affect the population.

3. When implementing new technologies in their electronic communications networks or services, providers of public electronic communications networks and publicly available electronic communications services and PSAPs shall take all the necessary preparatory measures, including testing and validation of solutions, to ensure the availability of emergency communication and public warning services within the Union.

4. Where the migration to other network technologies may result in the discontinuation of services on currently used end-user devices, providers of public electronic communications networks and of publicly available electronic communications services

[79] Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive)), (OJ L 333, 27.12.2022, p 80, ELI: http://data.europa.eu/eli/C/2025/3445/oj).

shall inform national competent authorities and end-users at least 2 years in advance, by providing a roadmap reflecting the migration process.

Article 6

Union Preparedness Plan for Digital Infrastructures

1. By **[***12 months after the date of entry into force of this Regulation***]**, BEREC shall adopt a report, entitled 'Union Preparedness Plan for Digital Infrastructures' ('the Plan'), with a view to strengthening the resilience and preparedness of electronic communications networks and services and other digital infrastructures at Union level in the event of natural or man-made disruptions, crises or force majeure which may have a significant adverse impact on the population or the functioning of the internal market.

2. The Plan shall include:

   (a) a comprehensive assessment of the architecture, capacities, capabilities and use of electronic communications networks of providers referred to in Article 5(1), prepared on the basis of information collected pursuant to Article 7(2) of this Regulation and transmitted to the ODN in accordance with Article 7(3) of this Regulation**;**

   (b) a set of operational recommendations on network resilience measures based on, among others, the assessment under point (a);

   (c) crisis management practices.

   The assessment referred to in the first sub-paragraph, point (a), shall, among other, provide an overview of network topology at Union level, identify route diversification, potential bottlenecks or points of failure and areas where resilience-related measures, such as strategic investments to support redundancy, in particular for trans-European digital networks, are needed. The assessment shall be handled in accordance with applicable Union and national rules on the protection of classified information. The information contained therein shall be presented in aggregated form, to prevent exact geolocation of sensitive assets.

   The operational recommendations referred to in the first sub-paragraph, point (b), shall include recommendations ensuring the technical capability of electronic communications networks to integrate with different types of terrestrial and non-terrestrial networks such as satellite networks, capabilities to ensure the continuity of essential communications networks and services during situations of increased demand, network congestion, or natural or man-made disruptions including, but not limited to, system outage threats, such as intentional harmful interference, or other measures considered instrumental in ensuring service availability and necessary network capabilities.

   The crisis management practices referred to in the first sub-paragraph, point (c), shall be addressed to the national regulatory and other competent authorities and aim at harmonised procedures, coordination arrangements and operational protocols to be applied in the event of natural or man-made disruptions, crises or force majeure. The crisis management practices shall be consistent with and complementary to relevant Union and national civil protection, crisis management and response mechanisms.

Article 7

Cooperation and data gathering supporting the preparation of the Plan

1. To support BEREC, the ODN shall prepare the draft Plan in close cooperation with the Commission and, where it concerns the preparedness and resilience of electronic communications networks and services, with the Cooperation Group established by Article 14 of Directive (EU) 2022/2555, and in consultation with ENISA and the relevant European crisis response and civil protection coordination authorities, as appropriate. The Plan shall be reviewed and updated regularly based on, among others, information collected under paragraph 2 of this Article.
2. To support the preparation of the Plan, national regulatory authorities shall, on a biennial basis, collect information on the architecture, capacity, capabilities and use of public electronic communications networks, publicly available electronic communications services and, where relevant, networks used, wholly or mainly, for the purpose of providing electronic communications services or information society services available to the public, insofar as such information has not already been made available to them or to other national competent authorities pursuant to Union law or national law.
3. Requests for information under paragraph 2 shall be reasoned, proportionate and limited to what is strictly necessary for the performance of tasks related to resilience and preparedness. The information shall be transmitted to the ODN on a biennial basis.
4. By [6 *months after the date of entry into force of this Regulation*], BEREC shall, in close cooperation with the Commission and ENISA, publish a common template to be used by national regulatory authorities for the collection of the information referred to in paragraph 2.

Article 8

Cooperation with the Commission, other Union bodies or expert groups

1. Where a natural or man-made disruption, crisis or force majeure involves or coincides with a large-scale cybersecurity incident within the meaning of Article 6, point (7) of Directive (EU) 2022/2555, BEREC shall provide the European Cyber Crisis Liaison Organisation Network (EU-CyCLONe) and the Commission with relevant information to ensure shared situational awareness and coherence in crisis response.
2. Upon request, the ODN shall share with the Commission details of the analysis used to prepare the Plan in accordance with Article 6. The Commission shall take such information into account in the development and implementation of funding instruments, including strategic investments in trans-European digital networks or when adopting policies or measures to enhance the resilience and preparedness of electronic communications networks, as appropriate.
3. The tasks and actions under this Part shall not affect the tasks of ENISA, the Computer Security Incident Response Team (CSIRT) network, EU-CyCLONe, the Cooperation Group established by Directive (EU) 2022/2555 or other expert groups or coordination systems under the Union civil protection law.

3. PART III - SINGLE MARKET AUTHORISATION AND PASSPORTING

Article 9

General authorisation

1. The freedom to provide electronic communications networks and services shall be subject to the conditions and obligations set out in this Regulation. Member States may

limit the freedom to provide electronic communications networks and services only for the reasons set out in Article 52(1) TFEU on grounds of public policy, public security or public health. Any such limitation shall be duly reasoned and shall be notified to the Commission.

2. The general authorisation regime shall apply to providers of public electronic communications services and providers of electronic communications networks used, wholly or mainly, for the purpose of providing electronic communications services or information society services available to the public.

3. The general authorisation regime shall not apply to number-independent interpersonal communications services.

4. Under the general authorisation regime, the right to provide electronic communications networks and services shall be subject only to the following conditions:

   (a) compliance, as applicable to the provider, with requirements for resilience and preparedness of networks during natural or man-made disruptions, crises or force majeure under this Regulation and terms of use for communications from public authorities to the general public for warning the public of imminent threats and for mitigating the consequences of major catastrophes;

   (b) compliance, as applicable to the provider, with terms of use for critical communication services during major disasters or national emergencies to ensure communications between emergency services and authorities;

   (c) compliance, as applicable to the provider, with the standards or specifications referred to in Article 187;

   (d) compliance, as applicable to the provider, with cybersecurity rules, including ICT supply chain security requirements imposed in accordance with the Cybersecurity Act which is to replace Regulation (EU) 2019/881 of the European Parliament and of the Council[80];

   (e) enabling of access to data by law enforcement and judicial authorities, including for lawful interception and data retention in accordance with applicable Union or national legislation, in the Member States in which the service is provided, which complies with Union law, as applicable to the provider;

   (f) maintenance of the integrity of public electronic communications networks, including by conditions to prevent electromagnetic interference between electronic communications networks or services in accordance with Directive 2014/30/EU[81], as applicable to the provider;

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80 Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act) (OJ L 151, 7.6.2019, p. 15, ELI: http://data.europa.eu/eli/reg/2019/881/oj).

81 Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (OJ L 153, 22.5.2014, pp. 62–106, ELI: http://data.europa.eu/eli/dir/2014/53/oj), as amended by Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 (OJ L 30, 11.09.2018, ELI: http://data.europa.eu/eli/dir/2014/30/2018-09-11), and by Directive (EU) 2022/2380 of the European Parliament and of the Council of 23 November 2022 amending Directive 2014/53/EU on the

(g) compliance, as applicable to the provider, with requirements or measures on interconnection in accordance with Article 66;

(h) for electronic communications networks and services, compliance, as applicable to the provider, with relevant international agreements relating to the use of scarce resources which are not subject to granting of individual rights of use;

(i) interoperability of services in accordance with this Regulation, as applicable to the provider;

(j) where appropriate, administrative charges in accordance with Article 12.

Additional conditions for the use of radio spectrum shall apply in accordance with Article 20 and 21, as applicable to the provider.

Additional conditions for the use of numbering resources which are assigned from the national numbering plans and, when applicable from the Union numbering plan, shall apply in accordance with Articles 46 and 50, as applicable to the provider.

Article 10

Single Passport procedure

1. Under the general authorisation regime, where a provider intends to provide electronic communications networks or services in one or several Member States, it shall submit a notification to the national regulatory authority of one of those Member States under the Single Passport procedure.
2. Providers shall not be required to obtain a decision or any other administrative act by any regulatory authority of the Member State of notification, in which the provider intends to operate, before exercising the rights derived from the general authorisation.
3. The notification referred to in paragraph 1 shall be made by means of a notification template in accordance with BEREC guidelines issued pursuant to Article 125 not later than 6 months after the entry into force of this Regulation. BEREC shall update the relevant guidelines where necessary.
4. The notified regulatory authority shall transmit the notification received to the ODN without undue delay. Where the notification concerns the start of provision of networks and services in several Member States, the ODN shall transmit it for information to the competent authorities of the other Member States where the provider intends to operate without undue delay.
5. Where the notification concerns the intent of a provider already operating in one or several Member States to extend its operations to additional Member States, the ODN shall transmit such notification for information to the competent authorities of all the Member States concerned, including those Member States where the provider already provides electronic communications networks or services.
6. Under the Single Passport procedure, the notified authority shall confirm to the provider the authorisation to provide electronic communications networks or services within one week of the submission of the notification referred to in paragraph 1. The confirmation

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harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (OJ L 315, 7.12.2022, p. 30, ELI: http://data.europa.eu/eli/dir/2022/2380/oj).

shall include information concerning all the general authorisation conditions applicable in the Member State or Member States, in which networks or services are intended to be provided, as well as related obligations and rights derived from the authorisation. Where the notification concerns the intent of a provider already operating in one or several Member States to extend its operations to additional Member States, the confirmation shall include information concerning the general authorisation conditions applicable in the additional Member States.

7. Once the notification is confirmed, the provider may exercise the rights derived from the general authorisation and start the activity, where necessary subject to the provisions on the rights of use under this Regulation.

8. The ODN shall maintain a publicly available Union database of the notifications submitted to the national regulatory authorities. The notified authorities shall update the information about all received notifications in the database at least every two months.

9. For electronic communications networks and services notified before [*6 months after the date of entry into force of this Regulation*], no new notification shall be required. Providers may notify to the notified national regulatory authority to obtain a new general authorisation for existing networks or services under the Single Passport procedure. When deploying new electronic communications networks or services, providers shall be subject to the Single Passport procedure concerning these new networks or services.

Article 11

Guidelines and mutual Assistance

1. By *[6 months after the date of entry into force of this Regulation*], BEREC shall, in close cooperation with the Commission and other competent authorities, including contact points designated in accordance with paragraph 2 of this Article, publish guidelines to ensure that all the conditions listed in Article 9(4) are applied in a coherent, non-discriminatory and proportionate manner and are accessible to providers via the ODN webpage.

2. Each Member State shall designate a national single contact point tasked with communicating with the ODN and with maintaining up-to-date information about the national legislation and procedures applicable to the provision of electronic communications networks and services, in particular those related to general authorisation conditions, including the conditions regarding cybersecurity, access to data and data protection and the obligations laid down in this Regulation.

3. The procedures concerning notification, confirmation for start of activitiesand mutual assistance for enforcement and the arrangements for the exchange of information between national competent authorities and the ODN in accordance with Regulation (EU) 2024/903 may be further specified by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

4. Without prejudice to the enforcement powers of Member States concerning applicable law in their jurisdiction, under the Single Passport regime the national regulatory authority of the Member State of notification shall have the power to impose penalties for breach of the authorisation conditions. In case of a serious breach, possible measures, where necessary after consultation with the regulatory authorities of the affected Member States, shall include the withdrawal of the right to operate in the Member State or Member States covered by the Single Passport.

5. Where the national regulatory authority of the Member State where the electronic communications networks or services are provided concludes that the breach of the authorisation conditions may have a serious negative impact in its territory on the grounds of national security or public interest, it shall have the right to impose penalties within its jurisdiction, and where appropriate, after consultation with relevant authorities of the Member State of notification.

Article 12

Administrative charges

1. Where Member States impose administrative charges on undertakings providing electronic communications networks or services under the general authorisation or to which a right of use has been granted, those charges shall:

   (a) cover, in total, only the administrative costs incurred in the management, control and enforcement of the general authorisation system and of the rights of use and of specific obligations as referred to in Articles 67, 68(1) 69 and 77, which may include costs for international cooperation, harmonisation and standardisation, market analysis, monitoring compliance and other market control, as well as, where appropriate, work involving preparation and enforcement of administrative decisions, such as decisions on access and interconnection;

   (b) be imposed upon the individual undertakings in an objective, transparent and proportionate manner.

2. Undertakings of the turnover below a certain threshold or the activities of which do not reach a minimum market share or have a very limited territorial scope, shall not be subject to administrative charges.

3. Where administrative charges are imposed, national regulatory or other competent authorities shall publish an annual overview of their administrative costs and of the total sum of the charges collected. Where there is a difference between the total sum of the charges and the administrative costs, appropriate adjustments shall be made.

4. PART IV - RESOURCES (RADIO SPECTRUM AND NUMBERING)

4.1. TITLE I: RADIO SPECTRUM

4.1.1. CHAPTER I: Principles and objectives

SECTION 1: INTERNATIONAL RULES FOR RADIO SPECTRUM USE AND MANAGEMENT

Article 13

Strategic planning and management of radio spectrum

1. Member States and the Commission shall manage radio spectrum in the internal market in a coordinated way, taking into account its value as a common European resource, under shared competence with a view to fostering economic growth, protecting Union values and security, in pursuit of the objectives laid down in Article 3, in particular single market for electronic communications as well as in pursuit of security, and digital sovereignty.

2. The Commission, assisted by the RSPB, and national competent authorities shall cooperate in the strategic planning of radio spectrum and coordination of radio spectrum policy approaches.

3. National competent authorities shall manage radio spectrum effectively and efficiently in accordance with this Regulation and with the International Telecommunication Union ('ITU') Radio Regulations and other agreements adopted in the framework of the ITU applicable to radio spectrum. They shall make every effort to eliminate any potential or actual source of cross-border or national harmful interference and shall take radio spectrum related measures to minimise the security risks in providing electronic communications networks and services.

4. Where this Regulation empowers the Commission to manage radio spectrum, it shall be subject to the same principles and respect the same obligations as competent authorities, unless this Regulation or other Union law provide otherwise.

Article 14

Harmful interference

1. Holders of rights of use for radio spectrum shall have the right to use their frequencies free from harmful interference, subject to the National Frequency Allocation Plans and international agreements.

2. National competent authorities shall cooperate with each other, and, where appropriate, through the RSPB, in the cross-border coordination of the use of radio spectrum. They shall make every effort to resolve any problem or dispute in relation to cross-border coordination or cross-border harmful interference which prevents the use of the radio spectrum in the territory of the Union.

3. In case of unresolved cross-border coordination or cross-border harmful interference between Member States, any national competent authority or any holder of a right of use for radio spectrum may request the RSPB to use its good offices to resolve the issue. The RSPB may issue an opinion proposing a coordinated solution. Where requested by a competent authority, the RSPB shall issue such an opinion.

4. Where the cross-border issue between Member States is not resolved within 12 months from the request referred to in paragraph 3, the Commission shall, at the request of a national competent authority from any affected Member State or holder of a right of use for radio spectrum, or on its own initiative, take a decision by means of an implementing act to resolve the cross-border issue, taking account of any opinion of the RSPB pursuant to paragraph 3.

5. Where a cross-border issue involves a third country, including a candidate and acceding country, the Commission and national competent authorities within the RSPG shall, upon the request of any national competent authority from an affected Member State, cooperate to provide legal, political and technical support to resolve such issue, so that the Member States concerned can observe their obligations and exercise their rights to use radio spectrum under Union law.

6. Where the cross-border issue involving a third country is not resolved within 12 months from the request referred to in paragraph 5, the Commission may, at the request of a national competent authority from the affected Member State and after consulting the RSPB, adopt a decision by means of an implementing act to define the assistance or contribution that Member States are to provide, with the support of the Commission, to

resolve such issue, irrespective of whether they are affected by the harmful interference or not.

7. Where the cross-border issue with a third country cannot be solved with the assistance or contribution referred to in paragraph 6 of this Article, the Council may consider adopting restrictive measures under Article 29 TEU, in line with the objectives of the Common Foreign and Security Policy.

8. The implementing acts referred to in paragraphs 4 and 6 of this Article shall be adopted in accordance with the procedure referred to in Article 199(4) with the assistance of the Committee referred to in Article 199(2) ('Radio Spectrum Committee').

SECTION 2: PRINCIPLES

Article 15

Principle of shared use of radio spectrum

1. Without prejudice to the exception provided in the second subparagraph, radio spectrum under general authorisation and individual rights of use shall be shared by providers of the same service (intra-service sharing) or different services (interservice sharing), subject to compliance with competition law.

   National competent authorities may restrict shared use of radio spectrum when this is necessary on grounds related to:

   (a) safeguarding competition and non-discriminatory market access;

   (b) technical or economical feasibility;

   (c) where exclusive rights of radio spectrum use are necessary to safeguard public safety, national security, defence or the protection of essential services;

   (d) avoidance of harmful interference;

   (e) cross-border coordination.

2. National competent authorities shall ensure that the assigned radio spectrum is used efficiently. For this purpose, they can require the holder of the radio spectrum rights, including those for defence and security, to share any portion of radio spectrum that is unused within a given geographic area or time period, provided that shared use of radio spectrum does not interfere with, degrade, or otherwise limit the original holder's use of the radio spectrum and that the shared use is in compliance with competition law.

Article 16

Principles of technology and service neutrality

1. Any type of technology may be used to provide electronic communications networks or services within the radio spectrum declared available for electronic communications services in the National Frequency Allocation Plan, in accordance with Union law.

   National competent authorities may only restrict that right when this is necessary and proportionate on grounds of:

   (a) avoidance of harmful interference;

(b) protection of public health against electromagnetic fields at risk, taking account of Recommendation 1999/519/EC;

(c) ensuring technical quality of service;

(d) ensuring maximisation of radio spectrum sharing;

(e) safeguarding efficient use of radio spectrum;

(f) ensuring the fulfilment of objectives in accordance with paragraph 2.

2. Any type of electronic communications service may be provided in the radio spectrum declared available for electronic communications services in the National Frequency Allocation Plan, in accordance with Union law.

National competent authorities may only restrict that right in order to fulfil a requirement under the ITU Radio Regulations based on proportionate and non-discriminatory criteria. A national competent authority shall have the right to request that a particular service is provided in a specific band only where justified on grounds of:

(a) protection of safety of life;

(b) promotion of social, regional or territorial cohesion;

(c) avoidance of inefficient use of radio spectrum;

(d) promotion of cultural and linguistic diversity and media pluralism, for example the provision of radio and television broadcasting services;

(e) necessity to safeguard public safety, national security, defence, or the protection of essential services.

National competent authorities may only prohibit the provision of any other service in a specific band, where justified by the need to protect the safety of life.

4.1.2. CHAPTER II: Allocation

SECTION 1: RADIO SPECTRUM STRATEGY AND ROADMAPS FOR ALLOCATION

Article 17

Union radio spectrum strategy and roadmaps

1. After having consulted the stakeholders and the RSPB, the Commission shall set up a forward-looking Union radio spectrum strategy and shall update it after each World Radiocommunication Conference, where needed.

2. The Union radio spectrum strategy shall guide long-term radio spectrum planning, innovation and efficient use of radio spectrum across the Union. It shall identify radio spectrum needs and ensure availability and, where relevant, protect radio spectrum necessary for fulfilling objectives of different Union policy areas involving the use of radio spectrum, including defence and security, for critical communications and other purposes, including sensing. The availability of radio spectrum for safeguarding public safety, national security, defence or the protection of essential services under harmonised conditions shall be taken into account in the Union radio spectrum strategy and adequately reflected in the national frequency allocation plans.

3. On the basis of the Union radio spectrum strategy, the Commission may, where relevant, by means of implementing acts, adopt Union radio spectrum roadmaps.

Each Union radio spectrum roadmap shall identify radio spectrum needs related to a specific radio spectrum technology or service and set timelines for technical harmonisation of the radio spectrum use pursuant to Decision No 676/2002/EC and, where relevant, deadlines for authorisation of the use of that radio spectrum pursuant to this Regulation, which may derogate from the deadline set by Article 18(1). This is without prejudice to the possibility to derogate from the deadline of Article 18(1) pursuant to Article 18(2) and (3).

The implementing acts referred to in the first subparagraph shall be adopted in accordance with the procedure referred to in Article 199(4) with the assistance of the Committee referred to in Article 199(2). The RSPB shall monitor technical, economic and societal developments related to radio spectrum use, and shall, where necessary, recommend updating any Union radio spectrum roadmap.

4. Within 9 months from the adoption of the Union radio spectrum roadmaps, national competent authorities shall submit to the Commission and the RSPB their national radio spectrum roadmaps, indicating, where relevant, national measures necessary to implement a Union radio spectrum roadmap and their timelines. National competent authorities shall publish the national radio spectrum roadmaps and regularly update them.

5. National competent authorities shall regularly report to the Commission and the RSPB on the implementation of their national radio spectrum roadmaps. The Commission and national competent authorities within the RSPB shall cooperate to identify and address any deficiencies in areas where progress towards one or several objectives of the Union radio spectrum roadmap is regarded to be insufficient by the Commission or the RSPB.

Article 18

Coordinated timing of assignments

1. Where the use of radio spectrum has been harmonised in accordance with Decision No 676/2002/EC for wireless broadband electronic communications networks and services, the national competent authorities shall authorise it within 24 months from the adoption of that measure, or as soon as possible after the lifting of any decision to allow alternative use on an exceptional basis pursuant to paragraph 5 of this Article.

2. The deadline set by paragraph 1 may be extended for a specific band to the extent necessary by one of the following circumstances:

   (a) a restriction to the use of that band based on the general interest objective provided in Article 16(2), second subparagraph, point (a) or (d);

   (b) unresolved cross-border coordination issues resulting in harmful interference with third countries, provided that the affected Member State has, where appropriate, requested Union assistance pursuant to Article 14(5);

   (c) the need to safeguard national security and defence;

   (d) force majeure.

The national competent authority concerned shall review the extension referred to in the first subparagraph at least every two years and upon request from a prospective radio spectrum user or the Commission.

3. The deadline set by paragraph 1 may be extended for a specific band to the extent necessary and up to 24 months in the case of:

   (a) unresolved cross-border coordination issues resulting in harmful interference between Member States, provided that the affected Member State takes all necessary measures in a timely manner pursuant to Article 14(3) and (4);

   (b) the need to ensure, as well as the complexity of ensuring, the technical migration of existing users of that band.

4. In the event of an extension under paragraph 2 or 3, the national competent authority concerned shall inform the other national competent authorities and the Commission in a timely manner, stating the reasons.

5. Notwithstanding with paragraph 1, national competent authorities may allow an alternative use of all or part of harmonised radio spectrum band, where:

   (a) a public consultation held in accordance with Article 184 and forward-looking assessment of market demand, in accordance with Article 32, demonstrate a lack of marked demand for harmonised use of the radio spectrum band in the foreseeable future;

   (b) such alternative use does not prevent or hinder the availability or the use of such a band in other Member States.

   The national competent authority shall inform the Commission and the other national competent authorities, through the ODN, of its decision, together with the reasons therefor, and regularly review it.

6. The Commission may, by means of an implementing act, determine common dates for the authorisation of the use of specific harmonised radio spectrum in accordance with paragraph 1 and in derogation from paragraphs 1, 2 and 3.

   That implementing act shall be adopted in accordance with the procedure referred to in Article 199(4).

SECTION 2: PETITION FOR ALLOCATION/HARMONISATION

Article 19

Request for harmonisation of radio spectrum

1. Any interested party may submit a reasoned request to the Commission to consider the harmonisation of conditions for the availability and/or efficient use of a specific frequency band pursuant to Article 4 of Decision No 676/2002/EC.

2. Upon such request, the Commission shall organise a public consultation and submit that request either to the RSPB for a report or opinion, or to the Radio Spectrum Committee, or to both. Where addressed, the Radio Spectrum Committee shall adopt an opinion pursuant to Article 3(2) of Decision No 676/2002/EC.

   A reasoned response to such request shall be provided within a reasonable deadline.

3. The Commission shall publish the request and the response.

4.1.3. CHAPTER III : Assignment

SECTION 1: PRINCIPLES

Article 20

General authorisation of the use of radio spectrum

1. Radio spectrum shall be used under general authorisation subject to compliance with conditions in paragraph 2 of this Article, unless an individual right of use is required in accordance with Article 21.
2. Undertakings authorised to use radio spectrum based on general authorisation shall only be subject to the following conditions:
    (a) to provide a service or to use a type of technology if a restriction is imposed pursuant to Article 16(1) second subparagraph or 16(2) second subparagraph including, where appropriate, coverage and quality of service requirements;
    (b) to use radio spectrum effectively and efficiently in accordance with this Regulation;
    (c) to apply technical and operational conditions necessary for the avoidance of harmful interference and for the protection of public health against electromagnetic fields, taking account of Recommendation 1999/519/EC, where such conditions are different from those accompanying the use of radio spectrum under the general authorisation;
    (d) to comply with cybersecurity rules, including ICT supply chain requirements pursuant to Cybersecurity Act which is to replace Regulation (EU) 2019/881.

Article 21

Individual rights of use for radio spectrum

1. National competent authorities may subject radio spectrum use to individual rights only where necessary to maximise the efficient use of radio spectrum in light of demand and taking into account the following:
    (a) the specific characteristics of the radio spectrum concerned;
    (b) the need to avoid harmful interference;
    (c) the development of reliable conditions for radio spectrum sharing, where appropriate;
    (d) the need to ensure technical quality of communications or service;
    (e) objectives of general interest as laid down by Member States in accordance with Union law;
    (f) the need to safeguard efficient use of radio spectrum.
2. Undertakings holding an individual right of use for radio spectrum may be, in addition to the conditions in Article 20(2), subject only to conditions, established by the national competent authority prior to assignment or renewal of such right, related to:

(a) time frame and maximum duration in accordance with Article 24, subject to any changes in the National Frequency Allocation Plan;

(b) transfer or leasing of rights in accordance with Article 26;

(c) payment of fees for rights of use in accordance with Article 29;

(d) fulfilment of any commitment made in the framework of an authorisation or authorisation renewal process prior to the authorisation being granted or, where applicable, to the invitation for application for rights of use;

(e) pooling or allowing access to radio spectrum for other users in specific regions or at national level or sharing radio spectrum in accordance with Article 27;

(f) using radio spectrum bands in compliance with relevant international agreements;

(g) conditions specific to an experimental use of radio spectrum bands;

(h) sharing passive or active infrastructure which relies on radio spectrum;

(i) commercial roaming access agreements;

(j) joint roll-out of infrastructures for the provision of electronic communications networks or services which rely on the use of radio spectrum.

Competent authorities shall not attach conditions under the first subparagraph, points (e), (h), (i) or (j) of this paragraph unless justified pursuant to the procedure referred to in Article 32.

3. Competent authorities shall consult and inform interested parties, in a timely and transparent manner, about the conditions to be attached to individual rights of use before they are imposed. They shall set the criteria for assessing compliance with those conditions in advance and transmit them to the interested parties in a transparent manner.

4. The competent authority may combine individual rights with general authorisation for the use of radio spectrum, considering any likely effects on competition, innovation and market entry.

5. The RSPB shall collect good practices on the choice between general authorisations and individual rights.

SECTION 2: HARMONISATION

Article 22

Common authorisation conditions of use for radio spectrum

1. Prospective users of radio spectrum in two or several Member States, for public and non-public electronic communications networks, may request national competent authorities from the Member States concerned to jointly establish, with the assistance of the RSPB common authorisation conditions to reduce the cost of deployment or environmental impact. National competent authorities shall inform the Commission of such requests.

2. Without prejudice to Article 39 of this Regulation, where the Commission or at least two national competent authorities concerned submit a reasoned request, irrespective of whether the request is submitted by providers of public electronic communications

networks or not, the RSPB shall, after consulting stakeholders, develop a proposal for common authorisation conditions, including as regards the best way to share radio spectrum between public and private networks, in compliance with competition law. The Commission may, by implementing act, taking into account the RSPB proposal and, where applicable, the requirements set out in Article 39(4), adopt common authorisation conditions binding in all Member States and setting a common format to be used.

3. At the request of two or more national competent authorities, or of the Commission, the RSPB shall address the opportunity and modalities of authorising a part of radio spectrum at Union level and to suggest the appropriate authorisation procedure and the award conditions to ensure the existence throughout the Union of high- quality wireless broadband electronic communications services ('wireless broadband services'), including Direct-to-Device satellite communications services. After consulting the RSPB, the Commission may supplement this Regulation, by means of a delegated act in accordance with Article 198, defining the processes and award conditions for the authorisation of radio spectrum use in a particular harmonised radio spectrum band, or parts thereof, at Union level.

4. When carrying out the authorisation process, the Commission may seek assistance of the RSPB, the ODN, the Communications Committee or external experts.

5. Where the common authorisation conditions have been established pursuant to paragraph 2 of this Article, the Commission may lay down by means of implementing acts, the details of a one-stop-shop procedure that allows an undertaking to file at the ODN requests for rights of use for radio spectrum in more than one Member States, and specify the procedural arrangements, including administrative deadlines.

6. The national competent authorities shall grant the rights and authorisations within the deadlines set by Article 30(8).

7. The implementing acts referred to in paragraphs 2 and 4 of this Article shall be adopted in accordance with the procedure referred to in Article 199(4).

Article 23

Harmonised assignment of radio spectrum

National competent authorities shall not impose any further conditions, additional criteria or procedures where holders of rights of use for harmonised radio spectrum have been selected under a common selection procedure at Union level or where Union harmonised authorisation conditions apply.

SECTION 3: HARMONISED RULES APPLICABLE TO AUTHORISATION CONDITIONS

Article 24

Duration of rights

1. Rights of use for radio spectrum shall be in principle granted for an unlimited duration. Individual rights of use granted for an unlimited period of time for radio spectrum used for wireless broadband networks and services shall be subject to regular reviews by the national competent authorities, including coverage and quality of service obligations. Such reviews shall not be carried out earlier than every 20 years after such individual

right of use for radio spectrum was granted. Periodic reviews shall be notified under the procedure of Article 31.

2. Individual rights of use for radio spectrum which are granted for an unlimited period of time may be revoked at any time for any of the reasons provided for in Article 25(2), and with a 5-year notice in all other cases. By exception, where individual rights of use for harmonised radio spectrum for wireless broadband services which have been granted for an unlimited duration are revoked within the first 40 years from their issuing, Article 195 shall apply.

3. By exception to paragraph 1 of this Article, individual rights of use for radio spectrum may be granted for a limited period that is considered appropriate in light of the objectives pursued in accordance with Article 30(4), where there is a need to promote, or avoid any distortion of, competition, in line with Article 32.

   Where individual rights of use for radio spectrum are granted for a limited period, the competent authority shall set the maximum duration in advance, without prejudice to any subsequent changes in the National Frequency Allocation Plan and specify it in the decisions on the granting of individual rights.

4. Where competent authorities subject individual rights of use for harmonised radio spectrum measures in order to enable its use for wireless broadband services to a limited duration, holders of those rights of use shall have the right to use radio spectrum for a period of at least 40 years.

   Where granted for a limited period, individual rights of use for radio spectrum shall be subject to renewal in accordance with Article 25.

5. Where duly justified, the national competent authorities may impose a duration shorter than 40 years, for harmonised or non-harmonised spectrum, in any of the following cases:

   (a) in limited geographical areas, where access to high-speed networks is severely deficient or absent;

   (b) for specific short-term projects;

   (c) for experimental use by imposing specific obligations;

   (d) for uses of radio spectrum which, in accordance with Article 16(1) and (2), can coexist with wireless broadband services;

   (e) for alternative use of radio spectrum in accordance with Article 18(5).

6. National competent authorities may adjust the duration of rights of use laid down in this Article to ensure the simultaneous expiry of the duration of rights in one or several bands, or with the view to assessing the need for a renewal in accordance with Article 25, in the latter case only for a period of two years, renewable once.

Article 25

Renewal of individual rights of use for harmonised radio spectrum

1. Any right of use of harmonised radio spectrum subject to limited duration shall be automatically renewed for a similar duration and with similar conditions upon request by its holder.

2. By derogation to paragraph 1, after giving all interested parties the opportunity to express their views through a public consultation in accordance with Article 184, the

competent authority may decide, at least five years in advance of the expiry of the right, not to automatically renew the right of use and either let the right expire and organise an open, transparent and non-discriminatory authorisation procedure in order to grant new rights, or to renew the existing rights subject to a different duration or to different conditions for one or several of the following reasons:

(a) the fulfilment of the objectives set out in Article 3 and Article 30(4), as well as public policy objectives under Union law or national law, taking also into account the importance of existing investments;

(b) the implementation of a new technical implementing measure adopted in accordance with Article 4 of Decision No 676/2002/EC;

(c) the serious non-implementation of the conditions attached to the right of use concerned by its holder;

(d) the need to promote, or avoid any distortion of, competition in accordance with Article 32;

(e) the need to render the use of radio spectrum more efficient in light of technological or market evolution;

(f) where radio spectrum was granted free of charge.

When the national competent authority considers not to renew the right of use for harmonised radio spectrum for the reasons laid down in the first subparagraph, point (d), it shall proceed with a new selection procedure only where there is evidence of credible market demand from undertakings other than those holding rights of use for radio spectrum in the band concerned and where it has established that the number of infrastructures that can be economically sustained in the market is higher than the number of incumbent operators.

3. Unless the decision referred to in paragraph 2 is taken at the latest 5 years before the expiry of the rights concerned, the existing rights shall be automatically renewed pursuant to paragraph 1.

4. The decision of renewal shall be accompanied by a review of the annual and one-off fees related to the use of radio spectrum, which shall be carried out on the basis of Article 29. When defining the level of the fees, competent authorities shall take into account among others historical prices, international benchmarks, the evolution of the average revenue per MHz per connection taking into account all radio spectrum used for the respective service, and the opportunity cost of radio spectrum.

5. This Article shall also apply to rights of use for harmonised radio spectrum that were granted before *[the date of entry into force of this Regulation*] and that expire within a period of time of at least seven years after that date.

Article 26

Transfer or lease of individual rights of use for radio spectrum

1. Holders of rights of use for radio spectrum other than radio spectrum assigned for broadcasting with a general interest or cultural objective attached and other than spectrum which was granted free of charge, shall have the right to transfer or lease their rights of use in conformity with this Article and subject to compliance with competition law.

2. The holder of rights of use for radio spectrum shall notify its intention to transfer or lease rights of use for radio spectrum, as well as the effective date of transfer thereof, to the national competent authority which shall make this information public.

   From the date of the transfer or lease, the transferee or lessee shall be bound by the original conditions attached to the rights of use for radio spectrum, including, for example, strict conditions against spectrum hoarding and conditions to ensure effective and efficient use of spectrum, unless otherwise decided by the national competent authority in accordance with paragraph 3. In the case of lease, the original assignee shall be bound by the original conditions together with the lessor. In the case of harmonised radio spectrum, any such transfer shall comply with such harmonised use.

3. The transfer or lease of those rights of use shall not be refused unless there is a clear risk of distortion of competition from the accumulation of rights of use in particular in accordance with Article 32 or there are serious doubts as to whether the new user is able to meet the original conditions for the right of use.

   Taking into account the context and circumstances of the transfer of the right of use for radio spectrum, in particular whether the transferee is controlled directly or indirectly, for example through significant funding, including subsidies, by the government of a third country or is pursuing State-led outward projects or programmes, national competent authorities shall have the power to block the transfer of rights of use for radio spectrum which is necessary and proportionate for any of the following:

   (a) resilience;

   (b) security, including continuity of supply of electronic communications services;

   (c) defence;

   (d) the maintenance of public order, the disruption or abuse of which could have a significant impact in a Member State or in the Union.

   Any administrative charge imposed on undertakings in connection with processing an application for the transfer, sharing or lease of rights of use for radio spectrum shall comply with Article 12.

4. National competent authorities shall assess whether the conditions are met to make current rights of use transferable and leasable in accordance with this Article and amend, where necessary, in accordance with Article 194 the conditions attached to the existing rights of use in a timely manner after *[the date of entry into force of this Regulation]* and shall ensure that rights of use for radio spectrum or the relevant radio spectrum may to the best extent be partitioned or disaggregated.

Article 27

Shared use of radio spectrum

1. In accordance with Article 15, and without prejudice to coverage or other obligations imposed on holders of individual rights of use for radio frequency, and to obligations undertaken in the context of a competitive or comparative procedure, holders of rights of use for radio spectrum shall take steps to organise, allow and offer the sharing of their rights of use, where such sharing is technically feasible and subject to compliance with competition law.

2. Any third party interested in using a part of the radio spectrum in a specific territory or period of time may express its interest to the national competent authority.

   Holders of rights of use for radio spectrum shall have the right to refuse shared use of radio spectrum where they demonstrate that they are using the radio spectrum or that they have developed plans to use it in the foreseeable future, in a manner which makes sharing not technically feasible. Holders of rights of use for radio spectrum shall commit to those plans. If a holder of the right of use does not act in accordance with their plan, Article 196 shall apply.

   Where assessing the feasibility of shared use of radio spectrum, national competent authorities shall take into account the deployment plans of holders of rights of use for radio spectrum for the entire duration of their right. National competent authorities shall apply the procedure of Article 188 mutatis mutandis. They may allow the shared use of radio spectrum for a limited duration of time or provide for periodic review. National competent authorities shall have the power to block the shared use of radio spectrum on the grounds provided for in Article 26(3).

3. The conditions for the shared use of radio spectrum shall be set in the right of use for radio spectrum in accordance with Article 21.

   Such conditions shall determine the following:

   (a) the usage priority, the coexistence rules and the type of protection against harmful interference between the primary and secondary holder;

   (b) the type of usage allowed to the new user in comparison with the original usage authorised;

   (c) whether shared use of radio spectrum can be imposed in case of breach of an obligation attached to the right of use, such as of a coverage obligation.

4. Any obligation accompanying the right of use for radio spectrum may be fulfilled either by the original or the new user or both. Both users shall be bound by the obligations set in the right of use that regulate the sharing of the radio spectrum.

5. By *[12 months after the date of entry into force of this Regulation*] the RSPB shall, in close cooperation with Commission and BEREC, adopt guidance to contribute to the consistent implementation of this Article and Article 15.

Article 28

Database

1. The ODN shall establish a dynamic database for geolocation and monitoring of radio spectrum usage opportunities to promote and allow the shared use of specific radio spectrum bands so as to improve the efficiency of radio spectrum use, in order to support Union policies.

   The database shall include up-to-date information collected and provided by Member States and holders of rights of use of radio spectrum on the geolocalisation of existing uses of radio spectrum to allow prospective radio spectrum users to access such radio spectrum.

   The database shall be directly accessible to any prospective user of radio spectrum.

2. For the purposes of ensuring the uniform implementation of paragraph 1, the Commission, after consulting the RSPB, may, by means of implementing acts, define the

radio spectrum bands covered by the database and develop practical arrangements and uniform formats for the collection and provision of data by the national competent authorities to the Commission.

Those implementing acts shall be adopted in accordance with the procedure referred to in 199(4).

3. The establishment and usage of the database shall ensure the protection of privacy as well as business confidentiality rules, in particular under Article 8 of Decision No 676/2002/EC, and the right of Member States to withhold information which is relevant for national security. It shall to the best extent minimise the administrative burden and existing obligations on the Member States under other Union law, in particular obligations to provide specific information.

4. The ODN shall administer the database.

Article 29

Contributions for rights of use for radio spectrum

1. National competent authorities may impose payment for rights of use for radio spectrum in the form of a one-off or annual fee, or a combination thereof, determined in accordance with this Article.

2. Annual fees and one-off fees not related to a comparative or competitive selection procedure shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose, ensure optimal use of radio spectrum and take into account the general objectives of this Regulation. The fees shall be set at a level to at least cover, in total, administrative costs incurred by national competent authorities in the management, control and enforcement of radio spectrum rules in accordance with Article 12(1), point (a).

   By [*12 months after the date of entry into force of this Regulation*], the Commission, taking into account the opinions of BEREC and of the RSPB, shall adopt a recommendation on a common methodology for defining annual fees as referred to in the first subparagraph, that may take into account different characteristics of the radio spectrum, such as the capacity of a radio spectrum band and its scarcity, and the service intended to be provided.

3. One-off fees in a comparative selection procedure, if any, or reserve prices in a competitive selection procedure shall be set at a level which ensures efficient assignment and use of radio spectrum, as well as investments and deployment of networks and services.

   Any reserve price shall be set as a minimum payment for obtaining the right of use for radio spectrum.

   Before imposing a reserve price, or defining its level, the national competent authority shall take into account costs entailed by conditions attached to those rights.

   By [*12 months after the application of this Regulation*], the Commission shall, after consulting BEREC and the RSPB, adopt a recommendation on a common methodology for defining a reserve price, taking into account inter alia the opportunity cost of radio spectrum and the characteristics of the band.

4. National competent authorities shall take account of the recommendations referred to in paragraphs 2 and 3 of this Article. If either of the recommendations is not followed and

deviations persist without objective justifications, the Commission may adopt a decision by means of an implementing act to ensure harmonised application.

That implementing act shall be adopted in accordance with the procedure referred to in Article 199(4).

5. Any payment of any fees shall be applied only where radio spectrum is actually available for use and the possibility shall be given for those fees to be paid in yearly instalments.

6. Annual or one-off fees shall, upon request, be reimbursed against the fulfilment of pre-determined commitments by the holder of a right of use for radio spectrum. The possibility and the rate for such reimbursement shall be transparent, fair and non-discriminatory and announced in advance of any selection procedure or assignment, or renewal or review process.

SECTION 4: GRANTING AND SELECTION PROCEDURES

Article 30

Granting of individual rights of use for radio spectrum and selection procedure

1. National competent authorities shall grant individual rights of use for radio spectrum under Article 21 upon request and following open, transparent, non-discriminatory and proportionate procedures, set in advance, to any undertaking provided that it is able to comply with the conditions attached to such right. Applicants shall provide all necessary information to demonstrate their ability to comply with conditions attached to the right of use for radio spectrum.

2. National competent authorities shall assess applications for individual rights of use for radio spectrum pursuant to objective, transparent, proportionate and non-discriminatory eligibility criteria that are set out in advance and reflect the conditions to be attached to such rights. They shall not discriminate operators of associated facilities and wholesale network operators when applying for individual rights to use radio spectrum for the provision of electronic communications networks or services, and specify how such operators may fulfil coverage, quality or other obligations.

3. Notwithstanding paragraphs 1 and 2 of this Article, specific criteria and procedures, including an exception to the requirement of open procedures, may apply where the granting of individual rights of use for radio spectrum to providers of radio or television broadcast content services is necessary to achieve a general interest objective as laid down under Union law or national law in accordance with Union law.

4. Where justified, the national competent authority may limit the number of individual rights of use for radio spectrum. In such a case, it shall define and give reasons for the selection procedure chosen and objectives pursued thereby, stating the outcome of any related assessment of the competitive, technical and economic situation of the market.

5. National competent authorities shall give all interested parties, including users and consumers, the opportunity to express their views on any aspect of the procedure referred to in paragraph 4 of this Article, especially on any limitations, selection procedure and selection criteria, within a reasonable period not shorter than 30 days and shall take into account views of the interested parties.

6. Where the national competent authority intends to limit the number of individual rights of use for harmonised radio spectrum for wireless broadband networks and services, it

shall notify a draft final measure in accordance with Article 31 and shall not proceed with the selection before finalising the Union radio spectrum single market procedure.

7. National competent authorities shall publish any decision on the selection procedure and the related rules, including the selection criteria and the conditions to be attached to the rights of use for radio spectrum, clearly stating the reasons therefor and invite applications for rights of use.

8. The national competent authorities shall take, communicate and make public the decisions on the granting of individual rights of use for radio spectrum as soon as possible after the receipt of the complete application and within six weeks in the case of radio spectrum declared available for electronic communications services in National Frequency Allocation Plans, extendable to up to eight months in the case of a selection procedure, subject to any specific timetable established pursuant to Article 17.

   That time limit shall be without prejudice to any applicable international agreements relating to the use of radio spectrum or of orbital positions.

9. The national competent authority shall review, as appropriate, any limitation at regular intervals or at the reasonable request of affected undertakings. Where a competent authority concludes that additional rights of use for radio spectrum or a combination of general authorisation and individual rights of use can be granted, it shall publish that conclusion and initiate the process of granting such rights.

10. The RSPB shall collect good practices on authorisation processes and related award conditions, such as on pro-investment auction design, and coverage obligations. The Commission may recommend most appropriate pro-investment authorisation processes aspects and selection conditions for authorising the use of harmonised radio spectrum in one or several bands with the view to achieving the objectives of the Digital Decade Policy Programme, including any amendment thereof.

11. National competent authorities shall take account of the recommendations referred to in paragraph 10 and shall justify to the Commission any deviation thereof. In case such deviation results in inconsistent implementation of pro-investment authorisation processes or selection conditions which persists for at least 2 years after adoption of a recommendation and risks creating barriers to the internal market due to inconsistent levels of deployment of high-quality wireless networks, the Commission may adopt a decision by means of an implementing act to ensure their harmonised application.

    That implementing act shall be adopted in accordance with the procedure referred to in Article 199(4).

12. This Article is without prejudice to the transfer of rights of use for radio spectrum in accordance with Article 26.

Article 31

Union radio spectrum single market procedure

1. Where the national competent authority intends to undertake a selection procedure in accordance with Article 30(6), or to amend or renew under different conditions, including as regards the duration, rights of use for harmonised radio spectrum for wireless broadband networks and services, it shall publish its draft final measure and communicate it to the Commission, the RSPB, BEREC and to the competent authorities of other Member States, at the same time, stating the reasons for the measure and explaining how the measure:

(a) promotes the development of the internal market, the cross-border provision of services, as well as competition, and maximises the benefits for the consumer, and overall achieves the objectives set in Articles 3 and 13, as well as in Decision No 676/2002/EC;

(b) ensures effective and efficient use of radio spectrum;

(c) ensures stable and predictable investment conditions for existing and prospective radio spectrum users when deploying networks for the provision of electronic communications services which rely on radio spectrum.

