

BEREC Report on the outcome of the public consultation on the draft BEREC Strategy 2021-2025

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I. Introduction

During its 42th Plenary Meeting (5-6 March 2020 in Belgrade, Serbia) BEREC approved for public consultation the draft BEREC Strategy 2021-2025 and asked for input to the upcoming BEREC Work Programme 2021. 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 WP 2021, which closed on 6 November 2019 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 13 April 2020.

This document, then, 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 17 responses were received, none of them considered as confidential, based on the request of the respective respondents.

The 16 non-confidential contributions were received from the following organisations: Article19, European Consumer Organisation (BEUC), European Telecommunications Network Operators' Association (ETNO), Global System for Mobile Communications Association (GSMA), Open Fiber, FTTH Council Europe, DIGITALEUROPE, Liberty Global, Telefónica, Europe European Competitive Telecommunications Association (ECTA), Microsoft, Facebook, Huawei, CMG AE, 1&1 Telecom, Cecil Ameil and Anton Voprossov.

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 are both supportive and positive towards the work BEREC will engage in through 2021-2025. Some stakeholders are keen to engage further with BEREC requiring additional consultations beyond those already planned by BEREC and will do so on an ongoing basis through BEREC's many public consultations on the work set out in the BEREC WP 2020. BEREC will continue in its efforts to ensure such ongoing engagement and in particular, with respect to the many guidelines BEREC has been tasked with (in light of the EECC). BEREC appreciates this willingness to engage by stakeholders and is continually working to improve its transparency and engagement with all stakeholders.

II. Introduction and Objectives

Telefonica supports BEREC's forward-looking approach of a strategic time horizon of 5 years aligned with the legislative cycle of the European Commission and concurs with the three high-level strategic priorities of connectivity. BEREC and National Regulatory Authorities should remain independent from the market in order to avoid distortions in competition but should not be misaligned with political priorities.

ETNO endorses the draft Strategy's evaluation of market, technological and policy developments. The Strategy encapsulates in a succinct manner the main trends that are set to impact the telecommunication industry in the years to come. 5G networks, digital platform ecosystems, big data, artificial intelligence and environmental objectives are all together going to redesign the way our industry operates and positions itself in the broader socioeconomic environment. Furthermore, ETNO believes that the high-level strategic priorities highlighted in the draft Strategy are generally geared both to meet BEREC's core regulatory objectives and to face the challenges brought by digital macro trends.

Microsoft believes that a few regulatory topics are underexposed in the BEREC strategy, as further explained in the section's hereafter. Generally, it appears to Microsoft that BEREC underestimates somewhat the key role that it can - and should - play as catalysator to achieve and boost digital transformation throughout the European Union, for example by promoting clear, predictable and harmonized rules in the area of telecommunications that will ultimately impact European digital services and applications. Also, Microsoft believes that BEREC ought to spend more focus on how it can contribute to the development of the digital single market, which is one of the explicit regulatory objectives of the EECC.

FTTH Council Europe believes that it makes sense to align the time period of the medium-term strategy to the legislative cycle but notes that 2021-2025 period is out of step with a legislature that has its mandate running from November 2019 to November 2024.

Open Fiber considers that the priorities indicated by BEREC are well identified and respond to the main challenges that the telecom sector is facing and to the need to ensure the correct interpretation and swift implementation of the EECC. Yet Open Fiber believes that BEREC should devote further attention to some topics that are of utmost importance to allow a faster and wider rollout and uptake of new VHCN networks, in particular FTTH ones.

BEUC recommends that BEREC's mission statement should be changed to "BEREC aims at fostering the independent, consistent and high-quality regulation of electronic communications markets for the benefit of Europe and its citizens and consumers". This slight modification is important to match BEREC's regulatory tasks enshrined in Article 4 of the BEREC Regulation.

Article 19 supports BEREC's initiative to extend its multi-annual strategy to a period of 5 years. Article 19 agrees that to align BEREC's strategy with the European Commission's mandate will help consistency among the work of the two bodies. However, we also suggest maintaining a sufficient degree of flexibility for ongoing adjustments, in order to guarantee that the longer-

term strategy does not create trade-offs in terms of the capacity for BEREC, to modify its priorities along the term to respond to supervened needs.

Huawei sees the new 5 years term for the Strategy, in line with the legislative cycle of the EU institutions, as a positive step forward showing that BEREC is acting embedded in the wider European institutional ecosystem. Also, the enhancement of the mission statement from the telecom markets towards larger digital markets rightly points out the technological change and development having huge impact on the sectors BEREC is responsible for.

ECTA noted that the presentation of BEREC's objectives should, in ECTA's view, be further elaborated, and most importantly, should be legally precise. Indeed, when referring to the four objectives of the Code in art. 3(2) EECC, BEREC inexplicably omits the take-up dimension of very high capacity networks (page 2). ECTA trusts that this omission is accidental and asks BEREC to correct this point.

ECTA welcomes BEREC's new Mission Statement, suggest to fine tune it by embedding BEREC's statutory role as the body in charge of electronic communications networks and services and completing the reference to citizens by a clear reference to enterprises and the public sector.

