

# **BEREC Report on the outcome of the public consultation on the BEREC Work Programme 2023**



December, 2022

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## I. INTRODUCTION

During its 52th Plenary Meeting (6 October - 7 October 2022) BEREC approved for public consultation the draft BEREC Work Programme 2023. The role of the public consultation is to increase transparency and to provide BEREC with valuable feedback from all interested parties. This public consultation on the draft document follows BEREC's initial public consultation for inputs to the Work Programme 2023, which closed in April 2022 and prompted a wide spectrum of stakeholder engagement.

In accordance with BEREC's policy on public consultations, the current report is a summary of how stakeholders' views have been considered. In addition, BEREC also publishes all individual contributions on its website, taking into account stakeholders' requests for confidentiality. The public consultation was open until 7 November 2022.

This document summarises the responses received to the public consultation and presents BEREC's position with regard to suggestions and proposals put forward in those responses, as relevant. In total 18 responses were received, none of them considered as confidential based on the request of the respective respondents.

The non-confidential contributions were received from the following organisations: Intelsat, KIKE, Vantage Towers, DSA, GSMA, Huawei, EENA, ETNO, ecta, Microsoft, MVNO Europe, Prysman, ATC, CCIA, FTTH Council Europe, EWIA, BEUC and Viasat.

BEREC welcomes all contributions and thanks all stakeholders for their submissions. The non-confidential contributions received from stakeholders will be published in their entirety on the BEREC website.

Generally, the responses of the stakeholders are supportive for the work programme of BEREC of 2023. The preparatory process of drafting this work programme involved stakeholders twice, first at an early stage with an initial call for early inputs in March and April and secondly in the public consultation in October-November on the WP document. BEREC notes that many stakeholders are keen to engage further with BEREC requiring additional consultations beyond those already planned by BEREC in 2023. BEREC will do so on an ongoing basis through BEREC's many interim consultations, webinars, workshops, questionnaires etc. on the work set out in the BEREC WP 2023. BEREC appreciates this willingness of its stakeholders to engage on its work in 2023 and is continually working to improve its transparency and engagement with all stakeholders.



## II. BEREC WORK IN 2023

### Strategic priority 1: Promoting full connectivity

KIKE proposes to broaden the BEREC Work Programme 2023 and include analysis of the duration of proceedings, in every Member State, regarding access to existing infrastructure, to in-building infrastructure and to building in the absence of available highspeed-ready in-building infrastructure.

KIKE notes that at least in Poland, duration of proceedings regarding dispute resolution, regulated in the Article 3(5) of the Directive 2014/61/EU (access to existing physical infrastructure) and Article 9(3) (in relation with the Article 9(1) and (2)) of the Directive 2014/61/EU (access to the premises up to the access point and to the in-building infrastructure), significantly exceeds the time limit set in this Directive.

DSA (Dynamic Spectrum Alliance) welcomes BEREC's commitment to full connectivity, in line with the focus of promoting high-capacity networks within the European regulatory framework. DSA believes that achieving full connectivity for EU citizens and businesses requires a holistic approach, one that recognizes and encourages all gigabit technologies (including 5G, fibre, coax cable, satellite, fixed wireless access and the latest generations of license-exempt technologies such as Wire Access Systems/Radio Local Area Networks, of which Wi-Fi is an example). Particularly, Wi-Fi constitutes a perfect complement to fibre, and as complementary technologies, they are critical to provide European citizens the wireless experience expected in a truly digital gigabit society.

DSA strongly encourages BEREC to start measuring end-user traffic in terms of technologies used, so that further efforts to promote full connectivity can be based on a truly data-driven approach in addition to predictions about the future.

BEUC regrets the absence of any references to the issue of access and information to consumers. The objective of full connectivity must also work for consumers, not only operators, especially when the improvement of network infrastructures with the rollout of new technologies such as 5G stands out as a unique opportunity to improve accessibility and better quality of service. Thus BEUC calls on BEREC to also prioritise consumer-relevant elements of 5G such as quality of service, coverage, information, and marketing practices.

BEREC's response:

BEREC welcomes the feedback provided by stakeholders and has carefully considered the respondents' views related to the strategic priority of promoting full connectivity. As regards, KIKE's comment to include analysis of the duration of proceedings regarding access, BEREC would like to note that in June 2020, the European Commission published a roadmap for the review of the Broadband Cost Reduction Directive (BCRD, Directive 2014/61/EU) and it is expected that the European Commission will submit its legislative proposal for a revised BCRD to the co-legislators in the near future. According to the Draft BEREC Work Programme 2023 (BoR (22) 143, section 5.1.1), BEREC may prepare an opinion on the EC proposal and

submit it to the co-legislators. However, BEREC does not consider it to be useful to examine provisions of the 2014 BCRD and their implementations which may be superseded by the revised BCRD in the near future. Furthermore, BEREC would like to point out that, according to the BEREC report on the implementation of the BCRD (BoR (17) 245), the number of disputes with regard to access to in-building physical infrastructure (according to Art. 9 BCRD) is particularly high only in one country, which is Poland, and significantly lower in the other countries examined (see also BoR (21) 30, Q32).

BEREC takes note of DSA's suggestion to start measuring end-user traffic in terms of technologies used. Collecting data is a burdensome procedure for both NRAs and operators and BEREC tries to limit such collection only to cases that this data is necessary for the execution of projects that are included in the work programme.

Regarding BEUC's comment, BEREC would like to point out that the work programme includes a task about QoS which will also cover 5G and a workshop about copper switch off that will focus on end-users. In any case, BEREC takes note of BEUC's suggestion for potential future tasks.

### **1.1. BEREC Report on the regulatory treatment of business services (carry-over)**

GSMA notes that these markets are evolving and that wholesale access regulation may need to adapt to evolving wholesale access needs within the context of the existing regulatory framework. GSMA encourages BEREC to explore the role of hyperscalers in the provision of services to business customers and evaluate the need for broader market definition and analysis that includes these players and depending on the findings, if needed, a reassessment of dominance in this market as a result. Network virtualisation is in GSMA's view greatly lowering barriers to entry.

ETNO already contributed to the internal workshop on regulatory treatment of business services organised by BEREC in October 2022 and will also contribute to the BEREC public consultation on its draft report. Given the current development of VHC connectivity and the presence of alternative competing fibre networks and the current and forward-looking competitive constraints exerted by hyperscalers, ETNO believes that market 2/2020 should no longer be susceptible of ex ante regulation across the EU.

Ecta thanks BEREC for holding a workshop on this topic in 2022 and understands that this work item will consist of both an external study (focused on the evolution of business services) and of BEREC's own work, in the form of a BEREC Report. Ecta particularly welcomes that BEREC will include case studies of good practices used by NRAs to encourage effective and sustainable competition, as well as investment and innovation.

Ecta notes that BEREC should not lose sight of the core concerns regarding competition for electronic communications networks and services required by business customers. In this context, ecta would like to reiterate that, despite claims made by some stakeholders that these markets would function fine without regulatory intervention, Business-to-Business (B2B)

electronic communications services remain characterised by Significant Market Power in the hands of the incumbent telecommunications operator in many EU Member States. Ecta suggests some further work for BEREC related to this topic.

MVNO Europe advocates that the external study commissioned by BEREC on the evolution of business services should explicitly cover the integration of fixed and mobile communications (Unified Communications as a Service - UCaaS). Internet of Things(IoT) is of increasing relevance to many businesses, and therefore should be covered in this BEREC workstream on business services as well.

BEREC thanks stakeholders for their support and co-operation so far in this matter. All stakeholders are encouraged to provide their input in the public consultation on the report on regulatory treatment of business services.

Regarding GSMA's comments, BEREC would like to note that the points raised are addressed in the BEREC external report (i.e. some questions focused on IT services provided by hyperscalers), and BEREC will also address the entry of large content and application providers into the markets for electronic communications networks and services. As regards network virtualisation, BEREC would like to mention that BEREC's work programme for 2023 includes an external study that will assist BEREC in identifying the trends and policy/regulatory challenges of cloudification, virtualisation and softwarisation in telecommunications (see item 2.12 in the BEREC WP 2023).

As regards Ecta's suggestions for future work related to this topic, BEREC notes that it will analyse the inputs it will receive on the public consultation of this report. Moreover, other inputs received, as well as the views expressed by stakeholders in the workshop organised in October 2022, might be considered for next years (e.g. common positions or reports on specific issues).

Finally, on MVNO Europe's comments, BEREC would like to note that UCaaS are considered in the external study, as the contracting of Unified Communications by companies is analysed. BEREC might consider further analysis for any future work in the context of business services, based on the result of the public consultation on this report. MVNO Europe is encouraged to also address this issue in their response to this public consultation.

## **1.2. BEREC study on the evolution of the competition dynamics of tower and access infrastructure companies not directly providing retail services**

Vantage Towers is glad to see BEREC's effort to study the dynamics in the connectivity infrastructure market. Vantage Towers believes that the telecom sector has witnessed the positive impact that TowerCos have on the market. They are not only facilitated large scale and quicker rollout of 5G networks but also improved competition and attracted much needed investment capital. The neutral host model focused on sharing passive infrastructure enables significant savings for mobile operators. Therefore, Vantage Towers suggest that BEREC also



considers the TowerCos' contribution to network investment and also the positive impact on the environment. To enable this positive impact fully current administrative burdens should be alleviated by the ambitious revision of the Access Recommendation and the BCRD.

GSMA considers it especially important that the the numerous external studies, BEREC plan to tender and publish during 2023, include contributions from the industry by means of interviews carried out with individual operators or at least with the respective associations.

ATC (American Tower Corporation) welcomes BEREC's increased focus on the tower industry, seen through the study on the evolution of competition dynamics in the sector. The report should account for the differences in terms of efficiency gains and openness between dependent and independent TowerCos. Both have significant implications for the realization of the neutral host model and thus for driving tenancy ratios and coverage, as their co-location and network sharing abilities and incentives inherently differ. ATC believes that BEREC should investigate the wider ecosystem. Therefore, it should particularly take into account the structure and role of MNOs, public and private facility (land, buildings) owners, and land aggregators, which increasingly influence prices and availability of land. Furthermore, ATC refers to the special attention that should be given to the difficulties and hurdles faced by TowerCos and MNOs in rolling out passive infrastructure to support connectivity, particularly 5G networks. The ongoing and lengthy revision of the Broadband Cost Reduction Directive (BCRD) can serve as a critical vehicle to overcome these difficulties but needs to be revised effectively and swiftly.