Where applicable, the competent authority shall also explain the reasons for proposing:

(a) any market shaping measure under Article 32(2), and include the outcome of the analysis carried out;

(b) a limited duration of the right of use for radio spectrum in accordance with Article 24(3).

2. National competent authorities, the RSPB, BEREC and the Commission may comment on the draft measure within a period of 30 working days, which shall not be extended.

3. The draft final measure referred to in paragraph 1 of this Article shall not be adopted for a further 60 working days where the Commission has notified to the relevant national competent authority that it has reservations on the justification for the extent of the duration or the proportionality of the draft market shaping measures or their compatibility with EU law and in particular the objectives referred to in Article 3. The Commission shall inform the RSPB, BEREC and national competent authorities of its reservations in such a case and simultaneously make them public.

4. Within 30 working days from the notification of the Commission's reservations, the RSPB and BEREC shall issue their opinions on the Commission's reservations indicating whether they consider that the draft measure should be maintained, amended or withdrawn and, where appropriate, provide specific proposals to that end. Those opinions shall provide reasons and be made public.

5. Where in its opinion the RSPG or BEREC shares partially or fully the reservation of the Commission, they shall cooperate closely with the national competent authority concerned and the Commission to identify the most appropriate and effective measure.

6. Within 60 working days from the notification of its reservations, the Commission may take one of the following decisions:

(a) a decision requiring the notifying competent authority to amend or withdraw the draft measure;

(b) a decision lifting its reservations referred to in paragraph 3 of this Article.

The Commission shall take account of the opinions of the RSPB of BEREC and of other national competent authorities before taking a decision under this paragraph.

The Commission decision referred to in the first subparagraph, point (a), shall be accompanied by a detailed and objective analysis of the reasons why the draft market shaping measure or the limited duration should not be adopted or explaining how they should be amended.

7. Where the Commission has adopted a decision requiring the notifying authority to withdraw the draft measure, the authority concerned shall not adopt such a measure.

After having undertaken a public consultation, in accordance with Article 184, the national competent authority shall notify within six months of the date of the Commission's decision a new draft measure to the RSPB, BEREC, other national competent authorities and the Commission.

8. Except in the cases covered by paragraph 3 of this Article and in case the Commission takes a decision requesting withdrawal, the competent authority concerned shall take account of comments of other competent authorities, the RSPB, BEREC and the Commission and may adopt the resulting measure. When the national competent authority concerned takes the measure, it shall communicate it to the Commission without delay. The competent authority shall communicate to the Commission to the RSPB, BEREC and other national competent authorities all adopted final measures which fall under paragraph 1 of this Article.

9. The ODN shall keep record of the Union radio spectrum single market proceedings under this Article.

Article 32

Competition

1. Rights of use for radio spectrum for electronic communications networks and services shall be granted, amended or renewed in such a way as to promote effective competition and avoid distortions of competition in the internal market in accordance with this Regulation.

2. Where national competent authorities responsible for radio spectrum management grant, amend or renew rights of use for radio spectrum in relation to harmonised radio spectrum for wireless broadband networks and services, they shall refer to the national regulatory authority the decision on any measure that could affect competition, such as:

   (a) limiting the amount of radio spectrum bands for which rights of use are granted to any undertaking, or, in justified circumstances, attaching conditions to such rights of use, such as the provision of wholesale access or national or regional roaming in certain bands or in certain groups of bands with similar characteristics;

   (b) reserving, where appropriate and justified with regard to a specific situation in the national market, a certain part of a radio spectrum band or group of bands for assignment to new entrants;

   (c) refusing to grant new rights of use for radio spectrum or to allow new radio spectrum uses in certain bands, or attaching conditions to the grant of new rights of use for radio spectrum or to the authorisation of new uses of radio spectrum, in order to avoid the distortion of competition by any assignment, transfer or accumulation of rights of use;

   (d) including conditions prohibiting, or imposing conditions on, transfers of rights of use for radio spectrum, not subject to Union or national merger control, where such transfers are likely to result in significant harm to competition;

   (e) amending the existing rights of use for radio spectrum in accordance with this Regulation where this is necessary to remedy *ex post* a distortion of competition by any transfer or accumulation of rights of use.

National regulatory authorities shall only propose such measures on the basis of a market analysis carried out in accordance with Article 73(2), and in particular a forward-looking assessment of the market competitive conditions and an assessment of the likely effects of such measures on maintaining or achieving effective competition as well as on existing and future investments.

3. In selecting the appropriate measures under paragraph 2, national regulatory authorities shall respect proportionality and impose the least intrusive measure capable of ensuring competition at retail level:

   (a) before imposing measures affecting the structure of the market, national regulatory authorities shall assess the number of infrastructures that can be economically sustained in the market with reference to the characteristics of the spectrum awarded and associated investment requirements needed to achieve the quality of service targeted.;

   (b) before imposing any wholesale access obligation, national regulatory authorities shall review the relevant markets, on a forward-looking basis, and assess whether retail markets would be effectively competitive in the absence of wholesale intervention.

   By [*12 months after the date of entry into force of this Regulation*], BEREC shall, in close cooperation with the Commission, develop guidelines for the consistent application of this paragraph.

4. The proposed measures under paragraph 2 shall constitute a part of a draft measure submitted by a competent authority to procedure under Article 31.

5. When applying paragraph 2, national regulatory and other competent authorities shall comply with the procedures set out in Articles 184, 194 and 195.

SECTION 7: DEPLOYMENT AND USE OF WIRELESS NETWORK EQUIPMENT

Article 33

Access to radio local area networks

1. Competent authorities shall allow the provision of access through RLANs to a public electronic communications network, as well as the use of the harmonised radio spectrum for that provision, subject only to applicable general authorisation conditions relating to radio spectrum use as referred to in Article 20(2).

   Where that provision is not part of an economic activity or is ancillary to an economic activity or a public service which is not dependent on the conveyance of signals on those networks, any undertaking, public authority or end-user providing such access shall not be subject to any general authorisation for the provision of electronic communications networks or services pursuant to Article 9, to obligations regarding end-users rights pursuant to Title III of Part VI, or to obligations to interconnect their networks pursuant to Article 65(1).

2. Article 4 of Regulation (EU) 2022/2065 shall apply to liability of providers of such access through RLANs.

3. Providers of public electronic communications networks or publicly available electronic communications services have the right to allow access to their networks to other providers of such networks and services or to the public through RLANs, subject to

compliance with the applicable general authorisation conditions and the prior informed agreement of the end-user, where the RLAN is located at the end-user's premises.

4. In accordance with Article 93, providers of public electronic communications networks or publicly available electronic communications services shall not unilaterally restrict or prevent end-users from:

   (a) accessing RLANs of their choice provided by third parties;

   (b) allowing reciprocally or, more generally, accessing the networks of such providers by other end-users through RLANs, including on the basis of third-party initiatives which aggregate and make publicly accessible the RLANs of different end-users.

5. End-users may allow access, reciprocally or otherwise, to their RLANs by other end-users, including on the basis of third-party initiatives which aggregate and make the RLANs of different end-users publicly accessible.

6. No undue restriction shall be applied to the provision of access to RLANs to the public:

   (a) by public sector bodies or in public spaces close to premises occupied by such public sector bodies, where that provision is ancillary to the public services provided on those premises;

   (b) by initiatives of non-governmental organisations or public sector bodies to aggregate and make reciprocally or more generally accessible the RLANs of different end-users, including, where applicable, the RLANs to which public access is provided in accordance with point (a).

Article 34

Deployment and operation of small-area wireless access points

1. The deployment of small-area wireless access points shall not be unduly restricted and be subject to nationally consistent rules. Such rules shall be published in advance of their application.

   In particular, the deployment of small-area wireless access points complying with the characteristics laid down pursuant to paragraph 4 shall be exempted from any individual town planning permit or other individual prior permits.

   By way of derogation from the second subparagraph, the deployment of small-area wireless access points on buildings or sites of architectural, historical or natural value protected in accordance with national law or where necessary for public safety reasons may be subject to a permit. Articles 7, 8 and 9 of Regulation (EU) 2024/1309 shall apply to the granting of those permits.

2. The Commission shall, by means of implementing acts, specify the physical and technical characteristics, such as maximum size, weight, and where appropriate emission power of small-area wireless access points.

   Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

   Those implementing acts shall be kept under review to adapt to technological progress as well as to the needs of network deployments.

3. This Article is without prejudice to the essential requirements laid down in Directive 2014/53/EU and to the authorisation regime applicable for the use of the relevant radio spectrum.

4. Subject, where relevant, to Regulation (EU) 2024/1309, operators shall have the right to access any physical infrastructure controlled by national, regional or local public authorities which is technically suitable to host small-area wireless access points or which is necessary to connect such access points to a backbone network, including street furniture, such as light poles, street signs, traffic lights, billboards, bus and tramway stops and metro stations. All reasonable requests for access shall be granted on fair, reasonable, transparent and non-discriminatory terms and conditions, which shall be made public at a single information point.

5. Without prejudice to any commercial agreements, the deployment of small-area wireless access points shall not be subject to any fees or charges going beyond the administrative charges in accordance with Article 12.

Article 35

Technical regulations on electromagnetic fields

The procedures laid down in Directive (EU) 2015/1535 shall apply with respect to any draft measure by competent authorities that would impose on the deployment of small-area wireless access points different requirements with respect to electromagnetic fields than those referred to in Recommendation 1999/519/EC or successive recommendations replacing it.

4.2. TITLE II: USE OF RADIO SPECTRUM BY SATELLITE

Article 36

International context and single market

The Commission only shall manage the use of radio spectrum for the provision of satellite networks or satellite communications services in accordance with the Union's international obligations and commitments, including the decisions adopted by the Council pursuant to Article 218 TFEU, in a manner that fully reflects its international dimension and strategic importance for the Union and the Member States, and in support of the objective to develop a single market for satellite communications services.

Article 37

Filing and coordination of satellite systems with ITU

1. At the request of a prospective user of radio spectrum, a competent radio spectrum authority shall inform the Commission and other national competent authorities within the RSPB about any request to file, coordinate or register with the ITU a satellite system that is intended to cover more than one Member State or satellite ground station and, where applicable, its complementary ground and airborne components. The national competent authority concerned shall indicate whether it requires support from other national competent authorities and the Union to carry out the ITU coordination in order to defend and promote the interest and policies of the Member States and of the Union. Member States and the Commission may comment on the request. While avoiding

unnecessary delays in the filing process, the Member State concerned shall ensure that such comments are duly considered.

2. Upon receiving a request to coordinate under ITU rules frequencies or an orbital position for a satellite system or a satellite ground station and, where applicable, its complementary ground and airborne components, under ITU rules, the national competent authority concerned shall immediately inform the Commission and the other competent authorities thereof through the RSPB.

3. Where two or more national competent authorities receive requests concerning the same frequency band or the same orbital position, the RSPB, supported by the ODN, shall coordinate a Union position for a timely and consistent Union response to the ITU.

Article 38

Union level general authorisation for the provision of satellite networks and satellite communications services

1. The Union authorisation pursuant to Article 39 shall include a general authorisation for provision of satellite networks or satellite communications services as established under this Article.

2. By exception to Article 9, the provision of satellite networks, including satellite ground stations and, where applicable, complementary ground and airborne components and of satellite communications services in the Union or in several Member States may only be subject to the conditions specified in accordance with paragraph 3 of this Article.

   Providers shall submit a notification to the Commission and shall not need to obtain any explicit decision or authorisation or any other administrative act from other competent authorities. The ODN shall assist the Commission in handling the notifications.

3. The Commission, taking into account any RSPB opinion, may, by means of implementing acts, specify the conditions attached to the general authorisation for the provision of satellite networks or satellite communications services, within the limits specified in Article 9(4).The conditions shall include but not be limited to:

   (a) establishment in the Union;

   (b) payment of administrative charges in accordance with Article 12 mutatis mutandis;

   (c) maintenance of integrity, security and resilience of the satellite networks and satellite communications services;

   (d) maintenance of permanent control over the transmission of all radio stations, including satellite ground stations and, where applicable, their complementary ground and airborne components, using the radio spectrum authorised under the Union authorisation, even where they are owned, installed or operated by third parties or not located inside the Union;

   (e) data retention or lawful interception obligations. The implementing act adopted pursuant to the first sub-paragraph shall set objective criteria for designating the obligations on data retention and lawful interception which shall be set as condition to the EU satellite authorisation.

   The implementing acts referred to in the first sub-paragraph shall be adopted in accordance with the procedure referred to in Article 199(4).

4. The Union general authorisation shall confer to the undertakings the minimum rights derived from the general authorisation provided for in Article 9 in all Member States.

5. Article 12, 194 and 195 shall apply mutatis mutandis to administrative charges, amendment, restrictions and withdrawal of rights and obligations under general authorisation.

Article 39

Union authorisation for the use of satellite radio spectrum

1. The use of radio spectrum for the provision of satellite communications services in the Union or in more than one Member State shall be subject to a Union authorisation, granted by the Commission.

2. The Commission, taking into account any opinion of the RSPB, shall by means of an implementing act establish and update the European Table of Allocation of Satellite Frequencies identifying radio spectrum bands available for satellite communication services in the Union. The Commission shall harmonise radio spectrum available for satellite communications services pursuant to Decision No 676/2002/EC and authorise the use of harmonised radio spectrum for satellite communications services. The Commission may decide that access to certain satellite radio spectrum bands shall be possible under general authorisation. In such a case, it shall establish the authorisation conditions for the use of radio spectrum in those bands, including any applicable fees.

3. Where the Commission considers on its own initiative or upon request from a competent authority or an applicant to limit the number of Union authorisations in a given radio spectrum band due to the scarcity of the radio spectrum, or for reasons of general interest, it shall give interested parties the opportunity to express their views in a public consultation in accordance with Article 184. Based on the result of the consultation, the Commission may take the necessary measures to limit the number of authorisations.

4. By implementing acts, to be adopted by [*12 months after the date of entry into force of this Regulation*] taking into account the characteristics of the spectrum bands concerned and any RSPB opinion, the Commission shall specify the conditions for the authorisation and use for the different spectrum bands, ensuring that authorised operatorsare subject to the following requirements:

   (a) be established in the Union;

   (b) be compliant with the ITU Radio Regulations by ensuring:

      (i) application of the relevant Radio Regulations coordination and notification procedures including the ITU Master International Frequency Register (MIFR) entry respecting the ITU status and dates of protection and carried out in good faith;

      (ii) compliance with relevant international coordination agreements;

      (iii) that no harmful interference is created to other satellite networks or systems nor to any stations operated in accordance with the ITU Radio Regulations;

      (iv) operation on a non-interference non-protection basis where the filing has not yet been notified and recorded in the MIFR or is operated under ITU Radio Regulation No 4.4;

   (c) to coordinate with any satellite system authorised in the Union;

(d) to use radio spectrum for the provision of satellite communications services in accordance with ITU Radio Regulations, including avoidance of harmful interference and, where applicable, in accordance with any technical harmonisation act adopted pursuant to Decision No 626/2002/EC;

(e) in the case of ITU filing done by a third country, to demonstrate that the jurisdiction of that country provides for effective resolution of harmful interference and implements tools for immediate accountability in case of unlawful use;

(f) payment of radio spectrum fees to be determined on the basis of a methology established by the Commission, by delegated act, in compliance with the criteria of Article 29(2) first subparagraph;

(g) any additional objective, transparent and non discriminatory conditions necessary for the protection of Union policies relying on satellite networks or satellite communication services, including conditions applicable to the experimental use of spectrum.

5. By [*36 months after the date of entry into force of this Regulation*], the Commission shall replace the national authorisations valid on [*6 months after the date of entry into force of this Regulation*] for the use of radio spectrum by Union authorisations.

6. The implementing acts referred to in paragraphs 2 and 4 of this Article shall be adopted in accordance with the procedure referred to in Article 199(4).

Article 40

Procedure for granting a Union authorisation

1. Any undertaking shall submit an application for a Union authorisation to use radio spectrum for the provision of satellite communications services and of satellite networks to the Commission. The Commission shall publish such applications upon receipt.

   In applying this Article, the Commission shall be assisted by the ODN and by a permanent RSPB working group on satellite authorisations. This group shall be composed of representatives of Member States with expertise in satellite communications.

2. The application shall specify radio spectrum needs and contain information necessary for identification of the undertaking, a short description of the satellite communications service and information necessary to verifying compliance with the conditions laid down in Article 39.

3. The Commission shall examine the request with the assistance of the RSPB working group on satellite authorisations and the ODN. The RSPB shall submit an opinion to the Commission within 10 working days from the receipt of the request.

4. The Commission shall adopt an implementing act granting the Union authorisation where the applicant complies with conditions set out in Article 39 or refusing to grant the Union authorisation in all other cases.

   Where necessary, the RSPB may postpone the submission of its opinion and ask the Commission to take appropriate measures in order to harmonise the technical conditions for the use of the radio spectrum pursuant to Decision No 626/2002/EC or other conditions of the Union authorisations.

5. Where in accordance with Article 39(3), the Commission decides to select right holders in a selection procedure, it shall carry out such a procedure in accordance with Annex VI, unless a specific procedure is provided for in Union law.

6. The Commission shall adopt by [*12 months after entry into force of this Regulation*] an implementing act laying down details and timelines applicable to the procedure for granting an EU authorisation.

The implementing acts referred to in paragraphs 4 and 6 of this Article shall be adopted in accordance with the procedure referred to in Article 199(4).

Article 41

Effect of the Union authorisation

1. By derogation to Article 9, the Union authorisation shall confer to its holder the right to provide satellite networks or satellite communications services and the right of use for radio spectrum throughout the Union or to the specific Member States defined in the authorisation. No national authorisation shall be required for the provision of satellite networks, satellite communications services or for the use of radio spectrum for the provision thereof in any Member State.

2. The Union authorisation shall confer the same rights and obligations in each Member State in a similar way as an authorisation granted by that Member State for the provision of satellite communications services or satellite networks or for the use of radio spectrum.

3. The Union authorisation shall not relieve its holder from coordination obligations, including radio spectrum sharing obligations, with respect to existing or future satellite networks or satellite communications services, stemming from ITU Radio Regulations.

4. The holder of the Union authorisation shall:

   (a) where applicable, honour any commitments they gave in their application or during the selection procedure, irrespective of whether the combined demand for radio spectrum exceeds the amount available;

   (b) use their rights of use in the manner that is consistent with the Union's policies relying on spectrum, especially by not causing harmful interference to any satellite system financed under Union's programmes, and by granting access to radio spectrum under their rights at the request of competent authorities at the times of crises;

   (c) provide to the Commission an annual report detailing the status of development of their satellite network and/or satellite communications service.

Article 42

Duration and renewal of the Union authorisation

1. The duration of the Union authorisation shall be determined by the Commission. Article 24 shall apply mutatis mutandis to the rights granted under Union authorisation.

By exception to Article 24(5), where justified, the Commission may shorten the duration of the Union authorisation in the following cases:

   (a) for specific short-term projects;

(b) for experimental use in orbit;

(c) in order to comply with international law obligations applicable to the Member States.

2. In case of a request to renew the right of use, the RSPB shall submit an opinion to the Commission within 10 working days from the receipt of a request by the Commission. The Union authorisation can be renewed by the Commission, taking into account any opinion of the RSPB. Article 25 shall apply mutatis mutandis to the renewal of rights granted under Union authorisation.

3. Articles 194 and 195 on amendment, restriction and withdrawal of rights of use apply mutatis mutandis to rights of use of radio spectrum.

Article 43

Supervision and remedies

1. The Commission and national competent authorities collaborating within Committee referred to in Article 199(1) and the RSPB shall monitor the compliance of the satellite networks and satellite communications services operating under a Union authorisation with the conditions of Articles 38 and 39, as well as Union law and applicable ITU Radio Regulations, and shall take appropriate measures to address any non-compliance.

The Commission shall, by means of implementing acts, adopt detailed arrangements for the coordinated monitoring and enforcement of Union authorisations, including conditions for the coordinated suspension or withdrawal of authorisations. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(3).

2. The Commission shall examine any alleged specific breach of a condition attached to a Union authorisation or of any provision of this Title. The RSPB, supported by the ODN, shall assist the Commission in the examination thereof.

Where a national competent authority is of the opinion that a Union authorisation holder fails to comply with any authorisation condition or with any provision of this Regulation, it shall bring the matter to the attention of the Commission and of the RSPB.

Where the Commission finds that a holder of a Union authorisation does not comply with any condition laid down in Article 38 or Article 39 it shall inform that operator of its findings.

3. In case of breach of any authorisation condition or provision of this Title, the Commission shall, by means of implementing acts, adopt appropriate and proportionate corrective measures, consisting in:

(a) the (temporary or permanent) prohibition of using of certain radio spectrum bands for satellite ground stations and, where applicable, their complementary ground and airborne components in the Union, without prejudice to civil and criminal sanctions under national law;

(b) the suspension or the withdrawal of the Union authorisation.

Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

The Commission may impose fines or periodic penalties for breaches of authorisation conditions or provisions of this Title on the holder of a Union authorisation, which shall

be set taking into account the gravity and the duration of the breach and shall not exceed 5% of its total worldwide turnover in the preceding financial year. The Court of Justice shall have unlimited jurisdiction within the meaning of Article 229 TFEU to review decisions whereby the Commission has fixed a fine or periodic penalty payments; it may cancel, reduce or increase the fine or periodic penalty payment imposed.

The Commission shall inform the Member States of its enforcement actions under this Article.

4. Notwithstanding paragraphs 1 and 2 of this Article, where radio spectrum fees have not been paid, and non-compliance with conditions under Article 38(3) procedure in accordance with Article 196 shall apply mutatis mutandis.

Article 44

Enforcement

1. Any measure decided by the Commission, pursuant to Article 43, shall be enforced by the national competent authorities to its full extent and within the deadline set by the Commission. Exceptionally, a national competent authority may request the Commission to defer the application of its measure on its national territory for a renewable period of up to 6 months where that measure is likely to seriously disrupt connectivity in its territory. The Commission shall limit the duration of this exception as much as possible, where applicable by incentivising end-users to switch to alternative satellite networks or satellite communications services.
2. Any Commission measure shall stand pending the outcome of any judicial or other appeal against the Commission decision or against a national enforcement measure unless interim measures are granted that are appropriate to sufficiently mitigate or eliminate such interference pursuant to paragraph 3.
3. Where urgent action is necessary to avoid harmful interference in its territory, a national competent authority may, on its own initiative or at the Commission's request, take appropriate interim measures including the suspension of the application of the Union authorisation in its territory. When doing so on its initiative, the national competent authority shall inform the Commission and the RSPB of the reasons of its action within five working days. The Commission shall inform the RSPB and the other national competent authorities. The Commission shall immediately start the procedure provided for in Article 43.

Article 45

Coordination between satellite and terrestrial use of radio spectrum

1. Shared use of radio spectrum between terrestrial and satellite systems shall only be possible with the agreement and under the responsibility of the primary holder of the terrestrial right of use where such primary holder is present, and shall aim to ensure efficient use of radio spectrum, prevent harmful interference to terrestrial networks providing wireless broadband electronic communications services and adequately protect these and other relevant incumbent wireless broadband services and applications, by safeguarding the unconstrained continuity of the current operation and the future evolution and development of all relevant radio services and applications currently using these bands and adjacent bands.

2. When requested to coordinate the use of radio spectrum between terrestrial and space applications under the ITU rules in relation to harmonised radio spectrum , the competent authority concerned shall communicate such request to the Commission for immediate transmission to the members of the Radio Spectrum Committee.

3. The Committee, shall adopt an opinion, suggesting the response to be given to the ITU coordination request, taking into account any specificities of the use of that radio spectrum in each Member State. The Commission may adopt an implementing act on coordinated coexistence conditions in the Union in accordance with the procedure referred to in Article 199(4).

4. Where necessary to ensure the coordinated protection of rights granted by Member States for the terrestrial use of harmonised radio spectrum or the coordinated granting of rights to use such radio spectrum for the provision of satellite communication services on a shared basis with wireless broadband services, the Commission may, adopt recommendations for the harmonised application of this Regulation and the coordinated sharing of the radio spectrum between terrestrial and satellite usages.

4.3. TITLE III: NUMBERING RESOURCES

Article 46

Strategic planning and management of numbering resources

1. Member States and the Commission shall manage numbering resources in the internal market in a coordinated way as a common Union resource under shared competence with a view to fostering economic growth by enabling innovation and the consistent provision of number-based electronic communications services in the Union, protecting Union values and security, in pursuit of the objectives provided in Article 3.

2. The Commission, assisted by the ODN, and national regulatory authorities shall cooperate in the strategic planning of numbering resources in the Union and the identification of the potential use of numbering resources for cross border or pan-European services.

3. The Commission shall, taking into account the opinion of BEREC and after giving opportunity to all interested parties to express their views, lay down a forward-looking Union numbering strategy concerning the consistent management of numbering resources in the Member States and at Union level.

4. On the basis of the Union numbering strategy referred to in paragraph 3, the Commission, assisted by the ODN, shall establish the Union numbering plan providing for the numbering resources to be used in the Union by the corresponding cross border or pan-European services.

   The Union numbering plan, modalities concerning the application for ITU numbering ranges for the Union numbering plan and the conditions that may be attached to the right of use for numbering resources from the Union numbering plan, including the fees for rights of use for such resources, may be adopted by the Commission by means of implementing acts.

   Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(3).

Article 47

Pan-European numbering resources

1. The Commission may take measures to harmonise specific numbers or numbering ranges or apply for numbering ranges to the ITU to ensure the availability of numbering resources for cross-border or pan-European services, in accordance with the Union numbering plan, by means of implementing acts pursuant to Article 46(4).
2. Member States shall support the harmonisation of specific numbers or numbering ranges within the Union and the application for pan-European numbering resources to the ITU where it promotes a single market for electronic communications or the development of pan-European services.
3. National regulatory authorities shall manage, in cooperation with the ODN, the allocation of numbers or number ranges from the pan-European numbering resources and shall enforce the conditions attached to the individual rights of use from the pan-European numbering resources.
4. The ODN shall establish and keep up to date a database of the pan-European numbering resources on the basis of the information provided in a timely manner by national regulatory authorities on the allocation of numbers and beneficiaries of the numbers. Within six months after the adoption of the Union numbering plan, the ODN shall set up the procedure and system for provision of information under this paragraph and under Article 48(4), fourth subparagraph.

Article 48

National numbering resources

1. National regulatory authorities shall control the granting of rights of use for all national numbering resources and the management of the national numbering plans and shall provide adequate numbering resources for the provision of publicly available electronic communications services. National regulatory authorities shall establish objective, transparent and non-discriminatory procedures for granting rights of use for national numbering resources.
2. Upon request, national regulatory authorities shall also grant rights of use for numbering resources from the national numbering plans for the provision of specific services to undertakings other than providers of electronic communications networks or services, provided that adequate numbering resources are made available to satisfy current and foreseeable future demand. Those undertakings shall demonstrate their ability to manage the numbering resources and to comply with any relevant requirements set out pursuant to Article 49. National regulatory or other competent authorities may suspend the further granting of rights of use for numbering resources to such undertakings where it is demonstrated that there is a risk of exhaustion of numbering resources.

   In order to contribute to the consistent application of this paragraph, BEREC shall maintain guidelines on common criteria for the assessment of the ability to manage numbering resources and of the risk of exhaustion of numbering resources and update them as necessary, after consulting stakeholders and in close cooperation with the Commission.
3. National regulatory authorities shall apply the national numbering plans and procedures in a manner that ensures equal treatment to all providers of publicly available electronic communications services and the undertakings eligible in accordance with paragraph 2.

Undertakings to which the right of use for numbering resources has been granted shall not discriminate against other providers of electronic communications services as regards the numbering resources used to give access to their services.

4. National regulatory authorities shall make available a range of non-geographic numbers which may be used for the provision of electronic communications services other than interpersonal communications services, throughout the territory of the Union, without prejudice to Regulation (EU) 2022/612 and Article 52(2) of this Regulation. Where rights of use for numbering resources have been granted in accordance with paragraph 2 of this Article to undertakings other than providers of electronic communications networks or services, this paragraph shall apply to the specific services for the provision of which the rights of use have been granted.

   National regulatory authorities shall ensure that the conditions listed in Article 50 that may be attached to the rights of use for numbering resources used for the provision of services outside the Member State of the country code, as well as their enforcement, are as stringent as the conditions and enforcement applicable to services provided within the Member State of the country code in accordance with this Regulation. National regulatory or other competent authorities shall also ensure in accordance with Article 49(6) that providers using numbering resources of their country code in other Member States comply with consumer protection and other national rules related to the use of numbering resources applicable in those Member States where the numbering resources are used. This obligation is without prejudice to the enforcement powers of the competent authorities of those Member States.

   The ODN shall assist national regulatory authorities, at their request, in coordinating their activities to ensure the efficient management of numbering resources with a right of extraterritorial use within the Union.

   In order to facilitate the monitoring by the national regulatory authorities of compliance with the requirements of this paragraph, BEREC assisted by the ODN shall maintain a database on the numbering resources with a right of extraterritorial use within the Union. For this purpose, national regulatory or other competent authorities shall transmit periodically the relevant information to the ODN.

5. National regulatory authorities shall publish the national numbering plans, as well as all subsequent additions or amendments thereto, subject only to limitations imposed on the grounds of national security.

6. First time by [*12 months after entry into force*] and every two years thereafter, BEREC shall issue a report the national practices regarding the granting of rights of use for national and pan-European numbering resources, focusing on diverging practices within the Union.

Article 49

Procedure for granting of rights of use for numbering resources

1. Where it is necessary to grant individual rights of use for numbering resources, national regulatory authorities shall grant such rights, upon request, to any undertaking for the provision of electronic communications networks or services covered by a general authorisation referred to in Article 9 and in Article 181(3), point (c), and subject to any other rules ensuring the efficient use of those numbering resources in accordance with this Regulation.

2. The rights of use for numbering resources shall be granted through open, objective, transparent, non-discriminatory and proportionate procedures.

   When granting rights of use for numbering resources, national regulatory authorities shall specify whether those rights can be transferred by the holder of the rights and under which conditions.

   Where national regulatory authorities grant rights of use for numbering resources for a limited period, the duration of that period shall be appropriate for the service concerned with a view to the objective pursued, taking due account of the need to allow for an appropriate period for investment amortisation.

3. National regulatory authorities shall take decisions on the granting of rights of use for numbering resources as soon as possible after receipt of the complete application and within three weeks in the case of numbering resources that have been allocated for specific purposes within the national numbering plan. Such decisions shall be made public.

4. Where national regulatory authorities have determined, after consulting interested parties in accordance with Article 186, that rights of use for numbering resources of exceptional economic value are to be granted through competitive or comparative selection procedures, national regulatory authorities may extend the three-week period referred to in paragraph 3 of this Article by up to three weeks.

5. National regulatory authorities shall not limit the number of individual rights of use to be granted, except where this is necessary to ensure the efficient use of numbering resources.

6. Where the rights of use for numbering resources include their extraterritorial use within the Union in accordance with Article 48(4), national regulatory authorities shall attach to those rights of use specific conditions in order to ensure compliance with all the relevant national consumer protection rules and national law related to the use of numbering resources applicable in the Member States where the numbering resources are used.

   Upon request from a national regulatory authority of a Member State where the numbering resources are used, demonstrating a breach of relevant consumer protection rules or national laws related to the use of numbering resources of that Member State, the national regulatory authorities of the Member State where the rights of use for the numbering resources have been granted shall enforce the conditions attached under the first subparagraph of this paragraph in accordance with Article 199, including, in serious cases, by withdrawing the rights of extraterritorial use for the numbering resources granted to the undertaking concerned.

   The ODN, shall facilitate and coordinate the exchange of information between the national regulatory authorities of the different Member States involved and ensure the appropriate coordination of work among them.

7. This Article shall also apply where national regulatory authorities grant rights of use for numbering resources to undertakings other than providers of electronic communications networks or services in accordance with Article 48(2).

Article 50

Conditions which may be attached to rights of use for numbering resources

Where national regulatory authorities attach conditions to the right of use for numbering resources, such conditions shall be limited to the following:

(a) designation of service for which the number shall be used, including any requirements linked to the provision of that service and, for the avoidance of doubt, tariff principles and maximum prices that can apply in the specific number range for the purposes of ensuring consumer protection in accordance with Article 3(1), point (f);

(b) effective and efficient use of numbering resources in accordance with this Regulation;

(c) number portability requirements in accordance with this Regulation;

(d) maximum duration in accordance with Article 49, subject to any changes in the national numbering plan;

(e) transfer of rights at the initiative of the holder of the rights and conditions for such transfer in accordance with this Regulation, including any condition that the right of use for a number be binding on all the undertakings to which the rights are transferred;

(f) fees for rights of use in accordance with Article 51;

(g) any commitments which the undertaking obtaining the rights of use has made in the course of a competitive or comparative selection procedure;

(h) obligations under relevant international agreements relating to the use of numbers;

(i) obligations concerning the extraterritorial use of numbers within the Union to ensure compliance with consumer protection and other number-related rules in Member States other than that of the country code;

(j) enabling access by end-users of numbers from the national numbering plan, Universal International Freephone Numbers, numbering plans of other Member States and numbers from the pan-European numbering resources.

Article 51

Fees for rights of use for numbering resources

National regulatory authorities may impose fees for the rights of use for numbering resources which reflect the need to ensure the optimal use of those resources. Such fees shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take into account the general objectives set out in Article 3.

Article 52

Access to numbers and services

1. Where economically feasible, except where a receiving party has chosen for commercial reasons to limit access by originating parties located in specific geographical areas, providers of number-based electronic communications services shall take all necessary steps to ensure that the originating parties are able to access all of the following:

    (a) non-geographic numbers and services using such numbers within the Union;

(b) all numbers provided in the Union, regardless of the technology and devices used by the operator, including those in the national numbering plans of Member States and Universal International Freephone Numbers (UIFN);

(c) the numbers from the pan-European numbering resources.

2. National regulatory authorities shall have the power to require providers of public electronic communications networks or publicly available electronic communications services to adopt preventive measures by blocking access to numbers or services where this is justified by reasons of fraud or misuse and to require that in such cases providers of electronic communications services withhold relevant interconnection or other service revenues.

5. PART V – TRANSITION TO FIBRE, MARKETS FUNCTIONING AND COMPETITION

5.1. TITLE I: TRANSITION TO FIBRE NETWORKS

Article 53

Scope of this Title

This Title shall apply in Member States where copper networks remain in service after 30 June 2029.

Article 54

Mandating copper switch-off

1. Before 31 December 2035, Member States shall mandate the copper switch-off in copper switch-off areas (CSO areas) where the conditions set out in Article 57(1) are met.

2. By 31 December 2035, Member States shall mandate the copper switch-off in all CSO areas.

3. By way of exception to paragraph 2, in CSO areas where fibre deployment is not economically viable and no adequate connectivity solution capable of replacing copper-based services is available, Member States may decide not to mandate the copper switch-off.

4. For the purposes of paragraphs 1 and 2, Member States shall mandate the copper switch-off by adopting a binding legal act. Each such legal act shall set a start date for the copper switch-off, which shall be no later than one year after its adoption and shall require that the copper switch-off be completed within three years from that start date. For mandates pursuant to paragraph 1, the legal act shall be adopted within six months of the publication of a list referred to in Article 58(3). For mandates pursuant to paragraph 2, the legal act shall be adopted by 31 December 2035 at the latest.

Article 55

Copper switch-off areas

1. The copper switch-off shall be organised in CSO areas covering all geographic areas where copper networks are in service.

2. National regulatory authorities shall delimit CSO areas, taking account of the criteria set out in Commission guidance.

3. By 31 May 2028, national regulatory authorities shall publish the list of CSO areas.

4. National regulatory authorities shall review and, where appropriate, update the list of CSO areas to support a timely and orderly copper switch-off. Any updated list shall be published without undue delay.

Article 56

National transition to fibre plan

1. By 31 October 2029, each Member State shall prepare a transition to fibre plan and notify it to the Commission.

2. The transition to fibre plan shall set out the Member State's strategy for the nationwide transition to fibre networks, in particular for the migration from copper to FTTH networks. It shall contain the following information:

   (a) information on the coverage of copper and fibre networks;

   (b) a description of measures in place or planned to foster fibre deployment and the transition to FTTH networks;

   (c) a list of CSO areas indicating, for each area, whether the sustainability conditions set out in Article 57(1) are met, together with the corresponding migration milestones and, where relevant, enabling measures.

3. By 30 June 2034, Member States shall update their transition to fibre plan and notify the updated plan to the Commission.

4. The updated transition to fibre plan shall report progress on the implementation of the initial plan. It shall contain the following information:

   (a) information on the status of the copper switch-off in each CSO area;

   (b) a list of CSO areas where fibre deployment is economically viable but will only be completed after 31 December 2035, together with information on the availability of adequate connectivity solutions capable of replacing copper-based services;

   (c) a list of CSO areas where fibre deployment is not economically viable.

5. The Commission may comment on the initial and the updated transition to fibre plan within one month from its receipt. Member States shall take account of those comments.

Article 57

Sustainability conditions

1. For the purposes of this Title, the sustainability conditions shall consist of the following requirements:

   (a) at least 95% of the premises within the CSO area are passed by a fibre network, within the meaning of Article 2(3);

   (b) affordable retail connectivity services of comparable quality are available to end-users relying on copper-based services.

2. National regulatory authorities shall specify, in accordance with national circumstances, objective and transparent parameters and criteria for affordability.

Article 58

Assessment of sustainability conditions

1. National regulatory authorities shall assess, for each CSO area, whether the sustainability conditions set out in Article 57(1) are met.
2. For the assessment referred to in paragraph 1, national regulatory authorities shall take into account data collected pursuant to Article 183.
3. By 30 June 2029, national regulatory authorities shall publish a list of CSO areas where the sustainability conditions are met. Thereafter, for a period of five years, national regulatory authorities shall publish, at least every 12 months, a list of CSO areas that subsequently meet those conditions.

Article 59

Safeguards

1. Member States shall ensure that end-users affected by the copper switch-off are informed clearly, in a timely and accessible manner about the following:
    (a) the expected timing of the copper switch-off;
    (b) any necessary changes to their connectivity service or terminal equipment;
    (c) the alternative connectivity services available to them.
2. Member States shall ensure the continuity of electronic communications services supporting essential copper-based services. Operators shall take the necessary technical and commercial measures to ensure the continued operation of such services or their migration to functionally equivalent alternatives.
3. Taking into account national conditions, Member States shall adopt safeguards pursuant to Articles 88 and 90 to continue ensuring affordable adequate internet access and voice communications services to consumers referred to in Article 88(2) and end-users referred to in Article 90(1) after the copper switch-off.
4. National regulatory authorities shall assess the need for safeguards to protect end-users relying on copper-based services, including measures related to switching processes and affordability of alternative connectivity services, and advise Member States accordingly.
5. Prior to the adoption of a binding legal act mandating the copper switch-off pursuant to Article 54, and in any event no later than 31 December 2035, Member States shall adopt appropriate safeguards to protect end-users relying on copper-based services.

Article 60

Copper switch-off plans by operators

1. Operators shall draw up one or more copper switch-off plans for the CSO areas where the copper switch-off is mandated. The plan shall include timelines, technical measures, communication activities and arrangements for the migration of access seekers and end-users.

2. Operators shall submit their copper switch-off plans to the national regulatory authority within six months of the adoption of the binding legal act pursuant to Article 54(4).

3. The national regulatory authority shall assess the plans within two months from their receipt and shall either approve them or approve them subject to amendments.

4. Operators shall implement the copper switch-off plans as approved by the national regulatory authority, including any amendments requested. Operators shall report progress to the national regulatory authority at intervals determined by it.

Article 61

Supervision and enforcement

National regulatory authorities shall supervise the implementation of the copper switch-off in accordance with the approved copper switch-off plans and shall have the powers provided for in Article 196.

5.2. TITLE II: ACCESS TO LAND

Article 62

Fees for rights to install facilities

Competent authorities may impose fees for the rights to install facilities on, over or under public or private property that are used for the provision of electronic communications networks or services and associated facilities, provided that such fees are objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and take into account the general objectives of this Regulation.

Article 63

Rights of way

1. Where a competent authority considers an application for the granting of any of the following rights, it shall apply paragraph 2:

   (a) the right to install facilities on, over or under public or private property to an undertaking authorised to provide public electronic communications networks;

   (b) the right to install facilities on, over or under public property to an undertaking authorised to provide electronic communications networks other than to the public.

2. For the purposes of paragraph 1, the competent authority shall:

   (a) act on the basis of simple, efficient, transparent and publicly available procedures, applied without discrimination and without delay, and in any event make its decision within six months of the application, except in the case of expropriation;

   (b) follow the principles of transparency and non-discrimination in attaching conditions to any such rights.

   The procedures referred to in the first subparagraph, point (a), may differ depending on whether the applicant is providing public electronic communications networks or not.

3. Where public or local authorities retain ownership or control of undertakings providing public electronic communications networks or publicly available electronic communications services, there shall be an effective structural separation of the function responsible for granting the rights referred to in paragraph 1 from the activities associated with ownership or control.

Article 64

Co-location and sharing of network elements and associated facilities for providers of electronic communications networks

1. Where an operator has exercised the right under national law to install facilities on, over or under public or private property, or has taken advantage of a procedure for the expropriation or use of property, competent authorities may impose co-location and sharing of the network elements and associated facilities installed on that basis, in order to foster environmental sustainability of electronic communications networks, to protect public health and public security or to meet town- and country-planning oasis, in order to foster environmental sustainability of electronic communications networks, to protect public health and public security or to meet town- and country-planning objectives.

2. Co-location or sharing of network elements and facilities installed and sharing of property may be imposed only after an appropriate period of public consultation, during which all interested parties shall be given an opportunity to express their views and only in the specific areas where such sharing is considered to be necessary with a view to pursuing the objectives provided in the first subparagraph. Competent authorities may impose the sharing of such facilities or property, including land, buildings, entries to buildings, building wiring, masts, antennae, towers and other supporting constructions, ducts, conduits, manholes, cabinets or measures facilitating the coordination of public works. Where necessary, a Member State may designate a national regulatory or other competent authority for one or more of the following tasks:

    (a) acting as a single information point;

    (b) setting down rules for apportioning the costs of facility or property sharing and of civil works coordination, taking into account, among others, the relevant guidance issued by BEREC or the Commission in accordance with Regulation (EU) 2024/1309.

3. Measures taken by a competent authority in accordance with this Article shall be objective, transparent, non-discriminatory and proportionate. Where relevant, these measures shall be carried out in coordination with the national regulatory authorities.

5.3. TITLE III: INTERCONNECTION

5.3.1. CHAPTER I: General provisions and principles

Article 65

General framework for access and interconnection

1. Undertakings in the same Member State or in different Member States shall have the right to negotiate between themselves agreements on technical and commercial arrangements for access or interconnection, in accordance with Union law. The undertaking requesting access or interconnection shall not need to be authorised to

operate in the Member State where access or interconnection is requested, if it is not providing services and does not operate a network in that Member State.

2. Without prejudice to Article 115, undertakings, when granting access or interconnection, shall not be required to offer different terms and conditions to different undertakings for equivalent services or measures imposing obligations that are not related to the actual access and interconnection services provided without prejudice to the conditions set out in Article 9.

Article 66

Rights and obligations of undertakings

1. Operators of public electronic communications networks shall have a right and, when requested by other undertakings so authorised in accordance with Article 9, an obligation to negotiate with each other interconnection for the purpose of providing publicly available electronic communications services, in order to ensure provision and interoperability of services throughout the Union. Operators shall offer access and interconnection to other undertakings on terms and conditions consistent with obligations imposed by the national regulatory authority pursuant to Articles 68, 67 and 77.

2. Without prejudice to Article 183, undertakings which acquire information from another undertaking before, during or after the process of negotiating access or interconnection arrangements shall use that information solely for the purpose for which it was supplied and respect at all times the confidentiality of information transmitted or stored. Such undertakings shall not pass on the received information to any other party, including other departments, subsidiaries or partners, for whom such information could provide a competitive advantage.

3. Negotiations shall be conducted through neutral intermediaries when conditions of competition so require.

Article 67

Conditional access systems and other facilities

1. Member States shall ensure that the conditions laid down in Part I of Annex I apply in relation to conditional access to digital television and radio services broadcast to viewers and listeners in the Union, irrespective of the means of transmission. Upon a market analysis set out in paragraph 3 of this Article, Member States may apply those conditions to other facilities referred to in Part II of Annex I.

2. Conditions applied in accordance with this Article shall be without prejudice to the ability of Member States to impose obligations in relation to the presentational aspect of EPGs and similar listing and navigation facilities.

3. Notwithstanding paragraph 1 of this Article, national regulatory authorities may review the conditions applied in accordance with this Article, by undertaking a market analysis in accordance with Article 73(1) to determine whether to maintain, amend or withdraw the conditions applied.

5.3.2. CHAPTER II: Symmetric rules for access

Article 68

Powers and responsibilities of the national regulatory and other competent authorities with regard to access and interconnection

1. National regulatory authorities or, in the case of paragraph 2, first subparagraph, points (b) and (c), of this Article, national regulatory authorities or other competent authorities shall, acting in pursuit of the objectives set out in Article 3, encourage and, where appropriate, ensure, in accordance with this Regulation, adequate access and interconnection, as well as the interoperability of services, exercising their responsibility so as to promote efficiency, sustainable competition, the deployment of gigabit networks, innovative services enablers, efficient investment and innovation and sustainable delivery of electronic communications services, information society services and content and to give the maximum benefit to end-users.

   They shall provide guidance and make publicly available the procedures applicable to gain access and interconnection to ensure that undertakings, including small and medium-sized enterprises and providers of electronic communications networks with a limited geographical reach, can benefit from the obligations imposed.