BEREC thanks all the stakeholders for their input and welcomes the broad support for the 5-year horizon and for the scope of the Strategy in general.

BEREC agrees with the comment made by Microsoft that one of its core tasks is to promote clear, predictable and harmonised rules in the area of telecommunications and has tried to further develop this objective in the Strategy.

While considering the comments made by BEUC and ECTA about further changing the Mission Statement, BEREC has decided not to make any further changes to this part.

Furthermore, BEREC notes the comment made by ECTA regarding the first regulatory objective of the code and has added the take-up dimension of VHCN in the Strategy to correctly reflect the scope of this objective.

II. Market, Technological and Policy Developments

Telefonica welcomes the effort of BEREC to keep pace with the technical and market developments. Furthermore, Telefonica believes that it is necessary that all NRAs are equipped with the necessary human resources, technical knowledge and market insight to successfully achieve its goals.

Open Fiber believes that a consistent European approach insists both on a procompetitive design of the process and on the necessity to carefully monitor the ways in which incumbents work out the migration processes, in order to safeguard the alternative operators'

network/investments. More specifically, the NRAs should guarantee that migration processes allow end customers to migrate towards the most performing VHC networks available (both incumbent and alternative operators' infrastructures without discrimination) in order to maximise the consumer welfare. However, Open Fiber notes in the BEREC Strategy 2021-2025 there is only a vague indication that BEREC will carry out work on this crucial topic. Open Fiber recommends that BEREC Strategy 2021-2025 should indicate a concrete action plan will be laid out by BEREC as soon as possible to ensure a smooth transition from legacy copper networks to VHCN networks.

Article 19 agrees with BEREC about the need to dedicate due attention to the integration of digital networks and technologies and to its impact on market structure and dynamics. Article 19 is convinced that this integration plays a key role in market convergence and market concentration, which both lead to new market structures with potential new forms of bottlenecks. Article 19 urges BEREC to look at the impact that these bottlenecks have not only on the entrance of new players in the market, but also on the capacity, for gatekeepers, to regulate the market and behave unfairly towards consumers.

ECTA agrees with BEREC that technological change is a reality in electronic communications markets, and that the ecosystem in a broad sense evolves however this does not mean that long-standing bottlenecks to competition for, as well as within, electronic communications networks and services can be expected to vanish, would need lesser regulatory attention, or could be de-prioritised by national regulatory authorities. ECTA agrees with BEREC that its strategy for 2021-2025 needs to consider the increasing cross-border nature of digital services. This is not only important in a 5G context but is already an issue in a 4G world in some countries. ECTA agrees that the infrastructure of the future will have specific, and indeed, much enhanced requirements however 20+ years after full liberalisation, B2B markets are characterised in most EU Member States by incumbent market shares over 60%, and sometimes over 70%. This cannot continue as 5G and IoT and fixed-mobile integration progress.

BEREC thanks the stakeholders for their input on which market and technological developments need to be considered by BEREC in the coming 5 years. BEREC notes a general support for the trends that have been identified under this section, with some stakeholders underlining certain developments as more important than others. Based on the comments received BEREC has only made some slight changes to the text to better clarify how some of these developments could impact the work of BEREC.

Comments relating to which developments should be a priority for BEREC to work on have been considered under the priorities section of the Strategy, since they rather relate to the future work that BEREC is suggested to carry out.

II.1. Gigabit society

ETNO fully subscribes to the Gigabit Society goals but believes that telecoms operators continue to face significant and real challenges in their efforts to invest in and roll out new infrastructure. ETNO suggests that the EECC should be implemented across the EU in a way that is harmonised and incentivises investment and any new regulatory initiative should focus on solving the existing challenges.

Liberty Global reiterates that future VHCN will not be limited to the network infrastructure and technologies that exist today, and policies limited to these would quickly become irrelevant. Any regulatory policy should be designed to promote a mixed technology approach, which not only maximises scope for innovation and infrastructure-based competition but can also serve as the most cost-effective means to achieve the Commissions' Gigabit Society objectives. Liberty Global therefore encourages BEREC to promote policies that support investment in the full spectrum of technologies which could help deliver future performance needs. Liberty Global considers that more should be done by BEREC to consider the demand-aspect of VHCN roll-out, both in terms of take-up of high-speed product offerings, consumer expectations and actual usage patterns. Additionally, Liberty Global would support further efforts by BEREC to monitor the impact, and effectiveness, of the newly inserted provisions, with a view to collecting sufficient quantitative and qualitative data for future Code reviews.

CMG-AG notes that absolute precondition for all aspects of digitalization and for the Gigabit Society is one area-wide fiber infrastructure, VHCN, giving access to all kind of end users and end points and connecting them among each other: homes, enterprises, all kind of "machines", antennas, sensors, street furniture's etc. This network serves as basic infrastructure for all digital applications. CMG-Ag's view is that 5G/6G is nothing more than one of these applications admittedly one the most important.

