

**BEREC's position on Replacing the term
"VHCN" with the definition of Gigabit Networks,
beyond the DNA (Article 2 (2) DNA)**

Key messages

- BEREC is concerned about the impact of replacing the concept of “Very High-Capacity Network (VHCN)” with “Gigabit Network” on, among others, the Gigabit Infrastructure Act and the Digital Decade Policy Program, ultimately raising legal certainty and regulatory predictability concerns.
- The definition of “Gigabit Network” seems to be a synonym of FTTH, while it is not suitable for mobile networks. BEREC therefore cautions against the setting aside of the concept of technological neutrality, without clear justification. BEREC notes that this principle has always been important in past and existing regulation.
- BEREC proposes to maintain the VHCN definition and not to replace it by the “Gigabit Network” definition. Furthermore, the “Gigabit Network” definition needs more clarification.

Commission proposal:

The term "Gigabit Network" is newly introduced by the DNA (Recital 8, Article 2(2)). This term is intended to replace the definition of "Very High-Capacity Network" from the EECC and any reference to the “old” VHCN definition should now be understood as a Gigabit Network within the meaning of the DNA.

A "Gigabit Network" is defined as a network consisting of fiber optic elements up to the network termination point (or a network that achieves similar performance under usual peak-time conditions in terms of available downlink and uplink bandwidth, resilience, error-related parameters, and latency and its variation. Recital 8 further clarifies that such gigabit networks, both fixed and mobile, are capable of providing data rates in the order of at least 1 Gbps for both down- and upload, as well as other advanced performance parameters such as low latency and high stability.

The term “Very High-Capacity Network” is defined in the Code and further specified in BEREC VHCN Guidelines and includes, for fixed technologies, FTTB, upgraded HFC networks (DOCSIS 3.1 and higher) and other technologies providing performance of at least 1 Gbps download and at least 200 Mbps upload, alongside other technical requirements regarding stability and latency.

Recent EU legislation (in particular the Gigabit Infrastructure Act) aims at fostering VHCN deployment. Article 2 of the Gigabit Infrastructure Act indicates that, for the purposes of said Regulation, the definition of VHCN set out in the EECC shall apply.

BEREC’s assessment:

BEREC does not, in principle, oppose the definition of a new term “Gigabit Network”. BEREC notes that the current proposed definition is relevant for both fixed and mobile networks. For fixed networks, it seems only to include full-fibre networks (FTTH), as no other fixed network is capable of offering similar performance, regardless of whether it could offer gigabit connectivity.

BEREC does not see a problem with new provisions incentivising the deployment of Gigabit networks, specifically in new legislation or soft law instruments that are based on the DNA.

However, and primarily, BEREC is concerned about the proposal set out in Recital 8 and Article 2(2) of the DNA, namely that any reference to the old EECC term of “VHCN” should now be understood as “Gigabit Network.” This affects large parts of the Gigabit Recommendation and the Gigabit Infrastructure Act (GIA)¹ (as well as other legal acts, including potentially State aid guidance and relevant BEREC Guidelines) which are currently defined as “fostering deployment of VHCN”. It also has an impact on the Digital Decade Policy Program (DDPP)². Curtailing the applicability of those instruments may not be helpful and hamper the deployment of networks offering gigabit connectivity, regardless of whether they fall within the scope of the new definition of Gigabit Networks in the DNA.

It should be noted that the in-building segment of networks may be particularly difficult to deploy, depending on national circumstances and national property laws. At the same time, it is clear that any deployment that brings fibre closer to the end-user is a step in the right direction towards full-fibre, especially if this evolution leads to the capability of the network to offer gigabit speeds, in line with the DDPP.

Moreover, replacing the term VHCN with Gigabit Network (i.e. FTTH) causes legal uncertainty as to the question of how this policy shift would affect upgraded HFC Networks. This question arises, for example, in the context of the rules on migration and copper switch-off. BEREC understands that the proposal is not intended to affect HFC networks in that respect. However, retaining VHCN as a concept in the DNA would significantly increase legal certainty on this point.

Examples of potential negative consequences in the context of the application of GIA

The GIA defines its overall goal to “facilitate and stimulate the roll-out of very high-capacity networks” (Article 1 (1) GIA). To achieve that, there are on the one hand privileges and tools available to foster deployment of VHCN, and there are on the other hand measures foreseen to allow the protection of existing VHCN through rights of refusal to use GIA tools for the duplication of existing VHCN (for example, Article 3 (5) and (6) GIA).

As outlined below, there is some uncertainty on the scope of mobile networks covered by the term. Limiting the scope of mobile networks covered by the term would significantly limit the scope of access rights etc. in GIA, possibly to the extent that GIA only supports the deployment of fixed networks.