2. In particular, without prejudice to measures that may be taken regarding undertakings designated as having significant market power in accordance with Article 77, national regulatory authorities or, in the case of points (b) and (c) of this subparagraph, national regulatory authorities or other competent authorities shall be able to impose:

   (a) to the extent necessary to ensure end-to-end connectivity, obligations on undertakings subject to general authorisation that control access to end-users, including, in justified cases, the obligation to interconnect their networks where this is not already the case;

   (b) in justified cases and to the extent necessary, obligations on undertakings subject to general authorisation that control access to end-users to make their services interoperable;

   (c) in justified cases, where end-to-end connectivity between end-users is endangered due to a lack of interoperability between interpersonal communications services, and to the extent necessary to ensure end-to-end connectivity between end-users, obligations on relevant providers of number-independent interpersonal communications services which reach a significant level of coverage and user uptake, to make their services interoperable;

   (d) to the extent necessary to ensure accessibility for end-users to digital radio and television broadcasting services and related complementary services specified by the Member State, obligations on operators to provide access to the other facilities referred to in Part II of Annex I on fair, reasonable and non-discriminatory terms.

   The obligations referred to in the first subparagraph, point (c), shall be imposed only:

   (i) to the extent necessary to ensure interoperability of interpersonal communications services and may include proportionate obligations on providers of those services to publish and allow the use, modification and redistribution of relevant information by the authorities and other providers, or

to use and implement standards or specifications listed in Article 187(1) or of any other relevant European or international standards;

(ii) where the Commission, after consulting BEREC and taking account of its opinion, has found an appreciable threat to end-to-end connectivity between end-users throughout the Union or in at least three Member States and has adopted implementing measures specifying the nature and scope of any obligations that may be imposed.

The implementing measures referred to in the second subparagraph, point (b), of this paragraph shall be adopted in accordance with the examination procedure referred to in Article 199(4).

Article 69

Symmetric measures

1. Without prejudice to Article 68(1) and (2), national regulatory authorities may, upon reasonable request, impose obligations to grant access to wiring and cables and associated facilities inside buildings or up to the first concentration or distribution point as determined by the national regulatory authority, where that point is located outside the building. Where it is justified on the grounds that replication of such network elements would be economically inefficient or physically impracticable, such obligations may be imposed on providers of electronic communications networks or on the owners of such wiring and cables and associated facilities, where those owners are not providers of electronic communications networks. The access conditions imposed may include specific rules on access to such network elements and to associated facilities and associated services, on transparency and non-discrimination and on fair and reasonable terms and conditions.

2. Where a national regulatory authority concludes that the obligations imposed in accordance with paragraph 1 may not sufficiently address high and non-transitory economic or physical barriers to replication which underlie an existing or emerging market situation significantly limiting competitive outcomes for end-users, it may impose the access obligations, beyond the first concentration or distribution point, on fair and reasonable terms and conditions, unless specific and justified circumstances require a cost orientation. In determining the extent of the obligation beyond the first concentration or distribution point, the national regulatory authority shall take utmost account of relevant BEREC guidelines.

3. National regulatory authorities shall not impose obligations in accordance with paragraph 2 on providers of electronic communications networks where they determine any of the following:

   (a) the provider has the characteristics listed in Article 84(1) and makes available a viable and similar alternative means of reaching end-users by providing access to a gigabit network to any undertaking, on fair, non-discriminatory and reasonable terms and conditions; national regulatory authorities may extend that exemption to other providers offering, on fair, non-discriminatory and reasonable terms and conditions, access to a gigabit network;

   (b) the imposition of obligations would compromise the economic or financial viability of a new network deployment, in particular by small local projects.

4. Obligations and conditions imposed in accordance with this Article shall be objective, transparent, proportionate and non-discriminatory. They shall be implemented in accordance with the procedures referred to in Articles 85 and 184. The national regulatory and other competent authorities which have imposed such obligations and conditions shall assess the results thereof by five years after the adoption of the previous measure adopted in relation to the same undertakings and assess whether it would be appropriate to withdraw or amend them in light of evolving conditions. Those authorities shall notify the outcome of their assessment in accordance with the procedures referred to in Articles 85 and 184.

5. For the purpose of paragraphs 1 and 2 of this Article, the national regulatory authority may intervene on its own initiative, where justified in order to secure the policy objectives of Article 3, in accordance with this Regulation.

6. By 31 October 2029, BEREC shall assess the effectiveness of the guidelines on common approaches to the identification of the network termination point in different network topologies in contributing to a consistent definition of the location of network termination points by national regulatory authorities.

Article 70

Localised roaming

1. Without prejudice to Article 68(1) and (2), national regulatory authorities shall have the power to impose on undertakings providing or authorised to provide electronic communications networks obligations in relation to the sharing of passive infrastructure or obligations to conclude localised roaming access agreements, in both cases if directly necessary for the local provision of services which rely on the use of radio spectrum, in accordance with Union law and provided that no viable and similar alternative means of access to end-users is made available to any undertaking on fair and reasonable terms and conditions. National regulatory authorities may impose such obligations only where this possibility is clearly provided for when granting the rights of use for radio spectrum and where justified on the grounds that, in the area subject to such obligations, the market-driven deployment of infrastructure for the provision of electronic communications networks or services which rely on the use of radio spectrum is subject to insurmountable economic or physical obstacles and therefore access to networks or services by end-users is severely deficient or absent. In those circumstances where access and sharing of passive infrastructure alone does not suffice to address the situation, national regulatory authorities may impose obligations on sharing of active infrastructure.

2. National regulatory authorities shall have regard to

   (a) the need to maximise connectivity throughout the Union, along major transport paths and in particular territorial areas, and to the possibility to significantly increase choice and higher quality of service for end-users;

   (b) the efficient use of radio spectrum;

   (c) the technical feasibility of sharing and associated conditions;

   (d) the state of infrastructure-based as well as service-based competition;

   (e) technological innovation;

(f) the overriding need to support the incentive of the host to roll out the infrastructure in the first place.

3. In the event of dispute resolution, national regulatory authorities may, inter alia, impose on the beneficiary of the sharing or access obligation the obligation to pool or share radio spectrum with the infrastructure host in the relevant area or allow access to radio spectrum for other users in specific regions or at national level.

Article 71

Symmetric measures for transition to fibre

1. The national regulatory authority shall impose on a provider deploying a fibre-to-the-home (FTTH) network in the area where the copper switch-off has been mandated the obligation to connect, upon user's request, households passed by its fibre network. Where more than one provider is present in the area, the national regulatory authority may impose such obligations on only one of the providers, based on transparent, proportionate and non-discriminatory criteria.

2. In the market analysis carried out pursuant to Article 73(1) in the context of the copper switch-off, the national regulatory authority shall define the conditions for the access obligations, including the cost recovery calculation, as needed.

3. Where the national regulatory authority concludes that the costs exceed a normal connection fee and that an additional connection fee may be justified, it shall ensure that such additional fee, when borne by end users, is fair and reasonable. The national regulatory authority may decide to set maximum level of connection fees to be paid by end-users.

4. In the areas where the copper switch-off has been mandated, where the connection of households requires providers of electronic communications networks to deploy new fibre wiring and cables and associated facilities inside a multi-dwelling unit, the owner or the administrator of such multi-dwelling unit shall allow such deployment at the request of any resident of the multi-dwelling unit.

5. The obligation to allow the deployment of fibre wiring and cables and associated facilities inside a multi-dwelling unit shall be considered to be fulfilled once a single provider of electronic communications networks has deployed the network. National regulatory authority shall impose measures under Article 68(1) and Article 69 where needed to ensure effective access by other providers of electronic communications networks to the new fibre wiring and cables and associated facilities.

6. The national regulatory authority may request any other provider of electronic communications networks to proceed with such deployment where the provider of electronic communications networks which has passed the multi-dwelling unit provides substantiated justification proving the impossibility to comply with this obligation.

5.4. TITLE IV: MARKETS AND COMPETITION

5.4.1. CHAPTER I Market analysis and significant market power

Article 72

Market definition

1. Where national regulatory authorities intend to define relevant markets appropriate to national circumstances, they shall do so in accordance with the principles of competition

law. When defining relevant geographic markets within their territory, national regulatory authorities shall take into account the degree of infrastructure competition.

The Commission shall regularly analyse the overall trends in the Union, based on the results of stakeholders' consultation, and assess, by reference to Article 73(1)(a), (b) and (c), whether the adoption of a recommendation on relevant product and service markets ('the markets Recommendation') is required. The Commission may adopt the markets Recommendation, after public consultation, including with national regulatory authorities, and taking account of the opinion of BEREC.

The Recommendation shall identify those product and service markets within the electronic communications sector the characteristics of which may be such as to justify the imposition of regulatory obligations set out in this Regulation, without prejudice to markets that may be defined in specific cases under competition law. These products and services markets shall be defined in accordance with the principles of competition law. Where the Commission decides to adopt the markets Recommendation, it shall review it regularly.

Where a market is included in the markets Recommendation, national regulatory authorities shall review the market. The markets where *ex ante* regulation is imposed shall be reviewed every five years to determine whether the criteria referred to in Article 73(1) are met.

2. National regulatory authorities shall, where relevant, also take into account the results of the analysis of the geographical survey conducted in accordance with Article 183(12).

Article 73

Market analysis procedure

1. National regulatory authorities shall determine whether a relevant market defined in accordance with Article 72 is such as to justify the imposition of the regulatory obligations set out in this Regulation. National regulatory authorities shall carry out an analysis, where appropriate in collaboration with national competition authorities.

   Prior to the copper switch-off, the national regulatory authorities shall conduct reviews of relevant markets covering at least the areas affected by the copper switch-off.

   National regulatory authorities shall follow the procedures set out in Articles 85 and 184 when conducting market analyses and shall proceed in a timely manner, concluding the process within a period of one year.

   A market may be considered to justify the imposition of regulatory obligations set out in this Regulation if all the following criteria are met:

   (a) high and non-transitory structural, legal or regulatory barriers to entry are present;

   (b) there is a market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry;

   (c) competition law alone is insufficient to adequately address the identified market failure(s).

   Where a national regulatory authority conducts an analysis of a market that is included in the Recommendation, it shall consider that points (a), (b) and (c) have been met, unless

the national regulatory authority determines that one or more of such criteria is not met in the specific national circumstances.

2. Where a national regulatory authority conducts the analysis required by paragraph 1, it shall consider, in a forward-looking perspective, how the markets would develop in the absence of regulation imposed on the basis of this Article. The national regulatory authority shall take into account all of the following in its analysis:

   (a) market developments affecting the likelihood of the relevant market tending towards effective competition;

   (b) all relevant competitive constraints, at the wholesale and retail levels, irrespective of whether the sources of such constraints are considered to be electronic communications networks, electronic communications services, or other types of services or applications which are comparable from the perspective of the end-user, and irrespective of whether such constraints are part of the relevant market;

   (c) other types of regulation or measures imposed and affecting the relevant market or related retail market or markets throughout the relevant period, including, without limitation, obligations imposed in accordance with Articles 64, 68 and 69;

   (d) regulation imposed on other relevant markets on the basis of this Article.

3. Where a national regulatory authority concludes that a relevant market does not justify the imposition of regulatory obligations in accordance with the procedure in paragraphs 1 and 2 of this Article, or where the conditions set out in paragraph 4 of this Article are not met, it shall not impose any specific regulatory obligations in accordance with Article 77 and shall withdraw previous obligations imposed in accordance with Article 77.

4. National regulatory authorities shall consider mandating an appropriate notice period for the remedies to be lifted, taking into account the need to ensure a sustainable transition for the beneficiaries of those obligations and end-users, end-user choice and that regulation does not continue for longer than necessary. When setting such a notice period, national regulatory authorities may determine specific conditions and notice periods in relation to existing access agreements.

5. Where a national regulatory authority determines that in a relevant market the imposition of regulatory obligations in accordance with paragraphs 1 and 2 of this Article is justified, it shall identify any undertakings which individually or jointly have a significant market power on that relevant market in accordance with Article 76. The national regulatory authority shall impose on such undertakings appropriate specific regulatory obligations in accordance with Article 77 or maintain or amend such obligations where they already exist if it considers that the outcome for end-users would not be effectively competitive in the absence of those obligations.

6. Measures taken in accordance with paragraphs 3 and 4 of this Article shall be subject to the procedures referred to in Articles 85 and 184. National regulatory authorities shall carry out an analysis of the relevant market and notify the corresponding draft measure in accordance with Article 85 within five years from the adoption of a previous measure where the national regulatory authority has defined the relevant market and determined which undertakings have significant market power.

Article 74

Procedure for the identification of transnational markets

1. Where the Commission or at least two national regulatory authorities concerned submit a reasoned request, including supporting evidence, BEREC shall conduct an analysis of a potential transnational market. After consulting stakeholders and taking account of the analysis carried out by BEREC, the Commission may adopt decisions identifying transnational markets in accordance with the principles of competition law.
2. In the case of transnational markets identified in accordance with paragraph 1 of this Article, the national regulatory authorities concerned shall jointly conduct the market analysis taking account of the SMP guidelines and, in a concerted fashion, shall decide on any imposition, maintenance, amendment or withdrawal of regulatory obligations referred to in Article 73(4). The national regulatory authorities concerned shall jointly notify to the Commission their draft measures regarding the market analysis and any regulatory obligations pursuant to Article 85.
3. Two or more national regulatory authorities may also jointly notify their draft measures regarding the market analysis and any regulatory obligations in the absence of transnational markets, where they consider that market conditions in their respective jurisdictions are sufficiently homogeneous.

Article 75

Procedure for the identification of transnational demand

BEREC shall conduct an analysis of transnational end-user demand for products and services that are provided within the Union, where it receives a reasoned request providing supporting evidence from the Commission or from at least two of the national regulatory authorities concerned indicating that there is a serious demand problem to be addressed. BEREC may also conduct such analysis where it receives a reasoned request from market participants providing sufficient supporting evidence and considers that there is a serious demand problem to be addressed. BEREC's analysis is without prejudice to any findings of transnational markets in accordance with Article 74(1) and to any findings of national or sub-national geographical markets by national regulatory authorities in accordance with Article 72.

Article 76

Undertakings with significant market power

1. Where a national regulatory authority identifies an undertaking to have significant market power in accordance with the procedure referred to in Article 73, paragraph 2 of this Article shall apply.
2. An undertaking shall be deemed to have significant market power where, either individually or jointly with others, it enjoys a position equivalent to dominance, namely a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.
3. In particular, national regulatory authorities shall, when assessing whether two or more undertakings are in a joint dominant position in a market, act in accordance with Union law and take into account the guidelines on market analysis and the assessment of significant market power published by the Commission pursuant to paragraph 5 of this Article.

4. Where an undertaking has significant market power on a specific market, it may also be designated as having significant market power on a closely related market, where the links between the two markets allow the market power held on the specific market to be leveraged into the closely related market, thereby strengthening the market power of the undertaking. Consequently, remedies aiming to prevent such leverage may be applied in the closely related market pursuant to Articles 77 to 84.

5. After consulting BEREC, the Commission shall publish guidelines for market analysis and the assessment of significant market power ('the SMP guidelines') which shall be in accordance with the relevant principles of competition law. The SMP guidelines shall include guidance to national regulatory authorities on the application of the concept of significant market power to the specific context of *ex ante* regulation of electronic communications markets, taking account of the three criteria referred to in Article 73(1).

5.4.2. CHAPTER II: Access remedies imposed on undertakings with significant market power

Article 77

Imposition, amendment or withdrawal of obligations imposed on undertakings with significant market power

1. When assessing the competitive conditions of a specific market and the need for regulatory intervention, national regulatory authorities shall, in line with Article 73(2), consider in the first instance the influence on competitive dynamics of existing regulations, possible commitment offered or remedies imposed in the context of proceedings under national or Union competition law or commercial agreements.

2. In accordance with the principle of proportionality, where an undertaking is designated as having significant market power on a specific market as a result of a market analysis carried out in accordance with Article 73, a national regulatory authority shall choose the least intrusive way of addressing the possible problems identified in the market analysis. In this assessment, the national regulatory authorities shall take into consideration the commitments offered by the operators designated as having significant market power under Article 83.

3. Obligations imposed in accordance with this Article shall be:

   (a) based on the nature of the problem identified by a national regulatory authority in its market analysis, where appropriate taking into account the identification of transnational demand pursuant to Article 75;

   (b) proportionate, having regard, to the costs and benefits;

   (c) justified considering the objectives laid down in Article 3;

   (d) imposed following consultation in accordance with Articles 85 and 184.

4. Where an undertaking is designated as having significant market power, national regulatory authorities may, where appropriate, impose obligations such as obligations of transparency and of non-discrimination at the first stage of the assessment.

   Where a national regulatory authority considers the obligations referred to above to be not sufficient or not appropriate, it shall examine whether the imposition of such obligations in combination with obligations imposed in accordance with Article 80 alone would be a proportionate and sufficient means by which to pursue the objectives laid down in Article 3.

Without prejudice to Article 80, where they consider that additional access obligations are needed, national regulatory authorities shall impose the obligations granting harmonised access set out in Article 81.

Only where national regulatory authorities provide substantiated justification demonstrating that such obligations imposed in accordance with Articles 80 and 81 do not address the competition problems identified on the concerned market, they may impose other obligations for access to specific active or virtual network elements and services, and use of specific network elements and associated facilities pursuant to Article 78.

In addition to the obligations referred to in the fourth subparagraph of this paragraph, where obligations laid down in Articles 77 to 84 are not appropriate, national regulatory authorities may impose the obligation of accounting separation, the obligation of price control and cost accounting obligations.

The obligations imposed shall not have a retroactive effect. Where duly justified exceptional circumstances arise, the obligations may be imposed with a commencement date that differs from the one ordinarily provided.

5. National regulatory authorities shall notify decisions to impose, amend or withdraw obligations on undertakings to the Commission, in accordance with the procedure referred to in Article 85.

6. In the case of developments in the market, including commercial agreements, or commitments, which do not require changing the market definition or the significant market power assessment and do not justify a new market analysis in accordance with Article 73, the national regulatory authority shall assess without delay whether it is necessary to review the obligations imposed on undertakings designated as having significant market power and amend any previous decision, including by withdrawing obligations or imposing new obligations, in order to ensure that such obligations continue to meet the conditions set out in paragraph 4 of this Article. Such amendments shall be imposed only after consultations in accordance with Articles 85 and 184.

7. National regulatory authorities shall impose the obligations without prejudice to either of the following:

   (a) Articles 67, 68 and 69;

   (b) Article 50, Article 52, Article 64 and Article 100 and the relevant provisions of Directive 2002/58/EC containing obligations on undertakings other than those designated as having significant market power;

   (c) the need to comply with international commitments.

8. In order to contribute to the consistent application of remedies, the Commission may, in close cooperation with BEREC, issue guidance to assist national regulatory authorities on the consistent implementation of their obligations under this Article.

Article 78

Obligations of access to, and use of, specific network elements and associated facilities

1. National regulatory authorities may, in accordance with Article 77, impose obligations on undertakings to meet reasonable requests for access to, and use of, specific network elements and associated facilities, other than those identified in Articles 80 and 81, in

situations where the national regulatory authorities consider that denial of access or unreasonable terms and conditions having a similar effect would hinder the emergence of a sustainable competitive market at the retail level and would not be in the end-user's interest. National regulatory authorities may require undertakings inter alia:

(a) to give third parties access to, and use of, specific physical network elements and associated facilities, as appropriate, including unbundled access to the local loop and sub-loop;

(b) to give third parties access to specific active or virtual network elements and services;

(c) to negotiate in good faith with undertakings requesting access;

(d) not to withdraw access to facilities already granted;

(e) to provide specific services on a wholesale basis for resale by third parties;

(f) to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;

(g) to provide co-location or other forms of associated facilities sharing;

(h) to provide specific services needed to ensure interoperability of end-to-end services to users, or roaming on mobile networks;

(i) to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services;

(j) to interconnect networks or network facilities;

(k) to provide access to associated services such as identity, location and presence service.

National regulatory authorities shall have the power to subject those obligations to conditions covering fairness, reasonableness and timeliness.

2. Where national regulatory authorities consider the appropriateness of imposing any of the possible specific obligations referred to in paragraph 1, and in particular where they assess, in accordance with the principle of proportionality, whether and how such obligations are to be imposed, they shall analyse whether other forms of access to wholesale inputs, either on the same or on a related wholesale market, would be sufficient to address the identified problem in the end-user's interest. That assessment shall include commercial access offers, regulated access pursuant to Articles 68 and 69, or existing or planned regulated access to other wholesale inputs pursuant to this Article. National regulatory authorities shall take account in particular of the following factors:

(a) the technical and economic viability of using or installing competing facilities, in light of the rate of market development and taking into account the nature and type of interconnection or access involved, including the viability of other upstream access products, such as access to ducts;

(b) the expected technological evolution affecting network design and management;

(c) the need to ensure technology neutrality enabling the parties to design and manage their own networks;

(d) the feasibility of providing the access offered, in relation to the capacity available;

(e) the initial investment by the facility owner, taking account of any public investment made and the risks involved in making the investment, with particular regard to investments in, and risk levels associated with, gigabit networks;

(f) the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure-based competition and innovative business models that support sustainable competition, such as those based on co-investment in networks;

(g) where appropriate, any relevant intellectual property rights;

(h) the provision of pan-European services.

3. When imposing obligations on an undertaking to provide access in accordance with this Article, national regulatory authorities shall be empowered to lay down technical or operational conditions to be met by the provider or the beneficiaries of such access, where necessary to ensure normal operation of the network. Obligations to follow specific technical standards or specifications shall comply with the standards and specifications laid down in accordance with Article 189.

Article 79

Price control and cost accounting obligations

1. A national regulatory authority may, in accordance with Article 77, impose obligations relating to cost recovery and price control, including obligations for cost orientation of prices and obligations concerning cost-accounting systems, for the provision of specific types of interconnection or access, in situations where a market analysis indicates that a lack of effective competition means that the undertaking concerned may sustain prices at an excessively high level, or may apply a price squeeze, to the detriment of end-users.

In determining whether price control obligations would be appropriate, national regulatory authorities shall take into account the need to promote competition and long-term end-user interests related to the deployment and take-up of gigabit networks. In particular, to encourage investments by the undertaking, including in gigabit networks, national regulatory authorities shall take into account the investment made by the undertaking, in particular where new investments have been made. Where the national regulatory authorities consider price control obligations to be appropriate, they shall allow the undertaking a reasonable rate of return on adequate capital employed, taking into account any risks specific to a particular new investment network project.

National regulatory authorities shall consider not imposing or maintaining obligations pursuant to this Article, where they establish that a demonstrable retail price constraint is present and that any obligations imposed in accordance with Article 77, including, in particular, any economic replicability test, ensures effective and non-discriminatory access.

Where national regulatory authorities consider it appropriate to impose price control obligations on access to existing network elements, they shall also take account of the benefits of predictable and stable wholesale prices in ensuring efficient market entry and sufficient incentives for all undertakings to deploy new and enhanced networks.

2. National regulatory authorities shall ensure that any cost recovery mechanism or pricing methodology that is mandated serves to promote the deployment of new and enhanced networks, efficiency and sustainable competition and maximises sustainable end-user benefits. In this regard, national regulatory authorities may also take account of prices available in comparable competitive markets.

3. Where an undertaking has an obligation regarding the cost orientation of its prices, the burden of proof that charges are derived from costs, including a reasonable rate of return on investment, shall lie with the undertaking concerned. For the purpose of calculating the cost of efficient provision of services, national regulatory authorities may use cost accounting methods independent of those used by the undertaking. National regulatory authorities may require an undertaking to provide full justification for its prices and may, where appropriate, require prices to be adjusted.

4. National regulatory authorities shall ensure that, where implementation of a cost-accounting system is mandated in order to support price control, a description of the cost-accounting system is made publicly available, showing at least the main categories under which costs are grouped and the rules used for the allocation of costs. A qualified independent body shall verify compliance with the cost-accounting system and shall publish annually a statement concerning compliance.

Article 80

Access to passive networks

1. A national regulatory authority may, in accordance with Article 77, impose obligations on undertakings to meet reasonable requests for access to, and use of, dark fibre and civil engineering including, but not limited to, buildings or entries to buildings, building cables, including wiring, antennae, towers and other supporting constructions, poles, masts, ducts, conduits, inspection chambers, manholes and cabinets, in situations where, having considered the market analysis, the national regulatory authority concludes that denial of access or access given under unreasonable terms and conditions having a similar effect would hinder the emergence of a sustainable competitive market and would not be in the end-user's interest.

2. National regulatory authorities may impose obligations on an undertaking to provide access in accordance with this Article, irrespective of whether the assets that are affected by the obligation are part of the relevant market in accordance with the market analysis, provided that the obligation is necessary and proportionate to meet the objectives of Article 3.

Article 81

Harmonised access products

1. Without prejudice to Article 80, a national regulatory authority shall assess whether it is justified and proportionate to impose on an operator designated as having significant market power on a specific market as a result of a market analysis carried out in accordance with Article 73, an obligation to offer Union harmonised access products prior to imposing other access products.

2. When the national regulatory authority decides to impose other access products, it shall explain why they are more appropriate than the harmonised access products to address the problems identified.

3. The Union harmonised products may include local access products.

4. The Commission may adopt within [*6 months from entry into force of this Regulation*] implementing acts setting out the technical specifications, standard cost elements, cost methodologies for harmonised products and the reference offer related to the harmonised access product(s), taking into account the opinion of BEREC. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

5. The harmonised access products shall meet the following substantive requirements:

   (a) ability to be offered as an access product to any provider of electronic communications networks and services which is active in the Union;

   (b) maximum degree of network and service interoperability and non-discriminatory network management between operators consistently with network topology;

   (c) capacity to serve end-users on competitive terms;

   (d) cost-effectiveness, taking into account the capacity to be implemented on existing and newly built networks and to co-exist with other access products that may be provided on the same network infrastructure;

   (e) operational effectiveness, in particular in respect of limiting to the extent possible implementation obstacles and deployment costs for access providers and access seekers;

   (f) respect of the rules on protection of privacy, personal data, security and integrity of networks and transparency in conformity with Union law.

6. When a national regulatory authority has established that the obligation to offer such harmonised access products shall replace the wholesale access obligations previously imposed, it shall establish an appropriate transitional period of a duration of at least 6 months before repealing the latter measures.

Article 82

Termination rates

1. Taking account of the opinion of BEREC, the Commission shall set, by delegated act supplementing this Regulation, a single maximum Union-wide mobile voice termination rate and a single maximum Union-wide fixed voice termination rate (together referred to as 'the Union-wide voice termination rates'), which are imposed on any provider of mobile voice termination or fixed voice termination services, respectively, in any Member State. The Commission shall review that delegated act every five years after [*the date of entry into force of this Regulation*] and shall consider on each such occasion, by applying the criteria referred to in Article 73(1), whether setting Union-wide voice termination rates continue to be necessary. Where the Commission decides, following its review in accordance with this paragraph, not to impose a maximum mobile voice termination rate or a maximum fixed voice termination rate, or neither, national regulatory authorities may conduct market analyses of voice termination markets in accordance with Article 73, to assess whether the imposition of regulatory obligations is necessary. Where a national regulatory authority imposes, as a result of such analysis, cost-oriented wholesale termination rates in a relevant market, it shall follow the principles, criteria and parameters set out in Annex II and its draft measure shall be subject to the procedures referred to in Articles 85 and 184.

2. National regulatory authorities shall closely monitor, and ensure compliance with, the application of the Union-wide voice termination rates by providers of voice termination services. National regulatory authorities may, at any time, require a provider of voice termination services to amend the rate it charges to other undertakings if it does not comply with the delegated act referred to in paragraph 1.

Article 83

Commitments procedure

1. National regulatory authorities shall inform operators of the possibility to offer commitments to address the competition problems identified.
2. Undertakings designated as having significant market power may offer to the national regulatory authority commitments regarding conditions for access, co-investment, or both, applicable to their networks in relation, inter alia, to:
    (a) cooperative arrangements relevant to the assessment of appropriate and proportionate obligations pursuant to Article 77;
    (b) co-investment in gigabit networks;
    (c) effective and non-discriminatory access by third parties during an implementation period of voluntary separation, including the transfer of their local access network assets or a substantial part thereof to a separate legal entity under different ownership, or establishment of a separate business entity, by a vertically integrated undertaking, and after the proposed form of separation is implemented.

    The offer for commitments shall be sufficiently detailed regarding the scope, the duration and the timing and modality of their implementation, to allow the national regulatory authority to undertake its assessment pursuant to paragraph 3 of this Article. Such commitments may extend beyond the periods for carrying out market analysis provided for in Article 73(6).
3. National regulatory authorities shall consider whether the commitments alone would be a proportionate and sufficient means to address the competition problems identified. In order to assess any commitments offered by an undertaking pursuant to paragraph 2 of this Article, the national regulatory authority shall, except where such commitments clearly do not fulfil one or more relevant conditions or criteria, perform a market test, in particular on the offered terms, by conducting a public consultation of interested parties, in particular third parties which are directly affected. Potential co-investors or access seekers may provide views on the compliance of the commitments offered with the conditions provided, as applicable, in Article 77 and may propose changes.
4. As regards the commitments offered under this Article, the national regulatory authority shall, when assessing obligations pursuant to Article 77(3), have particular regard to:
    (a) evidence regarding the fair and reasonable character of the commitments offered;
    (b) the openness of the commitments to all market participants;
    (c) the timely availability of access under fair, reasonable and non-discriminatory conditions, before the launch of related retail services;

(d) the overall adequacy of the commitments offered to enable sustainable competition on downstream markets and to facilitate cooperative deployment and take-up of gigabit networks in the interest of end-users.

Taking into account all the views expressed in the consultation and the extent to which such views are representative of different stakeholders, the national regulatory authority shall communicate to the undertaking designated as having significant market power its preliminary conclusions as to whether the commitments offered comply with the objectives, criteria and procedures set out in this Article and, as applicable, in Article 77 and under which conditions it may consider making the commitments binding. The undertaking may revise its initial offer to take account of the preliminary conclusions of the national regulatory authority and with a view to satisfying the criteria set out in this Article and, as applicable, in Article 77.

5. The national regulatory authority may issue a decision to make the commitments binding, wholly or in part.

6. By way of derogation from Article 73(6), the national regulatory authority may make some or all commitments binding for a specific period, which may be the entire period for which they are offered, and, in the case of co-investment commitments made binding, it shall make them binding for a period of minimum seven years. Where the national regulatory authority makes commitments binding pursuant to this Article, it shall assess under Article 77 the consequences of that decision for market development and the appropriateness of any obligation that it has imposed or would, absent those commitments, have considered imposing pursuant Articles 77 to 81. When notifying the relevant draft measure under Article 77 in accordance with Article 85, the national regulatory authority shall accompany the notified draft measure with the commitments decision.

7. The national regulatory authority shall monitor, supervise and ensure compliance with the commitments that it has made binding in accordance with paragraph 5 of this Article in the same way in which it monitors, supervises and ensures compliance with obligations imposed under Article 77 and shall consider the extension of the period for which they have been made binding when the initial period expires. Where the national regulatory authority concludes that an undertaking has not complied with the commitments that have been made binding in accordance with paragraph 5 of this Article, it may impose penalties on such undertaking in accordance with Article 196. Without prejudice to the procedure for ensuring compliance of specific obligations under Article 196 the national regulatory authority may reassess the obligations imposed in accordance with Article 77.

8. Paragraphs 1, 2 and 3 of this Article shall apply to undertakings that may offer commitments to avoid the regulatory measures under Article 69.

Article 84

Wholesale-only undertakings

1. A national regulatory authority that designates an undertaking which is absent from any retail markets for electronic communications services in the relevant geographic market as having significant market power in one or several wholesale markets in accordance with Article 73 shall consider whether that undertaking has the following characteristics:

(a) all companies and business units within the undertaking, all companies that are controlled but not necessarily wholly owned by the same ultimate

owner and any shareholder capable of exercising control over the undertaking only have activities, current and planned for the future, in wholesale markets for electronic communications services and therefore do not have activities in any retail market for electronic communications services provided to end-users in the relevant geographic market or in any other market that could influence the undertaking's behaviour on the relevant wholesale market;

(b) the undertaking is not bound to deal with a single and separate undertaking operating downstream that is active in the retail market for electronic communications services provided to end-users in the relevant geographic market and in any other market that could influence the undertaking's behaviour on the relevant wholesale market, because of an exclusive agreement or an agreement which de facto amounts to an exclusive agreement.

2. Where the national regulatory authority concludes that the conditions laid down in paragraph 1 of this Article are fulfilled, it may impose on that undertaking only obligations pursuant to Article 78 and non-discrimination or to fair and reasonable pricing, where justified on the basis of a market analysis including a prospective assessment of the likely behaviour of the undertaking designated as having significant market power.

3. The national regulatory authority shall review obligations imposed on the undertaking in accordance with this Article at any time if it concludes that the conditions laid down in paragraph 1 of this Article are no longer met and it shall, as appropriate, apply Articles 73 and Articles 77 to 83. The undertakings shall, without undue delay, inform the national regulatory authority of any change of circumstance relevant to paragraph 1, points (a) and (b), of this Article.

4. The national regulatory authority shall also review obligations imposed on the undertaking in accordance with this Article if on the basis of evidence of terms and conditions offered by the undertaking to its downstream customers, the authority concludes that competition problems have arisen or are likely to arise to the detriment of end-users which require the imposition of one or more obligations laid down in Articles 77 to 81, or the amendment of the obligations imposed in accordance with paragraph 2 of this Article. The imposition of obligations and their review in accordance with this Article shall be implemented in accordance with the procedures referred to in Articles 85 and 184.

5.4.3. CHAPTER III: Internal market procedures for market regulation

Article 85

Consolidating the internal market in the area of electronic communications

1. In carrying out their tasks under this Regulation, national regulatory authorities shall take the utmost account of the objectives set out in Article 3.

2. Except where otherwise provided in recommendations or guidelines adopted pursuant to Article 186 upon completion of the public consultation, where a national regulatory authority intends to take a measure which:

(a) falls within the scope of Article 68 and 69, Articles 71 to 84;

(b) would affect trade between Member States,

it shall publish the draft measure and communicate it to the Commission, to BEREC, and to the national regulatory authorities in other Member States, at the same time, stating the reasons for the measure, in accordance with Article 184(4). National regulatory authorities, BEREC and the Commission may comment on that draft measure within 30 working days. The 30 working days period shall not be extended.

3. The draft measure referred to in paragraph 3 of this Article shall not be adopted for a further 90 working days, where that measure aims to:

   (a) define a relevant market and assess its susceptibility for ex ante regulation pursuant to Article 72;

   (b) decide whether or not to designate an undertaking as having, either individually or jointly with others, significant market power, under Article 73;

   (c) impose, amend or withdraw an obligation on an undertaking in application of Article 69(2) or Article 77 except for obligations imposed in accordance with Articles 80 and 81,

   and the Commission has indicated to the national regulatory authority that it considers that the draft measure would create a barrier to the internal market or if it has serious doubts as to its compatibility with Union law and in particular the objectives referred to in Article 3. That 90 working days period shall not be extended. The Commission shall inform BEREC and national regulatory authorities of its reservations in such a case and simultaneously make them public.

4. Within 30 working days from the beginning of the 90 working days period referred to in paragraph 3, BEREC shall issue an opinion on the Commission reservations referred to in that paragraph, indicating whether it considers that the draft measure should be maintained, amended or withdrawn and, where appropriate, provide specific proposals to that end. That opinion shall provide reasons and be made public.

5. Where in its opinion BEREC shares partially or fully the serious doubts of the Commission, it shall cooperate closely with the national regulatory authority concerned and the Commission to identify the most appropriate and effective measure.

6. Within the 90 working days period referred to in paragraph 3, the Commission may:

   (a) take a decision requiring the national regulatory authority concerned not to adopt the draft measure where the Commission's reservations were based on paragraph 3, points (a), (b) or (c);

   (b) take a decision to lift its reservations referred to in paragraph 3;

   (c) for draft measures falling under Article 69(2), take a decision requiring the national regulatory authority concerned to withdraw the draft measure.

   The Commission shall take utmost account of the opinion of BEREC before taking a decision.

   Decisions referred to in the first subparagraph, points (a) and (c), shall be accompanied by a detailed and objective analysis of why the Commission considers that the draft measure is not to be adopted, together with specific proposals for amending it.

7. Where the Commission has adopted a decision in accordance with paragraph 6, point (c), of this Article requiring the national regulatory authority to withdraw a draft measure, the national regulatory authority shall not adopt such a measure. After having undertaken

a public consultation in accordance with Article 186, the national regulatory authority shall notify within eighteen months of the date of the Commission's decision a new draft measure.

8. Except in the cases covered by paragraph 3 and paragraph 6, points (a) and (c), the national regulatory authority concerned shall take the utmost account of comments of other national regulatory authorities, of BEREC and of the Commission and may adopt the resulting draft measure and shall, where it does so, communicate it to the Commission. The national regulatory authority shall communicate to the Commission and to BEREC all adopted final measures which fall under paragraph 2.

Article 86

Provisional measures

1. Where a national regulatory authority considers that there is an urgent need to act, in order to safeguard competition or protect the interests of users, by way of derogation from the procedure set out in Article 85, it may immediately adopt proportionate and provisional measures, valid for a period not longer than eighteen months. It shall, without delay, communicate those measures, with full reasons, to the Commission, to the other national regulatory authorities and to BEREC.

2. After the expiry of the eighteen-month period, the provisional measure shall be either withdrawn or replaced by a permanent measure subject to prior national and Union-level consultation in accordance with Articles 85 and 184.

3. The national regulatory authority shall not adopt a provisional measure to address the same competition problem for which a provisional measure was already adopted.

6. PART VI - SERVICES

6.1. TITLE I: UNIVERSAL SERVICE OBLIGATIONS

Article 87

Universal service

1. All consumers in the Union shall be entitled to have access to an affordable and adequate internet access service and to voice communications services at the quality specified in their territories, at a fixed location.

2. Each Member State shall, in light of the minimum bandwidth enjoyed by the majority of consumers in their territory, and taking into account the BEREC guidelines as provided for in the second subparagraph of this paragraph, define the adequate internet access service referred to in paragraph 1 with a view to ensuring bandwidth necessary for social and economic participation in society.

   By [*12 months after the date of entry into force of this Regulation*], BEREC shall, after consulting stakeholders, and in close cooperation with the Commission, taking into account available Commission (Eurostat) data, issue guidelines to support the definition of adequate internet access service referred to in paragraph 1 and the specification of the bandwidth necessary for social and economic participation in society. The guidelines shall be updated regularly to reflect technological advances and changes in consumer usage patterns.

Article 88

Provision of affordable universal service

1. National regulatory authorities in coordination with other competent authorities shall monitor annually the evolution and level of retail prices of the services referred to in Article 87(1) available on the market, in particular in relation to national prices and national consumer income.

2. Where Member States establish that, in light of national conditions, retail prices for the services referred to in Article 87(1) are not affordable, because consumers with low income or special social needs are prevented from accessing such services, they shall take measures to ensure affordability for such consumers of adequate internet access service and voice communications services at least at a fixed location.

3. Where Member States decide to require tariff options or packages, these shall be offered by all providers. These offers shall be easily accessible to consumers with low income or special social needs. National regulatory authorities in coordination with other competent authorities shall ensure, where applicable, that the conditions under which undertakings provide tariff options or packages are fully transparent and are published and applied in accordance with the principles of non-discrimination and efficiency.

   Consumers entitled to the tariff options or packages referred to in the first subparagraph of this paragraph shall have a right to conclude a contract with a provider of adequate internet access service and voice communications services.

   When a consumer so requests, the contract shall be limited to voice communications services.

4. Member States shall provide support, as appropriate, to consumers with disabilities and take other specific measures where appropriate, with a view to ensuring that related terminal equipment and specific equipment and services that enhance equivalent access, including where necessary total conversation services and relay services, are available and affordable.

5. Member States shall use the most efficient and appropriate approach for the measures referred to in this Article, whilst respecting the principles of objectivity, transparency, non-discrimination and proportionality and ensuring compatibility with the internal market, including competition rules.

Article 89

Defining adequate internet access service, necessary bandwidth, criteria and methodology for affordability

The Commission may, taking into account technological advances and changes in consumer usage patterns, adopt implementing acts to determine the methodology to defining the adequate internet access service, including the bandwidth necessary for social and economic participation in society referred to in Article 87 in light of national conditions. The implementing acts shall also include criteria and methodology to be considered by the national regulatory authorities in coordination with other competent authorities for establishing whether the retail prices of the services referred to in Article 87(1) are affordable for consumers with low income or special social needs referred to in Article 88.

Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

Article 90

Availability of universal service

1. Where a Member State has established, taking into account the results of the geographical survey conducted in accordance with Article 183, as well as any additional evidence where necessary, that the availability at a fixed location of an adequate internet access service as defined in accordance with Article 87(2) and of voice communications services cannot be ensured under normal commercial circumstances in the national territory or different parts thereof, Member States shall use public policy tools and, where other public policy tools did not provide the desired effect, they may impose universal service obligations to ensure that all reasonable requests by consumers, microenterprises, small enterprises and not-for-profit organisations for accessing those services in the relevant parts of their territory are met.

2. Where other measures or public policy tools did not provide the desired effect and Member States decide to impose the universal service obligations referred to in paragraph 1, they may entrust one or more undertakings the provision of such obligations throughout the national territory, or to cover specific parts of the national territory.

   Member States shall use the most efficient and appropriate approach for the measures referred to in this paragraph, whilst respecting the principles of objectivity, transparency, non-discrimination and proportionality, ensuring compatibility with the internal market, including competition rules.

Article 91

Control of expenditure and additional facilities and services

1. In providing facilities and services additional to those referred to in Article 87, providers of an adequate internet access service and of voice communications services in accordance with Articles 87, 88 and 90 shall establish terms and conditions in such a way that the eligible end-user is not obliged to pay for facilities or services which are not necessary or not required for the service requested.

2. Providers of an adequate internet access service and of voice communications services referred to in Article 87 that provide services pursuant to Article 88 shall offer the following specific facilities and services to consumers benefiting from measures pursuant to Article 88, as applicable, in order that consumers can monitor and control expenditure:

   (a) selective barring for outgoing calls or premium SMS or MMS, or, where technically feasible, other kinds of similar applications;

   (b) pre-payment systems;

   (c) phased payment of connection fees;

   (d) proportionate, non-discriminatory and published measures, ensuring due warning of any consequent service interruption or disconnection, to cover non-payment of bills issued by providers and measures to avoid unwarranted disconnection of services, including an appropriate mechanism to check continued interest in using the service;

   (e) tariff advice;

   (f) cost control, including free-of-charge alerts to consumers in the case of atypical or excessive consumption patterns;

(g) facility to deactivate third party billing.

Article 92

Transitional provisions regarding designations of undertakings under Directive (EU) 2018/1972 and review of universal service

1. Undertakings that before *[6 months after the date of entry into force of this Regulation]* were designated for the provision of specific tariff options or packages or for ensuring the availability at a fixed location of an adequate broadband internet access service and of voice communications services under Directive (EU) 2018/1972 shall maintain their status until the expiry of such designations.
2. BEREC shall monitor the availability and affordability regarding adequate internet access and voice communications in light of market and technological developments and shall, by 30 June 2033, publish an opinion on such developments and on their impact on the application of the availability and affordability.
3. By 30 June 2034 the Commission, taking account of the BEREC opinion, shall review the scope of the affordable universal service of Article 88 and availability of universal service of Article 90, in particular with a view to proposing to the European Parliament and to the Council that the scope be changed or redefined.

   The review shall be undertaken in light of social, economic and technological developments, including transition to fibre and taking into account, inter alia, prevailing technologies used by the majority of consumers. The Commission shall submit a report to the European Parliament and to the Council regarding the outcome of the review.

6.2. TITLE II: OPEN INTERNET ACCESS

Article 93

Safeguarding of open internet access

1. End-users shall have the right to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice, irrespective of the end-user's or provider's location or the location, origin or destination of the information, content, application or service, via their internet access service. This paragraph is without prejudice to Union law, or national law that complies with Union law, related to the lawfulness of the content, applications or services.
2. Agreements between providers of internet access services and end-users on commercial and technical conditions and the characteristics of internet access services such as price, data volumes or speed, and any commercial practices conducted by providers of internet access services, shall not limit the exercise of the rights of end-users laid down in paragraph 1.
3. Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.

   The first subparagraph shall not prevent providers of internet access services from implementing reasonable traffic management measures. In order to be deemed to be reasonable, such measures shall be transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different

technical quality of service requirements of specific categories of traffic. Such measures shall not monitor the specific content and shall not be maintained for longer than necessary.

Providers of internet access services shall not engage in traffic management measures going beyond those set out in the second subparagraph, and in particular shall not block, slow down, alter, restrict, interfere with, degrade or discriminate between specific content, applications or services, or specific categories thereof, except as necessary, and only for as long as necessary, in order to:

(a) comply with Union legislative acts, or national legislation that complies with Union law, to which the provider of internet access services is subject, or with measures that comply with Union law giving effect to such Union legislative acts or national legislation, including with orders by courts or public authorities vested with relevant powers;

(b) preserve the integrity and security of the network, of services provided via that network, and of the terminal equipment of end-users;

(c) prevent impending network congestion and mitigate the effects of exceptional or temporary network congestion, provided that equivalent categories of traffic are treated equally.

4. Any traffic management measure may entail processing of personal data only if such processing is necessary and proportionate to achieve the objectives set out in paragraph 3. Such processing shall be carried out in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council. Traffic management measures shall also comply with Directive 2002/58/EC of the European Parliament and of the Council.

5. Providers of electronic communications to the public, including providers of internet access services, and providers of content, applications and services shall be free to offer services other than internet access services which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality. Providers of electronic communications to the public, including providers of internet access services, may offer or facilitate such services only where the network capacity is sufficient to provide them in addition to any internet access services provided. Such services shall not be usable or offered as a replacement for internet access services, and shall not be to the detriment of the availability or general quality of internet access services for end-users.

6. The Commission may adopt implementing acts detailing the conditions referred to in this Article for the offering of services other than internet access services which are optimised for specific content, applications or services, or a combination thereof.

Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

Article 94

Supervision and enforcement of open internet access

1. National regulatory authorities shall closely monitor and ensure compliance with Article 93 and shall promote the continued availability of non-discriminatory internet access services at levels of quality that reflect advances in technology. For those purposes, national regulatory authorities may impose requirements concerning technical

characteristics, minimum quality of service requirements and other appropriate and necessary measures on one or more providers of electronic communications to the public, including providers of internet access services.

