BEREC
Body of European Regulators for Electronic Communications

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# BEREC's feedback to the European Commission's draft implementing decision setting out key performance indicators for the Digital Decade Policy Programme 2030

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**The Body of European Regulators for Electronic Communications (BEREC)** would like to provide input to the Commission's proposal published on 13th February 2023[1] for Key performance indicators (KPIs) to measure the progress towards the digital targets established with the Digital Decade Policy Programme 2030 (DDPP)[2]. BEREC will focus on the two connectivity KPIs proposed in Art. 2(1) of the draft Implementing Decision:

**No 3**:

"***Gigabit connectivity****, measured as the percentage of households covered by fixed Very High Capacity Networks (VHCN). The technologies considered are Fibre to the Premises and Cable DOCSIS 3.1. The evolution of the Fibre to the Premises coverage will also be monitored separately, and taken into consideration when interpreting VHCN coverage data*."

**No 4**:

"***5G coverage****, measured as the percentage of populated areas covered by at least one 5G network using the 3.4-3.8 GHz spectrum band. For the first 2 years, additional reporting will be done for 5G coverage regardless of the spectrum band used*."

## Executive Summary

In general BEREC is of the view that the proposed definitions of these two KPIs are not consistent with the definitions of the EECC and consequently also not with the relevant BEREC Guidelines based on the EECC, namely the BEREC VHCN GL (BoR (20) 165) and the BEREC Broadband mapping (Art. 22) GL (BoR (20) 42). These inconsistencies will cause issues for NRAs and more broadly for the market participants. Furthermore, the very narrow and not technologically neutral definitions (in particular for KPI No. 4) will not allow to properly measure the progress towards the connectivity targets and result in misrepresenting the connectivity situation reached in the Member States. BEREC therefore urges the Commission to reconsider the proposal and align both the definitions and the measurement methods of the two connectivity KPIs to the EECC and the relevant BEREC GL which need to be taken into utmost account by NRAs. Moreover, BEREC asks the Commission to define the KPIs in a technological neutral and forward looking manner.

BEREC will describe hereafter in more detail these points and also comment on the Annex regarding data gathering.

## No 3 – Gigabit connectivity

The KPI "**Gigabit connectivity**" is defined as the percentage of households covered by fixed VHCN coverage and "FTTP" and DOCSIS 3.1" are "considered". An ECN based on FTTP

[1] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13743-Key-performance-indicators-for-the-Digital-Decade-policy-programme-2030_en.
[2] Decision (EU) 2022/2481, OJ L 323, 19.12.2022, p.4.

qualifies as VHCN, according to the EECC (Art. 2(2), Rec. 13) and the BEREC GL on VHCN (criterion 1). However, an ECN based on DOCSIS 3.1 only qualifies as a VHCN (i) if it is based on FTTB and DOCSIS 3.1 is only available in the building or (ii) it fulfills criterion 3 (certain end-user quality of service) of the BEREC GL on VHCN. Therefore, an area covered by DOCSIS 3.1 is not necessarily covered by a VHCN.

It is not clear how data on FTTP and DOCSIS 3.1 are used to determine (calculate) the KPI.

If the term "FTTP" is defined as FTTB and FTTH, as in the study "Broadband Coverage in Europe 2021" commissioned by the EC, ECNs based on FTTB and DOCSIS 3.1, the definitions of the BEREC Art. 22 GL (BoR (20) 42) should be used as section 2.4.1.3. provided a network technology classification which reflects technologies in the last mile (access network), so if this classification is used there would be no double counting of an "fiber+DOCSIS 3.1 network", (i.e. fiber to a certain point (before the building) and then DOCSIS 3.1).

The KPI "Gigabit connectivity" does not include other technologies (e.g. G.Fast, FWA networks, DOCSIS 4.0) than FTTP and DOCSIS 3.1, although any ECN that fulfills criterion 3 (certain end-user quality of service) of the BEREC GL on VHCN qualifies as a VHCN.

Section 2.1 of the BEREC Report on comparable broadband coverage indicators (BoR (21) 172)[3] recommended the use of the concept of "*premises passed*" rather than the concept of "households passed" in considering fixed broadband coverage indicators. The concept of "premises passed" is defined in the BEREC Broadband mapping GL (BoR (20) 42, section 2.1) and is the cornerstone of the fixed broadband mapping exercises. The recommendation in the BEREC Report (BoR (21) 172) stemmed from the observation of the variety of national approaches in considering/counting households and the fact that some operators recognized that they were unable to distinguish residential and non-residential premises. Given that NRAs follow the approach of the BEREC GL and collect data related to "premises", BEREC asks the Commission to use "premises" also for practical considerations of data collection.

In concluding, BEREC recommends the modification of the proposed definition of KPI No 3 to make clear that the term "VHCN" means a "VHCN" as defined in the EECC (Art. 2(2), Rec. 13) and the BEREC GL on VHCN in the respective valid version based on the EECC. The definition should be technologically neutral and not limited only to specific technologies such as DOCSIS 3.1 (in case reference is made to DOCSIS 3.1 it should be widened to say "*at least* DOCSIS 3.1"). In line with the principle of technology neutrality the monitoring of FTTP should not be done separately from other VHCN solutions, i.e. fibre comprises FTTH and FTTP.

[3] This Report provides recommendations for NRAs and the EC in the delivery of national coverage indicators in the context of the "Broadband Coverage in Europe Study".