BEREC notes the general support from respondents towards the goals of the gigabit society. BEREC agrees that incentivising efficient investments will be important and that regulatory policy needs to consider the full spectrum of possible technologies. BEREC is committed to a technology neutral approach to regulation. BEREC further notes

Ensuring that the right incentives apply for investing in fibre networks, and that there is sustainable competition in the markets, will be conditions that determine the pace of development of next generation connectivity solutions in Europe. These two conditions are expected to be sufficient to ensure both the supply and demand perspectives.

II.2. 5G networks

Telefonica welcomes BEREC's considerations about the transition to 5G, paving the way for network virtualisation and disaggregation. Telefonica notes that there is a trend of entry from new players expanding into the network layer and potentially managing their own infrastructure (through remote SIM, SDN and NFV).

Open Fiber is of the view that BEREC should closely follow the developments of the demand for fibre backhauling and anticipate the above scenario by strongly advising the European Commission to identify a specific backhauling market to be added to the list of relevant markets. Open Fiber welcomes that BEREC intends to prepare a report on the regulatory treatment for backhauling next year. Following up on this activity, we would then advise BEREC to maintain a strong focus on the issue in the following years as well. Open Fiber notes the Neutral Hosts as a solution for a steadier development of 5G networks. Neutral Hosts act as wholesale-only operators building and managing relevant infrastructures for a plurality of network operators. The resulting cost sharing could prove effective both in maintaining competition among a higher number of operators and in extending network coverage, to the benefit of all customers.

Facebook notes that in 5G specifically new licensing models will allow for more efficient and better coverage. Several EU Member States and the United States have begun developing new licensing regimes aimed at enabling and promoting the sharing of scarce spectrum resources. Spectrum policies that allow new users to access spectrum in local areas will help improve provision of high-speed broadband services in areas that are not effectively covered, such as underserved rural areas, and deploy specialized local and private networks. Currently, Facebook notes that local licensed networks are enabled under national specific frameworks in a fragmented manner. This prevents the emergence of a European ecosystem and also prevents companies that operate across borders to harmonise solutions across their European sites.

Huawei notes that network slicing will play a key role for operators to engage industry verticals and provide SLA based industry services. Huawei would appreciate, if BEREC could organize continuous discussions on the compliance of network slicing and open internet regulation, given the speed of innovation and technological developments. BEREC should be closely monitoring the situation together with operators and suppliers.

ECTA notes in the specific context of 5G, BEREC refers to spectrum regulation and access regulation to ensure access to sites and infrastructure sharing. ECTA considers that this limitative expression of forms of regulation is likely to prove insufficient to prevent and resolve damage to competition and to end-user interests. According to ECTA when BEREC refers to fiber networks the focus appears to be less than the full expression of all objectives of the Code. In particular, the access to and take up dimensions for Very High Capacity Networks

contained in Article 3(2) EECC seem to be underrepresented compared to the investment and deployment.

BEREC thanks the stakeholders for their input and acknowledges that the transition to 5G will depend on several different important conditions. BEREC is of the view that it sufficiently covers the relevant areas in the Strategy, including those mentioned by respondents, and will consider these aspects in its future work.

II.3. Digitalisation of society

ETNO welcomes BEREC's recognition that a fully functioning digital society will only be possible with the inclusion of all citizens. For this reason, ETNO believes that in addition to supply side considerations a parallel effort to incentivise demand for 5G and very high capacity networks is necessary to support the uptake of new connectivity services.

ECTA agrees with BEREC that the digital society must be inclusive for all citizens, but ECTA adds that inclusiveness should explicitly extend to business users of all kinds (SME, medium-size, large, start-up, scale-up), and for competitive network operators and service providers. No-one should be left behind.

BEREC welcomes the input provided by the respondents and notes that this topic is considered important by many. Regarding the comment made on demand side of 5G and VHCN, BEREC wishes to remind stakeholders about the upcoming public consultations on both these topics in the coming months, which will offer the opportunity to discuss this matter in further detail.

II.4. Digital divide

No specific contribution.

II.5. Data-centric business models

Article 19 welcomes the attention that BEREC plans to dedicate to data-centric business models and to their possible impact on open internet and competition. Article 19 is convinced that BEREC has a key role to play in cooperating with other regulators, such as data protection and competition authorities, to shape proper regulatory remedies to modify or impose limits to

business models which are not compatible with the EU values, objectives and standards with regard to open, fair and innovative markets and to users' fundamental rights.

BEREC thanks Article 19 for the comment and agrees that cooperation with other relevant authorities will be important in this regard.

II.6. Digital platforms

Telefonica welcomes the observation that the new market dynamics are by no means limited to the electronic communications sector but affect all industries in our connected society. Therefore, with new gatekeeping roles appearing on other layers on the value chain beyond connectivity Telefonica calls for similar principles to those applied today to telecom operators. Therefore, Telefonica advocates for the transformation of the current telecommunications NRAs and BEREC towards fully fledged digital regulators.

ETNO shares BEREC's concerns about dominant digital platforms that may stifle the internet openness and curb competition in the digital economy. ETNO suggests including other crucial instances of dominance and dependency along the value chain (e.g. operating systems, cloud infrastructure) that are not reflected in the draft document and possibly not covered by a narrow definition of platforms.