2. Providers of electronic communications to the public, including providers of internet access services, shall provide, every two years, to national regulatory authorities, information relevant to the obligations set out in Article 93, in particular information concerning the management of their network capacity and traffic, as well as justifications for any traffic management measures applied.

3. National regulatory authorities shall share with BEREC updates on their main practices and national findings concerning open internet access based on the information received pursuant to paragraph 2. Based on the information from the national regulatory authorities, BEREC shall, by 24 months after the date of entry into force of this Regulation and every two years thereafter publish a report regarding the main practices and findings concerning open internet access in the Union.

4. By [*12 months after the entry into force of this Regulation*] BEREC shall, in close cooperation with the Commission, publish a common template to be used to collect the required information under paragraph 2.

5. BEREC shall, after consulting stakeholders and in close cooperation with the Commission, issue guidelines on the implementation of the obligations of national regulatory authorities under this Article. The guidelines shall also detail the relevant quality of service parameters for internet access services, including parameters for the monitoring mechanism referred to in Article 97(4), second subparagraph, parameters relevant for end-users with disabilities, the applicable measurement methods, the content and format of the information, as provided in Annex III and of publication as provided in Annex IV, and quality certification mechanisms. The relevant parameters for end-users with disabilities shall also include parameters for publicly available interpersonal communications services.

   National regulatory authorities shall take account of BEREC's guidelines when enforcing the quality of service obligations.

6.3. TITLE III: END-USER RIGHTS

6.3.1. CHAPTER I Rights of Consumers

Article 95

Information requirements for contracts

1. Before a consumer is bound by a contract or any corresponding offer, and in addition to requirements pursuant to Directive 2011/83/EU, providers of internet access services or of publicly available interpersonal communications services shall provide the information listed in Annex III of this Regulation to the extent that that information relates to a service they provide.

   The information shall be provided in a clear and comprehensible manner on a durable medium as defined in Article 2, point (10), of Directive 2011/83/EU or, where provision on a durable medium is not feasible, in an easily downloadable document made available by the provider. The provider shall expressly draw the consumer's attention to the availability of that document and the importance of downloading it for the purposes of documentation, future reference and unchanged reproduction.

The information shall, upon request, be provided in an accessible format for end-users with disabilities in accordance with the accessibility requirements of Annex I to Directive (EU) 2019/882.

2. Providers of internet access services or of publicly available interpersonal communications services shall provide consumers with a concise and easily readable contract summary. That summary shall identify the main elements of the information requirements in accordance with paragraph 1. Those main elements shall include:

   (a) the name, address and contact information of the provider and, if different, the contact information for any complaint;

   (b) the main characteristics of each service provided;

   (c) the respective prices for activating the electronic communications service and for any recurring or consumption-related charges, where the service is provided for direct monetary payment;

   (d) the duration of the contract and the conditions for its renewal and termination;

   (e) the extent to which the products and services are designed for end-users with disabilities;

   (f) with respect to internet access services, a summary of the information required pursuant to points (d) and (e) of Section 5 of Annex III.

   The Commission may adopt implementing acts specifying a contract summary template to be used by the providers to fulfil their obligations under this paragraph.

   Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(4).

   Providers subject to the obligations under paragraph 1 shall duly complete that contract summary template with the required information and provide the contract summary free of charge to consumers, before the consumer is bound by the contract or any corresponding offer, including distance contracts. Where, for objective technical reasons, it is impossible to provide the contract summary at that moment, it shall be provided without undue delay thereafter and before the consumer is bound by a contract or any corresponding offer.

3. The information referred to in paragraphs 1 and 2 shall become an integral part of the contract and shall not be altered unless the contracting parties expressly agree otherwise.

4. Where the provider has complied with the information requirements in accordance with paragraphs 1 and 2, it shall be deemed to have complied with the information requirements in Article 5(1)(a) or 6(1)(a), 5(1)(b) or 6(1)(b) and 6(1)(c), 5(1)(c) or 6(1)(e), 5(1)f, 6(1)(o) and 6(1)(p) and the first subparagraph of 8(2) of Directive 2011/83/EU.

5. Where internet access services or publicly available interpersonal communications services are billed on the basis of either time or volume consumption, their providers shall offer consumers the facility to monitor and control the usage and cost of each of those services. This facility shall include access to timely information on the level of consumption of services included in a tariff plan. In particular, providers shall notify consumers before any consumption limit, included in their tariff plan, is reached and when a service included in their tariff plan is fully consumed.

6. Providers shall offer the basic level of itemised bills, where applicable, to consumers free of charge so as to allow the consumers to:

   (a) verify and control the charges incurred in using internet access services or number-based interpersonal communications services;

   (b) adequately monitor their usage and expenditure and thereby exercise a reasonable degree of control over their bills.

   Such itemised bills shall include an explicit mention of the identity of the supplier and of the duration of the services charged by any premium numbers unless the consumer has requested that information not to be mentioned.

   Calls which are free of charge to the calling end-users, including calls to helplines, shall not be required to be identified in the calling consumer's itemised bill.

   Consumers shall have the right to receive non-itemised bills. The rights of consumers receiving itemised bills shall be reconciled with the right to privacy of calling consumers and called consumers, including by ensuring that sufficient alternative privacy enhancing methods of communications or payments are available to such consumers.

7. Member States shall not maintain or introduce in their national law consumer protection provisions diverging from this Article, including more or less stringent provisions to ensure a different level of protection. This is without prejudice to the right of Member States to maintain provisions on additional facilities under Directive (EU) 2018/1972.

Article 96

Transparency

1. Where providers of internet access services or publicly available interpersonal communications services make the provision of those services to consumers subject to terms and conditions, they shall publish the information referred to in Annex IV to this Regulation in a clear, comprehensive, machine-readable manner and in an accessible format for end-users with disabilities in accordance with the accessibility requirements set in Annex I to Directive (EU) 2019/882. Such information shall be updated regularly.

2. Member States shall not maintain or introduce in their national law end-user protection provisions diverging from this Article, including more or less stringent provisions to ensure a different level of protection.

Article 97

Contract duration and termination

1. Conditions and procedures for contract termination shall not act as a disincentive to changing service provider. Contracts concluded between consumers and providers of publicly available electronic communications services other than number-independent interpersonal communications services and other than transmission services used for the provision of machine-to-machine services shall not mandate a commitment period longer than 24 months. This is without prejudice to the right of Member States to maintain provisions which mandate shorter maximum contractual commitment periods.

   This paragraph shall not apply to the duration of an instalment contract where the consumer has agreed in a separate contract to instalment payments exclusively for deployment of a physical connection, in particular to gigabit networks. An instalment contract for the deployment of a physical connection shall not include terminal

equipment, such as a router or modem, and shall not preclude consumers from exercising their rights under paragraphs 2 to 6.

2. Where a contract or national law provides for automatic prolongation of a fixed duration contract for electronic communications services other than number-independent interpersonal communications services and other than transmission services used for the provision of machine-to-machine services, consumers are entitled, after such prolongation, to terminate the contract at any time with a maximum one-month notice period and without incurring any costs except the charges for receiving the service during the notice period. Before the contract is automatically prolonged, providers shall inform the consumers in a prominent and timely manner and on a durable medium, of the end of the contractual commitment and of the means by which to terminate the contract. In addition, and at the same time, providers shall give consumers best tariff advice relating to their services.

3. Consumers shall have the right to terminate their contract without incurring any further costs upon notice of changes in the contractual conditions proposed by the provider of publicly available electronic communications services other than number-independent interpersonal communications services, unless the proposed changes are exclusively to the benefit of the consumer, are of a purely administrative nature and have no negative effect on the consumer, or are directly imposed by Union law or national law.

   Providers shall notify consumers at least one month in advance of any change in the contractual conditions and shall simultaneously inform them of their right to terminate the contract without incurring any further costs if they do not accept the new conditions. The right to terminate the contract shall be exercisable within one month after notification. The notification shall be made in a clear and comprehensible manner on a durable medium.

4. Any significant continued or frequently recurring discrepancy between the actual performance of an electronic communications service, other than an internet access service or a number-independent interpersonal communications service, and the performance indicated in the contract shall be considered to be a basis for triggering the remedies available to the consumer in accordance with national law, including the right to terminate the contract free of cost.

   For internet access service, any significant discrepancy, continuous or regularly recurring, between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated by the provider of internet access services in accordance with points (a) to (d) of Section 5 of Annex III shall, where the relevant facts are established by the monitoring mechanism specified in the BEREC guidelines referred to in Article 94(5) and certified by the national regulatory authority, be deemed to constitute non-conformity of performance for the purposes of triggering the remedies available to the consumer in accordance with national law.

5. Where a consumer has the right to terminate a contract for a publicly available electronic communications service, other than a number-independent interpersonal communications service, before the end of the agreed contract period pursuant to this Regulation or to other provisions of Union law or national law, no compensation shall be due by the consumer other than for retained subsidised terminal equipment.

   Where the consumer chooses to retain terminal equipment bundled at the moment of the contract conclusion, any compensation due shall not exceed its pro rata temporis value as

agreed at the moment of the conclusion of the contract or the remaining part of the service fee until the end of the contract, whichever is the smaller.

The provider shall lift any condition on the use of that terminal equipment on other networks free of charge at the latest upon payment of the compensation.

6. Member States shall not maintain or introduce in their national law end-user protection provisions diverging from this Article, including more or less stringent provisions to ensure a different level of protection. This is without prejudice to the right of Member States to maintain provisions referred to in paragraph 1.

Article 98

Bundled offers

1. Where a bundle of services or a bundle of services and terminal equipment offered to a consumer comprises at least an internet access service or a publicly available number-based interpersonal communications service, Article 95(2), Article 96(1), Article 97 and Article 100(1) shall apply to all elements of the bundle including, mutatis mutandis, those not otherwise covered by those provisions.
2. Where the consumer has, under Union law, or national law in accordance with Union law, a right to terminate any element of the bundle as referred to in paragraph 1 before the end of the agreed contract term because of a lack of conformity with the contract or a failure to supply, the consumer has the right to terminate the contract with respect to all elements of the bundle.
3. Any subscription to additional services or terminal equipment provided or distributed by the same provider of internet access services or of publicly available number-based interpersonal communications services shall not extend the original duration of the contract to which such services or terminal equipment are added, unless the consumer expressly agrees otherwise when subscribing to the additional services or terminal equipment.
4. Member States shall not maintain or introduce in their national law end-user protection provisions diverging from this Article, including more or less stringent provisions to ensure a different level of protection.

Article 99

Rights for microenterprises, small and medium-sized enterprises or not-for-profit organisations

Article 95, Article 97(1), Article 98(1) and Article 98(3) shall also apply to end-users that are microenterprises or not-for-profit organisations, unless they have explicitly agreed to waive all or parts of rights laid down in those provisions. Article 97(2), Article 97(3) and Article 97(5) shall also apply to end-users that are microenterprises, small and medium-sized enterprises or not-for-profit organisations, unless they have explicitly agreed to waive all or parts of the rights laid down in those provisions.

6.3.2. CHAPTER II: Rights of end-users

Article 100

Provider switching and number portability

1. In the case of switching between providers of internet access services, the providers concerned shall provide the end-user with adequate information before and during the switching process and ensure continuity of the internet access service, unless technically not feasible. The receiving provider shall ensure that the activation of the internet access service occurs within the shortest possible time on the date and within the timeframe expressly agreed with the end-user. The transferring provider shall continue to provide its internet access service on the same terms until the receiving provider activates its internet access service. Loss of service during the switching process shall not exceed one working day.

   National regulatory authorities shall ensure that the switching process is efficient and simple for the end-user.

2. End-users with numbers from the national numbering plan shall have the right to retain their numbers, upon request, independently of the undertaking providing the service. This right shall apply:

   (a) in the case of geographic numbers, at a specific location;

   (b) in the case of non-geographic numbers, at any location.

   The right laid down in the first subparagraph does not apply to the porting of numbers between networks providing services at a fixed location and mobile networks.

3. Where an end-user terminates a contract the end-user shall have the right to port a number from the national numbering plan to the same or another provider for a minimum of one month after the date of termination, unless that right is renounced by the end-user.

4. National regulatory authorities shall ensure that pricing among providers related to the provision of number portability is cost-oriented, and that no direct charges are applied to end-users.

5. The porting of numbers and their subsequent activation shall be carried out within the shortest possible time on the date explicitly agreed with the end-user. In any case end-users who have concluded an agreement to port a number to a new provider shall have that number activated within one working day from the date agreed with the end-user. In the case of failure of the porting process, the transferring provider shall reactivate the number and related services of the end-user until the porting is successful. The transferring provider shall continue to provide its services on the same terms and conditions until the services of the receiving provider are activated. In any event the loss of service during the process of provider switching and the porting of numbers shall not exceed one working day. Operators whose access networks or facilities are used by either the transferring or the receiving provider, or both, shall ensure that there is no loss of service that would delay the switching and porting process.

6. The receiving provider shall lead the switching and porting processes set out in paragraphs 1 and 5 and both the receiving and transferring providers shall cooperate in good faith. They shall not delay or abuse the switching and porting processes, nor shall they port numbers or switch end-users without the end-users' explicit consent. The end-users' contracts with the transferring provider shall be terminated automatically upon conclusion of the switching process.

   By [*12 months after the date of entry into force of this Regulation*], BEREC shall, after consulting stakeholders and in close cooperation with the Commission, adopt guidelines specifying the details of the switching and porting processes, taking into account technical feasibility and the need to maintain continuity of service to the end-users. The

guidelines shall also detail the compensation process of end-users by their providers in the case of delays in, or abuse of, porting and switching processes, missed service and installation appointments or failure by the provider to comply with the obligations set out in this Article. National regulatory authorities shall establish the details of the switching and porting processes taking account of the BEREC guidelines. This shall include, where technically feasible, a requirement for the porting to be completed through over-the-air provisioning, unless an end-user requests otherwise.

National regulatory authorities shall also take appropriate measures ensuring that end-users are adequately informed and protected throughout the switching and porting processes and are not switched to another provider without their consent.

Transferring providers shall refund, upon request, any remaining credit to the consumers using pre-paid services. Refund may be subject to a fee only if provided for in the contract. Any such fee shall be proportionate and commensurate with the actual costs incurred by the transferring provider in offering the refund.

7. Member States shall not maintain or introduce in their national law end-user protection provisions diverging from this Article, including more or less stringent provisions to ensure a different level of protection. This is without prejudice to the right of Member States to adopt or maintain rules on the compensation of end-users by their providers in the case of failure of a provider to comply with the obligations laid down in this Article, as well as in the case of delays in, or abuses of, porting and switching processes, and missed service and installation appointments.

Article 101

Exemption of certain microenterprises

With the exception of Article 102, this Title shall not apply to microenterprises providing number-independent interpersonal communications services unless they also provide other electronic communications services.

Before concluding a contract, a microenterprise benefiting from such an exemption shall inform end-users of the exemption under the first paragraph.

Article 102

Non-discrimination

Providers of electronic communications networks or services shall not apply any different requirements or general conditions of access to, or use of, networks or services to end-users, unless justified within the limits of Union law.

6.3.3. CHAPTER III: Facilities and functionalities for end-users

Article 103

Protecting end-users against fraudulent activities

1. Providers of internet access services and of publicly available interpersonal communications services shall cooperate with national competent authorities to identify effective measures to prevent fraudulent activities perpetrated by making use of those services, that affect end-users, while ensuring full compliance with Union legislation on personal data protection.

2. The ODN shall collect information from national regulatory or other competent authorities, relevant European and global organisations and stakeholders, including EUROPOL and ENISA, on the fraudulent activities perpetrated by making use of the services referred to in paragraph 1, in particular on those that are of cross-border nature.

3. BEREC, after consulting the European Data Protection Board and ENISA, shall issue guidelines on technical and legal measures that could effectively protect end-users against fraudulent activities in the Union, in particular measures relying on the empowerment of national regulatory authorities or competent authorities to block numbers and services pursuant to Article 52(2). The first such BEREC guidelines shall be adopted [*12 months after the date of entry into force of this Regulation*]. BEREC shall update the guidelines when necessary but at least every two years after their adoption.

4. National competent authorities shall adopt measures preventing fraudulent activities perpetrated by making use of the services referred to in paragraph 1, by taking account the guidelines issued under paragraph 3.

5. The Commission may adopt, delegated acts in accordance with Article 198 supplementing paragraph 3 of this Article concerning the measures necessary to ensure the effectiveness, coordination and complementarity of fraud preventing measures within the Union.

Article 104

Missing children and child helpline hotlines

1. Providers of number-based interpersonal communications services shall ensure free of charge access for end-users, including end-users with disabilities, to the service operating a hotline to report cases of missing children. When travelling within the Union, end-users shall have free of charge access to the visited country's service. The hotline shall be available on the number '116000'.

2. Member States shall take appropriate measures to ensure that the authority or undertaking to which the number '116000' has been assigned allocates the necessary resources to operate the hotline.

3. Member States and the Commission shall ensure that end-users are adequately informed of the existence and use of services provided under the numbers '116000' and, where appropriate, '116111'.

Article 105

Distribution of public interest information

Providers of internet access services or publicly available interpersonal communications services shall distribute public interest information free of charge to existing and new end-users, where appropriate, by the means that they ordinarily use in their communications with end-users. Public interest information shall be provided by the relevant public authorities in a standardised format and shall cover at least the following topics:

(a) uses of internet access services and publicly available interpersonal communications services to engage in unlawful activities or to disseminate harmful content, in particular where it may prejudice respect for the rights and freedoms of others, of the right to the protection of personal data, copyright and related rights;

(b) the means of protection against risks to personal security, privacy and personal data when using internet access services and publicly available interpersonal communications services, including protection against fraudulent activities perpetrated by making use of those services.

Article *106*

Emergency communication and the single European emergency number

1. Providers of publicly available number-based interpersonal communications services shall provide end-users access to emergency services through emergency communication, mandated by the Member State. Those emergency communication shall be provided free of charge and without having to use any means of payment, including by using the single European emergency number '112' and any national emergency number specified by Member States.

   Providers of emergency communication shall ensure that PSAPs can call back end-users originating the emergency communication, or originate an interpersonal communication by using the same interpersonal communications service as the one on which they were contacted, free of charge, and where it is not economically feasible, at a retail price that does not exceed domestic retail price of the provider serving the PSAP.

   Member States may mandate access to emergency services through emergency communication from number-independent interpersonal communications services as long as the national PSAP system allows for routing to the most appropriate PSAP and receipt of caller location information.

   Providers of electronic communications services which are not publicly available but which enable calls to public electronic communications networks shall ensure access to emergency services by using the single European emergency number '112' when alternative and easy access to emergency services is not available.

2. No later than 24 months after the adoption of the delegated act referred to in paragraph 8, Member States shall ensure that end-users can originate emergency communication by means of a mobile application coupled with the European Digital Identity Wallets issued under Regulation (EU) 910/2014.

3. Providers of interpersonal electronic communications services referred to in paragraph 1 shall implement the technical and organisational measures to ensure effective emergency communication, for their end-users whilst traveling within the Union.

4. Interpersonal communications service providers and national PSAP systems shall ensure that emergency communication and caller location information are routed without delay to the most appropriate PSAP. National PSAP organisations shall ensure that all emergency communication, including when the single European emergency number '112' is used, are appropriately answered and handled.

5. Providers referred to in paragraph 1 shall ensure that access for end-users with disabilities to emergency services is available through emergency communication and is equivalent to that enjoyed by other end-users, including by complying with Directive (EU) 2019/882.

   When mandating means of access to emergency services through emergency communication for end-users with disabilities, Member States shall ensure that, subject to technical feasibility, the following functional equivalence requirements are met:

(a) emergency communication enables two-way interactive communication between the end-user with disabilities and the PSAP;

(b) emergency communication is available in a seamless way, without pre-registration, to end-users with disabilities travelling within the Union;

(c) emergency communication is provided to end-users with disabilities free of charge;

(d) emergency communication is routed without delay to the most appropriate PSAP that is qualified and equipped to appropriately answer and process emergency communication from end-users with disabilities;

(e) equivalent levels of accuracy and reliability of caller location information are ensured for emergency communication for end-users with disabilities as for emergency calls by other end-users;

(f) end-users with disabilities are enabled to reach at least the same level of awareness about the means of access to emergency services through emergency communication as other end-users about emergency calls to '112', either by the design of the means of access or through awareness raising measures.

6. Providers of emergency communication shall ensure that caller location information is made available to the most appropriate PSAP without delay after emergency communication is set up. This shall include network-based location information and, where the radio equipment device makes it available for transmission, handset-derived caller location information. Providers of emergency communication shall ensure that the establishment and the transmission of the caller location information are free of charge for the end-user and the PSAP with regard to all emergency communication to the single European emergency number '112'. PSAP organisations shall ensure that the technical and organisational measures are in place to receive and process the caller location information. Member States may extend these obligations to cover emergency communication to national emergency numbers.

7. Member States shall ensure that end-users, including roaming end-users, and end-users with disabilities are adequately informed about the means of access to emergency services through emergency communication, including by using the single European emergency number '112', as well as the means of access for end-users with disabilities. That information shall be provided in accessible formats, addressing different types of disabilities, in accordance with the accessibility requirements laid down in Annex I of Directive (EU) 2019/882. The Commission shall support and complement Member States' action.

8. The Commission may adopt delegated acts in accordance with Article 198 supplementing paragraphs 1, 2, 3, 5 and 6 of this Article by laying down the measures necessary to ensure effective emergency communication in the Union with regard to technical specifications to allow the origination of emergency communication by means of a mobile application coupled with the European Digital Identity Wallets, caller location information solutions, harmonised European caller location criteria, equivalent access for end-users with disabilities and routing to the most appropriate PSAP.

9. Member States shall report to the ODN the E.164 numbers to contact Member State's PSAP systems. BEREC assisted by the ODN shall establish and maintain a database of those numbers that Member State's PSAP systems shall use to contact each other from one Member State to another.

Article 107

Transmission of public warnings

1. Providers of mobile number-based interpersonal communications services shall transmit public warnings to the end-users concerned, via the technology mandated by the Member States where they provide the service, in the geographic areas potentially being affected by imminent or developing major emergencies and disasters during the warning period, as determined by the competent authorities.
2. The Commission may adopt implementing acts laying down technical provisions concerning the transmission of public warnings by means of a mobile application coupled with the European Digital Identity Wallets issued under Regulation (EU) 910/2014 to all end-users concerned, including roaming end-users. Those implementing acts shall be adopted in accordance with the procedure referred to in Article 199(3).
3. Member States shall ensure that one year after the first implementing act adopted under paragraph 3 of this Article, public warnings are also transmitted to all end-users concerned by means of a mobile application coupled with the European Digital Identity Wallets issued pursuant to Regulation (EU) 910/2014.

Article 108

Presentation and restriction of calling, connected line identification and originating identification

1. Providers of public electronic communications networks, publicly available interpersonal communications or internet access services shall provide calling line or originating identification.

   They shall ensure that the originating party is able, by using a simple means and free of charge, to prevent the presentation of calling line or originating identification at the point where their voice communication terminates on a per-communication basis.
2. The network or service provider shall ensure that the receiving party is able, by using a simple and free of charge means for reasonable use of this function, to prevent the presentation of the calling line identification or originating identification of incoming calls.
3. Prior to the voice communication being established and presenting the calling line or originating identification, the service provider shall ensure that the receiving party is able, by using a simple and free of charge means, to reject incoming voice communications where the originating party has used its right provided for in paragraph 1.
4. Where presentation of connected line identification is offered, the service provider shall ensure that the receiving party is able, by using a simple and free of charge means, to prevent the presentation of the connected line identification to which the calling end-user is connected.
5. Sub-paragraph 1 of paragraph 1 shall also apply with regard to voice communications to third countries originating in the Union. Sub-paragraph 2 of paragraph 1, paragraphs 2, 3 and 4 shall also apply to incoming voice communications originating in third countries.
6. Where presentation of calling or connected line identification or originating identification is displayed, the providers of publicly available internet access or interpersonal communications services shall inform the public thereof and of the rights

set out in sub-paragraph 2 of paragraph 1 and paragraphs 2 to 4 of this Article and the exceptions under Article 109.

Article 109

Exceptions for tracing malicious or nuisance communications and emergency communications

1. The caller's or originating party's right to not display the calling line identification or originating identification referred to in Article 108(2) may be overridden by the providers of public electronic communications networks or publicly available electronic communications services, on a temporary basis, to enable competent authorities or an end-user in tracing of malicious or nuisance communications upon complaint to the authorities.
2. The providers referred to in Article 108(1) shall override the prevention of calling line or originating identification and process location data of the originating party with the purpose of providing such information to the most appropriate PSAP in accordance with Article 106(6).

Article 110

Automatic call forwarding and automated calling systems

1. Providers of publicly available number-based interpersonal communications services shall deploy state of the art measures to limit, upon the called end-user's request, the reception of, malicious or nuisance calls by providing the following possibilities, free of charge:
    (a) to block, where technically feasible, incoming calls from specific numbers or from anonymous sources;
    (b) to stop automatic call forwarding by a third party to the end-user's terminal equipment.
2. Providers of interpersonal communications services offering automated calling systems shall not prevent the right of the presentation of the calling line or originating identification on the called line or to the receiving party and shall present the identity or the number on which they can be contacted.

Article 111

Equivalent access and choice for end-users with disabilities

1. Providers of publicly available electronic communications services shall ensure that end-users with disabilities:
    (a) have access to electronic communications services, including the related contractual information provided pursuant to Article 95, equivalent to that enjoyed by the majority of end-users;
    (b) benefit from the choice of undertakings and services available to the majority of end-users.

    The competent authorities shall specify requirements to this effect to be met by providers.

2. In taking the measures referred to in paragraph 1 of this Article, competent authorities shall encourage compliance with the relevant standards or specifications laid down in accordance with Article 187.

Article 112

Interoperability of car radio and consumer radio receivers and consumer digital television equipment

1. Car radio receivers and consumer digital television equipment shall be interoperable in accordance with Annex V.
2. Where Member States decide to adopt measures to ensure the interoperability of other consumer radio receivers such measures shall not be applied to products where a radio receiver is purely ancillary, such as smartphones, and to equipment used by radio amateurs.
3. Providers of digital television services shall ensure, where appropriate, that the digital television equipment that they provide to their end-users is interoperable so that, where technically feasible, the digital television equipment is reusable with other providers of digital television services.

   Without prejudice to Article 5(2) of Directive 2012/19/EU of the European Parliament and of the Council[82], upon termination of their contract, end-users shall have the possibility to return the digital television equipment through a free and easy process, unless the provider demonstrates that it is fully interoperable with the digital television services of other providers, including those to which the end-user has switched.

   Digital television equipment which complies with harmonised standards the references of which have been published in the Official Journal of the European Union, or with parts thereof, shall be considered to comply with the requirement of interoperability set out in the second subparagraph covered by those standards or parts thereof.
4. Member States shall not maintain or introduce in their national law end-user protection provisions diverging from this Article, including more or less stringent provisions to ensure a different level of protection.

Article 113

'Must carry' obligations

1. Member States may impose reasonable 'must carry' obligations for the transmission of specified radio and television broadcast channels and related complementary services, in particular accessibility services to enable appropriate access for end-users with disabilities and data supporting connected television services and EPGs, on undertakings under their jurisdiction providing electronic communications networks and services used for the distribution of radio or television broadcast channels to the public, where a significant number of end-users of such networks and services use them as their principal means to receive radio and television broadcast channels. Such obligations shall be imposed only where they are necessary to meet general interest objectives as clearly defined by each Member State and shall be proportionate and transparent.

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[82] Directice 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (OJ L 197, 24.7.2012, p. 38, ELI: http://data.europa.eu/eli/dir/2012/19/oj)

2. Member States shall review the obligations referred to in paragraph 1 where there is a relevant change in national market conditions or where the general interest objectives referred to in paragraph 1 change.

3. Neither paragraph 1 of this Article nor Article 65(2) shall prejudice the ability of Member States to determine appropriate remuneration, if any, in respect of measures taken in accordance with this Article while ensuring that, in similar circumstances, there is no discrimination in the treatment of providers of electronic communications networks or services. Where remuneration is provided for, Member States shall clearly set out the obligation to remunerate in national law, including, where relevant, the criteria for calculating such remuneration. Member States shall ensure that it is applied in a proportionate and transparent manner.

Article 114

Adaptation of Annexes IV, V and VI

The Commission is empowered to adopt delegated acts in accordance with Article 198 amending Annexes IV, V and VI to take account of technological and social developments or changes in market demand.

7. PART VII - GOVERNANCE

7.1. TITLE I: NATIONAL REGULATORY AND OTHER COMPETENT AUTHORITIES

Article 115

National regulatory and other competent authorities

1. Within the scope of this Regulation, the national regulatory authorities shall be responsible for at least the following tasks:

   (a) handling the notification and Single Passport procedure under the general authorisation system;

   (b) implementing market regulation, including the imposition of access and interconnection obligations;

   (c) data gathering, including on resilience and sustainability, that national regulatory authorities may need to carry out their tasks;

   (d) implementing the measures for the transition to fibre, including defining the copper switch-off areas, assessing and supervising copper switch-off plans submitted by network operators;

   (e) ensuring the resolution of disputes between undertakings;

   (f) offering the voluntary conciliation on ecosystem cooperation;

   (g) carrying out radio spectrum management and authorisation, or, where those tasks are assigned to other competent authorities, taking decisions regarding the market-shaping and competition elements of national processes related to the rights of use for radio spectrum for electronic communications networks and services;

(h) contributing to the protection of end-user rights in the electronic communications sector, in coordination, where relevant, with other competent authorities;

(i) supervising and enforcing open internet access;

(j) monitor the evolution and level of retail prices of the services;

(k) ensuring number portability;

(l) granting numbering resources and managing numbering plans;

(m) providing support on preparedness and resilience;

(n) performing any other task that this Regulation or other Union legislation reserves to national regulatory authorities.

2. National regulatory authorities shall actively support the goals of BEREC of promoting greater regulatory coordination and consistency.

3. Member States shall publish the names of national regulatory and other competent authorities and their respective tasks under this Regulation in an easily accessible form.

Member States shall notify to the Commission all national regulatory and other competent authorities that are assigned tasks under this Regulation, and their respective responsibilities, as well as any change thereof.

Article 116

Independence of national regulatory and other competent authorities

1. National regulatory and other competent authorities referred to in Article 115 shall be legally distinct from, and functionally independent of, any natural or legal person providing electronic communications networks, equipment or services. Member States that retain ownership or control of undertakings providing electronic communications networks or services shall ensure effective structural separation of the regulatory function from activities associated with ownership or control.

2. National regulatory and other competent authorities shall exercise their powers impartially, transparently and in a timely manner. National regulatory and other competent authorities shall have adequate technical, financial and human resources to carry out the tasks assigned to them.

Article 117

Appointment and dismissal of members of national regulatory authorities

1. The head of a national regulatory authority, or, where applicable, the members of the collegiate body fulfilling that function within a national regulatory authority or their alternates, shall be appointed for a term of office of at least three years from among persons of recognised standing and professional experience, on the basis of merit, skills, knowledge and experience and following an open and transparent selection procedure.

2. The head of a national regulatory authority, or where applicable, members of the collegiate body fulfilling that function within a national regulatory authority or their alternates may be dismissed during their term only if they no longer fulfil the conditions required for the performance of their duties which are laid down in national law before their appointment.

3. The decision to dismiss the head of the national regulatory authority concerned, or where applicable members of the collegiate body fulfilling that function, shall be made public at the time of dismissal. The dismissed head of the national regulatory authority or, where applicable, members of the collegiate body fulfilling that function shall receive a statement of reasons. In the event that the statement of reasons is not published, it shall be published upon that person's request. This decision shall be subject to review by a court, on points of fact as well as on points of law.

Article 118

Political independence and accountability of the national regulatory authorities

1. Without prejudice to Article 122(9), national regulatory authorities shall act independently and objectively, including in the development of internal procedures and the organisation of staff, shall operate in a transparent and accountable manner in accordance with Union law, and shall not seek or take instructions from any other body in relation to the exercise of the tasks assigned to them under national law implementing Union law. This shall not prevent supervision in accordance with national constitutional law. Only appeal bodies set up in accordance with Article 197 shall have the power to suspend or overturn decisions of the national regulatory authorities.
2. National regulatory authorities shall report annually, at least on the state of the electronic communications market, on the decisions they issue, on their human and financial resources and how those resources are attributed, as well as on future plans. Their reports shall be made public.

Article 119

Regulatory capacity of national regulatory authorities

1. National regulatory authorities shall have separate annual budgets and have autonomy in the implementation of the allocated budget. Those budgets shall be made public.
2. National regulatory authorities shall have adequate financial and human resources to carry out the tasks assigned to them and to actively participate in and contribute to the work of BEREC. Financial autonomy shall not prevent supervision or control in accordance with national constitutional law. Any control on the budget of the national regulatory authorities shall be exercised in a transparent manner and made public.

Article 120

Cooperation with national authorities and BEREC

1. In Member States where there is more than one national authority or competent authority responsible, national regulatory and other competent authorities shall cooperate and coordinate among each other, as necessary.

   Such authorities shall provide each other with the information necessary for the application of this Regulation.

   In respect of the information exchanged, the receiving authority shall ensure the same level of confidentiality as that of the originating authority.
2. National regulatory and other competent authorities of the same Member State or of different Member States shall, where necessary, enter into cooperative arrangements with each other to foster regulatory cooperation.

3. Where competences under this Regulation or other Union law are assigned by Member States to other competent authorities, national regulatory authorities shall act as national coordinators, ensuring that the views of the competent authorities are fully taken into account in all of BEREC's discussions and outputs.

   In particular, national regulatory authorities shall provide the ODN with relevant contacts within national competent authorities to allow it to implement its tasks under Articles 146 and 147.

7.2. TITLE II: BEREC TASKS AND ORGANISATION

Article 121

Objectives of BEREC

1. The Body of European Regulators for Electronic Communications ('BEREC') is hereby established with the responsibilities laid down in this Regulation. BEREC shall have no legal personality and shall act within the scope of this Regulation and Regulations (EU) 2022/612 and (EU) 2015/2120.

   BEREC shall replace and succeed the Body of European Regulators for Electronic Communications ('BEREC') established by Regulation (EU) 2018/1971.

2. BEREC shall pursue the objectives set out in Article 3. In particular, BEREC shall aim to ensure the consistent implementation of the Union's regulatory framework for electronic communications within the scope referred to in paragraph 1 of this Article.

3. BEREC shall carry out its tasks independently, impartially, transparently and in a timely manner.

4. BEREC shall draw upon the expertise available in the national regulatory authorities and in the ODN.

Article 122

General tasks of BEREC

1. The general regulatory and advisory tasks that BEREC may perform shall be the following

   (a) assist and advise the national regulatory and other competent authorities, the European Parliament, the Council and the Commission, and cooperate with the national regulatory authorities and the Commission, upon request or on its own initiative, on any technical matter regarding electronic communications within its competence;

   (b) issue opinions, guidelines and reports, as referred to in Articles 124, 125 and 126, as well as recommendations and common positions, and disseminate regulatory best practices addressed to the national regulatory authorities to encourage the consistent and correct implementation of the regulatory framework for electronic communications.

   Where appropriate, the Commission may request BEREC to issue opinions, guidelines and reports, even if not explicitly listed in Articles 124, 125 and 126.

2. BEREC shall evaluate the need for regulatory innovation and coordinate actions between national regulatory and other competent authorities to enable the development of new innovative electronic communications.

3. On matters relating to radio spectrum, BEREC shall participate in the Union radio spectrum single market procedure.

4. BEREC may be consulted by the Commission when reviewing mergers within Union dimension in the electronic communications sector.

5. BEREC shall promote effective cooperation among providers of electronic communications networks and undertakings active in the electronic communications or closely related sectors, in accordance with Article 191(2).

6. BEREC shall carry out other tasks assigned to it by this Regulation or other legal acts of the Union, in particular by Regulations (EU) 2022/612 and (EU) 2015/2120.

7. BEREC shall make public its tasks and shall update that information when new tasks are assigned to it.

8. BEREC shall make public all of its final opinions, guidelines, reports, recommendations, common positions and best practices, and any commissioned studies, as well as the relevant draft documents for the purpose of the public consultations referred to in paragraph 10.

9. Without prejudice to compliance with relevant Union law and other acts adopted by the Commission, national regulatory authorities and the Commission shall take utmost account of any guidelines, opinion, recommendation, common position and best practices adopted by BEREC in accordance with this Regulation, with the aim of ensuring the consistent implementation of the regulatory framework for electronic communications within the scope referred to in Article 121.

   Where a national regulatory authority deviates from the guidelines referred to in Article 125, it shall provide the reasons therefor.

10. BEREC shall, where appropriate, consult interested parties and give them the opportunity to comment within a reasonable period having regard to the complexity of the matter. Such consultations shall take place as early as possible in the decision-making process. Save in exceptional circumstances, that period shall not be shorter than 30 days. BEREC shall, without prejudice to Article 169, make the results of such public consultations publicly available.

11. BEREC shall, where appropriate, consult and cooperate with relevant national authorities, such as those competent in the fields of competition, consumer protection, cybersecurity and data protection.

12. BEREC shall, where appropriate, cooperate with competent Union bodies, offices, agencies and advisory groups, as well as with the competent authorities of third countries and with international organisations, in accordance with Article 166(1).

Article 123

Analysis, monitoring and collection of information

1. BEREC shall analyse potential transnational markets as referred to in Article 74 and transnational end-user demand as referred to in Article 75.

2. BEREC shall promote the modernisation, coordination and standardisation of the collection of data by national regulatory and other competent authorities. BEREC shall make such data available to the public in an open, reusable and machine-readable format on its website and on the EU Digital Gateway.

3. BEREC shall establish and maintain databases of:

(a) the notifications transmitted to the competent authorities by providers of electronic communications networks and services subject to general authorisation, in accordance with Article 10(8) of this Regulation;

(b) the numbering resources with a right of extraterritorial use within the Union, in accordance with Article 48(4), fourth subparagraph;

(c) the E.164 numbers of Member State PSAPs, in accordance with Article 106(9);

(d) the databases in accordance with Regulation (EU) 2022/618.

Article 124

BEREC opinions

1. BEREC shall issue non-binding opinions as referred to in this Regulation and in Regulation (EU) 2022/612, and in particular on:

(a) the forward-looking Union numbering strategy concerning the consistent management of numbering resources in the Member States and at Union level, in accordance with Article 46(3);

(b) end-to-end connectivity between end-users, in accordance with Article 68(2), second subparagraph, point (ii);

(c) markets susceptible to *ex ante* regulation, in accordance with Article 72(1);

(d) the technical specifications, standard cost elements, cost methodologies and the reference offer related to the Union access product(s) in accordance with Article 81;

(e) the determination of a single maximum Union-wide mobile voice termination rate and a single maximum Union-wide fixed voice termination rate, in accordance with Article 82;

(f) draft national measures related to the internal market procedures for market regulation, in accordance with Article 85;

(g) market and technological developments and their impact on the application of the availability and affordability of adequate internet access and voice communications, in accordance with Article 92(2);

(h) draft decisions and recommendations on harmonisation, in accordance with Article 186;

(i) the resolution of cross-border disputes, in accordance with Article 190;

(j) the elements of the case submitted for a voluntary conciliation procedure, in accordance with Article 192(2).

2. On matters relating to radio spectrum, BEREC shall issue the following opinions:

(a) on common methodologies for defining annual radio spectrum fees and reserve prices in accordance with Article 29;

(b) where relevant, in accordance with the Union radio spectrum single market procedure referred to in Article 31.

Article 125

BEREC guidelines

BEREC shall issue guidelines on the implementation of the Union regulatory framework for electronic communications, in particular as referred to in this Regulation, on:

(a) a common template to collect information on architecture, capacity, capabilities and use of electronic communications networks, in accordance with Article 7(4);

(b) the general authorisation conditions under the Single Passport procedure, to ensure all the conditions listed in Article 9(4) of this Regulation are applied in a coherent, non-discriminatory and proportionate manner, in accordance with Article 11(1);

(c) the notification template, in accordance with Article 10(3);

(d) on consistent application of market shaping measures in accordance with Article 32(3);

(e) common criteria for the assessment of the ability to manage numbering resources and of the risk of exhaustion of numbering resources, in accordance with Article 48(2);

(f) the definition of adequate internet access service and the specification of the bandwidth necessary for social and economic participation in society, in accordance with Article 87(2);

(g) relevant criteria to foster the consistent application of Article 69(2);

(h) common approaches to the identification of the network termination point in different network topologies, in accordance with Article 69(6);

(i) a common template to be used to collect information required under Article 94(4);

(j) the implementation of the obligations of national regulatory authorities in safeguarding open internet access, in accordance with Article 94(5), which shall also detail the relevant quality of service parameters for internet access services, including parameters for the monitoring mechanism referred to in Article 97(4), second subparagraph, parameters relevant for end-users with disabilities, the applicable measurement methods, the content and format of the information, as provided in Annex III to this Regulation, and of publication, as provided in Annex IV to this Regulation, and quality certification mechanisms;

(k) specifying the details of the switching and porting processes, in accordance with Article 100(6) of this Regulation;

(l) technical and legal measures that could effectively protect end-users against fraudulent activities, in accordance with Article 103(3);

(m) harmonising the information and reporting requests as described in Article 181(1), (3) and (7) on relevant topics, including the scope, timing, frequency, format and information collection procedures, in accordance with Article 182(1);

(n) the consistent implementation of obligations as regards geographical surveys and forecasts, in accordance with Article 183;

(o) facilitating ecosystem cooperation on technical and commercial matters related to the provision of electronic communications services or information society services and of innovative products and services, in accordance with Article 191(1);

(p) other guidelines may be issued with a view to ensuring the consistent implementation of the regulatory framework for electronic communications and consistent regulatory

decisions by the national regulatory authorities, upon the request of the European Parliament, the Council or the Commission, in particular for regulatory issues affecting a significant number of Member States or with a cross border element;

(q) any guidelines in accordance with Regulations (EU) 2022/612 and (EU) 2015/2120, as relevant.

Article 126

BEREC reports

BEREC shall issue reports on technical matters within its competence, in particular on:

(a) the Plan, including a comprehensive assessment of the architecture, capacities, capabilities and use of electronic communications networks of providers referred to in Article 5(1), a set of operational recommendations and crisis management practices, in accordance with Article 6;

(b) the national practices regarding the granting of rights of use for national and pan-European numbers, focusing on diverging practices within the Union, in accordance with Article 48(6);

(c) the main practices and findings concerning open internet access in the Union, in accordance with Article 94(3);

(d) the effects of the application of the guidelines on effective ecosystem cooperation, and on the functioning of the facility for voluntary conciliation, in accordance with Article 193(1);

(e) the national implementation and functioning of the general authorisation, and their impact on the functioning of the internal market, in accordance with Article 204(4);

and any reports in accordance with Regulation (EU) 2022/612.

Article 127

Composition of the BEREC Board of Regulators

1. The Board of Regulators shall be composed of one member from each Member State. Each member shall have the right to vote.

   Each member shall be appointed by the national regulatory authority that has primary responsibility for overseeing the day-to-day operation of the markets for electronic communications networks and services under this Regulation. The member shall be appointed from among the head of the national regulatory authority, a member of its collegiate body, or the replacement of either of them.

2. Each member of the Board of Regulators shall have an alternate, appointed by the national regulatory authority. The alternate shall represent the member in their absence. The alternate shall be appointed from among the head of the national regulatory authority, a member of its collegiate body, the replacement of either of them, or the staff of the national regulatory authority.

3. Members of the Board of Regulators and their alternates shall be appointed in light of their knowledge in the field of electronic communications, taking into account relevant managerial, administrative and budgetary skills. In order to ensure continuity of the work of the Board of Regulators, all appointing national regulatory authorities shall make

efforts to limit the turnover of their members and, where possible, also of their alternates, and shall aim to achieve a balanced representation between men and women.

4. The Commission shall participate in all deliberations of the Board of Regulators without the right to vote and shall be represented at an appropriately high level.

5. An up-to-date list of members of the Board of Regulators and their alternates, together with their declarations of interest, shall be made public.

Article 128

Independence of the BEREC Board of Regulators

1. The Board of Regulators shall act independently and objectively in the interests of the Union, regardless of any particular national or personal interests.

2. Without prejudice to coordination as referred to in Article 120(1), the members of the Board of Regulators and their alternates shall neither seek nor take instructions from any government, institution, person or body.

Article 129

Functions of the BEREC Board of Regulators

1. The Board of Regulators shall have the following functions:

   (a) to fulfil the tasks of BEREC set out in Articles 122 to 126, namely to adopt the opinions, guidelines, reports, recommendations and common positions and disseminate best practices referred to in these Articles, relying, in doing so, on the preparatory work carried out by the working groups;

   (b) to take administrative decisions relating to the internal organisation of BEREC's work without prejudice to the administrative decisions relating to the organisation of the ODN;

   (c) to adopt BEREC's biennial work programme as referred to in Article 141;

   (d) to adopt BEREC's biennial report on its activities as referred to in Article 142;

   (e) to adopt rules for the prevention and management of conflicts of interests as referred to in Article 173(5), as well as in respect of members of the working groups;

   (f) to adopt detailed rules on the right of access to documents held by BEREC in accordance with Article 167;

   (g) to adopt and regularly update the communication and dissemination plans as referred to in Article 168(1), based on an analysis of needs;

   (h) to adopt, acting by a two-thirds majority of its members, and make public, its rules of procedure;

   (i) to authorise, together with the ODN Director, the conclusion of working arrangements with competent Union bodies, offices, agencies and advisory groups and with competent authorities of third countries and with international organisations in accordance with Article 166(1);

   (j) to set up working groups, in coordination with the ODN, and appoint their Chairs in accordance with Article 140;

(k) to provide the Director of the ODN with guidance with regard to the carrying out of the tasks of the ODN in relation to the BEREC tasks.

2. The BEREC Board of Regulators shall review its rules of procedure by [6 months from the date of entry into force of this Regulation].