EWIA (European Wireless Infrastructure Association) notes that it is important to make a distinction between wireless infrastructure controlled by an MNO and independent wireless infrastructure. As the European voice of independent wireless infrastructure, EWIA wants to emphasize that in principle independent towercos should be considered with a different regulatory lens than vertically integrated undertakings as they represent a different and genuine wholesale-only business model based on infrastructure sharing. Independent wholesale players invest in more substantial assets, designed for use by multiple network operators from the outset. Therefore, independent neutral host infrastructure encourages smaller wireless operators and innovative new applications and in addition to the three or four mobile network operators, independent neutral host infrastructure supports hundreds of other wireless networks.

FTTH Council Europe welcomes the proposed study but believes it is a topic that could usefully be put to a public consultation. The separation of network and services is important – the emergence of Wholesale-Only operators has transformed the fixed line business in Europe, creating investible products for long term investors for the first time, and these operators have, through their investments, added enormous impetus to the market dynamics.

Ecta welcomes the addition of this topic to BEREC's WP2023, given that transferring mobile and fixed assets to dedicated infrastructure companies is undoubtedly an important development. Ecta notes, however that several ecta members have entered into very long term contracts with infrastructure companies of this type. These contracts anchor long-term business strategies and business plans, and any disruption thereto should be studiously avoided.



BEREC welcomes the feedback provided by stakeholders and understands the issues raised here as important to consider during the execution of this project.

As regards the suggestion to put this study to a public consultation, BEREC notes that external reports - due to their nature - are not subject to public consultation. However, as mentioned in the draft BEREC work programme, and in line with the suggestions from some stakeholders, a workshop to collect stakeholders' views is foreseen. Regarding the comments raised about the revision of BCRD, BEREC would like to note that the draft BEREC WP 2023 already foresees that BEREC may prepare an opinion on the EC proposal for a revised BCRD and submit it to the co-legislators. However, BEREC would like to clarify that NRAs typically do not have the legal competence to grant permits and, therefore, NRAs are typically not in a role to contribute to faster permitting procedures.

### 1.3. Report on practices and challenges of the phasing out of 2G and 3G

GSMA looks forward to contributing to BEREC's efforts to examine and anticipate any impact of possible future phasing out of some legacy systems (2G and 3G) on the electronic communications network markets including system reliability and security, sustainable network management, environmental impact, and end-user terminal developments.

GSMA invites BEREC to weight any possible negative impact against the numerous benefits of transition to new technologies, which are most likely to offset the former.

GSMA highlights the ongoing discussions with the European Commission regarding the issue of eCall and the urgent need to update the Regulation (EU) 2015/758. Finding a solution to the legacy issue, whereby an ever-increasing number of newly produced vehicles are equipped with obsolescent circuit-switched technology which is only compatible with 2G and 3G networks is getting more and more vital.

Huawei takes note of BEREC's willingness to better understand and assess any impact of possible future phasing out of some legacy systems (2G and 3G). Huawei welcomes this initiative and would be interested in participating in the public consultation and sharing its insight about 2G and/or 3G switch-offs best practices.

EENA (European Emergency Number Association) welcomes BEREC's intention to deliver a report on practices and challenges of the phasing out of 2G and 3G technology. Mobile originated emergency communications in the EU remains heavily reliant on falling back to circuit-switched 2G and 3G technology, including for eCall. It is therefore important that the Member States' migration plans to later generations of mobile network technology adequately take into account continuity of access to emergency services, through emergency communications, for all citizens including while roaming.

According to EENA should the current wording of the Draft Delegated Regulation supplementing EECC Article 109 remain unchanged after adoption, EENA would strongly encourage BEREC to complement its priorities for 2023 by considering a new work item to convene and lead a multi-stakeholder working group to inform a BEREC Report, containing guidelines for Member States, on a harmonised set of parameters for accuracy and reliability criteria for emergency caller location information.

BEUC welcomes the planned report on practices and challenges of the phasing out of 2G and 3G. Some stakeholders have expressed concerns over the consequences for European consumers from the switch-off of these technologies (e.g. roaming difficulties in Europe and beyond; the continuity of service of voice calls or text messages for end-users using 2G/3G based services in Europe). BEUC calls on BEREC to engage with all relevant stakeholders, including consumer organisations, in order to fully determine and anticipate any impacts of this technological shift, and how this stands to impact European consumers, especially those most vulnerable (in particular, those living in more remote areas and/or still relying on older generation mobile devices).

ETNO notes that it is important to acknowledge that decisions to sunset 2G and 3G networks are in the remit of operators and are based on a wide range of considerations, aiming at improving and optimizing networks, services, spectrum efficiency, etc.. In drawing conclusions from its analysis of potential consequences of 2G/3G shutdown, as listed in the WP. Therefore it is important that BEREC carefully weights any possible negative impact against the numerous benefits of transition to new technologies, which are most likely to offset the former.

Ecta welcomes BEREC's attention to the topic, as is the fact that a public consultation will be held on a draft BEREC Report as soon as Plenary 2 2023. Ecta suggests VoLTE interoperability, and notably to require all handset manufacturers to support VoLTE-based emergency calling by default. Furthermore Ecta suggest that companies that embed mobile connectivity in hardware (e.g. in the connected mobility sector) include forward-looking technology in their products and carry out the upgrades to 4G/5G that have been known to be necessary for a decade.

MVNO Europe explicitly thanks BEREC for including this workstream in its draft WP2023. It of genuine importance for (full) MVNOs. The wholesale roaming dimension of 2G/3G shutdown definitely needs to be addressed as a matter of priority, given that it can potentially lead to lack of availability of emergency calling. MVNO Europe wishes to emphasize that the potential lack of availability of emergency calling is a symptom of deeper problems, at the network/service level, and at the OEM and handset level.

BEREC welcomes the feedback provided by stakeholders and looks forward to engaging with them on this topic. In this regard, BEREC believes that it will be important to gather and share relevant facts and trends on the switch-off of older generations of mobile technologies. For example, BEREC intends to build on the work done by other competent bodies observing the work done by RSPG on mobile technology evolution, experiences and strategies.

As regards EENA's views about further work stemming from the Delegated Regulation supplementing Article 110 of EEC, the points made are beyond the scope of the present work item. If, however, there is a need to undertake any dedicated or relevant ad-hoc work in relation to this matter, BEREC notes that the draft BEREC WP 2023 provides for some capacity for ad-hoc work items that might need to be carried out in 2023. Therefore, any relevant work items may be handled accordingly by BEREC.

#### 1.4. BEREC internal workshop on the migration to VHCN networks and copper switch-off with a focus on the needs of the end-users

Prysmian welcomes BEREC's intention to hold a workshop on migration to VHCN networks and copper switch-off. The deployment of a very dense and ubiquitous optical network is a prerequisite to ensure a smooth transition from legacy infrastructures. Prysmian agrees that the copper switch-off benefits the environment, consumers, and operators. However, the progress in this area remains fragmented across the EU. Prysmian proposes that the planned workshop should reflect on the best practices to future-proof networks besides focusing on the needs of the end-users.

ETNO welcomes the BEREC internal workshop on the migration to VHCN networks and copper switch-off with a focus on the needs of the end-users. ETNO thinks that the decision regarding switch-off should indeed always remain with the network owner, on the other hand, NRAs should set the right incentives for not hampering the copper phase-out planned by operators and for facilitating the technical migration of customers to the new services.

Ecta appreciates that BEREC is conducting some follow-up to the BEREC Report on a consistent approach to migration and copper switch-off. Attention to end-user interests is certainly relevant. Ecta considers it absolutely essential that this not only concerns consumers, but also all types of business users, and that the role of alternative operators providing B2C and B2B services is fully considered. Ecta asks BEREC to amend the description of this work item in the final WP2023 to reflect the role and requirements of alternative operators.

FTTH Council Europe considers that the proposed workshop could be usefully made into a public workshop as many stakeholders may have valuable experiences to share.

BEREC welcomes the support and the feedback provided by stakeholders and has carefully considered the respondents' views related to this item.

As regards Prysmian's comments, we would like to point out that BEREC has already identified in its relevant Report (BoR (22) 69) a consistent approach to migration and copper switch-off based on a detailed analysis of the rules set by the NRAs for these topics in 17 countries. Therefore, BEREC does not see the need to discuss best practices in general at the planned BEREC internal workshop. Instead, BEREC considers it important to focus the discussion at this workshop on certain topics as described in the draft BEREC work programme for 2023.

Regarding Ecta's comments, BEREC would like to clarify that, according to the project title, the workshop will focus on the needs of the end-users and, therefore, is not limited to residential end-users. However, BEREC does not consider it appropriate to include further topics in this BEREC internal workshop in order to enable a more in-depth discussion. Regarding the requirements of alternative network operators, BEREC would like to point out that BEREC has already examined the stakeholder involvement and the main concerns and views of alternative network operators in the BEREC report on a consistent approach to migration and copper switch-off (BoR (22) 69) published in June 2022. Since BEREC has only recently published this report, BEREC does not see a need for a further report, e.g. on best practices, in 2023. Finally, BEREC would like to point out that it recently examined the topic 'migration and copper switch-off' in detail and launched a public consultation on BEREC's

relevant draft report (BoR (21) 171), in December 2021. Therefore, all stakeholders had already the possibility to contribute to this topic. The purpose of the workshop on migration to VHCN networks and copper switch-off in 2023 is to enable a BEREC internal discussion between the NRAs on selected topics and, therefore, it is not open to the public.

### **1.5. Update of criterion 4 of the BEREC Guidelines on very high capacity networks (carry-over)**

DSA believes it is critical not to exclude customer premise connectivity as this oversees a key connectivity challenge. End users need multigigabit connectivity that is available in living rooms, office open space and technical halls, thus requiring an extension of the connectivity within premises from the gigabit network termination point in the basement. recommendations on how to ensure consistency across all criteria.

DSA recommends BEREC that the current criteria 1 and 2, hinder the ability of end users to fully benefit from VHCN connectivity. As a result, DSA recommends expanding the definitions and clarifying that these networks must provide connectivity means past NTPs whose QoS is consistent with criteria 3 and 4. DSA also recommends expanding the definition of criteria 3 and 4 with regards to performance thresholds to indicate that such QoS must also be available past NTPs.