DIGITALEUROPE has concerns about this aspect of the strategy. Issues around the digital market and the economic dynamics of digital platforms have been assigned to the responsible competition authorities, whose delegated role should not be intruded upon in the absence of specific direction from the European Commission. DIGITALEUROPE fears that it would be a misallocation of BEREC's valuable resources to attempt to force itself into the ongoing discussions with no obvious end, and without a clear invitation from the assigned decision makers, as regulation of digital platforms is currently outside of the remit of telecom regulators.

BEREC thanks the respondents for their input and notes that there are both support and concern expressed relating to the inclusion of issues with digital platforms in the Strategy. BEREC remains of the view that this is an important area of development for BEREC to consider, not least in light of the upcoming Digital Service Act, which may consider an ex-ante approach to regulating platforms where BEREC would have relevant expertise to contribute. It is also worthwhile to mention that BEREC already conducts work related to digital platforms, which was included in the Work Programme 2020. BEREC also acknowledges that issues relating to digital platforms have implications for other perspectives including, for instance, data protection, ex post competition or media regulation. All these views should be considered for a comprehensive and coherent approach to this matter.

II.7. Big data and AI

ETNO agrees that the use of artificial intelligence will dramatically improve a few operations such as network maintenance and optimisation, customer relationship management, and product and service development. ETNO insists that AI will not negatively affect operators' efforts to abide by their regulatory obligations and will not offer any compliance loophole. On the contrary, the use of AI technologies in daily operations can help operators meet several regulatory obligations more effectively.

BEUC notes that increasing availability of data and analytical tools has not always brought better-informed decisions by consumers. In fact, consumers are often being misled (e.g. via dark patterns) or discriminated (e.g. via discriminatory personalised pricing). BEREC should reflect this reality in its strategy. BEUC welcomes BEREC's acknowledgment that AI technologies in the electronic communications sector can affect end user rights, data protection, competition (in terms of data economy) or security. Similarly, BEREC should highlight that data centric business models are raising many challenges for consumers as well.

Liberty Global notes that BEREC refers to big data and AI as one of the key markets, technological and policy developments. However, Liberty Global notes that issues relating to big data and AI are not limited to telecommunications services and that any policies should be designed to apply horizontally to all sectors across the EU in line with the level playing field that is foreseen by the Commission's Digital Single Market strategy.

BEREC thanks the respondents for their input and agrees that big data and AI may have numerous of yet unforeseen consequences (efficiency, consumer choice, etc.) which are hard to fully quantify at this stage. Therefore, BEREC has not yet included any specific deliverable in its draft 2021 Work Programme on this topic. Nevertheless, BEREC believes that the upcoming developments in these areas in coming years will be very relevant for BEREC to understand and analyse.

II.8. Climate change

See the detailed comments below in Chapter III. High level strategic priorities.

III. High level strategic priorities

Telefonica welcomes the ambition of BEREC to help the industry to fight climate change and to achieve the EU climate targets and sustainable development goals. Telefonica is committed to reduce its energy consumption and carbon footprint by upgrading mobile networks to 5G and increasingly using energy efficient fiber.

ETNO supports the focus on sustainability as an important horizontal principle and high-level priority. ETNO members are closely following the trends in energy consumption and exploring innovative ways in which the telecoms and digital sector at large can help mitigate the impact on climate change. ETNO expresses its willingness to contribute to the debate on environmental sustainability and support BEREC's activity and related sector assessment that needs to be embedded in a holistic approach for the economy.

GSMA appreciates BEREC's strategic interest to contribute to the policy discussion around the European Green Deal. In terms of climate action, telecom operators constantly improve their energy efficiency despite increasing traffic demands and have implemented voluntarily a broad range of good practices (e.g. in the scope of the circular economy).

Open Fiber believes that a complete transition to full fiber networks would bring about dramatic reductions of energy consumption and provide a great contribution towards achieving the goals set out in the European Green Deal. Ensuring the rollout and uptake of full fiber networks would allow BEREC not only to achieve the objectives of the EECC, but at the same time also to implement the European Green Deal.

Facebook fully supports the three high-level strategic priorities set by BEREC in the draft Strategy since Facebook's mission is closely aligned with these priorities.

BEUC welcomes BEREC's attention given to sustainability and considerations around the European Green Deal. A successful Green Deal should go beyond mere awareness as we are facing a climate crisis.

Huawei believes that standardized performance and sustainability indicators for technology like fiber or 5G are desired in assessing the way forward to climate neutrality. The EU Green Deal and BEREC have recognized the importance of the ICT sector in achieving climate neutrality and digital technologies are a critical enabler for pursuing the sustainability goals across different sectors.

ECTA expresses its explicit support for the overall thrust and most aspects of the draft BEREC strategy. This includes the 3 high-level priorities. However, ECTA feels compelled to express its observation and related concern that, over time, BEREC's priorities reduce in number (from 5 to 3) and become less focused (on the electronic communications markets that are BEREC's mandate. ECTA notes that the draft BEREC strategy refers to successful implementation of the code and the impact and the effectiveness of the EECC but BEREC does so without indicating what success, effectiveness mean.