Article 130

Chair and Vice-Chairs of the BEREC Board of Regulators

1. The BEREC Board of Regulators shall appoint, acting by a two-thirds majority of its members, a Chair and at least one Vice-Chair from among its members.
2. The Vice-Chair shall assume the duties of the Chair where the latter is not in a position to perform those duties.
3. The term of office of the Chair shall be one year, renewable once. The rules of procedure shall provide for as much continuity as possible at the head of the Board.
4. The Chair of the BEREC Board of Regulators shall neither seek nor take instruction from any government, institution, person or body.
5. The Chair shall report to the European Parliament and to the Council on the performance of BEREC's tasks when invited to do so.

7.3. TITLE III: RSPB TASKS AND ORGANISATION

Article 131

Establishment and objectives of the RSPB

1. The Radio Spectrum Policy Body ('RSPB') is hereby established without legal personality and with the responsibilities laid down in this Regulation.
2. The RSPB shall replace and take over the tasks of the Radio Spectrum Policy Group ('RSPG'), which was established by Commission Decision of 11 June 2019.
3. RSPB shall pursue the objectives set out in Article 3 of this Regulation. In particular, RSPB shall aim to ensure the consistent implementation of regulatory framework on spectrum and support the development of a Union-level radio spectrum policy.
4. The RSPB shall carry out its tasks impartially, transparently and in a timely manner.
5. The RSPB shall draw upon the expertise available in the national competent authorities and in the ODN.

Article 132

RSPB tasks in support of Commission and other Union's institutions

1. The RSPB shall assist and advise the Commission:
   (a) on strategic radio spectrum policy issues in the Union;
   (b) on the coordination of radio spectrum policy approaches in the Union;
   (c) by issuing opinions in relation to Commission recommendations regarding the harmonised application of the provisions of the regulatory framework for electronic communications in the field of radio spectrum, without prejudice to the role of BEREC;

(d) on coordination and cooperation between the Commission, Member States and relevant competent authorities in relation to the implementation of existing radio spectrum Union legislation, programmes and policies;

(e) where appropriate, on harmonised conditions with regard to the availability and efficient use of radio spectrum, necessary for the establishment and functioning of the internal market.

2. The RSPB shall assist the Commission:

(a) in developing the Union radio spectrum strategy pursuant to Article 17 and in monitoring technical, economic and societal developments to suggest updates of any Union radio spectrum roadmap pursuant to Article 17(3).

(b) in cases of a request for radio spectrum allocation by an interested party, where the matter affects radio spectrum policy, in accordance with Article 19;

(c) in establishing relevant common authorisation conditions and, where relevant, in suggesting the appropriate authorisation procedure and the award conditions, in accordance with Article 22;

(d) in recommending common methodologies for defining annual fees and reserve prices under Article 29;

(e) in developing common pro-investment authorisation processes aspects and selection conditions for authorisation of the use of harmonised radio spectrum in accordance with Article 30(10);

(f) where relevant, in specifying the conditions attached to the general authorisation in accordance with Article 38(3);

(g) in establishing the European Table of Allocation of Satellite Frequencies in accordance with Article 39(2);

(h) in defining conditions for the authorisation and use for different spectrum bands in accordance with Article 39(4);

(i) in assessing applications for Union authorisations in accordance with Article 40;

(j) in recommending the coordinated sharing of the radio spectrum between terrestrial and satellite usages in accordance with Article 45(4).

3. The RSPB shall also assist the Commission in its preparatory work on proposals to the Council for the adoption of decisions in accordance with Article 218(9) TFEU establishing the positions to be adopted on the Union's behalf in international organisations competent in radio spectrum matters.

4. Where appropriate, the Commission may request the RSPB to issue opinions or reports even if not explicitly listed in this Article.

5. RSPB shall, where appropriate, consult interested parties and give them the opportunity to comment within a reasonable period having regard to the complexity of the matter. Such consultations shall take place as early as possible in the decision-making process. Save in exceptional circumstances, the consultation period shall not be shorter than 45 days. RSPB shall, without prejudice to Article 169, make the results of such public consultations publicly available.

6. The RSPB shall assist and advise the Council and the European Parliament upon their request on the strategic planning and coordination of radio spectrum policy approaches in the Union.

Article 133

RSPB tasks in support of national competent authorities

1. The RSPB shall assist national competent authorities in cooperating with each other and with the Commission in support of the strategic planning and coordination of radio spectrum policy approaches in the Union, by:

   (a) developing best practices on radio spectrum related matters, with a view to implementing Union law, including by collecting good practices on:

      (i) the most appropriate authorisation regime in accordance with Article 21(5);

      (ii) radio spectrum authorisation processes and selection conditions in accordance with Article 30(10).

   (b) facilitating coordination between Member States with a view to implementing Union law and to contributing to the development of a single market for electronic communications, including by enhancing the information sharing, cooperation and peer learning between Member States;

   (c) coordinating Member States' approaches with regard to the exercise of rights of use for radio spectrum and publishing reports and opinions on radio spectrum related matters;

   (d) where relevant, organising meetings to allow national competent competent authorities, upon their request, to discuss and exchange views and experiences relating to the authorisation processes and conditions of the use of radio spectrum;

   (e) organising regular discussions with the Commission on different strategic issues related to radio spectrum;

   (f) organising workshops and hearings with representatives of stakeholder and academia on technical, economic and societal developments related to radio spectrum.

2. The RSPB shall assist competent authorities and the Commission in:

   (a) providing its good offices to resolve any cross-border coordination or cross-border harmful interference issue or dispute between Member States or with third countries, and issue relevant opinions, in accordance with Article 14;

   (b) monitoring implementation of national radio spectrum roadmaps in accordance with Article 17(5);

   (c) implementing spectrum sharing by adopting guidelines in accordance with Article 27(5);

   (d) identifying radio spectrum bands to be covered by, and practical arrangement of databases in accordance with Article 28(2);

(e) relation to filings and coordination of satellite systems with ITU in accordance with Article 37;

(f) monitoring the compliance of the satellite systems operating under a Union authorisation, and in examining and appropriately responding to breaches thereof in accordance with Article 43, including by issuing relevant opinions;

(g) sharing information about urgent actions in accordance with Article 44(3).

3. The RSPB shall participate in the Union radio spectrum single market procedure under Article 31 and shall deliver comments and opinions, where provided in this Regulation.

Article 134

Composition of the RSPB Board

1. The RSPB Board shall be composed of one member from each Member State from authorities responsible for radio spectrum policy. Each member shall have the right to vote.
2. The member of the Board appointed by each Member State shall be a high-level representative with overall responsibility for strategic radio spectrum policy.
3. The Commission shall participate in all meetings of the RSPB Board without voting rights and shall be represented at an appropriately high level.
4. Each member of the RSPB Board as well as the Commission shall appoint an alternate representative who replace the member in their absence.
5. A list with the names and affiliation of the representatives of the members of the RSPB Board as well as of their alternates shall be made public on the website of the RSPB.

Article 135

Functions of the RSPB Board

1. The RSPB Board shall have the following functions:

(a) to fulfil the RSPB tasks set out in Articles 132 and 133, namely to adopt the opinions and reports, and disseminate best practices, relying, in doing so, on the preparatory work carried out by the working groups;

(b) to take administrative decisions relating to the internal organisation of the RSPB's work, without prejudice to the administrative decisions relating to the organisation of the ODN;

(c) to adopt the RSPB's biennial work programme as referred to in Article 141;

(d) to adopt the RSPB's biennial report on its activities as referred to in Article 142;

(e) to adopt rules on prevention and management of conflicts of interests as referred to in Article 173(5), as well as in respect of members of the working groups;

(f) to adopt detailed rules on the right of access to documents held by the RSPB in accordance with Article 167;

(g) to adopt and regularly update the communication and dissemination plans as referred to in Article 168(1) based on an analysis of needs;

(h) to adopt and make public its rules of procedure by a two-thirds majority of its members;

(i) to authorise, together with the ODN Director, the conclusion of working arrangements with competent Union bodies, offices, agencies and advisory groups and with competent authorities of third countries and with international organisations in accordance with Article 166(1);

(j) to set up working groups, in coordination with the ODN, and appoint their Chairs in accordance with Article 140;

(k) to provide the Director of the ODN with guidance with regard to the carrying out of the tasks of the ODN in relation to the RSPB tasks.

2. The RSPB Board shall review its rules of procedure by [6 months from the date of entry into force of this Regulation].

Article 136

Chair and Vice-Chairs of the RSPB Board

1. The RSPB Board shall appoint, acting by a two-thirds majority of its members, a Chair and a Vice-Chair from among its members.
2. The Vice-Chair shall assume the duties of the Chair where the latter is not in a position to perform those duties.
3. The term of office of the Chair shall be two years, renewable once. The rules of procedure shall provide for as much continuity as possible at the head of the Board.
4. The Chair shall report to the European Parliament and to the Council on the performance of the RSPB's tasks when invited to do so.

7.4. TITLE IV: COMMON PROVISIONS AND COOPERATION BETWEEN BEREC AND THE RSPB

Article 137

Organisational structure of BEREC and the RSPB

BEREC and the RSPB shall each comprise:

(a) a Board;

(b) working groups.

Article 138

Meetings of the BEREC Board of Regulators and of the RSPB Board

1. The Chairs of the BEREC Board of and of the RSPB Board shall convene the meetings of the BEREC Board of Regulators and of the RSPB Board, respectively, and shall set the agendas for those meetings, which shall be made public.
2. The BEREC Board of Regulators and the RSPB Board shall each hold at least two ordinary meetings a year.

Extraordinary meetings shall be convened at the initiative of the Chair, upon the request of at least three of its members or upon the request of the Commission.

3. The Director of the ODN shall take part in all deliberations without the right to vote.

4. The Chairs of the BEREC Board of Regulators and of the RSPB Board, respectively, may invite any person whose opinion may be of interest to them, to participate in their meetings as an observer.

5. The members and the alternates of the BEREC Board of Regulators and the RSPB Board, respectively, may, subject to their rules of procedure, be assisted at the meetings by their advisers or other experts.

6. Where the BEREC Board of Regulators and the RSPB Board, respectively, consider it appropriate, they may invite relevant representatives from the industry to their respective meetings, only to present positions.

7. The Commission may request that the participation to discussions relating to sensitive and confidential matters and which the Commission considers having a strong Union dimension is restricted. The Chair, in agreement with the Director of the ODN, may request that the participation to discussions relating to resilience or security that may be needed to carry out tasks under this Regulation is restricted.

8. The ODN shall provide the secretariat for the BEREC Board of Regulators and the RSPB Board.

Article 139

Voting rules

1. The BEREC Board of Regulators and the RSPB Board shall take decisions by simple majority of their members, unless otherwise provided for in this Regulation.

   The decisions of the BEREC Board of Regulators and of the RSPB Board shall be made public and shall indicate any reservations of any member upon their request.

2. Each member of the BEREC Board of Regulators and of the RSPB Board shall have one vote. In the absence of a member, the alternate shall be entitled to exercise that member's right to vote.

   In the absence of both a member and the alternate, the right to vote may be delegated to another member, according to conditions laid down in the respective rules of procedure.

   The Chair may delegate their right to vote in any event. The Chair shall take part in the voting unless they have delegated the right to vote.

3. The respective rules of procedure of the BEREC Board of Regulators and of the RSPB Board shall set out in detail the arrangements governing voting, including the conditions under which one member may act on behalf of another member, the quorum, and the notification deadlines for meetings. Furthermore, the rules of procedure shall ensure that the members of the BEREC Board of Regulators and of the RSPB Board are provided with full agendas and draft proposals sufficiently in advance of each meeting so that they have the opportunity to propose amendments prior to the vote. The rules of procedure may, inter alia, set out a procedure for voting on urgent matters, a written procedure, and other practical arrangements for the operation of the BEREC Board of Regulators and of the RSPB Board.

Article 140

Working groups

1. Where justified, the BEREC Board of Regulators and the RSPB Board may set up working groups, after consulting the ODN, to implement their work programmes.
2. The BEREC Board of Regulators and the RSPB Board shall appoint the Chairs of their respective working groups, representing, as far as possible, different national regulatory authorities, members of the RSPB and the ODN.
3. The BEREC working groups shall be open to the participation of experts from all the national regulatory authorities. The RSPB working groups shall be open to the participation of all the members of the RSPB. Experts from the ODN and the Commission shall be entitled to participate to all working groups. The staff of the ODN shall also contribute to the regulatory work of, and provide administrative support to, the working groups.
4. By derogation to paragraph 3:
    (a) the experts from the Commission and the national regulatory authority concerned shall not participate to BEREC working groups set up to carry out the tasks referred to in Article 124(1), point (f);
    (b) the experts from the Commission and the national competent authority concerned shall not participate to RSPB and BEREC working groups set up to carry out the tasks referred to in Article 133(3) and 124(2), point (b) respectively;
    (c) only experts from Member States' authorities, the Commission and the ODN shall participate in the RSPB working group set up to carry out the tasks referred to in Article 132(3).
5. In BEREC working groups which are set up to carry out tasks related to competences attributed at national level to other competent authorities, the experts from other competent authorities notified pursuant to Article 115(3) shall be invited to participate and their views shall be taken into consideration. If experts from other competent authorities are unable to attend such meetings, national regulatory authorities shall ensure that the views of those other competent authorities have been taken into account.

    The respective Chairs of the BEREC Board of Regulators and the RSPB Board or the Chairs of the working groups may invite individual experts recognised as competent in the relevant field to participate in the working group meetings, where necessary, on a case-by-case basis.
6. The working groups shall be normally dissolved as soon as their mandate is fulfilled.
7. The BEREC Board of Regulators and the RSPB Board shall respectively adopt rules of procedure laying down the practical arrangements for the operation of the working groups.

Article 141

Work programme

1. After consulting the European Parliament, the Council and the Commission, as well as other interested parties in accordance with Article 122(10) and Article 132(5) respectively, the BEREC Board of Regulators and the RSPB Board shall adopt their

respective biennial work programme by 31 December of the year preceding the biennial cycle.

2. The BEREC Board of Regulators and the RSPB Board shall transmit their respective work programme to the European Parliament, the Council and the Commission as soon as they are adopted.

Article 142

Biennial activity report

The BEREC Board of Regulators and the RSPB Board shall adopt their respective biennial report on their respective activities. The BEREC Board of Regulators shall transmit its biennial activity report to the European Parliament, the Council, the Commission and the European Economic and Social Committee by 15 June every other year.

Article 143

Cooperation between BEREC and the RSPB

1. BEREC and the RSPB shall cooperate on a continuous and systematic basis on matters of mutual relevance, in particular where electronic communications regulation and radio spectrum policy intersect. To that end, BEREC and the RSPB shall establish joint working groups where appropriate, ensure regular exchanges of information and expertise, and coordinate their respective work programmes in order to promote regulatory consistency and effective policy implementation.

2. The Chair of the BEREC Board of Regulators and the Chair of the RSPB Board shall meet at least twice a year in order to identify issues of common interest requiring close and systematic cooperation between BEREC and the RSPB. The Chairs shall submit proposals to their respective boards for the adoption of joint activities, including, where relevant, structured cooperation mechanisms. Such issues shall be taken into account in the preparation of the biennial work programmes of BEREC and the RSPB.

3. Where necessary, joint meetings of the BEREC Board of Regulators and the RSPB Board shall be convened to address matters of relevance to both bodies and to ensure consistent and coherent regulatory and policy approaches.

7.5. TITLE V: OFFICE FOR DIGITAL NETWORKS

7.5.1. CHAPTER I: ODN tasks and organisation

Article 144

Establishment

The ODN shall replace and succeed the Agency for Support for BEREC (‘BEREC Office’), which was established by Regulation (EU) 2018/1971.

Article 145

General mandate of the ODN

1. The ODN shall act within the scope of this Regulation to support the development of the single market for electronic communications.

2. In fulfilling its mandate, the ODN shall support and assist BEREC in the performance of its tasks under this Regulation, including through the provision of technical expertise, analytical capacity, coordination support and operational assistance, without prejudice to the independence of BEREC and its decision-making powers. The ODN shall also actively support and assist the RSPB in the performance of its tasks, in particular by ensuring close coordination between the policy and regulation of electronic communications and radio spectrum, and by facilitating structured cooperation where issues of common relevance arise.

3. The ODN shall carry out any other tasks conferred upon it by this Regulation or by other Union acts, provided that such tasks are compatible with its mandate and contribute to the objectives referred to in Article 3.

Article 146

Tasks of the ODN

1. The ODN shall have the following tasks:

   (a) to provide expert, professional, administrative and logistic support services to BEREC in fulfilling its tasks, including by participating and contributing to all the activities of the working groups, in accordance with Article 140;

   (b) to collect data and information from national regulatory and other competent authorities, and to exchange and transmit information in relation to the tasks assigned to BEREC pursuant to Article 103(2) and Articles 122 to 126;

   (c) to produce, on the basis of the information referred to in point (b), regular draft reports on specific aspects of developments in the Union electronic communications market, such as roaming and benchmarking reports to be submitted to BEREC;

   (d) to disseminate regulatory best practices among national regulatory and other competent authorities, in accordance with Article 122(1), point (b);

   (e) to assist BEREC in establishing and managing registries and databases in accordance with Article 123(3) and an information and communications system in accordance with Article 172;

   (f) to establish and manage a database on pan-European numbering resources, in accordance with Article 47(4);

   (g) to assist BEREC in conducting public consultations, in accordance with Article 122(10);

   (h) to assist in the preparation of the work and provide other administrative and content-related support to ensure the smooth functioning of the BEREC Board of Regulators;

   (i) to assist in setting up working groups, upon the request of the BEREC Board of Regulators, contribute to the regulatory work and provide administrative support to ensure the smooth functioning of those groups;

   (j) to prepare the Plan, in accordance with Articles 6 and 7;

   (k) to transmit notifications referred to in Article 10(1) to national regulatory and other competent authorities to facilitate the Single Passport procedure in accordance with Article 10(4);

(l) to maintain a publicly available Union database of the notifications submitted to the national regulatory authorities, in accordance with Article 10(8);

(m) to assist the Commission in the strategic planning of numbering resources in the Union and the identification of the potential use of numbering resources for cross border or pan-European services, and in the establishment of a Union numbering plan in accordance with Article 46(2) and (4);

(n) to cooperate with national regulatory authorities on the allocation of numbers and management of the pan-European numbering resources, in accordance with Article 47(3);

(o) to set up the procedure and system for the provision of information, in accordance with Article 47(4);

(p) to assist national regulatory authorities in coordinating activities on numbering resources with a right of extraterritorial use, in accordance with Article 48(4);

(q) to assist BEREC in preparing the harmonised templates, in accordance with Article 182;

(r) to carry out other tasks assigned to it by this Regulation or by other legal acts of the Union.

2. By [two years after entry into application] and every year thereafter, the ODN, shall publish a report on the progress towards the single market for electronic communications, describing in particular the state of the market, the market structure, and the impact of the measures implemented under this Regulation on the internal market, including the *ex post* effects of mergers on the market. Before publication, a draft report shall be submitted to BEREC and the RSPB for approval. Those reports shall be published.

Article 147

Tasks of the ODN in support of the RSPB

The ODN shall have the following tasks:

(a) to provide expert, professional, administrative and logistic support services to RSPB in fulfilling its tasks, including by participating and contributing to all the activities of the working groups, in accordance with Article 140;

(b) to collect data and information from national competent authorities, and to exchange and transmit information in relation to the tasks assigned to RSPB pursuant to Articles 132 and 133;

(c) to assist RSPB in conducting public consultations, in accordance with Article 132(5);

(d) to assist in the preparation of the work and provide other administrative and content-related support to ensure the smooth functioning of the RSPB Board;

(e) to assist in setting up working groups, upon the request of the RSPB Board, contribute to the regulatory work and provide administrative support to ensure the smooth functioning of those groups;

(f) to assist the Commission on request in carrying out the authorisation process at Union level in accordance with Article 22(4);

(g) to act as a single point of contact for the submission of applications and notifications in accordance with Article 22(5);

(h) to establish and administer dynamic databases for geolocation and monitoring of radio spectrum usage opportunities in accordance with Article 28;

(i) to keep record of Union radio spectrum single market proceedings in accordance with Article 31(9);

(j) to provide support to RSPB in coordinating a Union position in accordance with Article 37(3);

(k) to assist the Commission in handling the notifications in accordance with Article 38(2), second subparagraph;

(l) to assist the Commission and the RSPB in the process of granting the Union authorisation in accordance with Article 40 and, where requested by the Commission, to assist the Commission in conducting a selection procedure in accordance with Annex VI;

(m) to support the RSPB in assisting the Commission in examining alleged breaches of conditions in accordance with Article 43(2).

Article 148

Legal personality of the ODN

1. The ODN shall be a body of the Union. It shall have legal personality.
2. In each of the Member States, the ODN shall enjoy the most extensive legal capacity accorded to legal persons under national law. It may, in particular, acquire and dispose of movable and immovable property and be party to legal proceedings.
3. The ODN shall be represented by its Director.
4. The ODN shall have sole responsibility for the tasks assigned to and the powers conferred on it.
5. The ODN shall have its seat in Riga.

Article 149

Organisational structure of the ODN

The ODN shall comprise:

(a) a Management Board;

(b) a Director.

Article 150

Composition of the Management Board

1. The Management Board shall be composed of the persons appointed as members of the BEREC Board of Regulators, the Chair of the RSPB Board and of one representative of the Commission. Each member of the Management Board shall have the right to vote.

   Each appointing national regulatory authority, as referred to in Article 127(1), second subparagraph, may appoint a person other than the member of the BEREC Board of

Regulators as member of the Management Board. That person shall be the head of the national regulatory authority, a member of its collegiate body, or the replacement of either of them.

2. Each member of the Management Board shall have an alternate. The alternates shall represent the member in their absence.

   The alternates of each member shall be the persons appointed as alternates of the members of the BEREC Board of Regulators. The representative of the Commission shall also have an alternate. The alternate of the Chair of the RSPB Board shall be the Vice-Chair of the RSPB Board.

   Each appointing national regulatory authority, as referred to in Article 127(1), second subparagraph, may appoint a person other than the alternate of the member of the BEREC Board of Regulators as the alternate of the member of the Management Board. That person shall be the head of the national regulatory authority, a member of its collegiate body, the replacement of either of them, or the staff of the national regulatory authority.

3. The members of the Management Board and their alternates shall neither seek nor take instructions from any government, institution, person or body.

4. An up-to-date list of members of the Management Board and their alternates, together with their declarations of interests, shall be made public.

Article 151

Administrative functions of the Management Board

1. The Management Board shall have the following administrative functions:

   (a) to ensure that the ODN performs all tasks assigned to it in accordance with this Regulation, by taking consideration of the need to ensure proper support to the RSPB and to carry out its tasks in accordance with Articles 146 and 147;

   (b) to provide general orientations for the ODN's activities and adopt, on an annual basis, the ODN's single programming document by a two-third majority of its members, taking into account the opinion of the BEREC and the RSPB and after having received the opinion of the Commission and in accordance with Article 157;

   (c) to adopt, by a two-third majority of its members with voting rights, the annual budget of the ODN and exercise other functions in respect of the ODN's budget pursuant to Chapter II of this Title;

   (d) to adopt, make public and proceed with an assessment of the consolidated annual activity report on the ODN's activities referred to in Article 161 and submit both the report and its assessment, by 1 July each year, to the European Parliament, the Council, the Commission and the Court of Auditors;

   (e) to adopt the financial rules applicable to the ODN, in accordance with Article 163;

   (f) to adopt an anti-fraud strategy proportionate to fraud risks, taking into account the costs and benefits of the measures to be implemented;

   (g) to ensure adequate follow-up to findings and recommendations stemming from the internal or external audit reports and evaluations, as well as from

investigations of the European Anti-Fraud Office (OLAF) and of the European Public Prosecutor Office;

(h) to adopt rules for the prevention and management of conflicts of interests as referred to in Article 173(5);

(i) to adopt and regularly update the communication and dissemination plans referred to in Article 168(2), based on an analysis of needs;

(j) to adopt practical measures regarding the right of access to the ODN's documents, in accordance with Article 167;

(k) to adopt its rules of procedure;

(l) to authorise the conclusion of working arrangements, in accordance with Article 166;

(m) to adopt implementing rules for giving effect to the Staff Regulations of Officials of the European Union and the Conditions of Employment of Other Servants of the European Union[83], in accordance with Article 110 of the Staff Regulations;

(n) without prejudice to the decision referred to in paragraph 2, first subparagraph, to exercise, with respect to the staff of the ODN, the powers conferred by the Staff Regulations on the Appointing Authority and by the Conditions of Employment of Other Servants on the Authority Empowered to Conclude a Contract of Employment (the 'appointing authority powers');

(o) to appoint the Director and, where relevant, extend their term of office or remove them from office in accordance with Article 156;

(p) to appoint an Accounting Officer, subject to the Staff Regulations and the Conditions of Employment of Other Servants, who shall be wholly independent in the performance of their duties;

(q) to take all decisions on the establishment of the ODN's internal structures and, where necessary, their modification, taking into consideration the ODN's activity needs as well as having regard to sound budgetary management.

With regard to the first subparagraph, point (p), the ODN may appoint the same Accounting Officer as another Union body or institution. In particular, the ODN and the Commission may agree that the Commission's accounting officer shall also act as Accounting Officer of the ODN.

2. The Management Board shall adopt, in accordance with Article 110 of the Staff Regulations, a decision based on Article 2(1) of the Staff Regulations and on Article 6 of the Conditions of Employment of Other Servants, delegating relevant appointing authority powers to the Director and specifying the conditions under which this delegation of powers can be suspended. The Director shall be authorised to subdelegate those powers.

Where exceptional circumstances so require, the Management Board may, by way of a decision, temporarily suspend the delegation of the appointing authority powers to the

[83] Regulation (EEC, Euratom, ECSC) No 259/68 of the Council of 29 February 1968 laying down the Staff Regulations of Officials and the Conditions of Employment of Other Servants of the European Communities and instituting special measures temporarily applicable to officials of the Commission (OJ L 56, p. 1, ELI: http://data.europa.eu/eli/reg/1968/259(1)/oj)..

Director and those subdelegated by the latter and exercise them itself or delegate them to one of its members or to a member of staff other than the Director.

3. The Management Board shall establish its rules of procedure by [6 months *after* the *date of* entry into force of this Regulation].

Article 152

Chairperson and Deputy Chairpersons of the Management Board

1. The Chairperson and the Deputy Chairpersons of the Management Board shall be the persons appointed as the Chair and Vice-Chairs of the BEREC Board of Regulators. The same term of office shall apply.

   By derogation from the first subparagraph, the Management Board may, by a two-third majority of its members, elect other members of the Management Board as Chairperson or Deputy Chairperson(s) from among its members, representing Member States. Their term of office shall be the same as that of the Chair and Vice-Chairs of the BEREC Board of Regulators.

2. One of the Deputy Chairpersons shall, in accordance with the rules of procedure, assume the duties of the Chairperson where the latter is not in a position to perform those duties.

3. The Chairperson of the Management Board shall report to the European Parliament and to the Council on the carrying out of the tasks of the ODN when invited to do so.

Article 153

Meetings of the Management Board

1. The Chairperson shall convene the meetings of the Management Board.

2. The Director of the ODN shall take part in the deliberations, except those related to Article 156, without the right to vote.

3. The Management Board shall hold at least two ordinary meetings a year. In addition, the Chairperson shall convene extraordinary meetings on their own initiative, upon the request of the Commission, or of at least three of its members.

4. The Management Board may invite any person whose opinion may be of interest to attend its meetings as an observer.

5. The members of the Management Board and their alternates may, subject to its rules of procedure, be assisted at the meetings by advisers or experts.

6. The ODN shall provide the secretariat for the Management Board.

Article 154

Voting rules of the Management Board

1. The Management Board shall take decisions by an absolute majority of its members, unless otherwise provided for in this Regulation.

2. Where the Management Board votes on matters related to Delegated Regulation (EU) 2019/715 and the Staff Regulations of Officials and the Conditions of Employment of Other Servants of the European Union, the decision shall be subject to a positive vote of the Commission's representative in the Management Board.

3. Each member shall have one vote. In the absence of a member with the right to vote, the alternate shall be entitled to exercise their right to vote.

4. The Chairperson may delegate their right to vote in any event. They shall take part in the voting unless they have delegated the right to vote.

5. The Management Board's rules of procedure shall establish more detailed voting arrangements, in particular the circumstances in which a member may act on behalf of another member.

Article 155

Tasks and responsibilities of the Director

1. The Director shall be the legal representative of the ODN and shall be in charge of the administrative management of the ODN. The Director shall be accountable to the Management Board.

2. The Director shall prepare the meetings of the Management Board and assist the Chair of the BEREC Board of Regulators and the Chair of the RSPB Board, in preparing the meetings of their respective bodies.

3. The Director shall be independent in the performance of their duties and shall neither seek nor take instructions from any government, institution, person or body.

4. The Director shall report to the European Parliament and to the Council on the performance of their duties when invited to do so.

5. The Director shall be responsible for the implementation of the ODN's tasks and following the guidance provided by the BEREC Board of Regulators, the RSPB Board and the Management Board. In particular, the Director shall be responsible for:

   (a) the day-to-day administration of the ODN;

   (b) preparing the work of the Management Board and participating, without having the right to vote, in the work of the Management Board;

   (c) implementing administrative decisions adopted by the BEREC Board of Regulators, the RSPB Board and the Management Board;

   (d) preparing, and submitting to the Management Board for adoption after consulting the Commission at least four weeks before the relevant Management Board meeting, the single programming document referred to in Article 157;

   (e) assisting the BEREC Board of Regulators and the RSPB Board in the preparation of their activity reports as referred to in Article 142;

   (f) assisting the BEREC Board of Regulators and the RSPB Board in the preparation of their respective work programmes, as referred to in Article 141;

   (g) implementing the single programming document, and reporting to the Management Board on its implementation;

   (h) preparing the draft annual report on the ODN's activities as referred to in Article 161 and presenting it to the Management Board for assessment and adoption;

   (i) preparing an action plan following up on conclusions of internal or external audit reports and evaluations, as well as investigations by the OLAF and reporting on progress at least once a year to the Management Board;

(j) protecting the financial interests of the Union by applying preventive measures against fraud, corruption and any other illegal activities, by carrying out effective checks and, if irregularities are detected, by recovering amounts wrongly paid and, where appropriate, by imposing effective, proportionate and dissuasive administrative measures, including financial penalties;

(k) preparing an anti-fraud strategy for the ODN and presenting it to the Management Board for approval;

(l) preparing draft financial rules applicable to the ODN;

(m) preparing the ODN's draft estimates of revenue and expenditure and implementing its budget, in accordance with Article 158;

(n) authorising, together with the BEREC Board of Regulators, or the RSPB Board where relevant, the conclusion of working arrangements with competent Union bodies, offices, agencies and advisory groups and with competent authorities of third countries and with international organisations in accordance with Article 166.

6. The Director shall, under the supervision of the Management Board, take the necessary measures, in particular with regard to adopting internal administrative instructions and publishing notices, in order to ensure the functioning of the ODN in accordance with this Regulation.

7. The Director shall, subject to the prior consent of the Commission, the Management Board and the Member States concerned, decide whether it is necessary for the purpose of carrying out the ODN's tasks in an efficient and effective manner to locate one or more members of staff in one or more Member States. The decision shall specify the scope of the activities to be carried out in a manner that avoids unnecessary costs and duplication of administrative functions of the ODN. Before such a decision is taken, its impact in terms of staff allocation and budget shall be set out in the multiannual programming document referred to in Article 157.

Article 156

Appointment of the Director

1. The Director shall be engaged as a temporary agent of the ODN in accordance with Article 2, point (a), of the Conditions of Employment of Other Servants.

2. The Director shall be appointed by the Management Board, following an open and transparent selection procedure, on the basis of merit, management, administrative and budgetary skills and the skills and experience relevant to electronic communications networks and services. The appointment shall be subject to the positive opinion of the RSPB representative in the Management Board.

3. The list of candidates shall not be proposed by the sole Chairperson or by a Deputy Chairperson alone. The rules of procedure of the Management Board shall set out in detail the arrangements governing a procedure to shortlist the number of eligible candidates and a voting procedure.

4. Before appointment, the candidate selected by the Management Board shall be heard before the competent committee of the European Parliament.

5. For the purpose of concluding the contract with the Director, the ODN shall be represented by the Chairperson of the Management Board.

6. The term of office of the Director shall be five years. In due time, before the end of that period, the Management Board shall carry out an assessment that takes into account an evaluation of the Director's performance and the ODN's tasks and challenges. That assessment shall be submitted to the Commission.

7. The Management Board, taking into account the assessment referred to in paragraph 6, subject to a positive opinion of the RSPB Board may extend the Director's term of office, for no more than five years. A Director whose term of office has been extended shall not participate in another selection procedure for the same post.

8. The Director may be removed from office only upon a decision of the Management Board acting on a proposal from the Commission or at least two third of the members of the Management Board and subject to the positive opinion of the RSPB Board. The Management Board shall reach decisions on appointment, extension of the term of office or removal from office of the Director on the basis of a vote of a two-third majority of its members.

7.5.2. CHAPTER II: Budget and programming of the ODN

Article 157

Annual and multiannual programming

1. Each year, the Director shall draw up a draft programming document containing annual and multiannual programming ('single programming document') in accordance with Article 32 of Delegated Regulation (EU) 2019/715, taking into account guidelines set by the Commission.

   By 31 January each year, the Management Board shall adopt the draft single programming document and forward it to the Commission to seek their opinion. The draft single programming document shall also be submitted to the European Parliament and to the Council.

   The Management Board shall subsequently adopt the single programming document, taking into account the opinion of the Commission. It shall submit the single programming document, as well as any subsequent updates, to the European Parliament, the Council and the Commission.

   The single programming document shall become definitive after adoption of the general budget of the Union and, where necessary, shall be adjusted accordingly.

2. The annual programming document shall comprise detailed objectives and expected results, including performance indicators. It shall also contain a description of the actions to be financed and an indication of the financial and human resources allocated to each action, in accordance with the principles of activity-based budgeting and management, as referred to in Article 164. The annual programming document shall be consistent with the BEREC and RSPB's work programme as referred to in Article 141 and with the multiannual programming document of the ODN referred to in paragraph 4 of this Article. It shall clearly indicate tasks that have been added, changed or deleted in comparison with the previous financial year.

3. The Management Board shall, where necessary, amend the annual programming document after adoption of BEREC and RSPB's work programmes referred to in Article141 and where a new task is assigned to BEREC, the RSPB or the ODN.

Any substantial amendment to the annual programming document shall be adopted by the same procedure as that used to adopt the initial annual programming document. The Management Board may delegate the power to make non-substantial amendments to the annual programming document to the Director.

4. The multiannual programming document shall set out overall strategic programming, including objectives, expected results and performance indicators. It shall also set out resource programming, including multiannual budget and staff.

   The resource programming shall be updated annually. The strategic programming shall be updated where appropriate, and in particular to address the outcome of the evaluation referred to in Article 179.

5. The single programming document of the ODN shall include the implementation of BEREC and RSPB's strategies for relations with competent Union bodies, offices, agencies and advisory groups, with competent authorities of third countries and with international organisations as referred to in Article 166(3), the actions linked to that strategy and the specification of associated resources.

Article 158

Establishment of the budget

1. Each year, the Director shall draw up a provisional draft estimate of the ODN's revenue and expenditure (the 'draft estimate') for the following financial year, including the establishment plan, and submit it to the Management Board.

   The information contained in the draft estimate shall be consistent with the draft single programming document referred to in Article 157(1).

2. The Management Board shall, on the basis of the provisional draft estimate, adopt a draft estimate of the Agency's revenue for the following financial year, and shall send it to the Commission by 31 January each year.

3. The Commission shall submit the draft estimate to the European Parliament and the Council ('the budgetary authority') together with the draft general budget of the Union.

4. On the basis of the draft estimate, the Commission shall enter in the draft general budget of the Union the estimates it considers necessary for the establishment plan and the amount of the contribution to be charged to the general budget, which it shall place before the budgetary authority in accordance with Articles 313 and 314 of the TFEU.

5. The budgetary authority shall authorise the appropriations for the contribution to the ODN.

6. The budgetary authority shall adopt the ODN's establishment plan.

7. The Management Board shall adopt the ODN's budget. The budget shall become final following final adoption of the general budget of the Union. Where necessary, it shall be adjusted accordingly.

8. For any building project likely to have significant implications for the budget of the ODN, Delegated Regulation (EU) 2019/715 shall apply.

Article 159

Structure of the budget

1. Estimates of all revenue and expenditure for the ODN shall be prepared each financial year, corresponding to the calendar year, and shall be shown in the ODN's budget.
2. The ODN's budget shall be balanced in terms of revenue and of expenditure.
3. Without prejudice to other resources, the ODN's revenue shall consist of any combination of the following:
    (a) a contribution from the Union;
    (b) any fee paid by undertakings for obtaining and maintaining Union satellite authorisations to be set out by way of Commission implementing act referred to in Article 39(4), fees for rights of use for pan-European numbering resources to be set out by way of Commission implementing act referred to in Article 46(4), charges for publications and any other service provided by the ODN;
    (c) any in-kind or voluntary financial contribution from the Member States and from third countries or the regulatory authorities competent in the field of electronic communications of third countries participating in the work of the ODN, as provided for in Article 166.
4. The revenue received by the ODN shall not compromise its neutrality, independence or objectivity.
5. The Commission shall regularly examine the level of the fees referred to in paragraph 3, point (b), on the basis of an evaluation and, where necessary, shall adapt the methodology or the level of those fees and the way in which they are to be paid.
6. The budgetary authority shall re-examine, when necessary, the level of the Union contribution on the basis of an evaluation of needs and taking account of the level of fees.
7. The expenditure of the ODN shall include staff remuneration, administrative and infrastructure expenses and operational expenditure.

Article 160

Implementation of the budget

1. The Director shall implement the ODN's budget.
2. Each year, the Director shall submit to the European Parliament and the Council all information relevant to the findings of evaluation procedures.

Article 161

Consolidated annual activity report

The Management Board shall adopt consolidated annual activity reports in accordance with Article 48 of Delegated Regulation (EU) 2019/715, taking into account guidelines set by the Commission.

Article 162

Presentation of accounts and discharge

1. The ODN's accounting officer shall submit the provisional accounts for the financial year to the Commission's Accounting Officer and to the Court of Auditors by 1 March of the following financial year.
2. The ODN shall submit the report on the budgetary and financial management to the European Parliament, the Council and the Court of Auditors by 31 March of the following financial year.
3. On receipt of the Court of Auditors' observations on the ODN's provisional accounts, the ODN's accounting officer shall draw up the ODN's final accounts under their own responsibility. The Director shall submit the final accounts to the Management Board for an opinion.
4. The Management Board shall deliver an opinion on the ODN's final accounts.
5. The Director shall submit the final accounts to the European Parliament, the Council, the Commission and the Court of Auditors, together with the Management Board's opinion by 1 July following each financial year.
6. The ODN shall publish the final accounts in the Official Journal of the European Union by 15 November of the following year.
7. The Director shall submit to the Court of Auditors a reply to its observations by 30 September of the following financial year. The Director shall also submit that reply to the Management Board.
8. The Director shall submit to the European Parliament, upon the latter's request, any information required for the smooth application of the discharge procedure for the financial year in question, in accordance with Article 267(3) of Regulation (EU, Euratom) 2024/2509 of the European Parliament and of the Council[84].
9. On a recommendation from the Council acting by a qualified majority, the European Parliament shall, before 15 May of year N + 2, give a discharge to the Director in respect of the implementation of the budget for year N.

Article 163

Financial rules

The financial rules applicable to the ODN shall be adopted by the Management Board after consulting the Commission. They shall not diverge from Delegated Regulation (EU) 2019/715 unless such a divergence is required for the ODN's operation and the Commission has given its prior consent.

Article 164

Staff of the ODN

1. The Staff Regulations and the Conditions of Employment of Other Servants and the rules adopted by agreement between the institutions of the Union for giving effect to those Staff Regulations and the Conditions of Employment of Other Servants shall apply to the staff of the ODN.

[84] Regulation (EU, Euratom) 2024/2509 of the European Parliament and of the Council of 23 September 2024 on the financial rules applicable to the general budget of the Union (OJ L, 2024/2509, ELI: http://data.europa.eu/eli/reg/2024/2509/oj).

2. In accordance with the principle of activity-based management of human resources, the ODN shall have the staff required to carry out its duties.

3. The number of staff and corresponding financial resources shall be proposed in accordance with Article 157(2) and (4) and Article 158(1), taking account of Articles 146 and 147, and all other tasks assigned to the ODN by this Regulation or by other Union legal acts, as well as the need for compliance with the regulations applicable to all Union decentralised agencies.

4. The ODN may make use of seconded national experts or other staff not employed by it. The Staff Regulations and the Conditions of Employment of Other Servants shall not apply to such staff.

5. The Management Board shall adopt a decision laying down rules on the secondment of national experts to the ODN.

7.5.3. CHAPTER III: General provisions

Article 165

Privileges and immunities

The Protocol on the Privileges and Immunities of the European Union shall apply to the ODN and its staff.

Article 166

Cooperation with Union bodies, third countries and international organisations

1. In so far as necessary to achieve the objectives set out in this Regulation and carry out their tasks, and without prejudice to the competences of the Member States and the institutions of the Union, BEREC, the RSPB and the ODN may cooperate with competent Union bodies, offices, agencies and advisory groups, with competent authorities of third countries and with international organisations.

   To that end, BEREC, the RSPB and the ODN may, subject to prior approval by the Commission, establish working arrangements. Those arrangements shall not create legal obligations.

2. The BEREC Board of Regulators, the RSPB Board, the working groups and the Management Board shall be open to the participation of authorities of third countries with primary responsibility in the field of electronic communications or radio spectrum policy as relevant, where those third countries have entered into agreements with the Union to that effect.

   Under the relevant provisions of those agreements, working arrangements shall be developed specifying, in particular, the nature, extent and manner in which the authorities of the third countries concerned will participate without the right to vote in the work of BEREC, the RSPB and the ODN, including provisions relating to participation in the initiatives carried out by BEREC and the RSPB, financial contributions and staff to the ODN. As regards staff matters, those arrangements shall, in any event, comply with the Staff Regulations.

3. As part of the biennial work programme referred to in Article 141, the BEREC Board of Regulators and the RSPB Board shall adopt, respectively, BEREC's and RSPB's strategy for relations with competent Union bodies, offices, agencies and advisory groups, with competent authorities of third countries and with international organisations concerning matters for which BEREC and the RSPB, respectively, are competent. The Commission,

BEREC, the RSPB and the ODN shall conclude an appropriate working arrangement for the purpose of ensuring that BEREC, the RSPB and the ODN operate within their mandate and the existing institutional framework.

Article 167

Access to documents and data protection

1. Regulation (EC) No 1049/2001 of the European Parliament and of the Council[85] shall apply to documents held by BEREC, the RSPB and the ODN.
2. The ODN Management Board shall update, where necessary, the detailed rules adopted for applying Regulation (EC) No 1049/2001 to the documents held by BEREC, the RSPB and the ODN. The ODN shall be responsible of the processing of requests for access to those documents.
3. The processing of personal data by the ODN shall be subject to Regulation (EU) 2018/1725.

Article 168

Transparency and communication

1. BEREC and the RSPB, supported by the ODN, may engage in communication activities on their own initiative within their field of competence in accordance with relevant communication and dissemination plans adopted by the BEREC Board of Regulators and the RSPB Board. The allocation of resources for such support for communication activities within the ODN's budget shall not be detrimental to the effective exercise of the BEREC's tasks as referred to in Articles 122 to 126 and the RSPB's tasks as referred to Articles 132 and 133, or the ODN's tasks as referred to in Articles 146 and 147.
2. Communication activities of the ODN shall be carried out in accordance with relevant communication and dissemination plans adopted by the Management Board.

Article 169

Confidentiality

1. Without prejudice to Article 167(1) and Article 171(2), BEREC, the RSPB and the ODN shall not disclose to third parties information that they process or receive in relation to which a reasoned request for confidential treatment has been made in whole or in part.
2. Members and other participants at the meetings of the BEREC Board of Regulators, the RSPB Board, the Management Board and the working groups, the Director, seconded national experts and other staff not employed by the ODN shall comply with the confidentiality requirements.
3. The BEREC Board of Regulators, the RSPB Board, and the Management Board shall lay down the practical arrangements for implementing the confidentiality rules referred to in paragraphs 1 and 2.

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[85] Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145, 31.5.2001, p. 43, ELI: http://data.europa.eu/eli/reg/2001/1049/oj)..

Article 170

Security rules on the protection of classified and sensitive non-classified information

BEREC, the RSPB and the ODN shall adopt their own security rules equivalent to the Commission's security rules for protecting European Union Classified Information and sensitive non-classified information, inter alia, provisions for the exchange, processing and storage of such information as set out in Commission Decisions (EU, Euratom) 2015/443[86] and (EU, Euratom) 2015/444[87]. Alternatively, BEREC, the RSPB or the ODN may adopt a decision applying the Commission's rules mutatis mutandis.

Article 171

Exchange of information

1. Upon the reasoned request of BEREC, the RSPB or the ODN, the Commission and the national regulatory and other competent authorities shall provide BEREC, the RSPB or the ODN with all the necessary information, in a timely and accurate manner, to carry out their tasks, provided that they have access to the relevant information and that the request for information is necessary in relation to the nature of the task in question.

   BEREC, the RSPB or the ODN may also request such information to be provided at regular intervals and in specified formats. Such requests shall, where possible, be made using common reporting formats.

2. Upon request of the Commission, a Member State or a national regulatory or other competent authority, the BEREC, RSPB or the ODN shall provide, in a timely and accurate manner, any information that is necessary to enable the Commission, the Member State, the national regulatory or other competent authority, to carry out their tasks, pursuant to the principle of sincere cooperation. The Commission, a Member State, the national regulatory or other competent authority shall ensure confidentiality in accordance with Union and national law, including Regulation (EC) No 1049/2001, to information considered by BEREC, RSPB or the ODN as confidential. Business confidentiality shall not prevent the timely sharing of information.

3. Before requesting information in accordance with this Article and in order to avoid the duplication of reporting obligations, BEREC, the RSPB, or the ODN shall take account of any relevant existing information publicly available.