GSMA understands the purpose of this update is to take into account 5G mobile networks. Due to the novelty of such networks, it was not possible to address this in the current guidelines. However, it is important to note that 5G deployment and related use cases are still at an early stage. As such, the lack of maturity regarding this network technology must be considered before making any conclusions. This task would also benefit from a workshops with the industry beyond the foreseen public consultation.

Huawei welcomes BEREC's intention to launch a public consultation with a view to adopting draft guidelines at Plenary 3 2023 for publication. Huawei intends to contribute to this public consultation.

ETNO notes that Article 82 EECC provides that BEREC shall issue Guidelines on VHCNs by 21 December 2020 and update them by 31 December 2025, and regularly thereafter. The EECC neither specifically make reference to 5G when defining mobile very high capacity networks, but only requires the presence of fibre up to the base station. Therefore, ETNO deems premature for BEREC to update in 2023 one of the criteria, this would also infringe the principle of regulatory predictability.

Ecta is of the view that the inclusion of 5G in criterion four of the guidelines will certainly become relevant going forward, but cautions against prematurely updating criterion four on too prospective a basis, which could result in unexpected consequences, and possible undue distortions, in various policy areas.



BEREC thanks stakeholders for their inputs and would like to note the following regarding the comments received.

The BEREC Guidelines on VHCNs published in October 2020 (BoR (20) 165) explicitly state 'since it was not yet possible to take 5G fully into account for the release of these Guidelines, as it has not yet reached mature deployment and significant penetration, BEREC intends to update criterion 4 (performance thresholds for wireless networks) as soon as possible and not later than 2023.'

Therefore, according to the BEREC Work Programme 2022 (BoR (21) 175, section 5.1.2), BEREC has already started the update of criterion 4 in 2022 and will publish the draft of the new version of these Guidelines in March 2023 for public consultation. For these reasons, this project includes the update of criterion 4, not the update of other criteria as proposed by DSA. BEREC would like to point out that the BEREC Guidelines on VHCNs define the criteria a network has to fulfil in order to be considered a VHCN. Therefore, the criteria have to focus on the characteristics of a network and it is not possible to include - as suggested by DSA - end-user equipment (e.g. mobile equipment) which is not part of the network

In addition, as regards the request to postpone this exercise, BEREC would like to note that it has already postponed the determination of criterion 4 based on 5G deployment in 2020 to 2023. The BEREC Work Programme 2022 (BoR (21) 175, section 5.1.2) published in December 2021 already includes the update of criterion 4 of the BEREC Guidelines on VHCNs and it specifies that this will be done based on data collected from mobile operators on 5G. Therefore, BEREC has already launched this project in 2022 and has involved mobile network operators. Stakeholders will also have the possibility to respond to the public consultation of the draft new version of the BEREC Guidelines on VHCNs, which is foreseen for March 2023. However, beyond that, BEREC does not see a need for a further stakeholder involvement (e.g. workshop). Furthermore, BEREC agrees that Art. 82 of the EEC stipulates that 'BEREC shall update the Guidelines by 31 December 2025, and regularly thereafter'. However, this does not mean that BEREC has to update the Guidelines in 2025 but allows BEREC to do it earlier. BEREC does not share the view that the update of criterion 4 in 2023 infringes the principle of regulatory predictability, since the BEREC Guidelines on VHCN published in October 2020 already inform that BEREC intends to update criterion 4 by 2023 at the latest.

## **1.6. BEREC external workshop on secure and reliable connectivity in Europe from low earth orbit satellite fleets**

*Intelsat* welcomes the continued focus on satellite services seen in the planned external workshop on secure and reliable connectivity in Europe from low earth orbit (LEO) satellite fleets. Intelsat also believes that the workshop should not concentrate solely on LEO fleets but also consider MEO and GEO satellite fleets and/or a multi-orbital approach.

Intelsat has recently announced a new investment in boosting its fleet of satellites with new Low-Earth Orbit (LEO) or Medium Earth Orbit (MEO) satellites. This new investment will be part of a wider constellation of Software-Defined satellites that will be a critical part of 5G networks in Europe. Intelsat asks BEREC to include all relevant stakeholders in the discussion

around this considerable issue. Intelsat's near 60-year experience as a satellite operator and the company's recent investment into NGSO systems can be of significant aid to BEREC in the upcoming work on these systems.

Microsoft welcomes BEREC's proposal to hold a workshop in Q1 2023 that broadens its knowledge of the opportunities and challenges of NGSO satellite communication networks. As a result, Microsoft is supportive of such a workshop and appreciate the opportunity to bring forward this topic of discussion

Viasat welcomes critical initiatives proposed to be taken by BEREC in 2023, including a workshop on secure and reliable connectivity in Europe from low earth orbit (LEO) satellite constellations. This Consultation and the planned workshop are timely and important because we are witnessing an era of unprecedented activity and innovation in space, which requires regulators to have a particularly sharp focus on ensuring the safe and efficient use and sharing of scarce spectrum and orbital resources.

Viasat commends BEREC to a detailed analysis. These actions should include mitigating the risks of interference from NGSO systems into GSO networks, and between NGSO systems, and ensuring that the spectrum and orbital resources are shared equitably among NGSO systems. Viasat notes that a growing amount of orbital debris, the growing congestion in LEO, and the trend toward larger and more numerous LEO satellites, which increases the likelihood of collision events that can disable and even destroy satellites, and also generate more orbital debris. Each collision in LEO will statistically lead to more collisions and ultimately can lead to a belt of debris around the Earth.

Viasat emphasizes that the increased use of LEO is not without cost to the environment. The rapid development of large LEO constellations risks multiple tragedies of the commons, including tragedies to ground-based astronomy, Earth orbit, and Earth's upper atmosphere. Viasat notes the potential implications for national security. Space is a vital component of any drive towards the strategic autonomy of any nation, as it helps with situational awareness, decision-making, and connectivity of technologies and systems, including with national security and defense applications.

BEUC welcomes BEREC's intention to hold an external workshop on secure and reliable connectivity in Europe from low earth orbit satellite fleets. This provides an opportunity to discuss how this new technology can become an integral part of providing affordable, high-quality connectivity to remote locations where terrestrial networks are unable to reach, improving accessibility for consumers, especially those most vulnerable.

Ecta agrees that understanding and identifying the challenges and potential impacts on the satellite communications market is relevant. However, ecta cautions against presenting the services provided by LEO constellations as being "one-to-one comparable with terrestrial networks." It is important from the ecta perspective that the BEREC external workshop planned for Q1 2023 will involve not only satellite companies and organisations, but also others, including ecta.



BEREC welcomes stakeholders' support and feedback about the planned workshop which it will take into account when designing the workshop.

Regarding Intelsat's suggestion not to only focus on low earth orbit satellite connectivity, BEREC would like to note that it still considers that the workshop should mainly focus on this aspect. There may be some complementary aspects e.g. multi-orbit services that could be interesting to also consider, but BEREC recognises the need to set a reasonable focus given the competences of NRAs.

In addition, based on the general feedback received, BEREC will scope out the workshop in a manner that may suit wide industry participation. In this regard, it replaces some specific text on "system reliability and security, sustainable fleet manage user terminal" with a reference to "this context".

### **1.7. BEREC Report on the authorisation and related framework for international connectivity infrastructures**

Ecta welcomes this new workstream, but questions whether there are truly regulatory problems in need of solving in this area, and in particular whether licensing, authorisation and registration constitutes a substantial cost factor when taking the total cost of an undersea cable system into consideration. The sharing and colocation issues at or near submarine cable landing stations seem more relevant, because these are known to have caused problems in the past.

BEREC welcomes the feedback provided by the stakeholder but sees no reason to adapt the description of this topic at this stage.

### **1.8. Support in reinforcing EU's Cybersecurity Capabilities**

GSMA believes that considering the increasing relevance of cybersecurity and network resilience, this workstream focused on cyber security could also take advantage of an exchanges with the industry.

Ecta takes note of these two work items, and understands that they cannot be subject to public consultation. This does not prevent BEREC from publishing reports on its actions, and on the results thereof, and ecta is satisfied that this appears to be BEREC's intention.

BEREC thanks stakeholders for their support and for the availability to exchange with BEREC on this topic, if BEREC deems it necessary.



### 1.9. Report on BEREC's activities to support initiatives for secure 5G networks

GSMA supports BEREC in this work. GSMA is looking forward to future cooperation with BEREC on this important topic and stands ready to continue sharing industry's knowledge and expertise.

Microsoft welcomes BEREC's continued commitment to support the European Commission, NIS Cooperation Group and ENISA in fostering exchange of information and best practices, knowledge building and cooperation, and promoting supply chain resilience as part of the key objectives for the next steps on cybersecurity 5G networks. Microsoft especially welcomes the efforts that will be done to harmonize 5G cybersecurity requirements across the European digital market. Microsoft encourages the NIS work-stream to take in consideration first, existing security standards that relate to digital technologies and cloud-based capabilities, including ISO 27001 and ISO 27017, which are well established security baselines.

BEUC welcomes the planned report on BEREC's activities to support initiatives for secure 5G networks, and BEUC recommends that BEREC continues monitoring developments, correct misleading practices and ensure the proper development of 5G for all consumers. In this regard, BEUC once again recalls the experience and concerns raised by several BEUC member organisations regarding 5G, in particular concerning its deployment and marketing at the level of Member States. BEUC suggests holding a workshop on 5G for consumers.

BEREC thanks stakeholders for their support and for the availability to exchange with BEREC on this topic, if BEREC deems it necessary. BEREC will continue supporting its members with information sharing and other institutions in their activities related to cybersecurity when needed.

### 1.10. BEREC Report on competition amongst multiple operators of NGA-networks in the same geographical region (carry-over)

GSMA supports the continued focus of BEREC on geographical market definition and ensuring that market analysis is evidence based and focuses SMP and remedies on genuine bottlenecks. The study might also cover the case where there is enough infrastructure-based competition and a regulatory obligation in relation to access to physical infrastructure, which could be a sufficient condition to enable sustainable competition at the wholesale and retail level.

