

BEREC's position on the scope of the DNA

Key Messages:

- Increasing interactions exist between ECN/S and other digital services and infrastructure providers. BEREC's analysis of the digital ecosystem highlights that some layers function well (e.g. IP interconnection) while others warrant continued attention, as they may present potential bottlenecks (e.g. operating systems and mobile devices).
- BEREC remains fully committed to continuously monitoring developments in the digital sector through strong stakeholder engagement and analytical work.
- Definitions impacting on the DNA scope — Articles 2 and 9 - require internal consistency and unambiguous delimitation.
- The “ecosystem cooperation” set out in Articles 191 to 193 should be clarified in order to allow for a more flexible and less burdensome approach, which would achieve effective and proportionate results.
- A definition of “digital networks” is missing; the DNA could adopt a principle-based definition of electronic communications networks, strictly based on the technology neutrality principle, not to exclude new forms of networks based on a technology which was not known at the moment of designing the DNA.

The Commission's proposal:

The DNA proposal, in line with its Impact Assessment, refers to **significant technology and market developments** that have emerged in the digital ecosystem and to correspondingly increased interactions among different players within it. The European Commission underlines that the transition of connectivity infrastructures towards digital networks is characterised, *inter alia*¹, by the transformation of networks into cloud-based and AI-powered infrastructures and by the increasing integration and mutual interdependencies between connectivity and other digital infrastructures, such as cloud or edge nodes.

This development of technological components within the digital ecosystem gives rise to new and stronger interdependencies, enhanced interactions, and more complex partnerships and client-supplier relationships. The DNA proposal strives to keep pace with these developments in a twofold manner.

First, when compared to the EECC, the scope of the **DNA seems to have been adjusted and, to some extent widened** to cover new players, e.g., in the context of the General Authorisation (GA) regime (Article 9), which appears to be expanded to apply also to certain providers of electronic communications networks (ECNs) used, wholly or mainly, for the purpose of supporting the provision of information society services available to the public. Moreover, the DNA appears to introduce a departure from the EECC framework by extending the notion of interconnection, explicitly encompassing scenarios involving non-public networks.

Second, the European Commission is proposing to introduce a dedicated mechanism for **ecosystem cooperation**. Under these provisions², BEREC is tasked with publishing guidelines to assist providers in the electronic communications and closely related sectors, in the application of industry practices and in facilitating cooperation on technical and commercial matters related to the provision

¹ For an overview of technological and market developments, see BoR (23) 131c The Future of the Electronic Communications Sector and its Infrastructure, 19.05.2024, see: <https://www.berec.europa.eu/system/files/2023-05/BoR%20%2823%29%20131c%20Annex%20to%20Section%201.pdf>

² Articles 191 to 193 and related Recitals 402 to 405 of the DNA.

of ECSs or information society services, as well as related to the provision of innovative products and services, to the benefit of end-users. Upon their request, NRAs shall facilitate a conciliatory meeting between two providers of ECNs 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 above-mentioned guidelines. It follows from the DNA that, irrespective of whether the parties concerned participate in the conciliation meeting, BEREC is obliged to issue an opinion on the elements of the case and on options for effective cooperation.

BEREC's assessment:

BEREC's analytical work shows that ECNs/ECSs are increasingly intertwined with cloud and other digital infrastructures and services.³ BEREC is aware of **certain challenges and potential bottlenecks in some elements of the digital ecosystem**⁴.

On the one hand, IP interconnection has functioned well so far: this area has been effectively governed by market forces, without the need for ex ante intervention, and is characterised by the ability to cope with traffic development as well as technological and market changes.⁵

On the other hand, BEREC's analysis has shown that some digital players, such as **operating systems (OS) and device manufacturers may have the capability to influence the provision of ECSs/ECNs**⁶ and/or the operators' ability to comply with their obligations⁷, with the potential to create barriers to entry in the electronic communications market, impacting in particular on smaller ECSs/ECNs providers⁸. Another case identified by BEREC relates to the need to implement settings or updates by OS or manufacturers to enable the provision of ECSs/ECNs such as VoLTE, VoNR, emergency communications over IMS or network slicing, as well as the difficulties that some MVNOs and smaller mobile operators seem to face in setting up some functionalities of the devices (e.g. APN-related services or VoWiFi) or in configuring the network profile when eSIMs are used.