4. Where information is not made available by national regulatory or other competent authorities or the Member State, in a timely manner, BEREC, the RSPB, or the ODN may address a reasoned request either to other national regulatory and other competent authorities of the Member State concerned, or directly to the relevant undertakings providing electronic communications networks, services and associated facilities. BEREC, the RSPB or the ODN shall notify the national regulatory or other competent authorities that have failed to provide the information of requests in accordance with the first paragraph.

   Upon the request of BEREC, the RSPB or the ODN, the national regulatory and other competent authorities shall assist BEREC or the RSPB in collecting the information.

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86 Commission Decision (EU, Euratom) 2015/443 of 13 March 2015 on Security in the Commission (OJ L 72, 17.3.2015, p. 41, ELI: http://data.europa.eu/eli/dec/2015/443/oj-).

87 Commission Decision (EU, Euratom) 2015/444 of 13 March 2015 on the security rules for protecting EU classified information (OJ L 72, 17.3.2015, p. 53, ELI: http://data.europa.eu/eli/dec/2015/444/oj)-.

5. National regulatory and other competent authorities shall have the power to require other responsible national authorities or undertakings providing electronic communications networks and services, associated facilities, or associated services to submit all information necessary to carry out their tasks referred to in this Article.

   Other responsible national authorities or undertakings as referred to in the first subparagraph shall provide such information promptly upon request and in accordance with the timescales and level of detail required.

   Member States shall ensure that national regulatory and other competent authorities are empowered to enforce such information requests by imposing penalties that are appropriate, effective, proportionate and dissuasive.

Article 172

Information and communication system

1. The ODN shall establish and manage an information and communication system with at least the following functions:

   (a) a common platform for the exchange of information, providing BEREC, the RSPB, the Commission and national regulatory authorities and competent authorities responsible for radio spectrum with the necessary information for the consistent implementation of the Union regulatory framework for electronic communications;

   (b) a dedicated interface for requests for information and notification of those requests as referred to in Article 171, for access by BEREC, the RSPB, the ODN, the Commission and national regulatory authorities and competent authorities responsible for radio spectrum;

   (c) a platform for early identification of the need for coordination between national regulatory authorities and competent authorities responsible for radio spectrum.

2. The Management Board shall adopt the technical and functional specifications for the purpose of establishing the information and communication system referred to in paragraph 1. The Management Board shall ensure that the system complies with intellectual property rights laws and to the required confidentiality level.

Article 173

Declarations of interests

1. Members of the BEREC Board of Regulators, the RSPB Board, the ODN Management Board, the Director, seconded national experts and other staff not employed by the ODN shall each make a written declaration indicating their commitments and the absence or presence of any direct or indirect interests that might be considered to prejudice their independence.

2. Such declarations shall be made at the time of taking up responsibilities, shall be accurate and complete, and shall be updated where there is a risk of there being any direct or indirect interest that might be considered to prejudice the independence of the person making the declaration.

3. The declarations made by the members of the BEREC Board of Regulators, the RSPB Board, the members of the ODN Management Board and the Director shall be made public.

4. Members of the BEREC Board of Regulators, the RSPB Board, the ODN Management Board and the working groups, and other participants in their meetings, the Director, seconded national experts and other staff not employed by the ODN shall each accurately and completely declare, at the latest at the start of each meeting, any interest which might be considered to be prejudicial to their independence in relation to the items on the agenda, and shall abstain from participating in the discussion and the voting on such points.

5. The BEREC Board of Regulators, the RSPB Board and the ODN Management Board shall lay down the rules for the prevention and management of conflicts of interests and, in particular, for the practical arrangements for the application of paragraphs 1 and 2.

Article 174

Combating fraud

1. By [6 months after the date of entry into force of this Regulation], the ODN shall accede to the Interinstitutional Agreement of 25 May 1999 concerning internal investigations by the European Anti-fraud Office (OLAF)[88] and adopt appropriate provisions applicable to all staff of the ODN using the template set out in the Annex to that Agreement.

2. The Court of Auditors shall have the power of audit, on the basis of documents and on-the-spot inspections, over all grant beneficiaries, contractors and subcontractors who have received Union funds from the ODN.

3. OLAF may carry out investigations, including on-the-spot checks and inspections, in accordance with the provisions and procedures laid down in Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council[89] and Council Regulation (Euratom, EC) No 2185/96[90] with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union in connection with a grant agreement or grant decision or a contract funded by the ODN.

4. Without prejudice to paragraphs 1, 2 and 3, working agreements with third countries and international organisations, contracts, grant agreements and grant decisions shall contain provisions expressly empowering the Court of Auditors and OLAF to conduct such audits and investigations, in accordance with their respective competences.

   In accordance with Regulation (EU) 2017/1939, the European Public Prosecutor's Office (EPPO) may investigate and prosecute fraud and other illegal activities affecting the financial interests of the Union as provided for in Directive (EU) 2017/1371.

Article 175

Liability

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88 OJ L 136, 31.5.1999, p. 15, ELI: http://data.europa.eu/eli/agree_interinstit/1999/531/oj.

89 Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJ L 248, 18.9.2013, p. 1, ELI: http://data.europa.eu/eli/reg/2013/883/oj).

90 Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15.11.1996, p. 2, ELI: http://data.europa.eu/eli/reg/1996/2185/oj)2-.

1. The ODN's contractual liability shall be governed by the law applicable to the contract in question.
2. The Court of Justice of the European Union (Court of Justice) shall have jurisdiction to give judgment pursuant to any arbitration clause contained in a contract concluded by the ODN.
3. In the case of non-contractual liability, the ODN shall, in accordance with the general principles common to the laws of the Member States, make good any damage caused by its departments or by its staff in the performance of their duties.
4. The Court of Justice shall have jurisdiction in disputes over compensation for damages referred to in paragraph 3.
5. The personal liability of its staff towards the ODN shall be governed by the provisions laid down in the Staff Regulations or the Conditions of Employment of Other Servants applicable to them.

Article 176

Administrative inquiries

The activities of BEREC, the RSPB and of the ODN shall be subject to the inquiries of the European Ombudsman in accordance with Article 228 TFEU.

Article 177

Language arrangements

1. Regulation No 1[91] shall apply to the ODN.
2. Translation and all other linguistic services required by the ODN, other than interpretation, shall be provided by the Translation Centre for the Bodies of the European Union, as established by Council Regulation (EC) No 2965/94[92].

Article 178

Headquarters Agreement and operating conditions

1. The Headquarters Agreement between the Agency for Support for the Body of European Regulators for Electronic Communications and the Government of the Republic of Latvia of 21 December 2020 may be reviewed after obtaining the approval of the Management Board.
2. The host Member State shall provide the necessary conditions to ensure the smooth and efficient functioning of the ODN, including multilingual, European-oriented schooling and appropriate transport connections.

Article 179

Evaluation

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91 Regulation No 1 determining the languages to be used by the European Economic Community (OJ 17, 6.10.1958, p. 385, ELI: http://data.europa.eu/eli/reg/1958/1(1)/oj).

92 Council Regulation (EC) No 2965/94 of 28 November 1994 setting up a Translation Centre for bodies of the European Union (OJ L 314, 7.12.1994, p. 1, ELI: http://data.europa.eu/eli/reg/1994/2965/oj)..

1. By [60 months after the date of entry into force of this Regulation], and every five years thereafter, the Commission shall carry out an evaluation in compliance with the Commission guidelines to assess BEREC's, the RSPB's and the ODN's performance in relation to their objectives, mandate, tasks and location. The evaluation shall, in particular, address the possible need to modify the structure or mandate of BEREC, the RSPB and the ODN, and the financial implications of any such modification.
2. Where the Commission considers that the continuation of BEREC, the RSPB or the ODN is no longer justified with regard to its assigned objectives, mandate and tasks, it may propose that this Regulation be amended or repealed accordingly.
3. The Commission shall report to the European Parliament, the Council and the Management Board on the findings of its evaluation and shall make those findings public.

Article 180

Transitional provisions regarding BEREC, the RSPB's succession of the RSPG and the ODN's succession of the BEREC Office

1. The ODN shall succeed the BEREC Office that was established by Regulation (EU) 2018/1971 as regards all ownership, agreements, legal obligations, employment contracts, financial commitments and liabilities.
2. In particular, this Regulation shall not affect the rights and obligations of the staff of BEREC Office.
3. From [6 months after the date of entry into force of this Regulation], the Director appointed on the basis of Regulation (EU) 2018/1971 shall act as Director with the functions provided for in this Regulation. The other conditions of the Director's contract shall remain unchanged.
4. The Management Board may decide to renew the term of office of the Director referred to in paragraph 3 of this Article for a further term. Article 156(6) and (7) shall apply mutatis mutandis. The cumulative term of office of the Director shall not exceed 10 years.
5. The BEREC Board of Regulators and the Management Board referred to in Articles 127 and 150 of this Regulation shall be composed of the members of the BEREC Board of Regulators and the Management Board referred to in Articles 7 and 15 of Regulation (EU) 2018/1971, until new representatives are appointed, with the exception of the Chair of the RSPG referred to in paragraph 8 of this Article who shall become a member of the ODN Management Board from [6 months after the date of entry into force of this Regulation].
6. The Chairs and the Vice-Chairs of the BEREC Board of Regulators and of the ODN Management Board who have been appointed on the basis of Regulation (EU) 2018/1971, shall remain in office as Chair and Vice-Chairs of the BEREC Board of Regulators as referred to in Article 130 of this Regulation, and as Chairperson and Deputy Chairpersons of the Management Board as referred to in Article 152 of this Regulation for the remaining period of their one-year term.
7. The RSPB Board referred to in Article 134 of this Regulation shall be composed of the members of the RSPG referred to in Article 3 of Commission Decision of 11 June 2019, until new representatives are appointed.

8. The Chair and the Deputy Chairs of the RSPG, who are in office on [the date of application], shall remain in office as Chair and Vice-Chair of the RSPB Board until the end of their term of office.

9. Working arrangements developed under Article 35(2) of Regulation (EU) 2018/1971 shall remain valid for the BEREC and the ODN. RSPG members without voting rights shall become participants to the RSPB without voting rights provided that working arrangements are developed in accordance with Article 166(2), second subparagraph, of this Regulation.

8. PART VIII - GENERAL AND FINAL PROVISIONS

8.1. TITLE I: PROVISION OF INFORMATION, SURVEYS AND CONSULTATION MECHANISM

Article 181

Provision of information

1. Undertakings providing electronic communications networks and services, associated facilities, or associated services, shall provide all the information, including financial information, necessary for national regulatory authorities, other competent authorities, BEREC and the RSPB to carry out their tasks and ensure conformity with the provisions of, or decisions or opinions adopted in accordance with this Regulation. Where the information provided is insufficient to carry out their regulatory tasks under Union law, national regulatory authorities, other competent authorities and BEREC and the RSPB shall have the right to request such information from other relevant undertakings active in the electronic communications or closely related sectors, as well as from the single information points established pursuant to Regulation (EU) 2024/1309.

2. Any request for information shall be proportionate to the performance of the tasks set out by this Regulation and shall be reasoned. Where national regulatory authorities require undertakings to provide information as referred to in paragraph 1, they shall inform them of the specific purpose for which the information is to be used. Undertakings shall provide the information requested promptly and in any event within the set deadlines.

3. National regulatory authorities may require undertakings to provide information with regard to the general authorisation and the Union authorisation for use of spectrum by satellite communications, the rights of use or the specific obligations, which is proportionate and objectively justified in particular for the purposes of:

   (a) verifying, on a systematic or case-by-case basis, compliance with conditions or obligations laid down in Articles 9(4), 20, 21, 29, 38, 39, 49, 50, 51, 67, 68(1), 69 and 77;

   (b) verifying, on a case-by-case basis, compliance with conditions of the general authorisation or obligations and conditions for rights of use for radio spectrum or numbering resources where a complaint has been received or where the competent authority has other reasons to believe that a condition is not complied with or in the case of an investigation by the competent authority on its own initiative;

   (c) carrying out procedures for and the assessment of requests for granting rights of use;

(d) publishing comparative overviews of quality and price of services for the benefit of consumers;

(e) collating clearly defined statistics, reports or studies;

(f) carrying out market analyses for the purposes of this Regulation, including data on the downstream or retail markets associated with or related to the markets which are the subject of the market analysis and accounting data on the retail markets from the undertakings designated as having significant market power;

(g) safeguarding the efficient use and ensuring the effective management of radio spectrum and of numbering resources;

(h) evaluating future network or service developments that could have an impact on wholesale services made available to competitors, as well as information on electronic communications networks and associated facilities, which is disaggregated at local level and sufficiently detailed in terms of territorial coverage, on connectivity available to end-users or for conducting geographical surveys pursuant to Article 183;

(i) responding to reasoned requests for information by BEREC or the RSPB.

(j) The information referred to in the first subparagraph, points (a) and (b) and points (d) to (i), shall not be required prior to, or as a condition for, market access.

4. The national regulatory authority where networks and services are provided may request the competent authority designated pursuant to the Cybersecurity Act which is to replace Regulation (EU) 2019/881 , to verify the compliance with the ICT supply chain security requirements and share the findings when such verification is necessary for the purposes of assessing the compliance with general authorisation conditions pursuant to Article 9(4), point d) and Article 20.

5. As regards the rights of use for radio spectrum, the information referred to in paragraph 3 shall refer in particular to the effective and efficient use of radio spectrum as well as to compliance with any coverage and quality of service obligations attached to the rights of use for radio spectrum and their verification.

6. National regulatory or other competent authorities shall not duplicate requests of information already made by BEREC or the RSPB pursuant to paragraph 1 or paragraph 3 of this Article where BEREC or the RSPB has made the information received available to those authorities.

7. National regulatory authorities shall require providers to report on the general authorisation, rights of use and specific obligations no more than once per year.

Article 182

Harmonised information requests and reporting

1. For the purpose of harmonising information and reporting requests to undertakings under Article 181(1), (3) and (7), and in accordance with Articles 3(2), point (c) and Article 202, by [12 months after the date of entry into force of this Regulation], BEREC shall, in close cooperation with the Commission, issue guidelines concerning relevant topics, including on the scope, timing, frequency and format of the information and reporting requests and the information collection procedures. The guidelines shall also include templates for requests for information and reporting.

2. Where applicable, the RSPB shall develop templates for requests for information. Information shall be requested and submitted in accordance with the templates developed.

3. The Commission may, by means of an implementing act, harmonise the methodologies for collection of information by national regulatory authorities.

   The implementing act referred to in the first subparagraph shall be adopted in accordance with the procedure referred to in Article 199(4).

4. Where information on sustainability referred to in Article 3(1), point (g) is collected, national regulatory and other competent authorities shall first access the information provided by undertakings pursuant to other relevant Union legislation. If national regulatory and other competent authorities conclude that this information is insufficient for the completion of the tasks set out by this Regulation, BEREC may update the guidelines referred to in paragraph 1 of this Article by providing for the collection of the additional data needed.

5. National regulatory and other competent authorities shall provide the Commission, after a reasoned request, with the information necessary for it to carry out its tasks under the TFEU. The information requested by the Commission shall be proportionate to the performance of those tasks. Where the information provided refers to information previously provided by undertakings at the request of the authority, such undertakings shall be informed thereof. To the extent necessary, and unless the authority that provides the information has made an explicit and reasoned request to the contrary, the Commission shall make the information provided available to another such authority in another Member State.

6. Subject to the requirements of paragraph 7, the information submitted to one authority shall be made available to another such authority in the same or different Member State, to BEREC and the RSPB, after a substantiated request, where necessary to allow either authority, or BEREC or the RSPB, to fulfil its responsibilities under Union law.

7. Where information gathered pursuant to Article 181(1) and (3), including information gathered in the context of a geographical survey under Article 183, is considered to be confidential by a national regulatory or other competent authority in accordance with Union and national rules on confidentiality of information, the Commission, BEREC and any other competent authorities concerned shall protect such confidentiality. The Commission, BEREC and any other competent authorities concerned shall not be prevented from sharing information amongst them in a timely manner for the purposes of reviewing, monitoring and supervising the application of this Regulation.

8. Acting in accordance with national rules on public access to information and subject to Union and national rules on commercial confidentiality and protection of personal data, national regulatory authorities shall publish information that contributes to an open and competitive market.

9. National regulatory and other competent authorities shall publish the terms of public access to information as referred to in paragraph 7, including the procedures for obtaining such access.

Article 183

Geographical surveys of network deployments

1. National regulatory or other competent authorities shall conduct a geographical survey of the reach of electronic communications networks capable of delivering broadband services ('broadband networks') by [12 months after the date of entry into force of this Regulation] and shall update it at least every three years thereafter.

2. The geographical survey shall include a survey of the current geographical reach of availability (premises passed), readiness (premises connected) and take-up (premises activated, where service is live and functional) of each electronic communications network, where relevant, distinguishing between residential, business and public segments, within their territory, as required for the tasks of national regulatory or other competent authorities under this Regulation. The geographical survey shall also contribute to the application of State aid rules, if the relevant requirements are fulfilled.

3. The geographical survey shall include a forecast for a period determined by the relevant authority of the reach of broadband networks within its territory, including at least premises passed and, where relevant premises connected by gigabit networks. The geographical survey shall contribute to the mapping required for the application of State aid rules, if the relevant requirements are fulfilled.

4. The forecast referred to in paragraph 3 shall include all relevant information, including information on planned deployments by any undertaking or public authority, of at least gigabit networks. For this purpose, national regulatory or other competent authorities shall request undertakings and public authorities to provide such information to the extent that it is available and can be provided with reasonable effort.

5. The national regulatory authority shall decide, with respect to tasks specifically attributed to it under this Regulation, the extent to which it is appropriate to rely on all or part of the information gathered in the context of such forecast.

6. Where a geographical survey is not conducted by the national regulatory authority, it shall be done in cooperation with that authority to the extent it may be relevant for its tasks. The information collected in the geographical survey shall be at an appropriate level of local detail, reaching the address level where necessary, shall include sufficient information on the quality of service including at least download and upload speeds, the transmission medium (wireless or wireline) and the technology used, and shall be treated in accordance with Article 182(6).

7. National regulatory or other competent authorities may designate an area with clear territorial boundaries where, on the basis of the information gathered and any forecast prepared pursuant to paragraph 1, it is determined that, for the duration of the relevant forecast period, no undertaking or public authority has deployed or is planning to deploy a gigabit network or significantly upgrade their existing electronic communications network to a gigabit network. National regulatory or other competent authorities shall publish the designated areas.

8. Within a designated area, the relevant authorities may invite undertakings and public authorities to declare their intention to deploy gigabit networks over the duration of the relevant forecast period. Where this invitation results in a declaration by an undertaking or public authority of its intention to do so, the relevant authority may require other undertakings and public authorities to declare any intention to deploy gigabit networks. The relevant authority shall specify the information to be included in such submissions, in order to ensure at least a similar level of detail as that taken into consideration in any forecast pursuant to paragraph 1.

9. National regulatory and other competent authorities shall gather data in accordance with an efficient, automated where possible, objective, transparent and non-discriminatory procedure, whereby no undertaking is excluded a priori.

10. National regulatory and other competent authorities, and local, regional and national authorities with responsibility for the allocation of public funds for the deployment of electronic communications networks, for the design of national broadband plans, for defining coverage obligations attached to rights of use for radio spectrum and for verifying availability of services falling within the universal service obligations in their territory shall take into account the results of the geographical survey and of any designated areas pursuant to paragraphs 1, 2 and 3. For the purposes of allocating the public funds for the deployment of electronic communications networks, the results of the geographical surveys and any of the designated areas pursuant to paragraphs 1, 2 and 3 shall be taken into the account, insofar as they are relevant and appropriate for fulfilling obligations stemming from the application of State aid rules. The authorities conducting the geographical survey shall supply those results subject to the receiving authority ensuring the same level of confidentiality and protection of business secrets as the originating authority and inform the parties which provided the information. Those results shall also be made available to BEREC and the Commission upon their request and under the same conditions.

11. If the relevant information is not available on the market, competent authorities shall make data from the geographical surveys which are not subject to commercial confidentiality directly accessible in accordance with Directive (EU) 2019/1024 to allow for its reuse. They shall also, where such tools are not available on the market, make available information tools enabling end-users to determine the availability of connectivity in different areas, with a level of detail which is useful to support their choice of operator or service provider.

12. The national regulatory authority shall analyse the results of information gathered in the context of a geographical survey under this Article and decide whether there is a need to conduct a market review within the meaning of Articles 72 and 73. The national regulatory authority shall make publicly available the results of such analysis in a form of a report.

13. In the period of the transition to fibre, the report referred to in paragraph 12 of this Article shall include the analysis of the information concerning geographic surveys as well as the analysis of information, gathered pursuant to Article 181 or other available sources, regarding prices and quality of services available over copper and fibre prices. The report shall be used to assess the sustainability conditions set in Article 57. The first report shall be published no later than [*12 months after the date of entry into force of this Regulation*].

Article 184

Consultation and transparency mechanism

1. Except in cases falling within Articles 86, 188 or 189, where national regulatory or other competent authorities intend to take measures in accordance with this Regulation, or where they intend to provide for restrictions in accordance with Article 16(1) and (2), which have a significant impact on the relevant market, they shall give interested parties the opportunity to comment on the draft measure within a reasonable period, having regard to the complexity of the matter and in any event not shorter than 30 days.

2. For the purposes of Article 31 of this Regulation, the competent authorities shall inform the Commission, the RSPB, BEREC and the competent authorities of other Member States at the moment of publication about any draft measure which falls within the scope of the comparative or competitive selection procedure pursuant to Article 30(4) of this Regulation and relates to the use of harmonised radio spectrum in order to enable its use for wireless broadband networks and services.

3. National regulatory and other competent authorities shall publish their national consultation procedures via a single information point through which all current consultations can be accessed.

4. National regulatory and other competent authorities shall make the results of the consultation procedure publicly available, except in the case of confidential information in accordance with Union and national rules on commercial confidentiality.

Article 185

Consultation of interested parties

1. Competent authorities in coordination, where relevant, with national regulatory authorities shall take account of the views of end-users, in particular consumers and end-users with disabilities, manufacturers and undertakings that provide electronic communications networks or services on issues related to all end-user and consumer rights, including equivalent access and choice for end-users with disabilities, concerning publicly available electronic communications services, in particular where they have a significant impact on the market.

2. Competent authorities in coordination, where relevant, with national regulatory authorities shall establish a consultation mechanism, accessible for end-users with disabilities, ensuring that in their decisions on issues related to end-user and consumer rights concerning publicly available electronic communications services, due consideration is given to consumer interests in electronic communications.

3. Interested parties may develop, with the guidance of competent authorities in coordination, where relevant, with national regulatory authorities, mechanisms, involving consumers, user groups and service providers, to improve the general quality of service provision by, inter alia, developing and monitoring codes of conduct and operating standards.

4. Without prejudice to national rules in accordance with Union law promoting cultural and media policy objectives, such as cultural and linguistic diversity and media pluralism, competent authorities in coordination, where relevant, with national regulatory authorities may promote cooperation between undertakings providing electronic communications networks or services and sectors interested in the promotion of lawful content in electronic communications networks and services. That cooperation may also include coordination of the public-interest information to be provided pursuant to Article 105.

8.2. TITLE II: HARMONISATION PROCEDURES

Article 186

Harmonisation procedures

1. Where the Commission finds that divergences in the implementation by the national regulatory or other competent authorities of the regulatory tasks specified in this

Regulation could create a barrier to the internal market, the Commission may, taking account of the opinion of BEREC or, where relevant, the RSPB, adopt recommendations or, subject to paragraph 3 of this Article, decisions by means of implementing acts to ensure the harmonised application of this Regulation and in order to further the achievement of the general objectives set out in Article 3.

2. National regulatory and other competent authorities shall take account of the recommendations referred to in paragraph 1 in carrying out their tasks. Where a national regulatory or other competent authority chooses not to follow a recommendation, it shall inform the Commission, giving the reasons for its position.

3. The decisions adopted pursuant to paragraph 1 shall include only the identification of a harmonised or coordinated approach for the purpose of addressing the following matters:

   (a) the inconsistent implementation of general regulatory approaches by national regulatory authorities on the regulation of electronic communications markets in the application of Articles 72 and 73, where it creates a barrier to the internal market; such decisions shall not refer to specific notifications issued by the national regulatory authorities pursuant to Article 85; in such a case, the Commission shall propose a draft decision only:

      (i) after at least two years following the adoption of a Commission recommendation dealing with the same matter;

      (ii) taking account of an opinion from BEREC on the case for adoption of such a decision, which shall be provided by BEREC within three months of the Commission's request;

   (b) numbering, including number ranges, portability of numbers and identifiers, number and address translation systems, and access to emergency services through emergency communication.

4. The implementing acts referred to in paragraph 1 of this Article shall be adopted in accordance with the procedure referred to in Article 199(4).

5. BEREC may, on its own initiative, advise the Commission on whether a measure should be adopted pursuant to paragraph 1.

6. Where the Commission has not adopted a recommendation or a decision within one year from the date of adoption of an opinion by BEREC indicating the existence of divergences in the implementation by the national regulatory or other competent authorities of the regulatory tasks specified in this Regulation that could create a barrier to the internal market, it shall inform the European Parliament and the Council of its reasons for not doing so, and make those reasons public.

   Where the Commission has adopted a recommendation in accordance with paragraph 1 of this Article, but the inconsistent implementation creating barriers to the internal market persists for two years thereafter, the Commission shall, subject to paragraph 3 of this Article, adopt a decision to address the matters referred to in paragraph 3 of this Article by means of implementing acts in accordance with the procedure referred to in Article 199(4).

   Where the Commission has not adopted a decision within a further year from any recommendation adopted pursuant to the second paragraph 1, it shall inform the European Parliament and the Council of its reasons for not doing so, and make those reasons public.

Article 187

Standardisation

1. The Commission shall draw up and publish in the Official Journal of the European Union a list of non-compulsory standards or technical specifications to serve as a basis for encouraging the harmonised provision of electronic communications networks, electronic communications services and associated facilities and associated services. Where necessary, the Commission may, following consultation of the Committee established by Directive (EU) 2015/1535, pursuant to Article 10 of Regulation (EU) No 1025/2012[93] request one or more European standardisation organisations to draft standards.
2. Member States shall encourage the use of the standards or technical specifications referred to in paragraph 1 for the provision of services, technical interfaces or network functions, to the extent strictly necessary to ensure interoperability of services, end-to-end connectivity, facilitation of provider switching and portability of numbers and identifiers, and to improve freedom of choice for users.
3. In the absence of publication of standards or technical specifications in accordance with paragraph 1, Member States shall encourage the implementation of standards or technical specifications adopted by the European standardisation organisations. In the absence of such standards or specifications, Member States shall encourage the implementation of international standards or recommendations adopted by ITU, the European Conference of Postal and Telecommunications Administrations (CEPT), the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC).
4. Where international standards exist, Member States shall encourage the European standardisation organisations to use them, or the relevant parts of them, as a basis for the standards they develop, except where such international standards or relevant parts would be ineffective. Any standards or technical specifications referred to in paragraph 1 or in this paragraph shall not prevent access as may be required under this Regulation, where feasible.
5. Where the standards or specifications referred to in paragraph 1 have not been adequately implemented so that interoperability of services in one or more Member States cannot be ensured, the implementation of such standards or specifications may be made compulsory under the procedure laid down in paragraph 6, to the extent strictly necessary to ensure such interoperability and to improve freedom of choice for users.
6. Where the Commission intends to make the implementation of certain standards or technical specifications compulsory, it shall publish a notice in the Official Journal of the European Union and invite public comment by all parties concerned. The Commission shall, by means of implementing acts, make implementation of the relevant standards or

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93 Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12, ELI: http://data.europa.eu/eli/reg/2012/1025/oj).

technical specifications compulsory by making reference to them as compulsory standards or compulsory technical specifications in the list of standards or technical specifications published in the Official Journal of the European Union.

7. Where the Commission considers that the standards or technical specifications referred to in paragraph 1 no longer contribute to the provision of harmonised electronic communications services, no longer meet consumers' needs or hamper technological development, it shall remove them from the list of standards or technical specifications referred to in paragraph 1.

8. Where the Commission considers that the standards or specifications referred to in paragraph 6 no longer contribute to the provision of harmonised electronic communications services, no longer meet consumers' needs, or hamper technological development, it may, by means of implementing acts, remove those standards or specifications from the list of standards or specifications referred to in paragraph 1.

9. The implementing acts referred to in paragraphs 6 and 8 of this Article shall be adopted in accordance with the procedure referred to in Article 199(4).

10. This Article does not apply in respect of any of the essential requirements, interface specifications or harmonised standards to which Directive 2014/53/EU applies.

8.3. TITLE III: DISPUTE RESOLUTION

Article 188

Out-of-court dispute resolution

1. The national regulatory authority or another competent authority responsible for, or at least one independent body with proven expertise in, the application of Articles 95, 96, 97, 98 and 100 of this Regulation shall be listed as an alternative dispute resolution entity in accordance with Article 20(2) of Directive 2013/11/EU with a view to resolving disputes between providers and consumers, as well as, where applicable and within the mandate of the relevant body, microenterprises and small enterprises, arising under this Regulation and relating to the performance of contracts.

2. Without prejudice to Directive 2013/11/EU, where such disputes involve parties in different Member States, the competent bodies referred to in paragraph 1 shall coordinate their efforts with a view to bringing about a resolution of the dispute.

3. Providers of internet access services shall put in place transparent, simple and efficient procedures to address complaints of end-users relating to the rights and obligations laid down in Article 93 and complaints of consumers, microenterprises and not-for-profit organisations relating to the rights laid down in Section 5 of Annex III.

Article 189

Dispute resolution between undertakings

1. In the event of a dispute arising in connection with existing obligations under this Regulation between providers of public electronic communications networks or services in a Member State, or between such undertakings and other undertakings in the Member State benefiting from obligations of access or interconnection or between providers of electronic communications networks or services in a Member State and providers of associated facilities, the national regulatory authority concerned shall, at the request of either party, issue a binding decision to resolve the dispute in the shortest

possible time-frame on the basis of clear and efficient procedures, and in any case within four months except in exceptional circumstances. All parties shall cooperate fully with the national regulatory authority.

2. In resolving a dispute, the national regulatory authority shall take decisions aimed at achieving the general objectives set out in Article 3. Any obligations imposed on an undertaking by the national regulatory authority in resolving a dispute shall comply with this Regulation.

3. The decision of the national regulatory authority shall be made available to the public, having regard to the requirements of commercial confidentiality. The national regulatory authority shall provide the parties concerned with a full statement of the reasons on which the decision is based.

4. The procedure referred to in paragraphs 1, 2 and 3 shall not preclude either party from bringing an action before the courts.

Article 190

Resolution of cross-border disputes

1. In the event of a dispute arising under this Regulation between undertakings in different Member States, paragraphs 2, 3 and 4 of this Article shall apply. Those provisions shall not apply to disputes relating to radio spectrum coordination covered by Article 14.

2. Any party may refer the dispute to the national regulatory authority or authorities concerned. Where the dispute affects trade between Member States, the competent national regulatory authority or authorities shall notify the dispute to BEREC in order to bring about a consistent resolution of the dispute, in accordance with the objectives set out in Article 3.

3. Where such a notification has been made, BEREC shall issue an opinion inviting the national regulatory authority or authorities concerned to take specific action in order to resolve the dispute or to refrain from action, in the shortest possible time-frame, and in any case within four months except in exceptional circumstances.

4. The national regulatory authority or authorities concerned shall await BEREC's opinion before taking any action to resolve the dispute. In exceptional circumstances, where there is an urgent need to act, in order to safeguard competition or protect the interests of end-users, any of the competent national regulatory authorities may, either at the request of the parties or on its own initiative, adopt interim measures.

5. Any obligations imposed on an undertaking by the national regulatory authority as part of the resolution of the dispute shall comply with this Regulation, take account of the opinion adopted by BEREC, and be adopted within one month of such opinion.

6. The procedure referred to in paragraph 2 shall not preclude either party from bringing an action before the courts.

8.4. TITLE IV: ECOSYSTEM COOPERATION

Article 191

Guidance to facilitate ecosystem cooperation

1. By [*12 months after date of entry into force of this Regulation*], BEREC shall, after consulting stakeholders and in close cooperation with the Commission, publish

guidelines to assist providers of electronic communications networks and other undertakings active in the electronic communications or closely related sectors, in the application of industry practices and in facilitating cooperation on technical and commercial matters related to the provision of electronic communications services or information society services in an efficient, economically sustainable and reliable way, as well as related to the provision of innovative products and services, to the benefit of end-users. Such guidelines shall cover matters outside of the scope of obligations under this Regulation which have an effect on the provision of electronic communications services or information society services.

2. With the support of the ODN, BEREC shall promote effective cooperation among providers of electronic communications networks and undertakings active in the electronic communications or closely related sectors, ensuring that such cooperation is consistent with the guidelines referred to in paragraph 1. BEREC shall facilitate the coherent application of those guidelines, encourage the development of joint technical and commercial practices, and monitor their effects on the provision of electronic communications services and information society services in an efficient, economically sustainable and reliable way.

Article 192

Facility for voluntary conciliation

1. On request of providers of electronic communications networks or other undertakings active in the electronic communications or closely related sectors, national regulatory authorities shall offer a conciliatory meeting between two providers of electronic communications networks or between such a provider and another undertaking active in the electronic communications or closely related sectors on technical and commercial arrangements which are subject to the guidelines referred to in Article 191(1). The conciliatory meeting shall be convened by the national regulatory authority of the party lodging the request for conciliation unless agreed otherwise by the parties.

2. Within 1 week following the request for voluntary conciliation, the national regulatory authority shall inform BEREC of the elements of the case. Within two months following the request, BEREC shall issue an opinion on the elements of the case and options for effective cooperation in accordance with the guidelines referred to in Article 191.

3. In cooperation with BEREC, the national regulatory authority specified in paragraph 1 of this Article shall convene the meeting of the parties no later than three months after the submission of the request for the facility for voluntary conciliation. No later than one month after the meeting, taking account of the BEREC opinion, the national regulatory authority shall provide a written account of the meeting, including the following information:

   (a) views of the parties involved;

   (b) possible next steps;

   (c) elements of agreement, where applicable and if both parties were present in the meeting;

   (d) options proposed by the national regulatory authority for effective cooperation, if both parties were present in the meeting and no agreement was reached.

Article 193

Reporting on and review of the functioning of ecosystem cooperation

By [*24 months after the date of application of this Regulation and every two years thereafter*], BEREC shall publish a report on the effects of the application of the guidelines referred to in Article 191(1) on effective ecosystem cooperation as well as on the functioning of the facility for voluntary conciliation referred to in Article 192.

By [*36 months after the date of application of this Regulation*], taking account of BEREC report referred to in paragraph 1, the Commission shall review the functioning of the ecosystem cooperation.

8.5. TITLE V: COMPLIANCE AND RIGHT OF APPEAL

Article 194

Amendment of rights and obligations under general authorisation and individual authorisations for scarce resources

1. The rights, conditions and procedures concerning general authorisation and rights of use for radio spectrum or for numbering resources or rights to install facilities may be amended only in objectively justified cases and in a proportionate manner, taking into consideration, where appropriate, the specific conditions applicable to transferable rights of use for radio spectrum or for numbering resources.

2. Except where proposed amendments are minor and have been agreed with the holder of the rights or the general authorisation, the intention to make such amendments shall be notified sufficiently in advance. Holders of the rights or the general authorisation and other interested parties, including users and consumers, shall be given sufficient time to express their views on the proposed amendments. That period shall be no less than four weeks except in exceptional circumstances. National competent authorities shall publish the amendments, together with the reasons therefor.

Article 195

Restriction or withdrawal of rights

1. Without prejudice to Article 196(10) and (11), competent authorities shall not restrict or withdraw rights of use for radio spectrum or for numbering resources granted for a definite period of time, before the expiry of the period for which they were granted, except where justified pursuant to paragraph 2 of this Article, and, where applicable, in accordance with Article 20, 21 or 50, and to relevant national provisions regarding compensation for the withdrawal of rights.

2. Competent authorities may restrict or withdraw rights of use for radio spectrum, other than those granted for an indefinite period of time, where needed to ensure efficient and effective use of radio spectrum, or the implementation of the technical harmonisation measures adopted under Article 4 of Decision No 676/2002/EC. Any such decision shall be based on pre-established and clearly defined procedures under national law, in accordance with the principles of proportionality and non-discrimination. Where rights of use have been assigned for a specific duration, unless provided otherwise at the time of the granting of the right, the holders of the rights shall have the right to be compensated appropriately for the direct cost of migration or reallocation of radio spectrum in accordance with national law.

3. A modification in the use of radio spectrum as a result of the application of Article 16(1) or (2) shall not alone constitute grounds to justify the withdrawal of a right of use for radio spectrum.

4. Any intention to restrict or withdraw rights under the general authorisation or individual rights of use for radio spectrum or for numbering resources without the consent of the holder of the rights shall be subject to consultation of the interested parties in accordance with Article 185.

Article 196

Compliance with the conditions of the general authorisation and obligations and conditions for rights of use for radio spectrum, for numbering resources, specific obligations and measures for non-compliance

1. National regulatory and other competent authorities shall monitor and supervise compliance with the conditions of the general authorisation referred to in Article 9(4), with the obligations and conditions for rights of use for radio spectrum referred to in Articles 20, 21, 22, 24, 25, 26, 27, 29, 33 and 34, for numbering resources referred to in Articles 46, 49 and 50, and with the specific obligations referred to in Part V.

2. National regulatory and other competent authorities shall have the power to require undertakings subject to general authorisation or benefiting from rights of use for radio spectrum or for numbering resources to provide all information necessary to verify compliance with the conditions of the general authorisation or obligations and conditions for rights of use for radio spectrum and for numbering resources or with the specific obligations referred to in Part V, in accordance with Article 181.

3. Where a competent authority finds that an undertaking does not comply with one or more of the conditions of the general authorisation or obligations and conditions for rights of use for radio spectrum, for numbering resources or with the specific obligations referred to in Part V, it shall notify the undertaking of those findings and give the undertaking the opportunity to state its views, within a reasonable time limit.

4. The competent authority shall have the power to require the cessation of the breach referred to in paragraph 3 either immediately or within a reasonable time limit and shall take appropriate and proportionate measures aimed at ensuring compliance.

   In this regard, the competent authorities shall have the power to impose:

   (a) where appropriate, dissuasive financial penalties which may include periodic penalties with retroactive effect;

   (b) orders to cease or delay provision of a service or bundle of services which, if continued, would result in significant harm to competition, pending compliance with access obligations imposed following a market analysis carried out in accordance with Article 73.

   The competent authorities shall communicate the measures and the reasons on which they are based to the undertaking concerned without delay and shall stipulate a reasonable period for the undertaking to comply with the measures.

5. Member States shall lay down rules on penalties, including, where necessary, fines and non-criminal predetermined or periodic penalties, applicable to infringements of provisions of this Regulation or of any binding decision adopted by the Commission, the national regulatory or other competent authority pursuant to this Regulation, and shall

take all measures necessary to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive.

6. Notwithstanding paragraphs 3 and 4 of this Article, Member States shall empower the competent authority to impose, where appropriate, financial penalties on undertakings for failure to provide information, in accordance with the obligations imposed under Article 181(3), first subparagraph, points (a) or (b), and obligations of transparency, within a reasonable period set by the competent authority.

7. Member States shall provide for penalties in the context of the procedure referred to in Article 183(8) only where an undertaking or public authority knowingly or grossly negligently provided misleading, erroneous or incomplete information.

8. When determining the amount of fines or periodic penalties to be imposed on an undertaking or public authority for knowingly or grossly negligently providing misleading, erroneous or incomplete information in the context of the procedure referred to in Article 183(8), regard shall be had, inter alia, to whether the behaviour of the undertaking or public authority has had a negative impact on competition and, in particular, whether, contrary to the information originally provided or any update thereof, the undertaking or public authority either has deployed, extended or upgraded a network, or has not deployed a network and has failed to provide an objective justification for that change of plan.

9. In the case of a serious breach or repeated breaches of the conditions of the general authorisation, or of the obligations and conditions for the rights of use for radio spectrum and for numbering resources or of the specific obligations referred to in Part V, where measures aimed at ensuring compliance as referred to in paragraphs 3 and 4 of this Article have failed, Member States shall empower competent authorities to prevent an undertaking from continuing to provide electronic communications networks or services or suspend or withdraw those rights of use. Such penalties may be applied to cover the period of any breach, even if the breach has subsequently been rectified.

10. At the request of the competent authority designated pursuant to the Cybersecurity Act which is to replace Regulation (EU) 2019/881 of the European Parliament and of the Council after non-compliance remedial measures under the Cybersecurity Act have been exhausted, the national regulatory authority where networks and services are provided shall withdraw the right to provide networks and services under general authorisation or individual rights of use of radio spectrum pursuant to Article 9(4), point d) and Article 20 in cases where the provider is not complying with the ICT supply chain security requirements of the Cybersecurity Act.

11. Notwithstanding paragraphs 3, 4 and 9 of this Article, and without prejudice to Article 39 on a Union authorisation for the use of satellite radio spectrum, the competent authority may take urgent interim measures to remedy the situation in advance of reaching a final decision, where it has evidence of a breach of the conditions of the general authorisation, of the obligations and conditions for the rights of use for radio spectrum and for numbering resources, or of the specific obligations referred to in Part V which represents an immediate and serious threat to public safety, public security or public health or risks creating serious economic or operational problems for other providers or users of electronic communications networks or services or other users of the radio spectrum. The competent authority shall give the undertaking concerned the opportunity to state its views and propose any remedies. Where appropriate, the competent authority may confirm the interim measures, which shall be valid for a maximum of three months, but which may, in circumstances where enforcement

procedures have not been completed, be extended for a further period of up to three months.

Article 197

Right of appeal

1. Any user or undertaking providing electronic communications networks or services or associated facilities who is affected by a decision of a competent authority shall have the right of appeal against that decision to an appeal body that is independent of the parties involved and of any external intervention or political pressure liable to jeopardise its independent assessment of matters coming before it. This body, which may be a court, shall have the appropriate expertise to enable it to carry out its functions effectively.
2. Pending the outcome of the appeal, the decision of the competent authority shall stand, unless interim measures are granted in accordance with national law.
3. Where the appeal body referred to in paragraph 1 of this Article is not judicial in character, it shall always give written reasons for its decision. Furthermore, in such a case, its decision shall be subject to review by a court or a tribunal within the meaning of Article 267 TFEU.
4. Member States shall ensure that the appeal mechanism is effective.

8.6. TITLE VI: FINAL PROVISIONS

Article 198

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 22(3), Article 39(4), point (f), Article 82(1), Article 103(5), Article 106(8) and Article 114 shall be conferred on the Commission for a period of five years from [*the date of entry into force of this Regulation*]. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Article 22(3), Article 82(1), Article 103(5), Article 106(8) and Article 114 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Article 22(3), Article 82(1), Article 103(5), Article 106(8) and Article 114 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and to the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 199

Committee procedure

1. The Commission shall be assisted by the Communications Committee established by Directive (EU) 2018/1972. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. For the implementing acts referred to in Article 14(8), 17(3) and 45(3) of this Regulation the Commission shall be assisted by the Radio Spectrum Committee established by Article 3(1) of Decision No 676/2002/EC. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
3. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.
4. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Article 200

Exchange of information

1. The Commission shall provide all relevant information to the Communications Committee on the outcome of regular consultations with the representatives of network operators, service providers, users, consumers, manufacturers and trade unions, as well as third countries and international organisations.
2. The Communications Committee shall, taking account of the Union's electronic communications policy, foster the exchange of information between the Member States and between the Member States and the Commission on the situation and the development of regulatory activities regarding electronic communications networks and services.

Article 201

Publication of information

1. Member States shall ensure that up-to-date information regarding the implementation of this Regulation is made publicly available in a manner that guarantees all interested parties easy access to that information. They shall publish a notice in their national official gazette describing how and where the information is published. The first such notice shall be published before [*24 months* after *the date of entry into force of this Regulation*] and thereafter a notice shall be published where there is any change in the information contained therein.

2. Member States shall submit to the Commission a copy of all such notices at the time of publication. The Commission shall distribute the information to the Communications Committee as appropriate.

3. Member States shall ensure that all relevant information on rights, conditions, procedures, charges, fees and decisions concerning general authorisations, rights of use and rights to install facilities is published and kept up to date in an appropriate manner in order to provide easy access to that information for all interested parties.

4. Where information referred to in paragraph 3 is held at different levels of government, in particular information regarding procedures and conditions on rights to install facilities, the competent authority shall make all reasonable efforts, having regard to the costs involved, to create a user-friendly overview of all such information, including information on the relevant levels of government and the responsible authorities, in order to facilitate applications for rights to install facilities.

5. Member States shall ensure that the specific obligations imposed on undertakings under this Regulation are published and that the specific product and service, and geographical markets are identified. Subject to the need to protect commercial confidentiality, they shall ensure that up-to-date information is made publicly available in a manner that guarantees all interested parties easy access to that information.

6. Member States shall provide the Commission with information that they make publicly available pursuant to paragraph 5. The Commission shall make that information available in a readily accessible form and shall distribute the information to the Communications Committee as appropriate.

Article 202

Use of European Business Wallets

In the application of this Regulation, Member States, national regulatory and other competent authorities, as well as BEREC, the RSPB, the ODN and the Commission, shall enable and use the European Business Wallets as established by Regulation of the European Parliament and of the Council [XXX][94].

Article 203

Notification and monitoring

National regulatory authorities shall notify to the Commission the names of undertakings designated as having significant market power for the purposes of this Regulation, and the obligations imposed upon them under this Regulation. Any changes affecting the obligations imposed upon undertakings or of the undertakings affected under this Regulation shall be notified to the Commission without delay.

Article 204

Review procedures

[94] [Insert reference to the Regulation on the establishment of European Business Wallets, once COM proposal is adopted].

1. By [*60 months* after *the date of* entry into force *of this Regulation*] and every five years thereafter, the Commission shall review the functioning of this Regulation and report to the European Parliament and to the Council.
2. Those reviews shall evaluate in particular the market implications of Articles 69 and 83 and whether the *ex ante* and other intervention powers pursuant to this Regulation are sufficient to enable national regulatory authorities to ensure that competition in electronic communications markets continues to thrive to the benefit of end-users.
3. For the purposes of this Article the Commission may request information from the Member States, which shall be supplied without undue delay.
4. BEREC shall, by [*36 months* after *the date of* entry into force *of this Regulation*] and every three years thereafter, publish a report on the national implementation and functioning of the general authorisation, and on their impact on the functioning of the internal market.
5. The Commission may, taking account of the BEREC report submit a legislative proposal to amend those provisions where it considers this to be necessary for the purpose of addressing obstacles to the proper functioning of the internal market.