BEREC thanks the respondents for their input and welcomes the general support expressed for the strategic priorities mentioned in the Strategy. BEREC notes that almost all the stakeholders welcome BEREC's ambitions in the area of sustainability and climate change and the attention that is given in the Strategy to the goals set in the European Green Deal. BEREC appreciates the full support to all 3 high-level priorities expressed by ECTA and Facebook.

In response to previous comments, some further clarification that BEREC remains committed to ensuring the consistent application of the EECC throughout the EU has been added in the introductory text to the high-level priorities.

III.1. Strategic priority 1: Promoting full connectivity

Telefonica welcomes BEREC focus on promoting full connectivity and we note the interest in the development of 5G and the reference to the need to ensure wholesale access to fiber backhaul, with duct and pole access and dark fiber becoming increasingly relevant. In the EU the availability of physical infrastructure (mainly ducts and poles) is diverse and the different network deployment architectures per Member State make it very hard to establish a single European physical infrastructure solution.

On the topic of 5G security Telefonica supports the harmonised, comprehensive, fact and risk-based approach taken so far by the EU. Telefonica believes that when putting in place effective risk mitigating actions in line with the provisions of the EU 5G cybersecurity toolbox, Member States should avoid actions that could cause a disruption of equipment supply for 5G networks.

ETNO agrees that the successful implementation of the EECC should be a horizontal principle forming an essential part of the work on BEREC's three strategic priorities, including the priority on connectivity. ETNO recognises the progress made with several future Guidelines so far and appreciates the opportunity given to stakeholders to take part in this process. ETNO also agrees on the increasing importance of infrastructure sharing to accelerate VHCN and 5G roll-out and to bridge any infrastructure gaps, both requiring a very high level of investment. ETNO questions the somewhat premature suggestion in the BEREC draft Strategy that wholesale access to fibre backhaul connectivity of cell sites may need to be regulated, as it will depend on the available options in each market and national circumstances. ETNO has long supported a European approach to the security of 5G and of its supply chain therefore, ETNO supports the BEREC ad hoc working group on 5G cybersecurity and its efforts to promote a dialogue with industry stakeholders at European level.

Microsoft fully agrees with BEREC on the need to promote full connectivity, notably through the encouragement of secure, competitive and reliable high capacity networks, e.g. 5G. However, Microsoft believes that more attention should be spent by regulators on striking the right balance between licensed and license-exempt access across a variety of the spectrum bands. Today, more data is delivered via Wi-Fi connections than via mobile connections and

Microsoft expect this trend to continue. Microsoft firmly believes that accelerating the release of additional spectrum for unlicensed use is not only key to stimulating more competition in the access markets to the benefit of consumers and businesses. It is crucial not to incur further delays in the harmonization – and thus the use – of the 6GHz band for Wi-Fi.

GSMA notes that operators should be allowed to experiment with different network sharing models adapted to their different business models. Consequently, the GSMA fully agrees with the importance given to network sharing, for the different reasons expressed in the BEREC document but also due to the high level of investment necessary to deploy new fixed and mobile networks all over Europe. GSMA recommends that, even though high-level agreement could be reached at EU level, the main provisions aimed at facilitating the switch-off from legacy should be left to local NRAs. GSMA believes that 5G does not trigger a general need for additional regulation as many issues such as privacy are typically covered by existing horizontal regulation. Furthermore, BEREC should avoid presuming any need for additional regulation, especially in markets which in the past have already been deemed to be competitive by the NRAs. GSMA is concerned that BEREC states that wholesale access to fibre backhaul connectivity of cell sites needs to be ensured (and regulated, if appropriate) to prevent potential problems in terms of lack of coverage and refusal of access to bottleneck facilities.

FTTH Council notes the significant emphasis on 5G in the draft medium strategy dealing with connectivity. While this is very appropriate and a lot of work will have to be done on spectrum investment and allocation to enable that deployment, there are a couple of omissions. According to FTTH Council one omission is that there remains a need to ensure that adequate fibre is in place and the FTTH Council notes that the objective for NRAs is to ensure adequate investment in VHCN, which in effect is to ensure that there is investment in fibre very deep in the network. The second omission in the Council's view is that there is an even more important symbiotic relationship between 5G and fibre networks. FTTH Council Europe believes that there are enormous advantages in terms of speed and cost to having a co-ordinated 5G/FTTH network rollout. Therefore, FTTH Council recommends BEREC to explore methods to encourage co-ordinated builds between 5G and fibre networks and explore ways to mitigate these concerns ahead of investments being made.