³ BoR (24) 100_2 BEREC's input to the EC public consultation on the White Paper "How to master Europe's digital infrastructure needs?", 24.06.2024, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berecs-input-to-the-ec-public-consultation-on-the-white-paper-how-to-master-europes-digital-infrastructure-needs?language_content_entity=en; BoR (24) 139 BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services , 3.10.2024, see:

<https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-the-entry-of-large-content-and-application-providers-into-the-markets-for-electronic-communications-networks-and-services>, .

⁴ BoR (22) 167 BEREC Report on the Internet Ecosystem, 12.12.2022, see: https://www.berec.europa.eu/en/document-categories/berec/reports/berec-report-on-the-internet-ecosystem?language_content_entity=en

⁵ BoR (24) 177 BEREC Report on IP Interconnection ecosystem, 5.12.2024, see: <https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-the-ip-interconnection-ecosystem> ; BoR (24) 100_2 BEREC's input to the EC public consultation on the White Paper "How to master Europe's digital infrastructure needs?", 24.06.2024, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berecs-input-to-the-ec-public-consultation-on-the-white-paper-how-to-master-europes-digital-infrastructure-needs?language_content_entity=en,.

⁶ BoR (24) 139 BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services, 3.10.2024, see: <https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-the-entry-of-large-content-and-application-providers-into-the-markets-for-electronic-communications-networks-and-services>

⁷ E.g. Devices are not systematically set to make emergency calls via VoLTE, and with the shutdown of 2G and 3G networks, operators may not be able meet their obligation to ensure the continuity of emergency calls. Also, the economic viability of 5G deployment also depends on the availability of 5G-compatible devices.

⁸ BoR (24) 204 BEREC Report on practices and challenges of the phasing out of 2G and 3G, 7.12.2024, see: <https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-2g3g-phaseout-practices-and-challenges>

Furthermore, in cases of in-car connectivity, the complex value chain can also result in not meeting the end-user protection requirements and lead to additional barriers to competition⁹.

Moreover, BEREC has also analysed the developments in cloud and edge computing¹⁰, as well as in the fields of AI, virtual reality¹¹ and quantum technologies, which are likely to have a significant impact on the electronic communications sector and the broader digital ecosystem.

Thus, while BEREC considers that the evidence gathered to date does not justify a regulatory intervention in the IP interconnection ecosystem, it remains committed to further analysing and assessing potential bottlenecks or restrictions in other elements of the ecosystem. For the latter, BEREC considers that strong stakeholder engagement and a continuous monitoring of the developments in the digital sector, and the implications for the provision of ECSs and ECNs, is necessary. Drawing on its established expertise, BEREC will continue to provide qualitative and expert input to the Commission and the co-legislators, where appropriate, as also outlined in the BEREC Strategy 2026–2030.

Additional **BEREC monitoring** could be envisaged to assess market developments and technical conditions affecting the provision of ECNs/ECSs, including IP interconnection and traffic exchange conditions, as well as in relation to the agreements shaping the sector¹² and the development of digital infrastructures and services closely related to ECNs/ECSs, NRAs should be empowered to collect the relevant information necessary to support data-driven analysis without intervening in, or influencing, the commercial activities or decisions of the entities concerned.

As far as the **Ecosystem Cooperation Mechanism** is concerned, while BEREC welcomes the Commission's acknowledgement of its expertise in the broader digital sector, which it is intended to be augmented, as well as the potential enhancement of its role in this area, e.g., via dedicated guidelines, it notes certain challenges and rigidities in the proposed mechanism.