Article 205

Transitional provisions regarding contract summary template

Commission Implementing Regulation (EU) 2019/2243[95] shall continue to apply, *mutatis mutandis*, for the purposes of specifying a contract summary template to be used by the providers of internet access service or publicly available interpersonal communications services to fulfil their obligations under Article 95(2) of this Regulation, until the day of application of the implementing act referred to in that Article.

Article 206

Amendments to Regulation (EU) 2015/2120

Regulation (EU) 2015/2120 is amended as follows:

(a) the Title is replaced by the following:

'Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning retail charges for regulated intra-EU communications'

(b) in Article 1, paragraphs 1 and 2 are deleted;

(c) in Article 2, points (1) and (2) are deleted;

(d) Articles 3, 4, 5, and 9 are deleted;

(e) in Article 6, first subparagraph is deleted;

(f) Article 10 is amended as follows:

(a) in paragraph 2, points (a), (b), (c) and (d) are deleted;

[95] Commission Implementing Regulation (EU) 2019/2243 of 17 December 2019 establishing a template for the contract summary to be used by the providers of publicly available electronic communications services pursuant to Directive (EU) 2018/1972 of the European Parliament and of the Council (OJ L 336, 30.12.2019, p. 274, ELI: http://data.europa.eu/eli/reg_impl/2019/2243/oj).

(b) paragraphs 3 and 4 are deleted.

Article 207

Amendments to Directive 2002/58/EC

Articles 7, 8, 10, 11 and 12 of Directive 2002/58/EC are deleted.

References to Article 8 of Directive 2002/58/EC shall be read as references to Article 109 of this Regulation.

Article 208

Amendment to Decision No 676/2002/EC

In Article 4 of Decision No 676/2002/EC, the following paragraph is inserted:

'2a. For the development of technical implementing measures referred to in paragraph 1 that may affect the security or technological sovereignty of the Union or of its Member States, the Commission may require Member States to establish common positions in view to their participation in the activities of the CEPT.

The Commission shall act in accordance with the procedure referred to in Article 3(3).'

Article 209

Repeal

Regulation (EU) 2018/1971, Directive (EU) 2018/1972 and Decision No 243/2012/EU are repealed with effect from [6 months after the date of entry into force of this Regulation].

References to Regulation (EU) 2018/1971, Directive (EU) 2018/1972 and Decision No 243/2012/EU shall be construed as references to this Regulation.

Article 210

Entry into force and application

1. This Regulation shall enter into force on the [twentieth day] following that of its publication in the Official Journal of the European Union.
2. It shall apply from [6 months after the date of entry into force of this Regulation].
3. By way of derogation from paragraph 2:
   (a) Articles 38, 39 and 40 shall apply from [*12 months after the date of entry into force of this Regulation*].

   National competent authorities with assigned general authorisation competences under Directive (EU) 2018/1972 shall continue to exercise their functions at the latest until [6 months after the date of entry into force of this Regulation].

   Undertakings authorised to provide satellite communications pursuant to Directive (EU) 2018/1972 shall continue to hold the rights and be subject to the respective conditions and obligations until [36 months after the date of entry into force of this Regulation];

(b) Article 115(1), point (a), shall apply from [*12 months after the date of entry into force of this Regulation*].

Competent authorities other than national regulatory authorities with assigned general authorisation competences under Directive (EU) 2018/1972 may continue to exercise their functions at the latest until [12 months after the date of entry into force of this Regulation].

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament	*For the Council*
The President	*The President*

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1. FRAMEWORK OF THE PROPOSAL/INITIATIVE

1.1. Title of the proposal/initiative

Proposal for a Regulation of the European Parliament and of the Council on a Digital Networks Act (DNA)

1.2. Policy area(s) concerned

The proposal concerns policy areas linked to the development of electronic communications networks and services, with a focus on ensuring a smooth and timely transition toward high-quality, resilient and future-oriented digital networks. It aims to set the regulatory conditions for a Single Market in connectivity incentivising investment in fixed, mobile and satellite networks (including fibre, high quality 5G, future 6G and advanced mobile satellite communication systems), and supporting the connectivity requirements arising from emerging technologies such as AI, Internet of Things (IoT), quantum communication and advanced cloud services. By modernising the current framework, the initiative aims to facilitate efficient investment, promote sustainable competition and reduce technological dependencies, thereby supporting the European Union's long-term competitiveness and resilience.

The proposal seeks to remove persisting barriers to the cross-border provision of electronic communications services and to improve regulatory coherence and predictability across Member States. To this end, it envisages adjustments to regulatory competences and governance structures, including enhanced harmonisation of spectrum authorisation conditions and more consistent application of EU rules. These measures are intended to strengthen the functioning of the Single Market, facilitate economies of scale for providers, and ensure that consumers and businesses across the Union can benefit from high-quality connectivity services.

Furthermore, the initiative contributes to Union policies concerning security, resilience and preparedness. Electronic communications networks, including satellite-based systems, constitute critical infrastructure essential for the functioning of the economy, public services and society at large. The proposal therefore includes measures to support the development and integration of advanced non-terrestrial networks, address interference challenges and enhance the reliability and security of connectivity across all regions. By strengthening Europe's digital resilience, ensuring robust communication capabilities and supporting strategic autonomy in key technological domains, the initiative responds to the priorities outlined in recent high-level reports and contributes to the Union's broader preparedness and security objectives.

1.3. Objective(s)

1.3.1. General objective(s)

The initiative's general objective is to prepare the EU for the **transition to high-quality, reliable and resilient future digital networks**, in line with the competitiveness, Single Market and preparedness priorities identified in the Draghi, Letta and Niinistö reports. Ensuring advanced connectivity for all regions, including rural and remote areas, is essential for maintaining Europe's economic strength, social standards and technological leadership.

To achieve this, the proposal aims to put in place rules that make it easier to invest in and develop modern digital networks. This means supporting the move from old

copper lines to fibre, speeding up the roll-out of high-quality 5G and future 6G networks, and enabling the growth of other wireless and cloud-based infrastructure. These advanced networks are essential for technologies that depend on fast, real-time data and AI, such as connected devices, autonomous cars, smart energy systems and automated industry. Strengthening these foundations will help EU stay competitive in the global economy.

The objective also involves deepening the Single Market for connectivity by improving regulatory coherence, predictability and cross-border service provision. Finally, echoing the Niinistö report, the proposal emphasises the role of electronic communications, including satellite-based systems, in enhancing the EU's security, resilience and preparedness.

1.3.2. Specific objective(s)

Specific objective No 1

Swift Roll-Out and Take-Up of Fibre

This objective focuses on accelerating the deployment of fibre networks and promoting the adoption of fibre-based services across the EU. It aims to provide high-speed, high-quality connectivity for society and the economy while supporting sustainable competition and efficient investment. The initiative also seeks to facilitate cross-border service provision and streamline the regulatory framework to make the market more efficient for all stakeholders.

Specific objective No 2

Close the Gap in Mobile Network Quality

This objective targets the improvement of mobile network performance to match global leaders. It emphasises investment in high-quality 5G networks, network densification, and future 6G deployment to enhance download and upload speeds, reduce latency, and deliver better overall connectivity for consumers and businesses. Achieving this will unlock the full innovation potential of mobile networks across multiple sectors throughout the Single Market.

Specific objective No 3

Expand Pan-European Network Operation and Service Provision

This objective aims to ease network operation and service provision across the Single Market and the deployment of advanced infrastructures, including LEO satellite constellations, alongside terrestrial networks. It seeks to remove regulatory barriers, promote integration of satellite and terrestrial technologies, and support transformative technologies such as cloud-based networks using and enabling AI, while reinforcing Europe's industrial capacity and strategic autonomy in the space and digital sectors.

This is closely related to objective 4 of deepening the Single Market for connectivity through, among others, an enhanced governance system.

1.3.3. Expected result(s) and impact

Specify the effects which the proposal/initiative should have on the beneficiaries/groups targeted.

1. Transition to Fibre

Proposed measures on fibre deployment focus on accelerating the roll-out and adoption of FTTH networks while refining access regulation. It maintains effective elements of the existing framework but emphasises market-based, less intrusive regulatory measures where appropriate. The expected effects of proposed measures include increased fibre coverage (up to 98% by 2035) and take-up rates (up to 78%), higher internet speeds, positive GDP impacts, and reduced CO_2 emissions. Beneficiaries include consumers and businesses who gain access to faster, more reliable connectivity, while network operators benefit from clearer rules and predictable investment conditions.

2. Spectrum Management

For spectrum, the proposed measures balance necessary harmonisation with flexibility for Member States, ensuring soft harmonisation initially and stronger measures only if disparities persist. This approach provides legal certainty, reduces investment risks, and supports large-scale and cross-border spectrum deployment for 5G and future 6G networks. Targeted groups include mobile operators, investors, and end-users who will benefit from faster network roll-out, enhanced coverage, and innovative services, while also enabling cost-effective connectivity in areas where fibre is not viable, including through Fixed Wireless Access or satellite solutions.

3. Authorisation

The Proposal introduces a single authorisation for terrestrial networks and EU-level authorisation for satellite spectrum, reducing administrative and compliance burdens. This ensures regulatory consistency, transparency, and predictability, particularly benefiting SMEs and new market entrants by lowering barriers to entry and enabling faster deployment of services. Satellite operators benefit from harmonised procedures, reduced regulatory fragmentation, and strategic spectrum use, supporting pan-European or global connectivity projects and enhancing resilience, security, and continuity of service for end-users.

4. Governance

The proposed governance system ensures continuity while strengthening EU-level coordination. It builds on the existing setup of BEREC and the BEREC Office, upgrading the RSPG from a Commission expert group to a body, similar to BEREC, supported by a secretariat provided by the Office for Digital Networks (ODN) which will replace the BEREC Office. This enhances the effectiveness of spectrum management and improves coherence between BEREC and the RSPG. Decision-making powers remain with the Commission, maintaining a strong Single Market dimension, while the Office for Digital Networks (built on the enhanced BEREC Office) provides administrative and support services to both bodies. This approach ensures the desired benefits, including improved coordination, monitoring, and advisory support, at moderate costs, and complements the other measures for fibre, spectrum, and authorisation.

1.3.4. Indicators of performance

Specify the indicators for monitoring progress and achievements.

1. Swift roll-out and take-up of fibre

Progress on the deployment and adoption of fibre networks will be monitored using indicators that measure both coverage and usage. Key metrics include the number of FTTH homes passed and the percentage of households reached, the number of FTTH

homes connected, and the take-up rate of FTTH services. These indicators will allow assessment of how quickly fibre networks are being rolled out and adopted across the EU, and whether the initiative is successfully enabling high-speed, high-quality digital connectivity for consumers and businesses.

2. Close the gap in mobile network quality

To track improvements in mobile network quality, the initiative will use a combination of coverage, spectrum, and service-quality indicators. These include 5G Standalone coverage and availability, mid-band 5G population coverage, and spectrum readiness measured in MHz per population in 5G and future 6G pioneer bands. Additional indicators cover quality of service and user experience, the time to obtain spectrum authorisation, the number of licences with sharing conditions, and the amount of spectrum used by multiple users or categories. Together, these metrics will show whether the EU is catching up with global leaders in mobile connectivity and enabling innovative applications.

3. Increase pan-European network operation and service provision

The effectiveness of efforts to expand pan-European networks and services will be evaluated through indicators related to provider authorisations and satellite operations. These include the number of providers using the cross-border general authorisation regime, the number of new EU satellite authorisation licensees, and the number of operators selected through centralised procedures for harmonised satellite bands. Additional metrics include the time required to complete satellite authorisation processes and the number of interference issues that are timely and effectively addressed, reflecting the reliability and integration of pan-European digital infrastructure.

4. Deepen the Single Market for connectivity

The achievement of Single Market objectives will be monitored using indicators that track regulatory outputs and harmonisation efforts. This includes the number of high-quality outputs directly linked to Single Market goals, measured by the percentage of planned outputs delivered on schedule, as well as their quality (impact, uptake, regulatory relevance) and quantity (volume of outputs such as BEREC guidelines or opinions). Progress will be tracked by the Office for Digital Networks, providing continuous evaluation of how effectively governance structures and regulatory competences support a fully integrated EU digital communications market.

1.4. The proposal/initiative relates to:

☐ a new action

☐ a new action following a pilot project / preparatory action[96]

☐ the extension of an existing action

☒ a merger or redirection of one or more actions towards another/a new action

[96] As referred to in Article 58(2), point (a) or (b), of the Financial Regulation.

1.5. Grounds for the proposal/initiative

1.5.1. Requirement(s) to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative

The entry into force of the DNA regulation is expected within 20 days from the publication in the Official Journal. The entry into application should be within six months with notable exceptions for rules that require additional transitional period. These concern for example in particular BEREC guidelines and Commission implementing/delegated acts envisaged in the DNA, allowing BEREC, RSPB, and the Commission, supported by the Office for Digital Networks sufficient time for their preparation and adoption.

1.5.2. Added value of EU involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this section 'added value of EU involvement' is the value resulting from EU action, that is additional to the value that would have been otherwise created by Member States alone.

Reasons for action at EU level (*ex ante*)

Strengthening European competitiveness requires fast, secure, and resilient digital infrastructure. The digital connectivity landscape is rapidly evolving, driven by the integration of telecom, satellite, cloud, and edge technologies, as well as virtualisation and AI. In this context, fragmented national approaches risk creating inconsistent regulatory frameworks and burdersome administrative practices, which could hinder investment, innovation, and the proper functioning of the single market. Experience with the EECC resulted in slow implementation and overregulation due to divergent transposition of EU directives by Member States. Given the cross-border nature of the challenges, EU-level action is necessary to ensure a harmonised legal environment, facilitate coordinated planning, and address sectoral challenges efficiently and effectively.

Expected generated EU added value (*ex post*)

EU involvement is expected to deliver clear added value beyond what Member States could achieve individually. By acting at EU level, the initiative can:

Ensure legal certainty and harmonisation across the Union, avoiding fragmented national rules that could limit opportunities within the single market.

Accelerate deployment of digital infrastructure through coordinated implementation and the reduction of administrative barriers.

Achieve greater overall effectiveness and efficiency by addressing challenges at the scale of the EU rather than piecemeal at national level.

Create complementarities between national initiatives, reducing costs and maximising the benefits of investment across Member States.

Overall, EU-level action is expected to produce faster, more coherent, and more cost-efficient outcomes, generating benefits that would not be attainable if Member States acted independently.

1.5.3. Lessons learned from similar experiences in the past

The proposal of the respective regulation is informed by the practical experience in the implementation of the rules for the electronic communications sector, as detailed

in the accompanying Staff Working Document (Annex 11 - Evaluation of European Electronic Communications Code (EECC), BEREC Regulation, Radio Spectrum Policy Program (RSPP), Open Internet Regulation (OIR), and certain aspects of the ePrivacy Directive. The evaluation report of the current legal framework identifies a series of specific shortcomings in the areas of existence of legacy cooper networks and access regulation, spectrum policy, general authorisation regime, end-users provisions, universal service obligations and governance. The proposal builds also on extensive stakeholder consultation according to the stakeholder consultation strategy as summarised in Annex 2 to the Staff Working Document.

1.5.4. Compatibility with the multiannual financial framework and possible synergies with other appropriate instruments

The proposal is compatible with the multiannual financial framework since the updated rules ensure the continuation of the regulatory framework for the electronic communications market.

Small additional expenditure is foreseen to ensure implementation of the new elements of the regulation by the Commission and additional revenues from the external sources are foreseen to support the proper functioning of modernised decentralised agency (the ODN).

At the same time, this Regulation builds on certain foundational elements of the European Electronic Communications Code Directive (EECC) such as regulatory and governance model adjusted for the needs of the dynamically changing connectivity domain, taking into account a gradual approach to regulation in this area.

The proposal would build upon, and ensure coordination with, the structures and mechanisms developed in the context of other legislations on resilience and cybersecurity, such as, Directive 2022/2555 (NIS2 Directive) and Directive 2022/2557 (CER Directive).

The proposal is also compatible with currently negotiated proposal for a regulation on the safety, resilience and sustainability of space activities in the Union (SEC(2025) 335 final (Space Act) and Digital Omnibus proposal (proposal amending Regulations (EU) 2016/679, (EU) 2018/1724, (EU) 2018/1725, (EU) 2023/2854 and Directives 2002/58/EC, (EU) 2022/2555 and (EU) 2022/2557 as regards the simplification of the digital legislative framework, and repealing Regulations (EU) 2018/1807, (EU) 2019/1150, (EU) 2022/868, and Directive (EU) 2019/1024.

1.5.5. Assessment of the different available financing options, including scope for redeployment

The management of the action areas assigned to the ODN fits its existing mandate and general tasks of the BEREC Office. However, the new areas of work–such as those linked to spectrum issues and RSPB, authorisation processes, internal market aspects, and resilience–will require specialised profiles or new assignments that cannot be absorbed by the current staffing levels or addressed solely through internal reallocation.

Similarly, the management of the action areas assigned to the Commission remains aligned with its mandate, but the growing scope of spectrum-related measures will require additional expertise. The increasing technical and operational complexity of satellite-related selection and authorisation procedures, including oversight and

coordinated enforcement of ITU principles, demands specialists with advanced knowledge of spectrum management, monitoring technologies, satellites and international coordination mechanisms. New responsibilities in scrutinising national measures, analysing petition requests, assessing compliance frameworks, and contributing to future regulatory instruments also require reinforced economic, technical and regulatory capacities. Moreover, emerging technological developments and dynamic spectrum-use scenarios call for experts skilled in designing and supervising innovative data-driven tools and methodologies. In addition, expertise in authorisation schemes and related procedures and rules including in national security will be required. As regards resilience and preparedness, skills will be needed as regards network mapping, assessment of network capabilities and crisis management. Overall, the scale, sensitivity, and cross-border nature of these new tasks necessitate the recruitment of dedicated experts to ensure effective implementation and coherence across the Union.

For certain horizontal tasks–such as administrative support, legal advice, and contract management–the Agency can draw on existing resources, generating efficiencies. Synergies will also be developed with internal technical structures, such as those supporting information exchange with the security monitoring centres of the Member States.

1.6. Duration of the proposal/initiative and of its financial impact

☐ **limited duration**

☐ in effect from [DD/MM]YYYY to [DD/MM]YYYY

☐ financial impact from YYYY to YYYY for commitment appropriations and from YYYY to YYYY for payment appropriations.

☒ **unlimited duration**

Implementation with a start-up period from 2028 to 2030,

followed by full-scale operation.

1.7. Method(s) of budget implementation planned[97]

☒ **Direct management** by the Commission

☒ by its departments, including by its staff in the Union delegations;

☐by the executive agencies

☐ **Shared management** with the Member States

☒ **Indirect management** by entrusting budget implementation tasks to:

☐ third countries or the bodies they have designated

☐ international organisations and their agencies (to be specified)

☐ the European Investment Bank and the European Investment Fund

☒ bodies referred to in Articles 70 and 71 of the Financial Regulation

☐ public law bodies

☐ bodies governed by private law with a public service mission to the extent that they are provided with adequate financial guarantees

☐ bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that are provided with adequate financial guarantees

☐ bodies or persons entrusted with the implementation of specific actions in the common foreign and security policy pursuant to Title V of the Treaty on European Union, and identified in the relevant basic act

☐bodies established in a Member State, governed by the private law of a Member State or Union law and eligible to be entrusted, in accordance with sector-specific rules, with the implementation of Union funds or budgetary guarantees, to the extent that such bodies are controlled by public law bodies or by bodies governed by private law with a public service mission, and are provided with adequate financial guarantees in the form of joint and several liability by the controlling bodies or equivalent financial guarantees and which may be, for each action, limited to the maximum amount of the Union support.

Comments

[97] Details of budget implementation methods and references to the Financial Regulation may be found on the BUDGpedia site: https://myintracomm.ec.europa.eu/corp/budget/financial-rules/budget-implementation/Pages/implementation-methods.aspx.

For the Commission direct management is foreseen and in case of new Office for Digital Networks the budget implementation method is indirect managament according to the Articles 70 of the Financial Regulation.

2. MANAGEMENT MEASURES

2.1. Monitoring and reporting rules

The Regulation will be reviewed and evaluated five years from its entry into force. The Commission will report on the findings of the evaluation to the European Parliament and the Council.

Furthermore, BEREC should support the monitoring of national implementation and contribute to the consistency of the internal market. BEREC shall publish every three years a report on the national implementation and functioning of the general authorisation, and on their impact on the functioning of the internal market.

To support consistent implementation and effective monitoring of the Regulation, Member States should ensure that the relevant information on the designation of undertakings and the obligations imposed on them is available to the Commission in a timely manner.

2.2. Management and control system(s)

2.2.1. Justification of the budget implementation method(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed

The Regulation establishes a new policy framework for harmonised rules governing the provision of electronic communications networks and services in the internal market, while supporting the Union's policy objectives of consumer welfare, industrial competitiveness, security and resilience, and sustainability. The DNA Regulation aims to simplify and improve coordination of the regulatory framework, enabling providers to operate and innovate more effectively in the Single Market. These objectives necessitate reinforced EU-level coordination and operational capacity, which in turn require targeted and proportionate budgetary resources.

The Regulation introduces proportionate changes to the governance model, establishing a governance system for both market regulation (BEREC) and spectrum management (RSPB) that is adapted to new EU-level tasks with a clear Single Market dimension, while ensuring that decision-making remains at the most efficient level. The chosen governance model builds on existing structures and mandates, thereby limiting the need for new entities and allowing the budget to be implemented through established administrative and financial arrangements, ensuring cost-effectiveness and predictability of expenditure.

The new rules require a strengthened consistency mechanism for the cross-border application of obligations under this Regulation. This necessitates an enhanced BEREC Office providing administrative, technical and analytical support to national regulatory authorities and EU institutions, with the objective of ensuring uniform application of Union law and alignment with EU-level policy objectives. The BEREC Office (which will be replaced by the Office for Digital Networks) is best placed to perform these tasks due to its existing expertise, governance structure and operational capacity. Consequently, the budget will be implemented under direct magagement for the Commission and indirect management for the decentralised agency (Office for Digital Networks) as referred to in Articles 70 and 71 of the Financial Regulation, primarily through staff expenditure and operating appropriations for the BEREC Office/OND and the Commission. Funding will cover

personnel costs, coordination activities, analytical support, IT tools and meetings, using annual appropriations in line with the multiannual programming.

In order to carry out these new tasks, additional human resources are required. The implementation and enforcement of the Regulation is estimated to require 25 additional full-time equivalents (FTEs) for the ODN and 5 additional FTEs for the Commission, notably for cross-border tasks related to spectrum management, the general authorisation scheme, satellite authorisation and numbering. The proposed staffing levels are directly linked to the volume and complexity of the new responsibilities and reflect the most cost-efficient option, avoiding duplication at national level and reducing administrative burden for market participants.

Payments will follow standard EU budgetary procedures, including commitments and payments made on an annual basis, in accordance with the Financial Regulation and within the ceilings of the applicable Multiannual Financial Framework supported by the annual contributions from the fees covering the costs from the additional tasks including long term costs. Expenditure will be subject to the Commission's internal control framework, including *ex ante* checks, *ex post* audits, performance monitoring and reporting. This control strategy ensures sound financial management, legality and regularity of expenditure, and effective use of Union funds, while enabling timely implementation of the Regulation.

2.2.2. Information concerning the risks identified and the internal control system(s) set up to mitigate them

In order to ensure that the members of BEREC and the RSPB have the possibility to make informed analyses on the basis of factual evidence, it is foreseen that they should be supported by the Office for Digital Networks (ODN), replacing the BEREC Office, and that additional expertise should be provided by ODN staff where required.

The DNA provisions on the governance provide a comprehensive organisational, financial and accountability framework for the ODN as a Union body supporting both BEREC and the RSPB. The DNA sets out the ODN's tasks, governance structure, programming, budgetary and staffing rules, and ensures transparency, sound financial management and effective oversight, including anti-fraud, audit and evaluation mechanisms.

2.2.3. Estimation and justification of the cost-effectiveness of the controls (ratio between the control costs and the value of the related funds managed), and assessment of the expected levels of risk of error (at payment & at closure)

For the meeting expenditure regarding two Committees: the Communications Committee (COCOM) and the Radio Spectrum Committee (RSC), given the low value per transaction (e.g. refunding travel costs for a delegate for a meeting, catering costs), standard control procedures seem sufficient.

The costs of RSPB which will substitute current RSPG (and its sub-groups) will be taken over by the ODN, which will provide administrative support to the RPSB. Regarding the operative and operational costs of the ODN an internal control system is in place according to organisational, financial and accountability framework of DNA (Part VII Governance.).

2.3. Measures to prevent fraud and irregularities

The existing fraud prevention measuers applicable to the Commission will cover the additional appropriations necessary for this Regulation.

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

Existing budget lines

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff[98].	from EFTA countries [99]	from candidate countries and potential candidates [100]	From other third countries	other assigned revenue
	BEREC/Office ODN	Diff./Non-diff.	YES	NO	NO	NO
	Fee revenue (not decided if COM or ODN will collect the fee) [XX.YY.YY.YY]	Diff./Non-diff.	YES	NO	NO	NO
	[XX.YY.YY.YY]	Diff./Non-diff.	YES	NO	NO	NO

98 Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.

99 EFTA: European Free Trade Association.

100 Candidate countries and, where applicable, potential candidates from the Western Balkans.

3.2. Estimated financial impact of the proposal on appropriations

3.2.1. Summary of estimated impact on operational appropriations

☐ The proposal/initiative does not require the use of operational appropriations

☒ The proposal/initiative requires the use of operational appropriations, as explained below

3.2.1.1. Appropriations from voted budget

EUR million (to three decimal places)

Heading of multiannual financial framework		

DG: CNECT			Year	Year	Year	Year	Year	Year	Year	**TOTAL MFF 2028-2034**
			2028	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	
Operational appropriations[101] < eCOMM>										
Budget line	Commitments	(1a)	0.600	0.600	0.600	0.600	0.600	0.600	0.600	**4.200**
	Payments	(2a)		0.600	0.600	0.600	0.600	0.600	0.600	**3.600**
Budget line	Commitments	(1b)								**0**
	Payments	(2b)								**0**
Appropriations of an administrative nature financed from the envelope of specific programmes[102]										
Budget line		(3)								
TOTAL appropriations	Commitments	=1a+1b+3	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**4.200**

101 eComm.

102 Technical and/or administrative assistance and expenditure in support of the implementation of EU programmes and/or actions (former 'BA' lines), indirect research, direct research.

for DG CNECT	Payments	=2a+2b+3		**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**3.600**

EUR million (to three decimal places)

[Agency]: <BEREC Office / Office for Digital Networks>	Year **2028**	Year **2029**	Year **2030**	Year **2031**	Year **2032**	Year **2033**	Year **2034**	**TOTAL MFF 2028-2034**
Budget line: / EU Budget contribution to the agency BEREC/Office ODN								

. <……>..Mandatory table

			Year **2028**	Year **2029**	Year **2030**	Year **2031**	Year **2032**	Year **2033**	Year **2034**	**TOTAL MFF 2028-2034**
TOTAL operational appropriations (including contribution to decentralised agency)	Commitments	(4)								
	Payments	(5)	0	0.600	0.600	0.600	0.600	0.600	0.600	**3.600**
TOTAL appropriations of an administrative nature financed from the envelope for specific programmes		(6)		0	0	0	0	0	0	0
TOTAL appropriations under HEADING <7> of the multiannual financial framework	Commitments	=4+6								
	Payments	=5+6	**0**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**3.600**

Heading of multiannual financial framework	4	'Administrative expenditure'[103]

DG: <CNECT >		Year 2028	Year 2029	Year 2030	Year 2031	Year 2032	Year 2033	Year 2034	TOTAL MFF 2028-2034
• Human resources		7.293	7.592	7.786	7.786	7.786	7.786	7.786	**53.815**
• Other administrative expenditure		0.429	0.429	0.429	0.429	0.429	0.429	0.429	**3.003**
TOTAL DG <CNECT>	Appropriations	**7.722**	**8.021**	**8.215**	**8.215**	**8.215**	**8.215**	**8.215**	**56.818**

TOTAL appropriations under HEADING 4 of the multiannual financial framework	(Total commitments = Total payments)	**7.722**	**8.021**	**8.215**	**8.215**	**8.215**	**8.215**	**8.215**	**56.818**

EUR million (to three decimal places)

		Year 2028	Year 2029	Year 2030	Year 2031	Year 2032	Year 2033	Year 2034	TOTAL MFF 2028-2034
TOTAL appropriations under HEADINGS 1 to 4	Commitments	**8.322**	**8.621**	**8.815**	**8.815**	**8.815**	**8.815**	**8.815**	**61.018**
of the multiannual financial framework	Payments	**0.000**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**0.600**	**3.600**

[103] The necessary appropriations should be determined using the annual average cost figures available on the appropriate BUDGpedia webpage.

3.2.3. *Summary of estimated impact on administrative appropriations*

☐ The proposal/initiative does not require the use of appropriations of an administrative nature

☒ The proposal/initiative requires the use of appropriations of an administrative nature, as explained below

3.2.3.1. Appropriations from voted budget

VOTED APPROPRIATIONS	Year 2028	Year 2029	Year 2030	Year 2031	Year 2032	Year 2033	Year 2034	TOTAL 2028 - 2034
HEADING 4								
Human resources	7.293	7.592	7.786	7.786	7.786	7.786	7.786	**53.815**
Other administrative expenditure	0.429	0.429	0.429	0.429	0.429	0.429	0.429	**3.003**
Subtotal HEADING 4	**7.722**	**8.021**	**8.215**	**8.215**	**8.215**	**8.215**	**8.215**	**56.818**
Human resources	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**
Other expenditure of an administrative nature	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**
Subtotal outside HEADING 4	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
TOTAL	**7. 722**	**8.021**	**8.215**	**8.215**	**8.215**	**8.215**	**8.215**	**56.818**

The appropriations required for human resources and other expenditure of an administrative nature will be met by appropriations from the DG that are already assigned to management of the action and/or have been redeployed within the DG, together, if necessary, with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

The staff figures and appropriations requested should be considered indicative and cannot prejudge the outcome of the ongoing negotiations on the future multiannual financial framework.

3.2.4. *Estimated requirements of human resources*

☐ The proposal/initiative does not require the use of human resources

☒ The proposal/initiative requires the use of human resources, as explained below

3.2.4.1. Financed from voted budget

Estimate to be expressed in full-time equivalent units (FTEs)[104]

VOTED APPROPRIATIONS	Year 2028	Year 2029	Year 2030	Year 2031	Year 2032	Year 2033	Year 2034
• Establishment plan posts (officials and temporary staff)							
20 01 02 01 (Headquarters and Commission's Representation Offices)	30 (net)	31 (net)	32	32	32	32	32
20 01 02 03 (EU Delegations)	0	0	0	0	0	0	0
(Indirect research)	0	0	0	0	0	0	0

[104] Please specify below the table how many FTEs within the number indicated are already assigned to the management of the action and/or can be redeployed within your DG and what are your net needs.

(Direct research)		0	0	0	0	0	0	0
Other budget lines (specify)		0	0	0	0	0	0	0
• External staff (inFTEs)								
20 02 01 (AC, END from the 'global envelope')		14 (net)	15 (net)	15	15	15	15	15
20 02 03 (AC, AL, END and JPD in the EU Delegations)		0	0	0	0	0	0	0
Admin. Support line	- at Headquarters	0	0	0	0	0	0	0
[XX.01.YY.YY]	- in EU Delegations	0	0	0	0	0	0	0
(AC, END - Indirect research)		0	0	0	0	0	0	0
(AC, END - Direct research)		0	0	0	0	0	0	0
Other budget lines (specify) - Heading 4		0	0	0	0	0	0	0
Other budget lines (specify) - Outside Heading 4		0	0	0	0	0	0	0
TOTAL		**44**	**46**	**47**	**47**	**47**	**47**	**47**

The staff required to implement the proposal (in FTEs):

	To be covered by current staff available in the Commission services	**Exceptional additional staff***		
		To be financed under Heading 4 or Research	**To be financed from BA line**	**To be financed from fees**
Establishment plan posts	29	3	N/A	
External staff (CA, SNEs, INT)	13	2		

Overall, 42 FTEs requested for the initiative are already in place within the DG CNECT and will be redeployed, consisting of 29 establishment plan posts and 13 external staff (CAs and SNEs).In addition to these existing resources, the initiative requires 5 FTEs of exceptional additional staff (3 officials and 2 external staff – CAs or SNEs), which are requested on top of the current staffing levels in order to ensure full and effective implementation of the initiative.

The new tasks introduced by the proposal—particularly those linked to spectrum governance, satellite authorisation, *ex ante* scrutiny of spectrum awards and closer coordination with BEREC and RSPG, next to supporting harmonisation of general authorisation conditions and single passporting procedure —cannot be absorbed by the DG CNECT existing human resources.

The leading unit for spectrum and satellite matters in charge of these areas is very small and already manages a broad portfolio of technically complex and time-sensitive files related to all aspects of EU spectrum policy. In addition to its existing duties, this same team currently

hosts the entire RSPG secretariat function, which is handled by a 1.5 FTE, despite the steadily increasing workload and the growing number of spectrum issues requiring EU-level coordination. Internal assessments show that the unit has no capacity to take on additional responsibilities without compromising core ongoing work or diminishing the quality and timeliness of EU-level spectrum and satellite policy coordination.

Redeployment within the DG CNECT is not a feasible option. Other units do not have surplus staff, nor do they possess the specialised technical expertise necessary to work effectively on satellite communications, advanced spectrum engineering, interference management, or the emerging satellite-to-device ecosystem. These are highly innovative and technically demanding areas where generalist profiles or staff redeployed from unrelated policy fields cannot substitute for dedicated experts. The tasks foreseen in the proposal require deep, domain-specific knowledge and continuous engagement with national authorities, industry and international bodies. Given the combination of a very small existing team, the high workload already borne—including the one-person RSPG secretariat—and the specialised nature of satellite and spectrum work, additional dedicated posts are indispensable for the Commission to fulfil the new responsibilities assigned under the proposal.

The type of staff is specified in the table above.

The staff figures and appropriations requested should be considered indicative and cannot prejudge the outcome of the ongoing negotiations on the future multiannual financial framework.

Description of tasks to be carried out by the Commission:

Officials and temporary staff	New tasks: 1. EU Satellite authorisation, including and possible future selection procedures, and supervision and enforcement of compliance with conditions applicable to satellite spectrum satellite authorisation and 2. EU satellite coordinated enforcement related to harmful interferences and ITU filings coordination 3. *Ex* ante scrutiny of auctions – issuing comments letters/decisions (similar to fixed markets and remedies procedure) 4. Petition for rule making 5. Work on planned delegated/implementing acts (e.g. harmonised conditions, cost methodology, satellite) 6. Work on greater harmonisation of general authorisation scheme and related single passporting procedure, including rules in national security.
External staff	New tasks: 7. EU Satellite authorisation, including and possible future selection procedures, and supervision and enforcement of compliance with conditions applicable to satellite spectrum satellite authorisation and 8. EU satellite coordinated enforcement related to harmful interferences and ITU filings coordination 9. *Ex* ante scrutiny of auctions – issuing comments letters/decisions (similar to fixed markets and remedies procedure) 10. Petition for rule making 11. [Possible launch of the project on dynamic databases for geolocation and monitoring of spectrum usage opportunities] 12. Work on planned delegated/implementing acts (e.g. harmonised conditions, cost methodology, satellite), 13. Work on greater harmonisation of general authorisation scheme and related single passporting procedure, including rules in national security.

3.2.5. Overview of estimated impact on digital technology-related investments

TOTAL Digital and IT appropriations	Year 2028	Year 2029	Year 2030	Year 2031	Year 2032	Year 2033	Year 2034	TOTAL MFF 2028 - 2034
HEADING 4								
IT expenditure (corporate)	0	0	0	0	0	0	0	**0**
Subtotal HEADING 4	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Outside HEADING 4								
Policy IT expenditure on operational programmes	0	0	0	0	0	0	0	**0**
Subtotal outside HEADING 4	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

3.2.6. Compatibility with the current multiannual financial framework

The proposal/initiative:

☐ can be fully financed through redeployment within the relevant heading of the multiannual financial framework (MFF)

☒ requires use of the unallocated margin under the relevant heading of the MFF and/or use of the special instruments as defined in the MFF Regulation

In addition to the existing resources in the Commission/DG CNECT, the initiative requires 5 FTEs of exceptional additional staff (3 officials and 2 external staff – CAs or SNEs), which are requested in order to ensure full and effective implementation of the initiative.

☐ requires a revision of the MFF

3.2.7. Third-party contributions

The proposal/initiative:

does not provide for co-financing by third parties

☒ provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

	Year 2028	Year 2029	Year 2030	Year 2031	Year 2032	Year 2033	Year 2034	Total

Third countries voluntary contributions	0	0	0	0	0	0	0	0
TOTAL appropriations co-financed	0	0	0	0	0	0	0	0

3.2.8. Estimated human resources and the use of appropriations required in a decentralised agency

Staff requirements (full-time equivalent units – fully fee financed, es explained in point 3.3)

Agency: Office for Digital Networks	Year **2028**	Year **2029**	Year **2030**	Year **2031**	Year **2032**	Year **2033**	Year **2034**
Temporary agents (AD Grades)	1	4	8	10	10	10	10
Temporary agents (AST grades)							
Temporary agents (AD+AST) subtotal	1	4	8	10	10	10	10
Contract agents	1	3	5	5	5	5	5
Seconded national experts	2	6	8	10	10	10	10
Contract agents and seconded national experts subtotal	*3*	*9*	*13*	*15*	*15*	*15*	*15*
TOTAL staff	**4**	**13**	**21**	**25**	**25**	**25**	**25**

Appropriations covered by fees in EUR million (to three decimal places)

Agency: <Office for Digital Networks>.>	Year **2028**	Year **2029**	Year **2030**	Year **2031**	Year **2032**	Year **2033**	Year **2034**	**TOTAL 2028 - 2034**
Title 1: Staff expenditure	0.495	1.673	2.833	3.415	3.415	3.415	3.415	**18.661**
Title 2: Infrastructure and operating expenditure	0.348	0.348	0.348	0.348	0.348	0.348	0.348	**2.348**
Title 3: Operational expenditure	0.264	0.264	0.264	0.264	0.264	0.264	0.264	**1.848**
TOTAL of appropriations covered by fees	**1,107**	**2,285**	**3,445**	**4.027**	**4.027**	**4.027**	**4.027**	**22.857**

Overview/summary of human resources and appropriations (fee income) in EUR million required by the proposal/initiative in a decentralised agency

Agency: BEREC Office/ODN	Year **2028**	Year **2029**	Year **2030**	Year **2031**	Year **2032**	Year **2033**	Year **2034**	**TOTAL 2028 - 2034**
Temporary agents (AD+AST)	**1**	**4**	**8**	**10**	**10**	**10**	**10**	**10**
Contract agents	**1**	**3**	**5**	**5**	**5**	**5**	**5**	**5**
Seconded national experts	**2**	**6**	**8**	**10**	**10**	**10**	**10**	**10**
Total staff	**4**	**13**	**21**	**25**	**25**	**25**	**25**	**25**
Appropriations covered by the EU budget	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**
Appropriations covered by fees (if applicable)	0.495	1.673	2.833	3.415	3.415	3.415	3.415	**18.661**
Appropriations co-financed (if applicable)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**
TOTAL appropriations	**0.495**	**1.673**	**2.833**	**3.415**	**3.415**	**3.415**	**3.415**	**18.661**

The staff figures and appropriations requested should be considered indicative and cannot prejudge the outcome of the ongoing negotiations on the future multiannual financial framework.

Description of tasks to be carried out by Office for Digital Networks

Officials and temporary staff	1. With the participation of the ODN to the BEREC working groups the employees of the agency will be involved in the substance-related activities of all BEREC regulatory workstreams. This means that staff from the BEREC Office will be involved also on tasks already entrusted to BEREC under the EECC on which currently it is only providing administrative and logistical support. 2. The ODN will be tasked to publish a comprehensive report on the internal market for electronic communications networks and services, describing the state, of trends, covering the effects of mergers on the market, and challenges on the electronic communication sector. It should in particular report on the impact of the measures implemented under the DNA on the internal market. The first report could be published two years after entry into application, to allow for sufficient time for gathering data on the effects of the DNA measures and should thereafter be published annually. 3. Under the DNA, the RSPG will evolve from a Commission expert group to a self-standing body similar to BEREC (Radio Spectrum Policy Body or RSPB). The ODN will take over the RSPG Secretariat that is currently provided by the Commission; however, besides the administrative and organisational assistance, the ODN will support the RSPB also on merits. In particular: 4. To provide analytical, administrative and logistical support to the RSPB and its working groups.

	5. To collect best practices on the choice between general authorisations and individual rights, on authorisation processes and related award conditions, such as on pro-investment auction design, methodology for calculating reserve prices, annual fees, coverage obligations. 6. To act as a single point of contact for submission of applications and notifications to facilitate the granting of spectrum usage rights and authorisations when the one stop shop procedure is created by the Commission. 7. To set up and administer dynamic databases for geolocation and monitoring of spectrum usage opportunities. 8. To assist RSPB in organising and chairing the Radio Spectrum Single Market Procedure Forums and keeping record of the proceedings. 9. To act as a point of contact for information on requests to coordinate under ITU rules frequencies or an orbital position for a satellite system or a ground station. 10. If requested by the Commission, to assist the Commission in the process of issuing /granting the EU authorisation for satellites. Likewise, if asked by the Commission, to assist the Commission in conducting selection procedures in the cases of scarcity of satellite spectrum. 11. To assist the Commission and RSPB in supervising and enforcing the EU satellite authorisations. Acting as a point for notifying that an EU authorisation holder is not complying with applicable conditions under the EU authorisation. 12. To manage the invoicing of the fees from EU level satellite auctions and authorisation procedures.
External staff	In addition, the external staff in the BEREC Office shall have the following tasks to support BEREC work: 1. to provide expert support to BEREC in fulfilling its regulatory tasks, including by contributing with the expertise of the experts from the new BEREC Office to all the activities of the working groups; 2. to support the coordination among national regulatory authorities and other competent authorities in the context of the new single passporting mechanism, and to facilitate the issuance of passporting declarations; 3. to support BEREC in monitoring the availability of services, capacity and use of electronic communication networks to help enhance network resilience and preparedness; analyse information on availability of services, capacity and use of electronic communications networks [and other relevant digital infrastructures; and support BEREC in preparing guidelines on resilience; 4. to collect data and information from NRAs and competent authorities, and to exchange and transmit information in relation to the new regulatory tasks assigned to the BEREC like network resilience and preparedness and, new single passporting mechanism; 5. to produce regular draft reports on specific aspects of developments in the European electronic communications market, such benchmarking reports on new topics mentioned above to be submitted to BEREC; 6. under the supervision of BEREC, to assist BEREC in establishment and development of registries and databases (of notifications of undertakings subject to general authorisation and necessary for new passporting procedure under DNA, numbering resources and E.164 numbers of Member State emergency services); 7. to assist BEREC in conducting public consultations in the new areas under DNA.

3.3. Estimated impact on revenue

☐ The proposal/initiative has no financial impact on revenue.

☒ The proposal/initiative has the following financial impact:

☐ on own resources

☒ on other revenue

☐ please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative						
		Year **2028**	Year **2029**	Year **2030**	Year **2031**	Year **2032**	Year **2033**	Year **2034**
BEREC Office/ODN		**2.337**	**3.515**	**4.675**	**5.257**	**5.257**	**5.257**	**5.257**

The current budget expenditure line of the BEREC Office, which will be replaced by the Office for Digital Networks, will continue to finance the unchanged portion of the Office for Digital Networks (the EU contribution to the BEREC Office will not change). At the same time additional expenditure for the Office for Digital Networks described above will be financed from satellite spectrum authorisation fees, and, if available, fees for the rights of use of pan-European numbering resources and voluntary and in-kind contributions from Member States.

The satellite fees are linked to two main sources: the spectrum fees linked to procedures for upcoming EU-level spectrum assignment/extension/renewals established in the DNA and MSS (first procedure for 2 GHz MSS band expected to take place in 2027). Such fees can be spread over periods longer than 10 years and therefore provide for a constant and stable revenue for instance could be based on a certain amount per MHz that satellite operators would need to pay, based on the amount of spectrum licenced to them in case of new selection/extension/renewal.

As complement, if needed and operationally feasible, administrative charges/spectrum fees could be collected from undertakings subject to EU satellite authorisation after the entry into force of the DNA. The details for the calculation of the amount of the fees and the collection will be set out in an implementing act.

In case pan-European numbering resources would become available, fees collected for the rights of use of such resources will contribute to the ODN budget.

Furthermore, voluntary contributions from Member States and in-kind contributions could be received as revenue. Contributions from the EEA EFTA countries and from third countries whose national regulatory authorties currently participate in the work of BEREC and the BEREC Office on the basis or working arrangement and which will continue to participate in the work of BEREC and ODN, as well as contributions from any competent authorities responsible for spectrum that will participate in the work of RSPB and ODN, could also contribute to the ODN budget.

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

The additional expenditure will be covered by two main sources:

- Part of the spectrum fees from selection procedures carried out at EU level for satellite authorisation (of which the first will be carried out in 2027 for the 2 GHz MSS band). In the event that the selection procedure is not carried out in 2027, the current rights of use which expire in May 2027 will have to be extended. In such a

case, the fees will be imposed on the incumbent operators in exchange for the extension, thus ensuring full cost recovery;

- the administrative charges/spectrum fees for the EU level authorisation.

The method for calculating these will be defined case by case for each selection procedure and will at minimum cover the additional expenditure requested. For the first years until the end of the transition period, the necessary revenues will be levied from the outcome of the first already foreseen selection procedure. The amount of fees (which will largely cover the cost) will be indicated in advance of the procedure and, given the scarcity of this spectrum, is expected to be effectively levied.