FTTC Council Europe notes that the rapid investment in fibre networks is driving a significant change to the market structure as investors in VHCN are often new entrant operators (not existing smaller operators but genuinely new entrants) in the market. According to the FTTH Council Europe data, in 2021 there were over 50% of all homes in Europe passed with fibre what is more remarkable is that, on average, each home passed is passed by 2.7 fibre lines. While often there is only one fibre provider, it is much more common in European context that

there exists significant network competition. It is important that BEREC are looking at how competition is evolving in the presence of multiple fibre network operators.

ETNO deems very useful an analysis on how competition in fixed access electronic communications market is evolving in the specific segment of fibre access networks and how this evolution affects regulation in the different EU countries.

Ecta has serious concerns about the wording of Page 16 paragraph 2. This paragraph is highly suggestive that the existence of local/regional competitors, and the commercial reaction to their existence by the operator with Significant Market Power, may in future be invoked to inappropriately define separate geographic markets, and inappropriately deregulate a dominant undertaking on account of it engaging in strategic behaviour and possible regulatory gaming. Ecta also urges BEREC to caution NRAs against declaring fledgling new entrant operators as holding Significant Market Power in sub-national markets, e.g., where they have led the development of fibre networks and provide fit-for-purpose wholesale access in response to demand.

BEREC welcomes stakeholders' support for this item which has already been included in BEREC work programme for 2022. BEREC encourages all stakeholders to provide their input in the public consultation of the draft report which is starting in December 2022.

### **1.11. BEREC Report on NRAs' annual reporting on the implementation of Article 75 of the EECC**

BEUC welcomes BEREC's intention to issue a report on national regulatory authorities' annual reporting on the implementation of Article 75 of the European Electronic Communications Code (EECC). Increased transparency and additional means for stakeholders to assess the implementation of this Delegated Regulation is much welcomed. Also, given the experience of Member States struggling to transpose this important legislation, it is critical that the consistent implementation of the EECC continues to be at the forefront of BEREC's work.

Ecta urges BEREC to not make this Report a simple listing of NRAs' reports stating that the EC Delegated Regulation has been successfully implemented, but to provide added value by identifying relevant divergences between NRAs' decisions and practices. There are increasing practices of blocking certain calls and call types, based on the type of CLI, the interpretation of the CLI (point above), some of these mandated or encouraged by NRAs. The NRA and industry practices differ widely. Again, this area is worthy of investigation, taking a harmonisation perspective.

MVNO Europe strongly supports this BEREC work item. It will constitute a good source of reference for assessing the functioning (and possible dysfunctions) of all aspects of Article 75 EECC, including the provisions of the European Commission's Delegated Regulation (EU) 2021/645 and NRA decisions on the regulatory treatment of wholesale call termination markets. MVNO Europe suggests that BEREC's report should not be a merely administrative

compilation of NRA reports, or be focused solely on the Mobile Termination Rates (MTRs) and Fixed Termination Rates (FTRs), but should address all quantitative and qualitative aspects of wholesale call termination. SMS termination monitoring could be also considered. MVNO Europe would welcome BEREC putting a draft Report to public consultation.

BEREC welcomes the support and the feedback about this item.

BEREC notes that NRAs must report yearly to the EC and BEREC on the implementation of Article 75 EEC. BoR (22) 73 established a template for such reporting. The template is extensive and covers a significant number of the different topics that have been raised by the stakeholders' comments. For instance, the potential regulation of ancillary services, treatment of interconnection ports, CLI misuse and disputes. The reporting should therefore enable the detection of any issues in the implementation of the Delegated Regulation's provisions. Based on the reporting, BEREC will prepare a relevant summary to be published in the form of a report. The report is a fact-finding exercise and should enable BEREC to examine and decide on the need to further deliver on a certain topic in the future.

BEREC considers that given the nature of the report (i.e. summary of NRAs' inputs) there is little value in having a public consultation as stakeholders will have addressed any matters with NRAs directly.

Finally, section 5 in BoR (22) 73 argues thoroughly why BEREC has discontinued the data collection on SMS termination, and FTRs and MTRs as they used to stand. In particular, SMS services are not regulated in Europe and several NRAs do not collect this information

## 1.12. Report on cloud services and edge computing

Huawei welcomes BEREC's intention to adopt a Report on cloud services and edge computing. Huawei intends to contribute to the public consultation which will be launched in due course. Huawei emphasizes the role of AI together with 5G, Cloud and Edge. Huawei invites BEREC to take a holistic view incorporating the synergetic effect of those technologies. In order to fully realize the EU's growth potential in smart and green transport, smart energy grids and digital healthcare systems, Huawei's understanding is that 5G, together with AI, Cloud and Edge, will be a key architecture element with a view to enabling the 5G verticals.

Microsoft welcomes BEREC's proposal for a report on cloud services and edge computing to be published at Plenary 4 2024, appreciate the opportunity to contribute to the public consultation, and hope to be a useful discussion partner in this regard.

Ecta considers that cloud and particularly edge computing is closely related to electronic communications networks and services, and thus is a relevant topic for BEREC to look into. Retail B2B services consisting of bundles of electronic communications services and cloud and edge computing are also relevant. However, focus is needed. This should not be another wide-ranging BEREC internet ecosystem report, or speculate too much about metaverses, it should firmly focus on B2B services closely related to electronic communications.

BEREC welcomes the feedback of stakeholders and understands the issues raised here as important to consider during the preparation of this report.

## Strategic priority 2: Thriving sustainable and open digital markets

### 2.1. BEREC Report on interoperability for number-independent interpersonal communication services (NI-ICS) (carry-over)

GSMA strongly supports the work of BEREC on interoperability of NI-ICS, and the GSMA is ready to contribute to this work with its extensive experience on interoperability in the context of RCS.

BEREC welcomes the support on this item by the GSMA

### 2.2. BEREC's role in supporting sustainable and open digital markets

In MVNO Europe's opinion, BEREC should not only actively prepare to exercise its duties as a member of the High-Level Group, but should from now on actively focus on documenting practices that infringe the DMA, or can be reformed on the basis of specific provisions of the DMA. MVNO Europe's main concern with digital markets are the practices by companies controlling Operating Systems, that can prevent or distort competition on (mobile) electronic communications markets. MVNO Europe therefore asks BEREC to follow up on the BEREC Report on the ex ante regulation of digital gatekeepers with a set of focused reports.

BEREC thanks MVNO Europe for the comment and would like to note that, as part of its High-Level Group duties, BEREC will also actively work on documenting practices which may not directly fall within the scope of DMA, and which may call for a revision of the regulation.

Regarding the comment raised about the practices by companies controlling Operating Systems, BEREC points out that this is a topic that BEREC has started to address in its previous reports on the ex ante regulation of digital gatekeepers (BoR (21) 131) and on the internet ecosystem (BoR (22) 167). BEREC takes note of the proposed topic and might work on it in the context of the current work item or in future workstreams.

### 2.3. BEREC Report on Indicators to measure environmental impact of electronic communication networks and services (carry-over)

DSA notes that considering the share of mobile data and fixed broadband lines in Europe, around 4.8 Mt CO<sub>2</sub>e will be emitted from fixed networks and 10 Mt CO<sub>2</sub>e from mobile networks in the EU. That suggests fixed networks produce less than half the CO<sub>2</sub>e of mobile networks, even though they transport more than ten times the amount of data. Hence, a combination of full-fibre and energy-efficient Wi-Fi technologies such as Wi-Fi 6E and Wi-Fi 7 represents the greenest way to connect indoors.

GSMA welcomes BEREC's work in this regard and supports efforts to achieve the Paris agreement climate objectives. The mobile industry is tackling climate change voluntarily and has developed a decarbonisation pathway. GSMA calls on BEREC to take into due account the work done to date at global level by the mobile industry. Establishment of regulatory incentives for "environmentally sustainable" networks would miss the fact that operators already have strong incentives to deploy and operate energy efficient networks. A better approach would be to recognise the mobile industry's enabling role.

Huawei welcomes this initiative because Huawei firmly believes that we cannot promote digitalisation without promoting the reduction of the carbon footprint of the digital industry including its enabling effect on a wide range of other industries. Therefore, Huawei would like to participate in and contribute to technical workshops of BEREC as well as questionnaires.

ETNO believes that BEREC's long-term objective to identify a possible harmonised methodology measuring the environmental sustainability of ECNs/ECSs is a valuable effort. The same goes for considerations on circular economy, especially in relation to life cycle of devices and equipment. In principle, having a unified set of indicators might help bringing consistency and harmonization across the EU. However, setting a common EU framework might also risk turning into an extremely complicated exercise when it comes to decide on which appropriate and feasible indicators should be included.

Ecta welcomes the fact that BEREC has launched work which may lead to improving the comparability of environmental commitments made by operators. Ecta notes that BEREC should not only focus on the negative environmental impact of the industry, but actively highlight and help with communicating the message that the electronic communications industry is in an exceptional position to help other sectors improve their environmental performance, and that this is a factor to take into account.

BEREC welcomes the positive feedback received by many stakeholders as regards its commitment in supporting the green transition of digital technologies, and in particular of electronic communications. The feedback received mainly reflects suggestions for implementing the current activities planned for 2023, but not amending them. The majority of the remarks are very precise and could be considered as interesting suggestions to feed the different workflows. In addition, since 2020, BEREC has been prioritising collaboration with

stakeholders (industrial players, academics, civil society organization etc) when addressing the new topic that environmental sustainability constitutes and will continue doing so.

As regards ETNO's comments about the complexity of the exercise, BEREC notes that with this workstream, it does not aim to build a pan-European approach to measuring environmental performance of ECNs/ECSs, but rather to provide an overview of existing sustainability indicators and environmental reporting practices in the sector to be able to identify the potential gaps or areas for better harmonisation in the light of its own expertise on electronic communications. BEREC is using the European 'Product Environmental Footprint' methodology developed by JRC of the European Commission.

Regarding the question raised by some stakeholders about the indirect effects – including enabling and rebound effects on other sectors' green transition and rebound effects – BEREC is indeed following closely the work lead by the European Green Digital Coalition and has identified this topic as a potential area for further investigation in the 2023 work item 'Potential ad-hoc work on ICTs sustainability in the frame of the European Green Deal implementation'. BEREC would also like to underline that working on this topic demands looking onto other sectors' environmental performance which could only be done by trans-sectorial bodies or with close collaboration with other sectorial regulators.