Any potential understanding of the DNA proposal that affects both types of instruments in the GIA would be detrimental to the effectiveness of GIA and hamper investment and deployment. Member States may be able to mitigate this by widening the scope of GIA by providing the tools to deploy networks other than “VHCN” (read “Gigabit Network”) in order to avoid a severe limitation of the applicability of GIA. However, this would reduce the degree of harmonisation, increase the complexity of the interplay between GIA and national legislation, and lead to uncertainty during the transitional period. Changes to new legislation soon after its entry into applicability should be evaluated carefully, because stable framework conditions create more investment certainty, and an atmosphere of frequent unnecessary changes can be detrimental to this. Moreover, a similar action would be much more difficult with respect to provisions protecting existing VHCN. In many cases, investments in networks that would be currently

¹ 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 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401309

² Decision EU 2022/2481 establishing the Digital Decade Policy Programme 2030 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022D2481>

protected would potentially lose that benefit, depending on the in-building segment of the network that operators may not be able to fully control because they qualify as VHCN (FTTP/B) but not as Gigabit Network (FTTH).

Impact on the DDPP

The DDPP sets out the target of i.a. achieving coverage of all end users by a gigabit network up to the network termination point (Article 4(2) a) DDPP). This target is not equivalent to achieving full coverage of “Gigabit Networks” within the meaning of the DNA, as the definition in the DNA aims at full-fibre networks instead of networks offering gigabit speeds.

According to the Commission decision on monitoring key performance indicators to measure the progress towards the digital targets³, one key monitoring parameter is “*gigabit connectivity, measured as the percentage of households covered by fixed VHCN. The technologies considered are those currently able to deliver gigabit connectivity, namely Fibre to the Premises and Cable DOCSIS 3.1.*” (Article 2(3)). This Monitoring parameter would no longer exist under the DNA.

Unclear reasons for the introduction of the definition of “Gigabit networks”

BEREC welcomes the legislative efforts to promote Gigabit connectivity. It is, however, observed that the DNA proposal rarely refers to this new term “Gigabit networks”. Indeed, it appears that the main intended application is to replace the VHCN definition outside the DNA, which raises the issues highlighted in the sections above. In the context of fixed networks, the term “Gigabit network” seems a synonym for FTTH network, whereas for mobile networks the term seems self-contradicting: on one hand it appears to be a synonym for VHCN (“*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.*”), and on the other hand it might be an unrealistic expectation (“*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*”). In BEREC’s view, it should therefore be kept in mind that, as it stands, the proposed definition of “Gigabit networks” is unsuitable for the mobile networks.

Regarding fixed networks, the current proposed definition in practice only includes full-fibre networks (FTTH), regardless of whether other types of fixed networks could offer gigabit connectivity, now or in the future. BEREC wishes to ask for caution when putting the concept of technological neutrality aside without clear justification. BEREC notes that this principle has always been important in past regulation.

Impact on mobile networks and related inconsistencies

BEREC wants to address a more general concern regarding the compatibility of the definition of ‘Gigabit network’ with mobile networks. In this regard, the specification of symmetrical gigabit

³ Commission Implementing Decision (EU) 2023/1353 of 30 June 2023 establishing the key performance indicators to assess progress towards the digital targets set out in Article 4(1) of Decision (EU) 2022/2481 of the European Parliament and of the Council, OJ L 168, 3.7.2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023D1353>

speeds under usual peak-time conditions are not achievable for mobile networks.⁴ Moreover, even though the DNA mentions in recital 8 that the network termination point (NTP) for mobile networks is considered to be the base station, this assumption is not compatible with the NTP definition, because the base station is clearly part of the mobile network⁵. It is therefore possible that no mobile network at all would fall under the scope of “Gigabit network” in its current proposed definition: BEREC assumes, however, that it cannot be the intention of the DNA to exclude all mobile technologies, nor to create any legal uncertainty in that regard.

Alternative proposals:

The definition of the new term ‘Gigabit network’ could be kept, but the definition of VHCN should not be replaced by it. The definition of VHCN should be copied from the Code and added to Article 2 of the DNA. This change would prevent fragmentation in the application of key instruments of the EU Telecoms framework and prevent unintended consequences that might hamper achieving connectivity with Gigabit networks in the EU.

As a secondary point, to avoid inconsistencies or concerns regarding mobile technologies and other fixed technologies providing gigabit connectivity, **the proposed definition could then be either removed** (where its references in the DNA should be corrected accordingly) **or further clarified** in light of the concerns raised above.

⁴ BoR (25) 182, BEREC Guidelines on Very High Capacity Networks, 04.12.2025, <https://www.berec.europa.eu/en/all-documents/berec/regulatory-best-practices/guidelines/berec-guidelines-on-very-high-capacity-networks>

⁵ See BoR (20) 46, BEREC Guidelines on Common Approaches to the Identification of the Network Termination Point in different Network Topologies, 05.03.2020, <https://www.berec.europa.eu/en/document-categories/berec/regulatory-best-practices/guidelines/berec-guidelines-on-common-approaches-to-the-identification-of-the-network-termination-point-in-different-network-topologies>, Chapter 4.