With this amount spread over a long period of more than 10 years we will be able to finance the additional expenditures from 2028. The part of the revenues from the fees that is above the expenditure to be covered, will be transferred, e.g. to the overall EU budget.

Any complementary revenues from other EU satellite authorisation fees, EU numbering authorisation as well as voluntary and in-kind contributions by Member States, EEA EFTA countries and third countries participating in the works of BEREC and ODN, as well as RSPB and ODN, will be used to either cover the additonal expenditures from 2028 alongside the revenue from the planned selection or transferred, e.g. to the overall EU budget.

4. DIGITAL DIMENSIONS

4.1. Requirements of digital relevance

High-level description of the requirements of digital relevance and related categories (data, process digitalisation & automation, digital solutions and/or digital public services)

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Part II – Preparedness and Resilience	Flows of data related to the Union Preparedness Plan for Digital Infrastructures; or in the context of crisis response.	BEREC ODN European Commission National regulatory authorities ENISA EU-CyCLONe	Preparation and dissemination of reports Institutional cooperation (incl. crisis response)	Data
Part III – Single Market Authorisation and Passporting	Flows of data related to general authorisation, the Single Passport procedure, mutual assistance, and administrative charges. Digital solution: publicly available Union database of the notifications submitted to the national regulatory authorities (centralised database for the single passport system implementation).	European Commission Member States (national regulatory authorities) Providers of electronic communications networks or services BEREC ODN	Market authorisation	Data Digital Solution Digital Public Service

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter I, Principles and objectives	Data flows related to the strategic planning and management of radio spectrum. Implied data flows pertaining to cooperation in the context of the cross-border coordination of the use of radio spectrum (including for the purpose of addressing harmful interference).	Member States' competent authorities European Commission RSPB Holders of a spectrum usage right Third countries	Strategic planning and management Cross-border cooperation of national authorities	Data
Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter II, Allocation	Data flows relating to the Union Spectrum Strategy and Roadmaps, the coordinated timing of assignments, and to requests for harmonisation of radio spectrum.	European Commission Member States' competent authorities RSPB Originators of request for harmonisation Radio Spectrum Committee	Strategic planning Institutional cooperation Request management	Data
Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments	Data flows relating to individual rights of the use of radio spectrum, common authorisation conditions for the use of radio spectrum, shared use of spectrum, and Spectrum Single market selection procedures.	Member States' competent authorities Interested parties (in re individual rights of use) RSPB and RSPG	Authorisation and rights of use Database	Data Digital solution Digital Public Service

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
	Digital solution: dynamic database for geolocation and monitoring of spectrum usage opportunities to promote and allow the shared use of specific spectrum bands	European Commission ODN Communication Committee or external experts BEREC		
Part IV – Resources (Spectrum and Numbering); Title II, Use of Spectrum by Satellite	Data flows relating to: - the filing and coordination of satellite systems with the International Telecommunications Union (ITU); - general authorisations for provision of satellite networks and/or satellite communication services; - Union authorisation for the use of satellite/radio spectrum; - supervision and remedies in the context of compliance of the satellite networks and satellite communications services operating under a Union authorisation; - resolution of satellite interferences; and - requests for the coordination of the use of spectrum between terrestrial	Prospective users of radio spectrum Competent spectrum authorities Europea Commission ITU RSPB Providers of satellite networks and/or satellite communication services Holders of a Union authorisation (that are found to be in breach of the conditions) Radio Spectrum Committee	Request management Authorisation Supervision and remedies	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
	and space applications.			
Part IV – Resources (Spectrum and Numbering); Title III, Numbering Resources	Data flows pertaining to: pan-European numbering resources; national numbering resources; and the granting of rights of use for numbering resources. Digital solution: Database of the pan-European numbering resources	National regulatory authorities ODN BEREC Undertakings for the provision of electronic communications networks or services	Database Information sharing (incl. publication) Report dissemination Procedure for granting of rights	Data Digital Solution Digital Public Service
Part V – Transition to fibre, markets functioning and competition; Title I, Transition to fibre networks	Data and data flows: - Update and publish CSO areas, publish the CSO areas where sustainability conditions are met - Notification of the national transition to fibre plan - Implicit information flows for end-users in areas affected by the copper switch-off - Operators' submission of the copper switch-off plans to national regulatory authorities	National regulatory authorities Member States Operators	Information sharing Submission of information Publishing information	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Part V – Transition to fibre, markets functioning and competition; Title III, Interconnections Chapter II: Symmetric rules for access	Data and data flows: - Produce guidance and make publicly available the procedures to gain access and interconnection - Notification of the outcome of the assessment on the regulatory framework pursuant to Article 69	National regulatory authorities	Developing guidance and publish information Notification of information	Data
Part V – Transition to fibre, markets functioning and competition; Title IV: Markets and competition Chapter I – Market analysis and significant market power	Data and data flows: - The Recommendation identifying product and service markets that justify the imposition of regulatory obligations - Analysis of the market and notification of the corresponding draft regulatory measures - Implicit information flows regarding the identification of transnational markets and demands - Guidelines for market analysis and assessment of significant market power	EU Commission National regulatory authorities BEREC	Developing recommendation Notification of information Producing guidelines	Data
Part V – Transition to fibre, markets functioning and	Data and data flows: - Description of the cost-accounting system publicly available	National regulatory authorities	Making publicly available Submitting	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
competition; Title IV: Markets and competition Chapter II: Access remedies imposed on undertakings with significant market power	- Information regarding the commitment procedure	Operators	information	
Part V – Transition to fibre, markets functioning and competition; Title IV: Markets and competition CHAPTER III: Internal market procedures for market regulation	Information flows regarding the consolidation of the internal market in the area of electronic communications	National regulatory authorities BEREC EU Commission	Issuing opinions Submitting information	Data
Part VI – Services Title II: Open Internet access	Data and data flows: - Submitting information regarding open internet access - Information sharing with BEREC - BEREC's report on main practices and findings of national regulatory authorities	Providers of electronic communications to the public National regulatory authorities BEREC	Information sharing Developing guidelines Developing a template	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
	- BEREC's common template to collect information from providers - BEREC's guidelines on the implementation of the obligations of national regulatory authorities		Reporting	
Part VI – Services Title III: End-user rights Chapter I: Rights for Consumers	Data and data flows: - Information requirements for contracts - Transparency information - Information requirements for contract duration and termination	Providers of internet access services Consumers	Information sharing	Data
Part VI – Services Title III: End-user rights Chapter II: Rights for end-users	Data and data flows: - Information requirements regarding switching and number portability	Providers of internet access services Consumers ODN BEREC Microenterprises	Sharing information Developing guidelines Informing	Data
Part VI – Services Title III: End-user rights Chapter III: Facilities and functionalities for end-users	Data and data flows related to end-user protection and communication service requirements (fraud prevention, emergency services, call functionalities, equipment interoperability)	End-users Service providers Member States ENISA	Collecting information Sharing information	Data Digital solution

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Digital solution pursuant to Article 107(13). The original legal basis is Article 109(8) of Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast)	Digital solution: - Member states shall report to the ODN, with the purpose of maintaining a database by ODN under the supervision of BEREC, the E.164 numbers to contact Member State's PSAP systems to ensure that they are able to contact each other from one Member State to another.	ODN	Reporting	
Part VII – Governance Title I: National regulatory and other competent authorities	Data and data flows: - Notification of all national regulatory and other competent authorities - Budget reporting by national regulatory authorities - Implicit report emerging from budget control	Member States EU Commission National regulatory authorities	Publishing information Notification Reporting	Data
Part VII – Governance	Data and data flows related to BEREC tasks and organisation	BEREC, ODN, National regulatory authorities,	Publishing information	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Title II: BEREC tasks and organisation		Commission, European Parliament, Council, and other stakeholders	Supervising	
Part VII – Governance Title IV: Common provisions and cooperation between BEREC and RSPB	Data and data flows - Information flows related to common provisions and cooperation between BEREC and RSPB, including biennial work programmes and notification, and activity reports.	BEREC The RSPB Board European Parliament Council Commission European Economic and Social Committee.	Submitting report	Data
Part VII – Governance Title V: Office for digital networks Chapter I: ODN tasks and organisation	Data and data flows: - Information flows related to ODN's tasks and organisation	ODN ENISA BEREC RSPB Commission European Parliament Council Court of Auditors	Submitting reports Developing documents and reports	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Part VII – Governance Title V: Office for digital networks Chapter II: Budget and programming of the ODN	Data and data flows: - Information flows related to ODN's budget and programming	ODN, European Parliament, Council, Court of Auditors	Submitting information Publishing information	Data
Part VII – Governance Title V: Office for digital networks Chapter III: General provisions	Data and data flows: - Information flows related to the ODN's general provisions, including cooperation with BEREC and RSPB Digital solutions: - Digital solutions for the creation of an information and communication system pursuant to Article 174	ODN, BEREC, RSPB, Commission, national regulatory authorities, competent authorities, Member States, European Parliament, Council	Exchanging information Submitting declarations Reporting	Data Digital Solutions
PART VIII: General and final provisions TITLE I: Provision of information, surveys and consultation mechanisms	Data and data flows: - Information flows related to provision of information, surveys, and consultation mechanisms	Undertakings providing electronic communications networks/services, national regulatory authorities, other competent authorities, BEREC, RSPB, Commission, Member	Submitting information Exchanging information	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
		States authorities, public authorities, single information points, end-users, consumers, manufacturers		
PART VIII: General and final provisions TITLE II: Harmonisation procedures	Data and data flows: - Information flows related to standardisation activities	EU Commission, national regulatory authorities, other competent authorities, BEREC, RSPB, European Parliament, Council, European standardisation organisations, public	Publishing standards Submitting information	Data
PART VIII: General and final provisions TITLE III: Dispute resolution	Data and data flows: - Information flows related to dispute resolution	National regulatory authorities BEREC	Making publicly available Sendending notificationss	Data
PART VIII: General and final provisions TITLE IV: Ecosystem cooperation	Data and data flows: - Information flows related to the ecosystem cooperation	BEREC, ODN, Commission, national regulatory authorities, providers of electronic communications networks, undertakings active in electronic	Publishing information Submitting information	Data

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
		communications or closely related sectors, stakeholders		
PART VIII: General and final provisions TITLE VI: Final provisions	Data and data flows: - General information flows	Commission, European Parliament, Council, Member States, national regulatory authorities, Communications Committee, Radio Spectrum Committee, BEREC, RSPB, ODN, undertakings, experts, stakeholders	Sending notifications Publishing information	Data

4.2. Data

High-level description of the data in scope

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
The 'Union Preparedness Plan for Digital Infrastructures' and information used in the preparation of said Plan	Part II – Preparedness and Resilience	A description of what the Plan ought to include is provided in the legal text. BEREC shall publish a common template to be used by national	National regulatory authorities shall provide to the ODN the necessary information on the architecture, capacity, capabilities, and use of electronic communications networks on a biennial basis. Data flows implied by the cooperation of ODN, the

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
		regulatory authorities for the collection of the information that will feed the Plan.	European Commission, and the Cooperation Group established pursuant to Article 14 of Directive (EU) 2022/2555, the European Union Agency for Cybersecurity (ENISA), and the relevant European crisis response and civil protection coordination authorities in the preparation of the Plan. Data flows implied in the making available of the Plan. Upon request, ODN shall share with the Commission details of the analysis used to prepare the Plan. *Once available, BEREC shall publish the common template for the collection of information from national regulatory authorities.*
Information to ensure shared situational awareness and coherence in crisis response	Part II – Preparedness and Resilience	//	Where a natural or man-made disruption, crisis or force majeure involves or coincides with a large-scale cybersecurity, BEREC shall provide the relevant information to the European Cyber Crisis Liaison Organisation Network (EU-CyCLONe) and to the Commission.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data in the context or market authorisation and the Single Passport procedure	Part III – Single Market Authorisation and Passporting	// The notification of intention to provide networks or services shall be made in accordance with a notification template to be made available by BEREC. A description if provided on the	Member States shall notify the Commission about the imposition of any limitation on the freedom to provide electronic communications networks and services. A provider than intends to provide networks or services in one or several Member States shall submit a notification to the national regulatory authority of one of those Member States under the single passport procedure. The notified competent authorities shall transmit the notification received to the ODN. Where the notification concerns several Member States, the ODN shall transmit it for information to the competent authorities of the other Member States where the provider intends to operate. Where the notification concerns the intent of a provider already operating in one or several Member States to extend its operations to additional Member States, the ODN shall transmit such notification for information to the competent authorities of all the Member States concerned. The notified authority shall confirm the authorisation to provide electronic communications networks or services to the provider.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
		information to be included in the confirmation of the authorisation.	The notified authorities shall update the information about all received notifications in the publicly available Union database at least once every two months.
Guidelines on the general authorisation regime and data in the context of mutual assistance	Part III – Single Market Authorisation and Passporting	//	BEREC shall publish guidelines on the general authorisation regime, ensuring that the relevant information is accessible to providers via the ODN webpage. Each Member State shall designate a national single contact point. The national single contact point shall maintain up-to-date information about the national legislation and procedures applicable to the provision of electronic communications networks and services. Implied data flows pertaining to mutual assistance between the relevant authorities of the various MS.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Information on administrative costs and charges	Part III – Single Market Authorisation and Passporting	//	Where administrative charges are imposed, national regulatory or other competent authorities shall publish an annual overview of their administrative costs and of the total sum of the charges collected.
Information on strategic planning and management of radio spectrum (including for the purpose of addressing harmful interference)	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter I, Principles and objectives	//	Competent authorities must inform the Commission and other relevant competent authorities of a decision to allow an alternative use of the radio spectrum band harmonised pursuant to Decision No 676/2002/EC. Holders of spectrum usage rights may request the RSPB to resolve issues pertaining to cross-border coordination or cross-border harmful interference. The RSPB may issue an opinion proposing a coordinated solution (and *shall* issue such an opinion if this is requested by the aforementioned holder of spectrum usage rights). Where cross-border issues are not resolved within a given timeframe, competent authorities from any affected Member State or holders of a spectrum usage right may ask the Commission to intervene.
Union Spectrum Strategy and Roadmaps	Part IV – Resources (Spectrum and Numbering);	//	The Commission shall provide a Union spectrum strategy. Within 9 months from the establishment of the

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
	Title I, Spectrum - Chapter II, Allocation	Brief content requirements for the national spectrum roadmaps.	Union spectrum roadmaps, competent authorities shall submit to the Commission and RSPB their national spectrum roadmaps. Competent authorities shall publish the national spectrum roadmaps and regularly update them. Competent authorities shall regularly report to the Commission and the RSPB on the implementation of their national spectrum roadmaps.
Requests for review of deadline extensions for allowing alternative use on an exceptional basis (*where the use of radio spectrum has been harmonised by technical implementing measures in accordance with Decision No 676/2002/EC*)	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter II, Allocation	//	A prospective spectrum user or the Commission may issue such requests for review to the competent authority concerned.
Requests for harmonisation of radio spectrum	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter II, Allocation	//	Any interested party may submit a reasoned request to the Commission to consider the harmonisation of conditions for the availability and/or efficient use of a specific frequency band. Upon such request, the Commission shall organise a public consultation and submit that request either to the RSPB for a report or opinion, and/or to the

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			Radio Spectrum Committee (who may also adopt an opinion). The Commission shall transmit a reasonable response to the request originator (which a reasonable deadline, preferably six months from receipt). The Commission shall publish the request and the response.
Information on individual rights of use	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments	//	Competent authorities shall inform interested parties about the conditions to be attached to individual rights of use before they are imposed. Likewise, in re criteria for assessing compliance. The RSPB shall collect good practices on the choice between general authorisations and individual rights.
Data in relation to common authorisation conditions of use for radio spectrum	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments	//	Prospective users of radio spectrum in two or several Member States (or the Commission) may request competent authorities from the Member State concerned to jointly establish within the RSPB common authorisation conditions. Competent authorities shall inform the Commission of such requests. Implied data flows if the Commission were to seek

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			the assistance of RSPB, ODN, the Communication Committee or external experts in carrying out the authorisation process.
Other data on individual rights	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments	//	Requests by holders of individual rights for their renewal. The holder of the rights of use shall notify its intention to transfer or lease rights of use to the competent authority. Said competent authority shall make this information public. Any third party interested in using a part of the spectrum in a specific territory or period of time shall have the right to express its interest to the competent authority.
Data for the dynamic database for geolocation and monitoring of spectrum usage opportunities	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments	The Commission may adopt implementing acts to define the spectrum bands covered by the database and develop practical arrangements and uniform formats for the collection and provision of data by the competent authorities to the Commission.	The database shall include up-to-date information collected and provided by Member States.
Data used in the context of the Spectrum Single market	Part IV – Resources (Spectrum and	Minimum content requirements.	When intending to undertake a selection procedure (or to amend or renew certain rights), competent

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
procedure	Numbering); Title I, Spectrum - Chapter III, Assignments		authorities shall publish their draft final measure and communicate it to the Commission, the RSPB, the BEREC and to the competent authorities of other Member States. Competent authorities, the RSPB, the BEREC, and the Commission may comment the draft measure, within a period of 30 working days. The Commission shall inform BEREC and national regulatory authorities of its reservations in such a case and simultaneously make them public. Within 30 working days from the notification of Commission's reservations, the RSPB and the BEREC shall issue their opinions on the Commission's notification. Within 60 working days from the notification of its reservations, the Commission may take a decision. The competent authority shall notify within six months of the date of the Commission's decision a new draft measure to the RSPB, the BEREC, and the Commission. The ODN shall keep record of the Union Spectrum Single Market proceedings.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data in the context of filing and coordination of satellite systems with the International Telecommunication Union (ITU)	Part IV – Resources (Spectrum and Numbering); Title II, Use of Spectrum by Satellite	//	A competent spectrum authority shall inform the Commission and other competent authorities within the RSPB about any request to file, coordinate or register with the ITU a satellite system that is intended to cover more than one Member State or ground station. - Member States and the Commission may comment on the request. Upon receiving a request to coordinate under ITU rules frequencies or an orbital position for a satellite system or a ground station, the competent authority concerned shall inform the Commission and the other competent authorities through the RSPB. - Implied data flows in the RSPB's coordination role where two or more competent authorities receive requests concerning the same frequency band or the same orbital position. When confronted with a request for coordination of the use of spectrum between terrestrial and space applications under the ITU rules in relation to radio spectrum that has been harmonised pursuant to Decision No 676/2002/EC, the competent authority

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			concerned shall communicate such request to the Commission for immediate transmission to the members of the Radio Spectrum Committee.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data pertaining to Union level authorisations for the use of satellite spectrum	Part IV – Resources (Spectrum and Numbering); Title II, Use of Spectrum by Satellite	//	Providers shall submit a notification to the Commission. Implied data flows in Member States being subject to a Union authorisation, granted by the Commission. Competent authorities or applicants may request that the Commission considers limiting the number of Union authorisations in a given radio spectrum band. In which case, the Commission shall give interested parties the opportunity to express their views in a public consultation. Any undertaking shall submit an application for a Union authorisation to use radio spectrum for the provision of satellite communications services and of satellite networks to the Commission. - The Commission shall publish such applications upon receipt. - The RSPB shall submit an opinion to the Commission within 10 working days.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data in the context of supervision and remedies (including resolution of satellite interferences)	Part IV – Resources (Spectrum and Numbering); Title II, Use of Spectrum by Satellite	//	Implied data flows in the context of the Commission (with the assistance of the RSPB) examining alleged breaches of conditions attached to Union authorisation or of legal provisions. - Where a competent authority is of the opinion that a Union authorisation holder fails to comply, it shall bring the matter to the attention of the Commission and the RSPB. - Where the Commission finds that a holder of a Union authorisation does not comply, it shall inform that operator of its findings. - The Commission shall inform the Member States of its enforcement actions. Where a competent authority decides to defer the application of any measure decided by the Commission, it shall inform the Commission in advance. Where a competent authority takes interim measures, at its own initiative, to avoid harmful interferences on its territory, it shall inform the Commission and the other competent authorities. - Conversely, the Commission may also request the adoption of such interim

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			measures.
Data in the context of the strategic planning and management of numbering resources	Part IV – Resources (Spectrum and Numbering); Title III, Numbering Resources	//	Implied data flows in the cooperation between the Commission, ODN and national regulatory authorities for the purposes of strategic planning of numbering resources in the Union and the identification of the potential use of numbering resources for cross border or pan-European services.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data concerning pan-European numbering resources	Part IV – Resources (Spectrum and Numbering); Title III, Numbering Resources	// Six months after the adoption of the Union numbering plan, the ODN shall set up the procedure and system for provision of information.	Implied data flow provided by the cooperation of national regulatory authorities with the ODN in the allocation of numbers or number ranged for pan-European numbering resources. Information to be provided in a timely manner by national regulatory authorities on the allocation of numbers and beneficiaries of the numbers (data needed to feed the ODN-established database of the pan-European numbering resources).

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data concerning national numbering resources	Part IV – Resources (Spectrum and Numbering); Title III, Numbering Resources	//	Undertakings other than providers of electronic communications networks or services may request that national regulatory authorities grant rights of use for numbering resources from the national numbering plans for the provision of specific services to them. National regulatory authorities may request assistance from the ODN in coordinating their activities to ensure the efficient management of numbering resources. National regulatory or other competent authorities shall transmit periodically to the ODN the data needed for the database on the numbering resources with a right of extraterritorial use within the Union. National regulatory authorities shall publish the national numbering plans, as well as all subsequent additions or amendments thereto. Every two years BEREC shall present a report on the national practices regarding the granting of rights of use for national and pan-European numbering resources.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Data in the context of the granting of rights of use for numbering resources	Part IV – Resources (Spectrum and Numbering); Title III, Numbering Resources	//	Undertakings may request the granting of individual rights of use for numbering resources by national regulatory authorities. National regulatory authorities shall take a decision on the aforementioned application and shall make said decisions public. The national regulatory authority of a Member State may make a request demonstrating a breach of relevant consumer protection rules or national laws to the national regulatory authorities of the Member State where the rights of use for the numbering resources have been granted. Implied data flows in tasking the ODN to facilitate and coordinate the exchange of information between the national regulatory authorities of the different Member States involved and ensure the appropriate coordination of work among them.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Copper switch-off information and transition planning data	Part V – Transition to fibre, markets functioning and competition; Title I, Transition to fibre networks	CSO areas shall be delimited taking account of Commission guidance to be adopted by 29 February 2028. Sustainability conditions require fibre networks to pass in close proximity to at least 95% of homes in the CSO area. National regulatory authorities shall specify objective and transparent parameters and criteria for assessing close proximity, reasonable effort, reasonable cost, and affordability.	National regulatory authorities shall publish the list of CSO areas and any updates, along with lists of CSO areas where sustainability conditions are met (published by 30 June 2029 and at least every 12 months thereafter for five years). Member States shall prepare and notify to the Commission a transition to fibre plan by 31 October 2029, containing information on copper and fibre network coverage, deployment measures, CSO areas status, and migration milestones, with an updated plan to be notified by 30 June 2034 reporting implementation progress. Operators shall submit their copper switch-off plans to national regulatory authorities within six months of the mandate adoption, and report implementation progress at intervals determined by the authority. End-users in affected areas shall be informed of the copper switch-off timing, necessary service or equipment changes, and alternative services available.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Access and interconnection procedures, and regulatory assessment outcomes	Part V – Transition to fibre, markets functioning and competition; Title III, Interconnections Chapter II: Symmetric rules for access	Procedures must ensure that undertakings, including SMEs and providers with limited geographical reach, can benefit from imposed obligations. Obligations and conditions must be objective, transparent, proportionate and non-discriminatory, implemented in accordance with Articles 186 and 85.	National regulatory authorities shall provide guidance and make publicly available the procedures applicable to gain access and interconnection. National regulatory or other competent authorities that have imposed obligations and conditions under Article 69 shall assess the results thereof by five years after adoption of the previous measure and shall notify the outcome of their assessment in accordance with the procedures referred to in Articles 186 and 85.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Market definitions, market analysis outcomes, regulatory measures, and guidance documents	Part V – Transition to fibre, markets functioning and competition; Title IV: Markets and competition Chapter I – Market analysis and significant market power	The Recommendation shall identify product and service markets defined in accordance with principles of competition law. Market analysis must follow procedures in Articles 186 and 85, be conducted in a timely manner, and conclude within one year. Markets where ex ante regulation is imposed shall be reviewed every five years to determine whether the three criteria in Article 72(1) are met. SMP guidelines shall be in accordance with relevant principles of competition law and include guidance on applying the concept of significant market power to ex ante regulation of electronic communications markets.	The Commission shall adopt a Recommendation identifying relevant product and service markets after public consultation and taking account of BEREC's opinion, and shall review it regularly every five years. National regulatory authorities shall conduct market analysis and notify the corresponding draft regulatory measures in accordance with Article 85 within five years from adoption of a previous measure. BEREC shall conduct analysis of potential transnational markets upon reasoned request from the Commission or at least two national regulatory authorities, or analysis of transnational end-user demand upon reasoned request from the Commission, at least two national regulatory authorities, or market participants. The Commission shall publish SMP guidelines after consulting BEREC.
Cost-accounting system information and compliance verification data	Part V – Transition to fibre, markets functioning and competition;	A description of the cost-accounting system showing at least the main categories under which costs are grouped and the rules used	Undertakings designated as having significant market power and subject to cost-accounting obligations shall make publicly available a description of their cost-accounting system.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
	Title IV: Markets and competition Chapter II: Access remedies imposed on undertakings with significant market power	for the allocation of costs must be made publicly available. The system must be verified by a qualified independent body	A qualified independent body shall verify compliance with the cost-accounting system and annually publish a statement concerning compliance. Where an undertaking has an obligation regarding cost orientation of prices, it shall provide full justification for its prices to the national regulatory authority, including proof that charges are derived from costs and include a reasonable rate of return on investment. National regulatory authorities may require undertakings to adjust prices based on this information.
Information on commitments offered by operators with significant market power	Part V – Transition to fibre, markets functioning and competition; Title IV: Markets and competition Chapter II: Access remedies imposed on undertakings with significant market power	Commitments shall be sufficiently detailed regarding scope, duration, timing, and modality of implementation to allow assessment by the national regulatory authority.	Undertakings designated as having significant market power may offer commitments to national regulatory authorities regarding conditions for access, co-investment, or both. National regulatory authorities shall conduct a public consultation (market test) on the offered commitments with interested parties, particularly third parties directly affected. Potential co-investors or access seekers may provide views on compliance and propose changes. The national regulatory authority shall communicate preliminary conclusions to the undertaking, which may revise

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			its initial offer. Once commitments are made binding, the undertaking shall inform the national regulatory authority without undue delay of any change of circumstance relevant to the commitments. National regulatory authorities shall monitor, supervise, and ensure compliance with binding commitments.
Draft regulatory measures, comments, opinions, decisions, and final adopted measure	Part V – Transition to fibre, markets functioning and competition; Title IV: Markets and competition Chapter III: Internal market procedures for market regulation	Draft measures must be published and communicated simultaneously to the Commission, BEREC, and national regulatory authorities in other Member States, stating the reasons in accordance with Article 20(3). BEREC shall issue an opinion within 30 working days from the beginning of the 90-day period. Provisional measures under Article 86 are valid for maximum 12 months.	National regulatory authorities shall communicate draft measures falling within the scope of Article 69, Article 72, and Articles 73 to 84 that would affect trade between Member States to the Commission, BEREC, and other national regulatory authorities. These entities may comment within 30 working days. Where the Commission indicates serious doubts or barriers to the internal market, BEREC shall issue an opinion within 30 working days. National regulatory authorities shall communicate all adopted final measures to the Commission and BEREC. For provisional measures, national regulatory authorities shall communicate them without delay to the Commission, other national regulatory authorities, and BEREC.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			The Commission may adopt recommendations or guidelines after public consultation, consulting national regulatory authorities, and taking utmost account of BEREC's opinion.
Information on network capacity management, traffic management measures, quality of service parameters, compliance data, and enforcement findings	Part VI – Services Title II: Open Internet access	Biennial reporting by providers covering network/traffic management and justifications. BEREC template by [adoption date + 1 year]. BEREC guidelines shall detail QoS parameters, measurement methods, information format (Annex III), publication format (Annex IV), and quality certification mechanisms, including parameters for end-users with disabilities.	Providers submit biennial information to national regulatory authorities on network capacity and traffic management. National regulatory authorities share information with BEREC. BEREC publishes biennial reports on national regulatory authorities' practices and findings, a common collection template, and implementation guidelines after consulting stakeholders and cooperating with the Commission. National regulatory authorities take utmost account of BEREC's guidelines for enforcement.
Contract information, transparency information, performance data, notifications on contractual changes, consumption monitoring data	Part VI – Services Title III: End-user rights Chapter I: Rights for Consumers	Information provided in clear, comprehensible manner on durable medium or easily downloadable document (Article 96(2)). Contract summary template may be specified by Commission after consulting BEREC.	Providers of internet access services or publicly available interpersonal communications services provide consumers with contract information (Annex III) and contract summary before contract conclusion. Providers publish transparency information (Annex IV) in machine-readable format.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
		Transparency information published in clear, comprehensive, machine-readable manner per Annex IV. Accessible format per Annex 1 of Directive (EU) 2019/882 for end-users with disabilities. Performance monitoring per BEREC guidelines (Article 95(3)).	Providers offer consumption monitoring facilities with timely information on usage levels and notifications before limits are reached. Providers notify consumers at least one month in advance of contractual changes on durable medium. Performance data for internet access services is monitored per BEREC guidelines and certified by national regulatory authorities.
Switching process information, number portability data, porting timelines, service continuity data, compensation information, consent records	Part VI – Services Title III: End-user rights Chapter II: Rights for end-users	//	Receiving and transferring providers of internet access services provide end-users with information during switching process. Both providers exchange data to ensure continuity and activation within agreed timelines. National regulatory authorities receive information to monitor compliance and ensure end-users are informed and protected. BEREC produces guidelines on process details and compensation after consulting stakeholders and cooperating with the Commission. Microenterprises inform end-users of exemptions before contract conclusion.

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
Fraudulent activity information, emergency communications data, public warnings data, calling line identification data, public interest information, end-user disability accessibility information	Part VI – Services Title III: End-user rights Chapter III: Facilities and functionalities for end-users	Caller location information per harmonised European criteria (delegated act by [adoption date + 2 years]). Public interest information in standardised format. Calling line identification using simple and free of charge means. Accessibility per Directive (EU) 2019/882.	ODN collects fraud information from national authorities, EUROPOL, and stakeholders. BEREC issues fraud prevention guidelines after consulting ENISA. Member States report PSAP E.164 numbers to ODN for database maintenance under BEREC supervision. Providers distribute public interest information from public authorities to end-users. Providers ensure caller location information transmitted to PSAPs without delay during emergency communications. Providers transmit public warnings to end-users in affected geographic areas. Providers implement calling line identification presentation and restriction mechanisms per end-user requests.
Names of national regulatory and other competent authorities and their respective tasks, notification of national regulatory and other competent authorities and their responsibilities, annual reports by national regulatory authorities, annual budgets of	Part VII – Governance Title I: National regulatory and other competent authorities	Publication in easily accessible form. Annual reporting. Budget control exercised in transparent manner and made public.	Member States publish names of national regulatory and other competent authorities and their tasks. Member States notify the Commission of all authorities assigned tasks under this Regulation and their responsibilities, including any changes. National regulatory authorities report annually on market state, decisions, resources allocation, and future plans. National regulatory authorities' annual

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
national regulatory authorities			budgets are published. Budget control is exercised transparently and made public.
BEREC regulatory tasks (public list), BEREC opinions, guidelines, reports, recommendations, common positions, best practices, commissioned studies, Public consultation results, Data collected by national regulatory authorities, biennial work programme, biennial activity report, Members of Board of Regulators and alternates, rules of procedure, working arrangements with competent bodies/authorities	Part VII – Governance Title II: BEREC tasks and organisation	Open, reusable, machine-readable format. Publications on BEREC website and EU Digital Gateway.	BEREC publishes list of regulatory tasks and updates when new tasks assigned. BEREC publishes final opinions, guidelines, reports, recommendations, common positions, best practices, commissioned studies, and draft documents for public consultation. Public consultation results made publicly available. BEREC supervises ODN in establishing and maintaining databases on notifications, numbering resources, PSAPs, value-added services, and emergency services access. Data collected by national regulatory authorities published in open, machine-readable format on BEREC website/EU Digital Gateway. List of Board members and alternates with declarations of interest made public. BEREC adopts and publishes biennial work programme, biennial activity report, and rules of procedure.
RSPB biennial work programme and RSPB biennial activity report, and information exchanges between BEREC and RSPB	Part VII – Governance Title IV: Common provisions and cooperation between	//	The RSPB Board shall transmit its biennial work programme to the European Parliament, the Council, and the Commission, and its biennial activity report to the European Parliament, the Council, the Commission, and the European

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
	BEREC and RSPB		Economic and Social Committee. BEREC and the RSPB shall ensure regular exchanges of information and expertise on matters of mutual relevance.
ODN annual budget, and consolidated annual activity report Annual report on progress towards the single market for electronic communications	Part VII – Governance Title V: Office for digital networks Chapter I: ODN tasks and organisation	//	The Director prepares the draft annual report on ODN's activities for Management Board assessment and adoption. The Management Board submits the consolidated annual activity report and its assessment to the European Parliament, the Council, the Commission and the Court of Auditors by 1 July each year. The ODN, in coordination with ENISA, shall publish an annual report on progress towards the single market for electronic communications. A draft report shall be submitted to BEREC and the RSPB for approval before publication.
ODN single programming document, annual budget, consolidated annual activity report, and financial accounts	Part VII – Governance Title V: Office for digital networks Chapter II: Budget and programming of the ODN	//	The ODN forwards the draft to the Commission, European Parliament and Council. After receiving the Commission's opinion, the ODN adopts the final single programming document and budget. The ODN submits provisional accounts to the Commission's Accounting Officer and Court of Auditors by 1 March. The Director submits final

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			accounts to the European Parliament, Council, Commission and Court of Auditors by 1 July, together with the Management Board's opinion and the consolidated annual activity report.
Information exchange, document access, declarations of interests, communication activities, and evaluations	Part VII – Governance Title V: Office for digital networks Chapter III: General provisions	Common templates	The Commission and national authorities exchange information with BEREC, RSPB and the ODN upon reasoned request, using common reporting formats where possible. The ODN manages an information and communication system enabling this exchange. Board members, the Director and staff submit declarations of interests, which are published for Board members and the Director. BEREC, RSPB and the ODN provide information to the public on their activities and results. The Commission conducts five-yearly evaluations of BEREC, RSPB and ODN, reporting findings to the European Parliament, Council, Management Board and the public. Citizens and legal persons may request access to documents held by BEREC, RSPB and ODN.
Information provision, geographical surveys, and consultation mechanisms,	PART VIII: General and final provisions	BEREC guidelines, common reporting formats and templates	Undertakings providing electronic communications networks and services provide information to national regulatory authorities, other competent

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
survey results	TITLE I: Provision of information, surveys and consultation mechanisms		authorities, BEREC and RSPB upon request. National regulatory and other competent authorities exchange this information with the Commission, BEREC, RSPB and authorities in other Member States upon reasoned request. National regulatory or other competent authorities conduct geographical surveys of broadband network deployments, collecting data on current reach and future forecasts from undertakings and public authorities. These survey results are shared with local, regional and national authorities, BEREC and the Commission. National regulatory and other competent authorities publish draft measures for public consultation, making results publicly available. Authorities consult end-users, consumers, manufacturers and undertakings on issues related to electronic communications services.
Standardisation activities and harmonisation measures	PART VIII: General and final provisions TITLE II: Harmonisation procedures	European standards; international standards (ITU, CEPT, ISO, IEC)	The Commission publishes lists of non-compulsory standards and technical specifications in the Official Journal. National regulatory and other competent authorities inform the Commission when they choose not to follow Commission recommendations, providing reasons for their

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			position. BEREC provides opinions to the Commission on harmonisation matters and may advise on proposed measures. The Commission informs the European Parliament and Council when it does not adopt recommendations or decisions, making reasons public.
Dispute resolution procedures and decisions	PART VIII: General and final provisions TITLE III: Dispute resolution	//	National regulatory authorities issue binding decisions to resolve disputes between undertakings within four months, making decisions publicly available. In cross-border disputes, national regulatory authorities notify BEREC, which issues opinions inviting specific actions.
Ecosystem cooperation guidance and conciliation	PART VIII: General and final provisions TITLE IV: Ecosystem cooperation	BEREC guidelines on ecosystem cooperation	BEREC publishes guidelines to facilitate cooperation among providers of electronic communications networks and undertakings in closely related sectors. National regulatory authorities inform BEREC within one week of voluntary conciliation requests and convene conciliatory meetings. BEREC issues opinions within two months on case elements and cooperation options. National regulatory authorities provide written accounts of meetings within one month, taking

Type of data	Reference to the requirement(s)	Standard and/or specification (if applicable)	Data flow description
			utmost account of BEREC opinions. BEREC publishes a report on ecosystem cooperation effects. The Commission reviews ecosystem cooperation functioning based on BEREC's report.
Administrative procedures, notifications, and reporting	PART VIII: General and final provisions TITLE VI: Final provisions	//	The Commission notifies delegated acts to the European Parliament and Council. Member States publish notices on implementation in national official gazettes and submit copies to the Commission, which distributes information to the Communications Committee. Member States publish information on rights, authorisations, and obligations, providing this to the Commission for public accessibility. National regulatory authorities notify the Commission of undertakings with significant market power and imposed obligations. Member States provide requested information to the Commission for review purposes. BEREC publishes reports on general authorisation implementation every three years. The Commission reviews the Regulation's functioning every five years and reports to the European Parliament and Council.

Alignment with the European Data Strategy

This legislative initiative is in line with the use of privately-held data by government authorities (business-to-government – B2G) in order to ensure evidence-driven policymaking and policy decisions.

Alignment with the once-only principle

The 'once-only principle' is respected in this case so as to minimise administrative burden on companies operating in the Single Market. Member States and the Commission shall ensure the protection of business confidential information.

4.3. Digital solutions

High-level description of digital solutions

Digital solution	Reference(s) to the requirement(s)	Main mandated functionalities	Responsible body	How is accessibility catered for?	How is reusability considered?	Use of AI technologies (if applicable)
Union Database of Notifications	Part III – Single Market Authorisation and Passporting	Publicly available Union database of the notifications submitted to the national regulatory authorities for the implementation of the single passport system.	ODN	Not specified	Not specified	Not specified
Dynamic Spectrum Database	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments	Dynamic database for geolocation and monitoring of spectrum usage opportunities. The database shall include up-to-date information collected and provided by Member States on the geolocalisation of existing uses of spectrum. This database shall be directly accessible to any prospective user of	ODN	Not specified	Not specified	Not specified

		radio spectrum.				
Database of Pan-European Numbering Resources	Part IV – Resources (Spectrum and Numbering); Title III, Numbering Resources	Database of the pan-European numbering resources on the basis of the information provided by national regulatory authorities on the allocation of numbers and beneficiaries of the numbers. (*) The ODN is charged with setting up the procedure *and system* for provision of information. This may constitute yet another digital solution or be integrated with the database hereby being analysed.	ODN	Not specified	Not specified	Not specified
ODN Information and communication system	Part VII – Governance Title V: Office for digital networks Chapter III: General provisions Article 41 of the BEREC regulation	Common platform for information exchange between BEREC, RSPB, Commission, national regulatory authorities and competent authorities responsible for spectrum Dedicated interface for information requests and notifications (Article 173) Platform for early identification of coordination needs between national regulatory authorities and competent authorities responsible for spectrum	ODN (technical and functional specifications adopted by Management Board)	Not specified	Not specified	Not specified

4.4. Interoperability assessment

High-level description of the digital public service(s) affected by the requirements

Digital public service or category of digital public services	**Description**	**Reference(s) to the requirement(s)**	**Interoperable Europe Solution(s)** **(NOT APPLICABLE)**	**Other interoperability solution(s)**
Single Market Authorisation and Passporting	Establishes the single passporting framework for the provision of electronic communications networks and services under a general authorisation regime. Includes the maintenance of a publicly available Union database of the notifications submitted to the national regulatory authorities, and various data flows.	Part III – Single Market Authorisation and Passporting	//	Not specified.
Framework for the management, allocation, and use of key electronic communications resources (Spectrum and Numbering)	In particular: - A database of pan-European numbering resources; and - A dynamic database for geolocation and monitoring of spectrum usage opportunities. A dynamic database focused on	Part IV – Resources (Spectrum and Numbering); Title I, Spectrum - Chapter III, Assignments; Title III, Numbering Resources	//	Not specified.

Digital public service or category of digital public services	Description	Reference(s) to the requirement(s)	Interoperable Europe Solution(s) (NOT APPLICABLE)	Other interoperability solution(s)
	specific frequency bands should help identifying underutilised spectrum and support more efficient spectrum use and sharing practices.			

Impact of the requirement(s) as per digital public service on cross-border interoperability

Digital public service #1 - Single Market Authorisation and Passporting

Assessment	Measure(s)	Potential remaining barriers (if applicable)
Alignment with existing digital and sectorial policies Please list the applicable digital and sectorial policies identified	Introduces a streamlined notification-based system enabling providers to operate in one or several Member States on the basis of a single authorisation, thus improving legal interoperability.	

Assessment	Measure(s)	Potential remaining barriers (if applicable)
Organisational measures for a smooth cross-border digital public services delivery Please list the governance measures foreseen	Under the single passport procedure, it is established that a provider shall submit a notification to the national regulatory authority of one of those Member States where it intends to provide networks or services. Additional data flows are in place to govern how coordination between Member Stated and ODN shall look like. Each Member State shall designate a national single contact point. ODN is charged with the maintenance of a central database of all notifications provided in the context of the Single Passport procedure. Competent authorities should transmit only complete notifications to the ODN	
Measures taken to ensure a shared understanding of the data Please list such measures	The notification of intention to provide networks or services shall be made in accordance with a notification template to be made available by BEREC.	
Use of commonly agreed open technical specifications and standards Please list such measures	Nothing specified at this stage.	

Digital public service #2 - Framework for the management, allocation, and use of key electronic communications resources (Spectrum and Numbering)

Assessment	Measure(s)	Potential remaining barriers (if applicable)
Alignment with existing digital and sectorial policies Please list the applicable digital and sectorial policies identified	//	
Organisational measures for a smooth cross-border digital public services delivery Please list the governance measures foreseen	The ODN shall establish and administer dynamic databases for geolocation and monitoring of spectrum usage opportunities. The ODN, in cooperation with national regulatory authorities, an under the supervision of BEREC, shall establish and keep an up-to-date the database of the pan-European numbering resources.	
Measures taken to ensure a shared understanding of the data Please list such measures	The Commission, taking utmost account of the views of the RSPB, may adopt implementing acts to define the spectrum bands covered by the dynamic database and develop uniform formats for the collection and provision of data by the competent authorities. Six months after the adoption of the Union numbering plan, the ODN shall set up the procedure for provision of information that will feed the pan-European numbering resources database.	
Use of commonly agreed open technical specifications and standards	The ODN shall establish technical specifications for the dynamic database for geolocation and monitoring of spectrum usage opportunities, and the pan-European numbering resources database, at a later date.	

4.5. Measures to support digital implementation

High-level description of measures supporting digital implementation

Description of the measure	**Reference(s) to the requirement(s)**	**Commission role** (if applicable)	**Actors to be involved** (if applicable)	**Expected timeline** (if applicable)
The arrangements for the exchange of information between national competent authorities and the ODN in accordance with Regulation (EU) 2024/903 may be further specified by the Commission by means of implementing acts	Article 11	Adopt implementing acts	//	After the DNA adoption
Implementing acts may define the spectrum bands covered by the database and develop practical arrangements and uniform formats for the collection and provision of data by the competent authorities to the Commission.	Article 28	Adopt implementing acts	RSPB (views to be taken into account)	After the DNA adoption
The ODN shall set up the procedure and system for provision of information under Article 47(4) and Article 48(4), fourth subparagraph.	Article 47	//	ODN	Six months after the adoption of the Union numbering plan
The Commission may adopt implementing acts setting out the	Article 81	Adopt implementing acts	BEREC	6 months from the adoption of this

Description of the measure	**Reference(s) to the requirement(s)**	**Commission role** (if applicable)	**Actors to be involved** (if applicable)	**Expected timeline** (if applicable)
technical specifications, standard cost elements, cost methodologies for harmonised products and the reference offer related to the harmonised access product(s), based on a BEREC opinion.				Regulation
The Commission may adopt implementing acts laying down technical provisions concerning the transmission of public warnings by using the digital wallet issued under of Regulation (EU) 910/2014 to all end-users concerned, including roaming end-users.	Article 108	Adopt implementing acts	EU Commission End-users	//
The Commission may, including by means of an implementing act, harmonise the methodologies for collection of information by national regulatory authorities.	Article 184	Adopt implementing acts	EU Commission	//
The Commission shall, by means of implementing acts, make implementation of the relevant standards or technical specifications compulsory by referring to them as compulsory standards or	Article 189	Adopt implemenring acts and standards	EU Commission	//

Description of the measure	Reference(s) to the requirement(s)	Commission role (if applicable)	Actors to be involved (if applicable)	Expected timeline (if applicable)
compulsory technical specifications in the list of standards or technical specifications published in the Official Journal of the European Union.				
The Commission is empowered to adopt, after consulting BEREC, delegated acts by laying down the measures necessary to ensure effective emergency communications in the Union with regard to technical specifications to allow the origination of emergency communications by using the digital wallet, caller location information solutions, harmonised European caller location criteria, equivalent access for end-users with disabilities and routing to the most appropriate PSAP.	Article 107	Adopt delegated acts	EU Commission BEREC	Adoption date + 2 years for the first delegated act
The Management Board shall adopt the technical and functional specifications for the purpose of establishing the information and communication system referred to	Article 174	//	ODN Management Board	//

Description of the measure	**Reference(s) to the requirement(s)**	**Commission role** (if applicable)	**Actors to be involved** (if applicable)	**Expected timeline** (if applicable)
in paragraph 1. That system shall be subject to intellectual property rights and the required confidentiality level.				