Facebook supports BEREC's continued promotion of full connectivity at the heart of its work over the coming five years, as confirmed in its draft Strategy 2021-2025. Facebook also supports BEREC's aim of continuing to strive for consistent regulatory application of the EECC. A consistent, harmonized approach is critical to enabling realisation of a Digital Single Market. According to Facebook BEREC should promote a balance of both licensed and license-exempt spectrum approaches. Wi-Fi over license-exempt spectrum is an essential component of connectivity. High-capacity networks and 5G rely on Wi-Fi connectivity within homes and businesses to connect advanced broadband to consumer devices. Securing additional availability of spectrum for Wi-Fi technologies has become increasingly important to meet the ever-increasing consumer demand. Facebook suggests that BEREC initiates in 2021 an EU wide economic study to better understand the benefits and expected future role of license-exempt spectrum on the public domain and on Europe's economic competitiveness. Facebook believes BEREC should collaborate with RSPG on future decisions regarding the availability of license-exempt spectrum to ensure this supports the EU's connectivity objectives.

BEUC believes that the variety of products on the market could suffer under the new VHCN regime. BEUC supports connectivity and is favourable to a fast one, but BEUC is concerned about market consolidation being the result of VHCN endeavours. BEUC urges caution regarding infrastructure sharing such as it does not lead to a reduction of competition. This is particularly important when network agreements take place between undertakings with significant market power since such agreements can reduce the incentives to invest and diversify infrastructure, and ultimately lower the quality of services for consumers.

Huawei believes that bandwidth demand will move on over time, but fibre itself is a one-off. Therefore, BEREC should encourage as far as possible the full panoply of future-looking technologies (NG-PONs, 5G/6G, Wi-Fi 6/7 and their successors), and the symmetric upstream and downstream FTTH gigabit bandwidth in the digital ecosystem. Huawei appreciates BEREC's work on connectivity, with the European Union's 2025 target of urban and transport route 5G coverage, this would be fundamentally important to the development of 5G and digital society, however, to mitigate "digital divide", it would be of the same importance for rural 5G coverage in the long term.

Huawei notes that BEREC Strategy and the WP outline contain little to nothing about spectrum, despite frequencies being a major factor for competition in the telecom sector with high impact on the ability to invest for operators. Thus, it is of utmost importance that BEREC is closely cooperating with RSPG – based upon the MoU signed in 2019 – in particular on spectrum assignment mechanisms. Huawei recommends that 5G spectrum license fee should be managed in a reasonable and economically viable scale, promotion of best practice in different countries to ease financial burden on operators and make 5G business case viable.

CMG-AE notes that draft Strategy does not include different business models and their impact on strategies and regulatory tools. It looks the mind-set sticks only to vertical models, mostly applying to incumbents. The draft is not regarding the gradual change in the market where wholesale only physical infrastructure providers and neutral network providers emerge. CMG-AE believes that conclusions of the BEREC Draft Strategy should express more clearly the promotion of the VHCN as a general-purpose networks (GPN), i.e. the area-wide fiber network as the basic physical infrastructure and seen in future as an essential public service. The policy goals follow from this (Europe wide rollout of wide-area basic fiber network, competition evaluated with respect to effects at all 3 layers of GPNs by creating a framework for wholesale only providers and service providers, passive physical infrastructure of the VHCN should be considered as an essential public service).

1&1 notes that spectrum for mobile use is a scarce resource, i.e. demand exceeds the available spectrum. In view of the forthcoming allocation of spectrum for a broad coverage below 1 GHz, it is foreseeable that the situation will get worse as the availability of spectrum packages is not sufficient for all network operators. 1&1 suggests that NRAs must think about alternative solutions to ensure that all market participants are able to cover their sufficient demand. 1&1 further notes that the Code focuses on incentives for investment in new Very High Capacity (VHC) networks, access to building facilities of market-leading companies, as provided in Articles 72 and 73 EEC, significantly accelerates the expansion of VHC infrastructures by competitors. Competitors must be able to use this infrastructure to be able to expand their own infrastructure at regulated conditions which also serves to accelerate the

5G expansion. 1&1 stresses the need for improvement in clear and binding guidelines in order to shorten the approval procedures.

DIGITALEUROPE notes that there are still households in Europe which do not have access to a fixed broadband connection, nor do they have sufficient mobile coverage. Therefore, DIGITALEUROPE suggests that BEREC should aim at promoting through the regulatory application of the EECC regarding the deployment of VHCN fixed connectivity to ALL households, fixed connectivity to ALL businesses and public sector and 5G connectivity in ALL regions and not only along transport paths and in the main cities.

ECTA supports this proposed strategic priority. However, ECTA notes that BEREC refers to conditions for the expansion and take-up of networks (omitting the crucial access dimension contained in Article 3(2) EECC). ECTA receives BEREC's reference to smooth transition very positively and proposes this to be extended in the final text to make clear that no-one can be left behind, extending beyond citizen-consumers, but to all economic actors.

BEREC welcomes the positive comments of Telefonica, ETNO, GSMA and others on the promotion of full connectivity and the development of 5G including the attention given to a European approach to the security of 5G networks.

BEREC notes the concerns about wholesale access, network sharing and the availability of scarce resources expressed by ETNO, ECTA, Microsoft, BEUC and others. BEREC clearly indicates in the developments section that an appropriate regulatory framework needs to be in place, e.g. spectrum regulation, access regulation to ensure access to sites, infrastructure sharing etc. to allow the development of connectivity and new connectivity technologies. It is in the DNA of BEREC to go for a proportionate consistent approach throughout Europe but taking into account the national market circumstances.