In particular, the proposal set out in Articles 191 to 193 establishes ambitious timelines and a detailed conciliation procedure involving multiple institutional interactions. The mandatory requirement, for each conciliation case, to produce both a BEREC opinion prior to the conciliation meeting occurring and a written account by the NRA following the meeting is likely to increase administrative and operational burdens for both NRAs and market players. This appears disproportionate in light of the voluntary and non-binding nature of the procedure, especially given the limited evidence thus far of systemic market failures requiring such intervention.

In parallel, BEREC notes that stakeholder cooperation has largely emerged organically through commercial incentives and industry-led standardisation. An excessively rigid and prescriptive mechanism risks proving unattractive to all parties involved in a context that is intrinsically highly dynamic.

⁹ BoR (24) 180 BEREC Opinion on the market and technological developments and on their impact on the application of rights of end-users in the EECC (Article 123), 5.12.2024, see: https://www.berec.europa.eu/system/files/2024-12/BoR%20%2824%29%20180_BEREC%20Opinion%20on%20Article%20123.pdf.

¹⁰ BoR (24) 136 BEREC Report on Cloud and Edge Computing Services, 3.10.2024, see: <https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-the-outcome-of-the-public-consultation-on-the-draft-berec-report-on-cloud-and-edge-computing-services>,

¹¹ BoR (24) 68 BEREC High-level position on artificial intelligence and virtual worlds, 15.03.2024, see: <https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-high-level-position-on-artificial-intelligence-and-virtual-worlds>

¹² e.g. satellite and terrestrial operators; cloud and ECN/S providers; ECN/S and specialised providers (Towerco, netco, fibercos); ECN co-investment, including also CAPs, for example, for submarine cables deployment, between ECNs/ECSs providers for the provision of integrated services, e.g. the edge federation, etc.

In addition, particular attention should be paid to preventing the introduction of additional procedural layers or potential legal inconsistencies, i.e., the ecosystem cooperation mechanism set out in Articles 191-192 should be precisely scoped and explicitly non-duplicative of existing instruments (provided both by the DNA itself and by the broader digital regulatory framework), to ensure their proportionality and effectiveness.

BEREC considers that a clearer, more flexible and less burdensome approach would achieve more effective and proportionate results. BEREC further highlights that its Work Programme, including deliverables proposed by market players in the context of calls for input and public consultations, already provides an effective mechanism for monitoring and addressing emerging ecosystem cooperation topics.

BEREC also wishes to highlight that **the reach of some provisions (for instance, in relation to the general authorisation regime – the notion of which covers a reference to information society services – and the revised notion of interconnection – referring, in the proposal, to both public and non-public networks), is unclear**. It is therefore essential for the DNA to better clarify the reach of binding regulatory obligations, to avoid ambiguity and potential litigation at a later stage. Better alignment across definitions, terminology in operative provisions and the recitals, as well as consistency with the general authorisation regime are necessary¹³.

Finally, the notion of “**digital networks**” is undefined – a gap creating legal uncertainty across regulatory instruments¹⁴. BEREC recommends adopting a principle-based definition of electronic communications networks, strictly based on technology neutrality – not only in the sense of material of lines or generation of data transmission standards but also including digital and software components. This way, new forms of networks would not be excluded from the definition(s) (and regulation) merely because they were based on a technology which was not known at the moment of designing the DNA.