#### **2.4. Potential ad-hoc work on ICTs sustainability in the frame of the European Green Deal implementation**

DSA notes that spectrum focused institutions such as the RSPG may not take the full breadth of sustainability considerations into account. RSPG position on the upper 6GHz band will have a direct impact on the sustainability of the digital transition. Allocating the upper 6GHz band to either Wi-Fi or mobile networks directly impacts whether traffic flows over fixed or mobile networks, with very significant environmental impact. Therefore, DSA strongly recommends BEREC to express itself on RSPG opinions.

Huawei welcomes this potential ad-hoc work stream of BEREC and would be delighted to contribute to its deliverables in due course. As a global vendor of wireless equipment and devices, Huawei Technologies is not only a prominent stakeholder in the wireless sector, but through its engagements with a variety of verticals, also involved in other sectors. Huawei considers that 5G is a significant enabler of energy-efficient wireless communications, noting that the energy efficiency per bit of 5G is considerably greater than that of 4G.

Microsoft welcomes BEREC's continued commitment to limit the sector's impact on the environment and contribute to the acceleration of the twin green and digital transition. To that end, Microsoft believes it is timely to foster potential ad-hoc work on ICTs sustainability around greener network deployment, transparency of environmental footprint, circular economy and energy efficiency, the impact of emerging technologies and the enabling effect of the ICT sector on other sectors.

Prysmian strongly supports BEREC's intention to work on ICTs sustainability in the context of the European Green Deal. The twin transition is about the long-term sustainability of the EU

economy, which can be only achieved if there are no strategic dependencies, including connectivity infrastructure. Future-proof networks should be built of high-quality components ready for the technological evolution of the next 20 years. It is also important to ensure sustainability of the construction process and supply chains.

EWIA welcomes the potential ad-hoc work on ICTs sustainability in the frame of the European Green Deal implementation. EWIA believes that the digital and green transition go hand in hand. As EWIA's model allows to transition from one tower to each operator to one tower for all operators, fewer will be needed to provide the same services, hence reducing our environmental footprint. To better understand the sustainability impact of our sector EWIA have also commissioned an independent study, which results should be available in early 2023. EWIA will be keen to participate to further discussions on those issues.

BEUC welcomes that BEREC will be further exploring its role in promoting sustainability policies in the frame of the European Green Deal implementation, engaging more actively on the issues of circular economy, especially in relation to life cycle of devices and electronic equipment and their impact on energy consumption and electronic waste. Consumer organisations also remain at BEREC's disposal on this important topic.

ETNO welcomes the foreseen BEREC investigation of the enabling effects of the ICT sector on other sectors in the context of the green transformation under the ad-hoc work on ICTs sustainability in the frame of the European Green Deal implementation. European telecoms sector has a long-standing commitment to reducing its carbon footprint, while promoting connectivity services and digital tools to reduce emissions across many sectors to benefit the environment and society.

BEREC welcomes the comments raised by stakeholders and refers to its reply in the previous item as most of the stakeholders either provided their feedback jointly for these two items or submitted similar comments.

#### **2.4.1. BEREC Report on the entry of large content and application providers into the markets for electronic communications networks and services**

Huawei welcomes BEREC's intention to organise several internal workshops with experts and relevant stakeholders to gather their inputs and insights on the topic and would be delighted to contribute to this work stream.

Ecta wholeheartedly welcomes the addition of this workstream to the draft WP2023. It will certainly be helpful for BEREC to document the segments of electronic communications markets (both networks and services) in which CAPs have become active and are expanding, and to clarify how ECNS regulation applies to them. The role of Content Delivery Networks (CDNs) is also well-worth investigating and documenting. Ecta does note that this workstream would only lead to a draft report by mid-2024. Given ongoing policy discussions, it appears worthwhile for BEREC to seek to accelerate this work.

BEREC takes note of this suggestion to accelerate this work item. However, BEREC cannot compromise on this, given the overall workload. This being said, the analysis which will start to be carried out in this workstream in early 2023 will also feed other closely related topics addressed in other workstreams.

## 2.5. BEREC Report on M2M and permanent roaming

ETNO understand the purpose of this report is to “investigate potential obstacles for operators to negotiate (permanent) roaming agreements, whether they allow permanent roaming in their network for the provision of such services, and what pricing schemes are applied”. However, ETNO thinks there are no problems in relation to enter into commercial agreements. A challenging aspect regarding this topic is whether member states allowed permanent roaming, as they are obliged to according the EECC. This could be an area of investigation for BEREC ahead of the consultation in Q3/Q4 2023.

Ecta agrees that several types of M2M/IoT devices will increasingly be in a state of ‘permanent roaming’, be they (quasi) immobile or moving very frequently across borders. Clearly, some parts of the M2M/IoT market have pan-European or even global dimensions, and some legitimate use cases may face obstacles. Bringing to light where potential problems occur, drilling down to the origin of potential problems, and identifying potential solutions (be they commercial, regulatory, or legislative) may prove valuable, also in the light of the upcoming 2025 review of the 2022 Roaming Regulation. Ecta therefore supports this workstream and looks forward to contributing and seeing the output.

MVNO Europe expresses its great satisfaction with this proposed BEREC workstream, which meet MVNO Europe’s explicit requests in our response to the call for input on the Outline BEREC Work Programme for 2023. MVNO Europe is especially satisfied with the statements that BEREC will investigate potential obstacles for operators to negotiate (permanent) roaming agreements, whether they allow permanent roaming in their network for the provision of such services, and what pricing schemes are applied and that BEREC will launch a call for input.

BEREC appreciates and thanks the stakeholders for the support of its work on this aspect and understands the issues raised here as important to consider during the execution of this work item.





## 2.6. Report on the impact of Artificial Intelligence (AI) solutions in the telecommunications sector on regulation (carry-over)

GSMA believes that AI has the potential to radically alter and improve the way governments, organisations and individuals provide services, access information, and improve their planning and operations. However, AI adoption is still at an early stage at EU level in general and within the telecommunications sector in particular, and discussions on the regulatory approach to be adopted are still ongoing at an institutional level. The GSMA reiterates that it might be premature for BEREC to undertake specific activities on the topic other than an initial fact-finding report.

ETNO welcomes BEREC's assessment of the important benefits which artificial intelligence applications can bring to the telecommunications sector and provided input to BEREC on AI applications that can be deployed by telecom operators to optimise elements of the network, accompanied by use cases. However, it must be borne in mind that the regulatory framework for the development and use of AI, as well as the updated liability regime for AI, is still early in its development in the EU. BEREC should rather postpone such an activity at least until the EU has established specific rules on AI.

Ecta understands that this workstream is already well advanced and urges BEREC to be modest when addressing this subject. Whilst ecta understands the emergence of Software-Defined Networking as an important trend, including in terms of provisioning services across networks, and that AI can help with preventive maintenance of networks, facilitating corrective maintenance, saving energy, etc. this does not readily imply that electronic communications regulation has to be affected, or would somehow need to be adjusted. Ecta urges BEREC to take stock of the situation, and once the report is published, to assess whether further BEREC work is justified.

BEREC thanks stakeholders for their support so far in this matter. All stakeholders are encouraged to provide their input in the public consultation on the report on the impact of Artificial Intelligence.

## 2.7. Assessment of the IP interconnection ecosystem and impact of the potential sending party network pays principle on Internet ecosystem and on end-users (carry-over)

GSMA suggests broadening the scope of BEREC's report. By focusing only on IP interconnection, the workstream fails to capture all the complexities of the internet ecosystem. Additionally, the term "sending party pays principle" is traditionally associated to the voice market and to the existence of individual monopolies in each terminating network. It would be appropriate not to prejudge the market analysis, and more clearly address the unbalanced bargaining power between suppliers of internet access services and large content providers.

Accordingly, GSMA suggests renaming the workstream to “Assessment of the provision of the Internet access service and impact of a potential fair contribution from content providers on the Internet ecosystem and on end-users”.

GSMA deems that the timeline of this work item should provide for the public consultation already in P1 2023, considering the EC consultation on the fair share issue will be carried out at the beginning of the year.

Huawei welcomes BEREC’s work aimed at assessing the grounds for a proposal on a fair share contribution by OTTs to network infrastructure costs considering the market developments that have occurred in the recent years and the investments made by the different stakeholders.

Microsoft notes that the current approach to interconnection on the Internet, favouring market driven negotiation above regulation, has supported Internet growth and evolution, and unfettered IP interconnection remains fundamental to maintaining this growth and evolution. Microsoft firmly believes that IP interconnection is not the problem and regulating it is not the solution. The possible introduction of network fees could have unintended negative consequences to the entire ecosystem. Imposing network usage fees or financial contributions on certain content providers would risk unravelling the net neutrality principles and introducing undue regulatory constraints, complexity and costs, undermining significant investments made by the sector, and risk being detrimental to consumers and businesses in Europe. In this context, Microsoft believes it is important for BEREC to consider the effects of such a measure on the entire ecosystem.

CCIA (Computer & Communications Industry Association) fully concurs with BEREC’s analysis of the IP interconnection ecosystem. All players in the digital market are largely interconnected and dependent on one another. Hence levying any tax or fee on a few players would effectively impact all other businesses that are part of the Internet ecosystem, regardless of their size, and have an indirect negative effect on consumers, service availability, innovation, and the market’s competitiveness. CCIA expresses concerns about the potential introduction of a Sending Party Network Pays (SPNP) principle in the European Union.

CCIA welcomes BEREC’s plan to analyse the regulatory interventions in South Korea, which is the only concrete example of an implemented SPNP system. The evidence shows that this model has undermined the success of the Korean IP interconnection system.

BEUC highlights the importance that BEREC continues its assessment work of the IP interconnection ecosystem and impact of the potential “sending party network pays” (SPNP) principle on the Internet ecosystem and on end-users. Following the ongoing debate on the possible introduction of a mechanism for “direct compensation”, also referred to as “fair share” proposed by the telecoms industry, the European Commission is now expected to proceed with a public consultation in the first half of 2023.

BEUC therefore welcomes BEREC’s urgent and important contribution to this debate. It is fundamental that BEREC provides a clear and independent analysis on the necessity of such a compensation scheme and its potential impacts, with a special focus on end-users and consumers. BEUC welcomes BEREC’s preliminary assessment on the possible introduction of network fees payments from large CAPs to ISPs and support BEREC’s intention to further

clarify this position via a full report in 2023 which can thoroughly analyse the necessity of a legislative market intervention.