With regard to the availability of spectrum (spectrum related comments made by Huawei, Facebook, 1&1), the strategy aims clearly at an intensified institutional cooperation with RSPG and other relevant EU institutions.

BEREC should focus on improving the general conditions for both operators and end users, which implicitly include supply and demand side conditions. (comment by Liberty Global to prioritise work that generally improves the conditions for high-capacity networks)

Upon the comment made by ECTA, **access to VHCN** has been added to help ensure consistent regulatory application of the EECC regarding the deployment of VHCN.

In response to ECTA and others about the inclusion of business end-users, an addition has been made to clarify that BEREC will promote the take-up of VHCN by end-users including business end-users. BEREC will continue to further promote the transparency as well as the availability and the benefits of broadband services for both businesses and consumers

To respond to the concerns of GSMA, BEREC notes that wholesale access to fiber backhaul connectivity of cell sites needs to be ensured and stresses the importance of preventing potential problems in terms of lack of coverage and refusal of access to bottleneck facilities.

III.2. Strategic priority 2: Supporting sustainable and open digital markets

ETNO encourages BEREC to strengthen cooperation with other competent authorities (e.g. competition, consumer protection, media regulation and data protection) in order to provide useful insights into digital markets. ETNO welcomes a broader approach to gatekeepers along the value chain in consideration of the evolution of digital networks and services. ETNO asks for more clarity around the assertion that BEREC may investigate data centric approaches and data driven regulation principles as to their ability to achieve regulatory targets while empowering end-users. Such trends are, again, neither telecoms specific nor are telecoms the main driver.

Microsoft suggests that the implementation of the existing telecommunications framework, but also of the EECC, is still way too fragmented to allow the telecommunications and digital players to fully grasp the potential of these new cross-border IOT opportunities and markets. This fragmentation is obviously not beneficiary to the take-up and roll-out of innovative digital services. Microsoft is of the view that the BEREC strategy paper clearly fails to set out a roadmap to contribute to the achievement of the digital single market – which is after all one of the four explicit regulatory goals under the EECC. Microsoft believes that NRAs should look at these issues with a refreshed look and acknowledges the need for enhanced harmonization and increased cross-border co-operation regarding NI-ICS.

GSMA notes that ECS and ECN are typically not defined as “platform” and currently discussed problems such as those concerning gatekeeping hardly refer to telecoms. Consequently, GSMA encourages BEREC to strengthen cooperation with other competent authorities.

Facebook supports BEREC’s position that the open internet is an essential building block under the current EU electronic communications regulatory framework, in particular under the Open Internet Regulation 2015/2120. This Regulation guarantees an open internet for the benefit of end-users throughout the whole of the EU, an essential element in creating a truly Digital Single Market. Facebook appreciates BEREC’s prompt response to the current Covid-19 crisis in this respect and support the consideration that the current regulatory framework is well placed to deal with these extraordinary circumstances, including rules about what NRAs can do in case of actual network congestion.

BEUC welcomes BEREC’s commitment to net neutrality, contributing to continued, predictable and consistent application of the open internet regulation during the 5G roll-out. BEREC must draw a balance between the benefits and risks of AI and other new technologies. Right now, this section refers to digitalisation as only providing opportunities. Unfortunately, there is vast evidence showing the challenges that must be tackled.

Article 19 welcomes BEREC’s approach that, apart from monitoring market developments, aims at concrete solutions. Article 19 is also glad to support BEREC’s commitment to make sure that technological, economic, legal and user protection perspectives are integrated in the design and practice of regulation. Article 19 calls on BEREC to adopt a wide interpretation of user protection, which includes considerations about the impact of regulation on users’ human rights. Article 19 welcomes BEREC’s initiative about a study on consumer behaviours toward

digital platforms. In this regard, Article 19 calls on BEREC to dedicate due attention to the impact that the default settings used by service providers have on consumer behaviour.

Huawei believes that overall role of BEREC in connection with the digital markets is to ensure a level-playing-field between the broader digital sector and the telecom sector as well as an open ecosystem. BEREC should be active there without overshooting or producing “solutions in search of a problem”. Therefore, BEREC not only may but must investigate data-centric approaches and data-driven regulation principles to ensure a level-playing-field in the interest of a strong European Telecommunications industry in converging digital markets. According to Huawei BEREC must safeguard that the rules for digital services are consistent with the rules for the telecom industry.