Alternative proposals:

BEREC calls for targeted adjustments in three areas:

- Clarify scope definitions — Articles 2 and 9 require internal consistency and unambiguous delimitation to avoid unintended regulatory reach and legal uncertainty.
- Consider the opportunity of adopting a technology-neutral definition of “electronic communications networks”, consistent with existing EU digital legislation to ensure coherence and avoid overlap with horizontal instruments.
- Clarify and reassess the cooperation mechanism under Articles 191–193 — the adequacy and proportionality of the proposed mechanism - particularly as regards the conditions and

¹³ Some examples include: i) Number-independent interpersonal communications services (**NIICS**). While recital 56 envisages a number of obligations that would be applicable to these services, these are not developed in articles and, thus, the way in which such obligations would apply to NIICS remains uncertain, in particular taking into account that the obligations listed in the recitals are the ones linked to the GA regime, which article 9 explicitly indicates is not applicable to NIICS; ii) the definition of **interconnection** in recital 15 that is not fully aligned with the one provided in the Article 2(29) or iii) the reference in the GA regime to “*ECN used, wholly or mainly, for the purpose of providing electronic communications services or information society services available to the public*” which do not correspond to the definition of ECN in Article 2.

¹⁴ BEREC BoR (24) 100_2 BEREC’s input to the EC public consultation on the White Paper “How to master Europe’s digital infrastructure needs?”, 24.06.2024, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berecs-input-to-the-ec-public-consultation-on-the-white-paper-how-to-master-europes-digital-infrastructure-needs?language_content_entity=en,

timelines - should be carefully reconsidered with a view to avoiding excessive rigidity and disproportionate administrative burdens. By way of example, in cases where stakeholders reach an agreement at the meeting, the BEREC Opinion would not be required, but NRAs could inform BEREC of the conciliation result. Moreover, the mechanism should be explicitly non-duplicative of existing instruments, applied without prejudice to existing national dispute resolution procedures, while not affecting their functioning or scope.

In this regard, BEREC wishes to emphasise that, in light of the current evidence available, the proportionate default is continued monitoring, evidence gathering, and targeted intervention when needed.¹⁵

As noted above, BEREC considers that the existing process for defining its Work Programme — which already includes two stages of stakeholder involvement through an initial call for input and a subsequent public consultation on the draft Work Programme — constitutes the principal avenue for monitoring relevant developments in the broader digital sector in a manner that is both more flexible and less burdensome. In this context, it is important that stakeholders provide the necessary evidence and clearly delineate the issues they wish to bring to BEREC's attention. This framework could potentially be complemented by an additional platform enabling stakeholders to communicate emerging challenges in the broader digital sector to BEREC throughout the year, independently of formal public consultations or calls for input.

The suggestion under recital 402 to establish a **dedicated stakeholders cooperation group seems to go this direction**. Such a continuous cooperation would indeed facilitate dialogue, feed the guidelines and timely address emerging issues in relation to innovative services.

Within such a framework, NRAs and BEREC would retain the necessary flexibility to react, where justified and within an appropriate timeframe, through the most suitable instrument depending on the specific circumstances. This could include, for example, issuing an opinion on a specific case, adding a dedicated deliverable to the Work Programme, launching a public consultation or call for input to gather broader market insights, reflecting the matter in BEREC's contributions under other legal instruments (such as the Digital Markets Act), or facilitating discussions between relevant stakeholders.

Such an approach would ensure greater flexibility and proportionality, avoiding unnecessary burdens and procedural rigidity while still enabling effective action where justified. At the same time, it would allow BEREC to better distinguish between cases requiring intervention and situations where no response is warranted or would add value.

Similarly, the guidelines on ecosystem cooperation envisaged under Article 191 could be reframed as a more flexible "living repository of best practices", which BEREC could update over time as new evidence emerges.

¹⁵ BEREC BoR (24) 100_2 BEREC's input to the EC public consultation on the White Paper "How to master Europe's digital infrastructure needs?", 24.06.2024, see: https://www.berec.europa.eu/en/all-documents/berec/opinions/berecs-input-to-the-ec-public-consultation-on-the-white-paper-how-to-master-europes-digital-infrastructure-needs?language_content_entity=en; BoR (24) 136 BEREC Report on Cloud and Edge Computing Services, 3.10.2024, see: <https://www.berec.europa.eu/en/all-documents/berec/reports/berec-report-on-the-outcome-of-the-public-consultation-on-the-draft-berec-report-on-cloud-and-edge-computing-services>,