**No 4 – 5G coverage**

In line with the principle of technology neutrality and measurement area definition BEREC urges the Commission to reconsider its too narrow definition and defining this KPI as the "Availability of 5G at 100m x 100m grid level or smaller grid (or equivalent polygon)" as provided for in the BEREC Art. 22 GL (BoR (20) 42), **regardless of the spectrum** band used. The KPI should not refer or be limited to only one spectrum band, but be technologically neutral and open to future developments. The current definition risks to considerably underestimating the 5G coverage progress within Member States and the EU and also missing future developments (see below). If the definition is adjusted as proposed, the sentence "For the first 2 years, additional reporting will be done for 5G coverage regardless of the spectrum band used" can be deleted.

BEREC considers a wider and more future proof definition of 5G necessary for a multitude of reasons.

Multiple bands: Even if 3.4 - 3.8 GHz has been widely used to introduce 5G, it is obvious that over time 5G networks will be multilayer networks with 5G coverage in multiple frequency bands in the same way that most 4G networks are configured today. Until 2030 more and more of the already available frequency bands will be transitioned from 2G/3G/4G to 5G and it is highly likely that in most Member states a majority of all traffic will be on 5G in 2030.

In the same way as for 4G, 5G carrier aggregation will make it possible to aggregate the capacity in multiple 5G bands and seamless optimise the combined resource pool. A network aggregating 5G carriers in 700, 1800 and 2100 MHz would for example allow many operators to get access to a frequency bandwidth of 100 MHz or more which is comparable with what most operators use in the 3.5 GHz band. That such a network, that would be able to offer 5G top speeds of more than 1 Gbit/s and be able to deliver a high QoS according to all normal parameters, is not deemed to qualify as a 5G network, is not understandable at all.

BEREC also notes that most of the new none-MBB use cases that is expected to facilitate the digitalisation of different verticals and the society at large is expected to have either symmetrical or uplink centric traffic patterns. Using 3,5 GHz with its normally limited up link coverage as proxy for a good 5G service would in this case be even more strange, most servicers would in future networks rely heavily on uplink 5G coverage in lower frequency bands to fulfil the required QoS.

Density of users/usage and capacity: The proposal also totally disregards the effect of density of users/usage and traffic demand in regards to what should be seen as a good 5G service. Normally, one would acknowledge that there will be a difference in the needed capacity if one for example compares the needed network design in areas with different population densities. In areas with a low population density it is highly unlikely that a network design based on 3.5 GHz coverage is a good solution to achieve a relevant 5G services, in this case many areas have a low number of users and could get a good quality of service based on 5G in one or

more lower frequency bands. This might even be a better quality of service than a user will get in a poorly designed 3.5 GHz network deployed in a densely populated municipality.

Also, the current definition of KPI No 4 is not clear enough and thus not measurable, e.g. what does “populated area” mean, i.e. does it refer to populated areas of settlements or to the percentage of covered households/premises? Which speed and performance is required? Downlink only or also uplink. By not defining a minimum performance/minimum speed the indicator does not necessarily reflect the performance claimed by the DDPP targets. With regard to “populated areas” BEREC suggests to replace it with the definition of the BEREC Art. 22 GL (BoR (20) 42) or to provide clear methodological considerations on what is behind the concept of “populated areas” and define them precisely. The KPI should be consistent with the definition of the DDPP targets.

The BEREC Art. 22 GL (BoR (20) 42) recommend the reporting of the availability of mobile technologies at 100m x 100m grid level or smaller grid (or equivalent polygon. The Report BoR (21) 172 acknowledged that the work on 5G monitoring is heterogeneous across Europe and a challenge for NRAs individually and collectively. The report explained that at that stage common methodologies or principles may be possible for simple metrics (rather than coverage) and that this should be reflected upon. Yet, it clearly concluded on the need of 5G coverage information “in order to back European digital policies with facts and data and motivate policy decisions”.

In summing up it seems contradictory and not in line with the DDPP target that the proposed KPI for 5G coverage is likely more appropriate for tracking the possibility to transmit even higher quality Cat videos in urban areas than to track the possibility for 5G to make a substantial contribution to the digitalisation of the society. BEREC therefore recommends that the Commission reconsiders the definition of the KPI to make it technological neutral as well as forward looking and further be more precise with regard to the measurement methodology provided for in the BEREC Art. 22 GL (BoR (20) 42). A broader definition is needed to catch the full coverage as well as showing the entire picture to measure the progress towards the DDPP connectivity targets accurately.

**Annex – data gathering**

The Annex to the draft Implementing Decision states that the sources for the connectivity indicators are “commercial providers providing a study for the Commission”. This is no issue in so far, as the national data nurturing the coverage studies and DESI indicators is sourced from the relevant public agencies. The BEREC Report BoR (21) 172) states: “the sourcing of data for the Study should entirely rely on the national authorities in charge of delivering the Article 22 Broadband maps or their affiliate organizations, whereas, up to now, on a few occasions, the data was provided by operators with little involvement of the public authorities. The provision of data by operators should be considered as exceptional and where properly justified”.

Therefore, NRAs and relevant OCAs should be the first point of contact for (the consultant of) the EC and not the operators in order to ensure the highest possible accuracy of the data as well as verifying the data and ensuring comparability. In case the competent authority is not in the possession of certain information, it may request operators to provide this data (to them) in the second instance. Finally, BEREC considers it helpful if the Commission can set out or refer to the specific legal basis under the Code according to which NRAs can gather this information.

BEREC stands ready to provide further wording suggestions if required.