ETNO suggests broadening the scope of BEREC's report on the assessment of the IP interconnection ecosystem and the impact of the potential sending party network pays principle on Internet ecosystem and on end-users. By focusing only on IP interconnection, the workstream fails to capture all the complexities of the internet ecosystem. Additionally, the term "sending party pays principle" is traditionally associated to the voice market and to the existence of individual monopolies in each terminating network. ETNO highly recommends to address this work item along with the workstream 2.4.1 on the entry of large content and application providers into the markets for electronic communications networks and services in order to fully capture all the relevant evidences coming from the two reports. Therefore, the timeline of the two reports should be aligned and concluded by the year 2023.

Ecta was invited for a speaking slot in one of the BEREC workshops in September 2022, for which ecta thanks BEREC. Ecta cannot be satisfied with the way this workstream has been conducted so far, because there has been no opportunity for real in-depth discussion and debate, not to mention the possibility to discuss arguments and rebut them where necessary. BEREC organized several distinct closed workshops, with distinct stakeholder communities, thereby preventing any substantive exchanges. BEREC did not publish any reports on what was said in the closed workshops.

MVNO Europe is unequivocally positive about BEREC's output for this workstream so far, the same cannot be said about the process. Apparently there have been up to 2 to 5 BEREC workshops with stakeholders, which have not been publicly announced, have not been open to all interested stakeholders, which did not enable debate between stakeholders with differing positions, and on which no reports were published. MVNO Europe was not invited to any of these workshops. MVNO Europe believes that a more open approach is justified, also to enable stakeholders with limited resources to be heard properly.

BEREC thanks stakeholders for their contributions. Taking into account the expected Commission consultation as well as of the input received, BEREC proposes to split this work item into two separate workstreams:

- One workstream about the IP interconnection ecosystem and
- One workstream about BEREC's input to the European Commission consultation regarding potential CAPs' contribution to network investments

## 2.8. Implementation of the Open Internet Regulation and the BEREC Open Internet Guidelines

GSMA argues that BEREC and NRAs should continue to ensure that the Open Internet Guidelines are applied in a harmonised way, provide clarity, legal certainty, predictability and that they support innovative services that can ultimately benefit European citizens and

businesses. This is particularly relevant when it comes to new technical features such as those enabled by 5G networks.

BEUC welcomes the work of BEREC on net neutrality and supports its efforts to ensure an open and non-discriminatory internet for all consumers. BEUC welcome BEREC's emphasis on supporting "NRAs' obligation to 'closely monitor and ensure compliance' with the Open Internet Regulation", including on cases related to zero-rating. The establishment of a discussion forum and the possibility for continued activities such as workshops, surveys, and questionnaires is a positive development. BEUC would like to recall that this problem was previously highlighted in the past and welcomes BEREC's efforts to step up enforcement, offering support to NRAs whenever needed.

BEREC appreciates and thanks the stakeholders for the support of its work on this aspect.

## 2.9. Collaboration on Internet access service measurement tools

### 2.10. External study on the trends and policy/regulatory challenges of cloudification, virtualisation and softwarisation in telecommunications

GSMA considers it especially important that the the numerous external studies, BEREC plan to tender and publish during 2023, include contributions from the industry by means of interviews carried out with individual operators or at least with the respective associations.

Microsoft agrees with BEREC's assessment on the relevance of cloud computing, network virtualization and network softwarisation and the impact and opportunities they provide for the networks, evidenced by the growing importance of data centres and the growing demand for cloud computing, and online content and services. The relationship between networking and computing technologies is changing rapidly in fundamental ways. In general, the trend for decades has been for what was rendered in hardware to be subsumed by software-based implementations.

FTTH Council Europe asks BEREC to reconsider its decision not to put this work programme item to a public consultation.

ETNO notes the BEREC External study on the trends and policy/regulatory challenges of cloudification, virtualisation and softwarisation in telecommunications to gather current trends in the provisioning of electronic communications networks and services and identify possible regulatory and policy challenges arising from therefrom. ETNO thinks it is important that stakeholders are able to provide their views and input to the study carried out externally.



Ecta welcomes this proposed BEREC initiative and asks to be included in the list of interviewees, given that several ecta members are leaders in Software-Defined Networking. By analogy with their comment about Artificial Intelligence, ecta asks BEREC to be modest when addressing this subject, notably when referring to identifying possible regulatory and policy challenges.

BEREC welcomes the feedback provided by stakeholders and understands the issues raised here as important to consider during the execution of this project. Slight amendment has been incorporated in the description of this item.

As regards the suggestion to put this study to a public consultation, BEREC notes that external reports - due to their nature - are not subject to public consultation. However, BEREC is considering setting up a workshop for presenting the output of the study to stakeholders.

### **2.11. BEREC workshop on the perspectives and regulatory/competition challenges of Internet of Things**

Huawei is firmly convinced that the way forward for the EU will consist in leading, promoting, bridging and collaborating in IoT and Edge Computing and other converging technologies research and innovation, standardisation and ecosystem building, providing IoT and Edge Computing deployment for European businesses creating benefits for European society.

Ecta agrees that it is worthwhile for BEREC to organize a workshop on this topic and ecta hereby asks to be invited. It is essential that the work on Internet of Things is not limited to consumer products/services, but also addresses the business-to-business (B2B) and business-to-business-to-consumer (B2B2C) dimensions. If BEREC intends the workshop to primarily address consumer products/services, ecta would like to suggest that two separate workshops are organized, one on consumer-related issues, and another on business-related issues.

BEREC welcomes the support of stakeholders and understands the issues raised here as important to consider during the organization of this workshop.

### **2.12. BEREC's input to the EU institutions on the Data Act**

Ecta agrees that the Data Act is an important piece of draft legislation, which may deeply affect electronic communications. Ecta has worked on the topic with its members, and has information and proposals to share, notably with a view to making the draft Data Act clearer

in key areas, which is necessary for legal clarity and certainty. Ecta's understanding of the timeline for the Data Act means that BEREC organizing a workshop during Q2 2024 will almost certainly be far too late to have impact. It is imperative for BEREC to bring this forward to Q1 2023.

BEREC thanks Ecta for the feedback provided and notes that there was a typo error in the timing foreseen for the workshop. The timing has been amended to Q2 2023.

## Strategic priority 3: Empowering end-users

### 3.1. BEREC contribution to empowering end-users through environmental transparency on digital products and services

*BEUC* strongly supports that the work programme foresees a report and a dedicated workshop on empowering end-users through environmental transparency on digital products and services. BEUC fully appreciates the engagement and cooperation of BEREC and NRAs' with BEUC and its member organisations on this. BEUC suggests the organisation of another joint workshop between BEUC and BEREC on the application of rights of end-users of the EEC.

*Ecta* very much welcomes the fact that BEREC has taken-up ecta's suggestion that informing and motivating end-users to take their share of responsibility for the environmental impact of their behaviour is of key importance. A workshop on end-users' empowerment is therefore most welcome. The workshop should not be limited to representatives of consumer organizations but be open also to industry. As regards a suggested BEREC communications campaign on key facts about the environmental impact of devices and services, ecta believes that this could be welcome, but it seems difficult to see how this is part of BEREC's mandate as contained in Regulation (EU)2018/1971.

BEREC welcomes the support on the proposed workstream on end-user empowerment in terms of environmental information on ICTs and takes note of the suggestions expressed. In line with BEREC's strategy 2021-2025, BEREC is working on environmental sustainability to support the implementation of ICT-related goals of the European Green Deal in coherence with the European Union and international environmental targets. The activities planned will not be conducted if were not compliant with the Regulation (EU)2018/1971 – which is not the case of this workstream, as the end-user agenda is also part of the mandate of many BEREC members. As mentioned in its report "Assessing BEREC's contribution limiting the impact of the digital sector on the environment", BEREC will also collaborate with other bodies and competent authorities if relevant to complement its own expertise on digital markets.

### 3.2. BEREC Report on Member States' best practices to support the defining of adequate broadband Internet access service (carry-over)

Huawei believes that fixed wireless access (FWA) is an important solution with this regard, especially in suburban and rural areas. Specifically, FWA delivered via 4G/5G can leverage – where applicable – existing mobile network infrastructure, and exploit the latest advances in wireless communications. Furthermore, because there is no need to dig trenches, deploy cables underground or get approvals from property owners to install wires in buildings to reach end-users, 4G/5G FWA can be deployed much faster than fibre and with a much lower environmental impact. For this reason, Huawei considers 4G/5G FWA as a viable complementary solution to a fixed fibre connection in geographic areas where it is either technically or economically not feasible to deploy optic fibre.

BEUC welcomes BEREC's announcement of the updated report on the Member States' best practices to support the defining of adequate broadband internet access service (IAS).

Ecta agrees that this work is relevant, and that an update of the first report from 2020 may be justified, given that a greater number of Member States have implemented the EECC and taken measures in this area. A public consultation, as is planned, is welcome, for stakeholders, because there are cases where the national provisions are debated, and cause implementation difficulties.

BEREC welcomes the feedback provided by stakeholders and we will take it into consideration in the context of the preparation of the draft report

### 3.3. Report on comparison tools and accreditation (carry-over)

Ecta considers this a low priority item, and, given the descriptive nature of the draft Report, not one that will require follow-up other than publication of the Report.

BEREC thanks Ecta for the feedback provided.

### 3.4. BEREC Guidelines detailing Quality of Service (QoS) parameters

DSA refers to the Digital Decade legislation, where the KPI for IAS broadband speed is measured at the network termination point, which is typically at the structure (e.g., residence). Once indoors, the broadband signal has to be distributed to the various end user devices

operating at any given time. Thus, consumers operating end user devices within the structure may experience a lower than advertised broadband speed due to a number of factors, including insufficient Wi-Fi spectrum indoors. As a consequence, there could be instances where an ISP could legitimately claim that the KPI for the 1 Gb/sec IAS broadband speed is met (as measured at the network termination point), but from the perspective of the end-user(s), the broadband speed of the IAS to the end user device operating within the structure does not meet the KPI. DSA strongly encourages BEREC to properly account for these limitations in the interest of consumer transparency.

GSMA agrees with BEREC's position to rely on standards for more effectiveness and harmonisation.

Huawei welcomes BEREC's intention to adopt Guidelines detailing QoS parameters of IAS and publicly available ICS and the publication of information, especially as regards 5G networks and their evolution. Huawei would be delighted to contribute to the upcoming public consultation in due course.

Ecta is of the view that the inclusion of 5G QoS will certainly become relevant going forward but cautions against prematurely updating BEREC Guidelines on too prospective a basis, which could result in unexpected consequences, and possible undue distortions, in various policy areas. A BEREC public consultation, as planned by BEREC for Plenary 3 2023, is therefore most welcome.

MVNO Europe understands that BEREC takes a keen interest in promoting measurement and transparency of QoS in relation to IAS and ICS, and with a specific focus now on 5G. That being stated, MVNO Europe wishes to highlight that Article 104 (1) of the EECC is optional for NRAs, and contains a specific carve-out for those operators that do not have control (technical or contractual) over QoS, and also a reference to external factors. MVNO Europe simply wishes to ask BEREC and NRAs, when developing Guidelines on QoS, not to lose sight of the limitations that some operators, notably (light and full) MVNOs, face in terms of their ability to control QoS, and to report and inform consumers adequately on QoS, given their dependencies on third party underlying network providers.

BEREC welcomes the support of stakeholders and understands the issues raised here as important to consider during the preparation of the guidelines.

As regards MVNO Europe's comment, BEREC understands the limitations that some operators face and will add a relevant clarification in the description of this work item.



## Cooperation with EU institutions and institutional groups

### 4.1. Implementation of BEREC's Medium-Term Strategy for relations with other institutions and international cooperation

*BEUC* welcomes the emphasis on breaking the silos, improving and structuring institutional cooperation by "joining forces on certain topics in which synergies can be obtained". BEUC particularly appreciates the efforts to further engage with external bodies under its Medium-Term Strategy, and the establishment of a team to support the Chair and incoming Chair in maintaining an active relationship with external bodies.

*Ecta* simply wishes to comment that it can be observed, from BEREC's frequent Chair and Vice-Chair statements at BEREC debriefings and stakeholder events in the past few years, that BEREC appears to be seeking to extend its areas of activity well beyond electronic communications, including on the international stage. This may result in unjustified de-prioritisation of the activities that are core to BEREC and NRA mandates under the applicable EU legislation.

BEREC thanks for the feedback received from the two stakeholders.

## BEREC's other tasks

### 5.1. BEREC ad hoc work

#### 5.1.1. Ad hoc input to the EU/NRAs

*Ecta* agrees that BEREC is likely to be called upon to support the EU institutions with regard to important (legislative) proposals, such as the review of the Broadband Cost Reduction Directive, the Data Act, the implementation of aspects of the Digital Markets Act, etc. and possible EC proposals that could affect the regulatory framework for electronic communications or the electronic communications market more generally.

BEREC thanks for the feedback received from Ecta.



### 5.1.2. Peer review process

GSMA welcomes increased cooperation and sharing of experiences to facilitate peer learning and ultimately aid in ensuring that the conditions for spectrum assignment support network deployment. This is especially important in the context of the Digital Decade, as spectrum policy is one of the key levers in the hands of policy makers to help deliver the EU's ambitious digital vision for 2030.

GSMA therefore urges BEREC experts participating in peer review forums to encourage a long-term view regarding spectrum prices that is decoupled from the objective of maximising state revenues, thereby prioritising investments in 5G capacity and coverage.

ETNO calls for the opportunity for MNOs to collaborate with the institutions in the peer review process, noting that MNOs as key stakeholders in spectrum awards have currently no possibility to challenge the national award decisions in the process. A more open and transparent peer review process would help adopting the best practices in use throughout Europe and would focus spectrum awards on common EU digital goals, avoiding bias of short term national political agendas.

Ecta notes that the RSPG-led peer review process on radio spectrum assignment has continued to occur only very occasionally, when Member States ask for it. When it did happen, it was in a closed forum. Ecta also asks BEREC to modify section 5.1.2, to underscore its commitment not only to promoting full connectivity, but also to competition.

MVNO Europe feels compelled to make the observation that the Peer Review process remains a black box, and that it is impossible for MVNO Europe to know whether BEREC participates in a manner that MVNO Europe would support or may disagree with. In MVNO Europe's opinion, BEREC needs to bring not only the contribution to the objective of full connectivity to the Peer Review table, but also the promotion of competition and end-user interests.

BEREC thanks stakeholders for the input provided. BEREC has carefully considered the comments about stakeholder involvement in Peer Review. Peer Review Forum, however, is not open to stakeholder participation because they, unlike experts and representatives of RSPG or BEREC, are not considered as 'peers'. The responsibilities for adopting and publishing reports on Peer Review are set out in Article 35(7) and (9) of the EECC.

As regards the points raised by MVNO Europe and Ecta about underscoring the promotion of competition and end-user interests, BEREC is satisfied that its participation in Peer Reviews aligns with all its objectives as set out by Article 3(2) of EECC (see also the description of the background to the work programme set out at Section II. Background in the 'Work Programme 2023'). To the extent that this might have been unclear to stakeholders, BEREC amends the description of the item accordingly, even though there is no material impact to how it participates in the Peer Review process.

## 5.2. Other tasks under EU legislation

### 5.2.1. BEREC participation in the High-Level Group envisaged by the DMA Regulation<sup>1</sup>

*BEUC* welcomes BEREC's contribution within the High-Level Group for the enforcement of the Digital Markets Act (DMA) to ensure coherence and effective complementarity in the implementation of the DMA. BEUC reiterates our availability to engage with BEREC in further discussions on these matters.

*Ecta* notes that BEREC is preparing to carry out its new duty in the context of the Digital Markets Act, but expresses its surprise that the focus of BEREC is entirely procedural, i.e. about Rules of Procedure. In *ecta*'s opinion, BEREC should also prepare itself as regards the substance of its role, while not losing sight that its core mandate concerns the regulatory framework for electronic communications.

*MVNO Europe* considers that BEREC should not only prepare to exercise its duties as a member of the High-Level Group in terms of the development of rules of procedure, but should also work on the substance, notably documenting practices that infringe the DMA.

BEREC thanks stakeholders for their feedback and refers to item 2.2 about its work on the DMA and collaboration with the EC on this topic.

### 5.2.2. BEREC Opinion on Article 123 EECC

*Ecta* welcomes this workstream, being aware that BEREC is required by Article 123 of the EECC to provide an Opinion, which will serve as input to the European Commission to publish a Report and potentially submit a legislative proposal to amend Title III of Part III of the EECC, potentially boosting consumer protection and possibly enhancing other end user rights. Overall, given the delays in many Member States in transposing the EECC, *ecta* sees it doubtful that sufficient experience has been gained to give serious consideration to modifying the EECC shortly after its implementation in the Member States. The focus should rather be on effectively applying its provisions in a manner which is non-disruptive.

BEREC thanks Ecta for the feedback provided.

<sup>1</sup> Article 40 of the DMA

### 5.2.3. International roaming benchmark data and monitoring report

*Ecta* requests that the scope of the recurring BEREC report includes IoT, permanent roaming for IoT, 5G, roaming for industry verticals, and for network slices if applicable.

*MVNO Europe* highlights the essential importance that BEREC continues its detailed monitoring and reporting on wholesale international roaming (voice/sms/data). This must include in particular the levels at which different types of operators trade roaming with one-another (with specific attention to multi-country operator groups and other partnerships/alliances), and comparisons among groups, including differences between MNOs and MVNOs. Granular data gathering and reporting is essential, including in the light of the upcoming first review of the 2022 Roaming Regulation in 2025.

BEREC thanks stakeholders for their feedback and notes that as regards the data collection envisaged by the roaming regulation, the questionnaire has been designed in accordance with the relevant provisions.

### 5.2.4. BEREC input to the Commission on the Review of the Intra-EU Communications Regulation

*Ecta* wishes to urge BEREC to not simply support the continued application of this regulatory instrument, and not to support reduced retail price caps. The direct application of retail price caps by means of legislation is an anomaly, which is inconsistent with the fundamentals of the EU regulatory framework.

*MVNO Europe* is pleased to see that BEREC is preparing to contribute to an assessment of the effects of the regulatory intervention on retail charges for intra-EU communications. MVNO Europe is of the opinion that this regulatory instrument should be repealed, and certainly wishes to caution against any suggestion that a reduction of the retail price caps determined by regulation could be given serious consideration.

BEREC welcomes the support of stakeholders and understands the issues raised here as important to consider during the preparation of its input to the Commission.



### 5.2.5. BEREC input to the Commission on the Review of the Commission Implementing Regulation on the Fair Use Policy and Sustainability of the Roaming Regulation

GSMA would appreciate a public consultation on BEREC's input to the Commission on the Review of the Commission Implementing Regulation on the Fair Use Policy and Sustainability of the Roaming Regulation.

Ecta emphasizes that this Implementing Regulation is of immense importance, because it directly and substantially affects the economics of all mobile operators. Any modification to this Implementing Regulation could have outsized effects, and can only be considered with a firm eye on the big picture, including the level of wholesale roaming caps, the level at which wholesale roaming is traded commercially, the behaviour of roaming users, etc. Therefore, ecta considers that (pre-)consultation with stakeholders is absolutely essential, before the adoption of BEREC's Opinion which is scheduled for March 2023.

MVNO Europe urges BEREC to be extremely cautious in preparing and formulating its Opinion on the Review of Commission Implementing Regulation (EU) 2016/22865. Any changes, notably to Article 4 on Fair use, entail major risks of debasing the already precarious roaming economics for MVNOs, which typically make wholesale roaming outpayments at or near the level of the wholesale caps for data contained in Article 11 of Regulation (EU) 2022/612. MVNO Europe asks BEREC to certainly consult with affected stakeholders prior to preparing an Opinion on these matters. Given that BEREC's draft WP2023 does not foresee a public consultation, MVNO Europe urges BEREC to engage in intensive bilateral exchanges on this topic, and preferably to organize a public consultation.

BEREC welcomes the feedback of stakeholders and understands the issues raised here as important to consider during the preparation of its input to the Commission.

As regards the suggestion to launch a public consultation about BEREC's Opinion, BEREC notes that this is not a common practice for such Opinions. BEREC has been collecting significant data about FUP and Sustainability since the entry into force of these provisions. Therefore, BEREC considers it has data to work on so as to formulate its Opinion. Moreover, on 18 November 2022, BEREC also launched a call to gather input from stakeholders about the work it will do under items 5.2.4 and 5.2.5.

### 5.2.6. Intra-EU communications Benchmark Report

BEUC thanks BEREC for its excellent work on roaming and intra-EU communications, providing evidence and analysis for a real and more competitive single market that benefits consumers. BEUC supports the continuation of BEREC's essential work on this issue.

BEREC welcomes the support expressed about this work item.

### 5.3. Monitoring quality, efficiency and sustainability

#### 5.3.1. BEREC reflections on features of NRAs independence

*Ecta* welcomes these new BEREC workstreams and understands that they will be carried out internally at the initial stage. However, it would be most welcome if BEREC could subsequently open the items to stakeholder participation. This is important because the perspective of industry stakeholders may not be exactly the same as that of NRAs, or of the consulting firm conducting the study on NRA independence for BEREC.

BEREC thanks for the feedback and notes that it plans to publish the outcome of the study.

#### 5.3.2. BEREC Opinion on the functioning of BEREC and BEREC Office for the evaluation under Article 48 of the BEREC Regulation

#### 5.3.3. BEREC report on national experiences of the implementation of the EECC

*BEUC* welcomes the special attention given to monitoring the implementation of the EECC and its manifested interest in organising a meeting with end-users' representatives. Although the implementation of the EECC was due to be finalised by the end of 2020, EU Member States have struggled to timely transpose the legislation. The focus of BEREC's work must therefore continue to be the consistent implementation of the EECC, by providing knowledge and sharing of experience and best practices between the NRAs, in order to ensure a better monitoring of the key elements of the functioning of the EECC.

*Ecta* wishes to express its sincere thanks to BEREC for including this work item in the draft WP2023. This meets a long-standing ecta request for BEREC to consider the effects of the EECC in terms of achieving its stated objectives, and notably assessing whether the EECC's provisions are in actual fact effective. Ecta advocates that his work should include an assessment as to whether the EECC provisions themselves, and separately their national implementation have increased or decreased competition.

BEREC welcomes the feedback of stakeholders and understands the issues raised here as important to consider during the work on this item.

### 5.3.4. Article 32/33 Phase II process

*Ecta* reiterates its request, made in previous contributions to BEREC Work Programme calls for input and consultations, for BEREC to involve stakeholders in this workstream. Experience has shown that the Phase II process leading to a BEREC Opinion is a black box for stakeholders, with BEREC actively resisting stakeholder input. A moment of self-reflection by BEREC, and taking input from stakeholders, is appropriate as the EECC is by now transposed into the national law of nearly all Member States, and notifications are effectively be made in application thereof.

*MVNO Europe* asks BEREC to be more proactive in preparing, together with its constituent NRAs, for the types of notification for which the European Commission may be expected to escalate a case to Phase II. This would help BEREC collectively in anticipating on the issues and arguments likely requiring a BEREC Opinion, and avoid situations in which BEREC's ad-hoc project group has to rush the delivery of a draft Opinion, and the Board of Regulators having barely any time to assess it, under extreme deadline pressure.

BEREC thanks stakeholders for their feedback and notes that stakeholders can comment Phase II cases decisions directly to the European Commission (Notice to third parties for comments issued by the Commission). However, both the EECC and the internal BEREC procedures do not foresee the possibility for stakeholders to influence BEREC's independent opinions within Phase II processes. BEREC also notes that this year internal procedures for conducting Phase II processes have been updated to align with the EECC provisions, what should also address some of the comments received.

### 5.3.5. Report on Regulatory Accounting in Practice

*Ecta* appreciates the value of this recurring report. It should definitely continue to be published annually and continue to be improved. *ecta* also wishes to express that there should be no weakening of its contents. A particular concern is that BEREC suggests that the 2023 RA report will be based on the EECC list of remedies, will take into account the list of relevant markets susceptible to ex-ante regulation and *ecta* finds this deeply concerning.

BEREC welcomes *ecta*'s support about this recurring report. As regards the comments about its content, BEREC notes that the report needs to be designed to be fit-for purpose.

### 5.3.6. Calculation of Weighted Average Cost of Capital (WACC) parameters according to the European Commission Notice

*ETNO* believes that BEREC should investigate whether under the current financial and competitive scenario, values calculated by BEREC allow a proper recovery of the investments

sustained by electronic communications network operators. Some NRAs (e.g. in Ireland and Germany) have already considered necessary to make an adjustment to WACC values in order to better taking into account current market scenario. In this regard, BEREC should in particular assess the impact of current high inflation rates on the WACC.

*Ecta* considers that it is absolutely imperative that this Report becomes subject to public consultation. This is the case because BEREC will make choices, for instance in the companies eligible for the peer group. Such choices will affect the outcomes of WACC calculations in Member States, and thus should be open to contradictory debate.

BEREC thanks stakeholders for their input and would like to point out that BEREC's duty is to estimate the parameters for the WACC calculation of NRAs following the methodologies of the Commission WACC Notice and to issue a report with the parameters for use by NRAs in their national procedures. Therefore there is no need to consult publicly on the Report as stakeholders are given the possibility of providing comments during the relevant national consultations.

As regards the point raised by ETNO, BEREC would like to note that it is following the WACC Notice methodology as required by the Notice. Any comment regarding the methodology of the Notice needs to be addressed to the Commission rather than to BEREC.

## Stakeholder engagement

### 6.1. Stakeholder Forum

*Ecta* thanks BEREC for continuing to engage actively with industry stakeholders, including invitations to ecta to speak during workshops and at the stakeholder fora. This should clearly continue in 2023. However, ecta considers that workshops where participants are allocated 5 or 10 minutes for sequential presentations, and workshops held separately with different categories of stakeholders, do not enable the in-depth discussion. Ecta considers it very important for BEREC Opinions to be subject to (pre)consultations with stakeholders.

*MVNO Europe* thanks BEREC for conducting, in many cases, positive and profound exchanges with stakeholders. MVNO Europe will certainly continue to respond to relevant BEREC publications, participate in stakeholder fora and workshops, and – where possible – seek to engage directly with BEREC's working groups. That being said, there are a number of areas where stakeholder involvement is sub-optimal or non-existent, which MVNO Europe considers problematic.

BEREC welcomes the feedback and the continuous support provided by stakeholders.



## 6.2. BEREC Annual Reports

## 6.3. BEREC Communications Plan 2023

*Ecta* evidently welcomes that BEREC intends to take initiatives to strengthen the perception of BEREC as an impartial, independent, European, forward-looking expert body. However BEREC's mandate, as contained in Regulation (EU)2018/1971, is focused squarely on the regulation of electronic communications markets, with reference to precise Directives and Regulations that constitute this framework. BEREC's priorities, even if just in terms of communications, cannot be different.

BEREC thanks for the feedback from Ecta.
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## 6.4. Developing the BEREC Work Programme 2024



### III. POTENTIAL BEREC WORK FOR 2024 AND BEYOND

FTTH Council Europe suggest for consideration in 2024 additional items. BEREC should consider a study looking at the drivers of demand and the determinants of take-up once VHCN networks are available. The FTTH Council Europe has been collecting data on deployment and take up of FTTH and FTTB since 2007 and has forecasts that go up to 2027. The FTTH Council Europe has noted the wide variety of outcomes that emerge in terms of take-up and believes that a deeper understanding of the causes of those difference is important to policy development. While almost all attention has been on achieving the availability of VHCN and certainly, Europe today is on a good trajectory, little attention has been paid to what drives take-up when VHCN is available.

BEREC thanks for the feedback from Ecta and will consider the possibility to take these suggestions into future workstreams.

## Potential work

### 7.1. Report on best practices for termination of contracts and switching provider

BEUC welcomes that BEREC proposes a report on best practices for termination of contracts and switching providers. We expects that the upcoming report builds on the valuable work done by BEREC in 2018, analysing in detail the different aspects and specific complexities of switching processes across the EU Member States and how these directly affect consumers.

Ecta welcomes BEREC's suggestion of this 2024 workstream. Whilst each Member State has had its own trajectory and set of experiences with regard to number portability and other aspects of switching between providers which should not be unduly disrupted, there is an opportunity for sharing information and experience, and for identifying what works well, and what does not work as well (as elsewhere). 2024 is a good timeframe for taking stock on the impact of the changes triggered by EECC transposition and practical implementation.

BEREC welcomes the feedback and support provided by stakeholders and understands the issues raised here as important to consider.



## 7.2. Implementation report on the BEREC Guidelines on Geographical surveys of network deployments

*Ecta* agrees that it is a good idea for BEREC to take stock of national experiences with geographical surveys. It seems likely that important differences exist between Member States, and that while the trajectories are national, there may be opportunities for learning and adjustment to ensure that the burdens on operators are kept to a reasonable level, and that the output is genuinely useful and leads to substantive improvements in light of the objectives pursued.

BEREC welcomes the feedback and support provided by ecta and understands the issues raised here as important to consider.

## 7.3. Report on market definition and SMP analysis for access to physical infrastructure

## 7.4. Experience sharing in relation to Articles 76, 79 and 80 EECC

*Ecta* considers this a highly relevant potential workstream, which definitely should be confirmed, notably to help ensure that NRAs which implement these articles do so in full accordance with the requirements of the EECC and taking utmost account of BEREC Guidelines, where applicable. *ecta* also greatly appreciates that BEREC mentions that NRAs could discuss the experiences and the consequences as regards implementation of these tools. Indeed, this is particularly important, including to verify whether implementation increases or decreases competition.

BEREC welcomes the feedback and support provided by ecta and understands the issues raised here as important to consider.

## 7.5. Implementation of Equivalence of Inputs (Eol) by NRAs

*Ecta* explicitly thanks BEREC for including this point in its Work Programme, but regrets that this is pushed to 2024 and does involve tangible deliverables. It would have been far preferable for BEREC to work on Eol upstream from the European Commission's work on revising the 2010 and 2013 EC recommendations.



BEREC welcomes the feedback and support provided by ecta and notes that it considers that BEREC could work on this item after 2023.