DIGITALEUROPE believes the Open Internet Regulation as agreed by the European legislators strikes a reasonable balance between protecting the rights of end users of Internet Access Services (IAS). DIGITALEUROPE supports BEREC in ensuring its consistent application across Europe. DIGITALEUROPE would like to see consistent and non-ambiguous Open Internet Regulation Guidelines to support the development of a Digital Single Market and commercial practices for all providers to invest, conduct business and innovate in Europe. DIGITAL EUROPE believes that BEREC can most effectively support Europe’s digital transformation by deploying its traditional toolkit towards greater harmonization in the ongoing implementation of the EU telecommunications regulations. In this respect, the BEREC strategy paper fails to set out a strategic roadmap to achieving a digital single market which is after all one of the EECC’s four priority regulatory goals. DIGITALEUROPE believes that BEREC should assist the NRAs to take a fresh look at these issues and to squarely acknowledge the need for increased regulatory harmonization and cross-border co-operation with regard to NI-ICS. Other instances like the work of ENISA have already recognized the importance thereof. It is therefore surprising for DIGITALEUROPE to see this priority responsibility entirely absent from both BEREC’s 2021-2025 strategy and its 2021 work program, and we encourage BEREC to include this dimension after the review.

ECTA notes with regret that in describing Strategic Priority 2, BEREC’s text is very short (merely 4 paragraphs) and does not refer to electronic communications markets and uses an imprecise notion of digital markets instead. ECTA asks BEREC to re-assess this proposal, and asks for written reassurance from BEREC, by way of a textual change, that BEREC continues to focus on the specific regulatory issues characterising electronic communications markets. ECTA observes that BEREC appears to consider that it and its constituent NRAs have relevant expertise in the design of regulatory remedies for digital markets. ECTA points out that its members experience every day that major competition problems on electronic communications markets remain unremedied or inadequately remedied to-date, sometimes despite decade-long pleas from challenger operators.

BEUC, Facebook and DIGITALEUROPE support BEREC’s commitment to the open internet for the benefit of all end-users throughout Europe.

In response to BEUC’s concern that digitalisation is not only providing opportunities, but that there are many challenges that must be tackled as well, BEREC confirms that it will be looking at both potential issues as to their ability to achieve regulatory targets while empowering end-users.

Both ETNO and GSMA encourage BEREC to strengthen its cooperation with other EU bodies and groups (e.g. competition, consumer protection, media regulation and data protection). BEREC has added under its high-level priority 2 (and chapter IV) that it will continue to build its knowledge base within the digital economy in close cooperation with EU bodies and groups as well as other to make sure that technological, economic, legal and user protection perspectives are properly considered in the design and practice of regulation.

Regarding the comment of DIGITALEUROPE, BEREC refers to the Tools section at the end of the Strategy document. BEREC states that “The EECC defines a category of electronic communication services (i.e. NI-ICS) that are provided cross border simultaneously in several Member States”. These services, and the emerging issues around the digital ecosystem (including platforms), may require new and enhanced cooperation among European regulators.

III.3. Strategic priority 3: Empowering end-users

ETNO reiterates its full support to the concept of consumer empowerment, which goes beyond consumer protection strictly speaking. This includes, for example, the further increase of choice and innovative solutions or new digital means that empower consumers in telecoms markets. ETNO would welcome a BEREC workshop with its stakeholder community to discuss consumer expectations and empowerment in the evolving electronic communications market, also delving into telecommunication operators’ efforts to deploy omnichannel strategies that enhance customer experience and interaction.

Microsoft notes that BEREC seems to pay far less attention to the B2B customer segment. However, as described under the previous section, the B2B segment is in our view key to unlocking Europe’s digital potential particularly IOT applications.

GSMA supports the empowerment of consumers, which enables consumers’ trust in digital services and facilitates responsible consumption patterns. GSMA believes that BEREC should ensure that the consumer protection rules defined in the Code are applied in a harmonized way across the EU, possibly by issuing guidelines.

FTTH Council welcomes Strategic Priority 3 very much on empowering consumers and the subsequent explanation. From the FTTH Council Europe’s perspective, the most important aspect mentioned is consumer protection which includes network performance. Improving the information provided to customers as proposed by BEREC is an obvious way of removing distortions in consumers’ valuation of different propositions. The FTTH Council recommends for example, provisions that stipulate what information must be provided to customers, and in what form. Information about maximum available speed, for example, might be misleading, and operators could be required, for example, to inform customers about the speed they should be expecting to get most of the time, taking account of the quality of the line, distance from the exchange, contention ratio used by the operator.

Facebook supports BEREC's priority of empowering end-users. Facebook agrees that promotion of full connectivity should be a key priority towards enabling and fulfilling the demand for high quality services on the part of consumers. Facebook believes that it is extremely important that there will be a consistent and harmonized implementation of the EECC rules. It is also equally important that BEREC and its members take a harmonized approach on (potential) enforcement of the EECC rules.

BEUC strongly recommends BEREC to change the second sentence of the first paragraph of this section as follows: While digital innovation and competition among digital service providers has improved consumer empowerment, there is still an important role for regulators to play in ensuring a certain level of the respect of consumer rights, transparency and digital skills by removing "a certain level of" part. BEUC recommends that BEREC not to put too much emphasis on consumer demand on VHCN as consumers should have the choice to buy high capacity tariffs. BEREC should rather focus on ensuring markets work efficiently, transparently, and fairly for all participants, and for consumers.

Article 19 stresses the importance, for BEREC, to reflect on the vital role that end users' choice plays for the establishment of sustainable and open digital markets. These markets should respond to and be oriented by end users rather than by a handful of dominant players. Article 19 advocates for the importance of availability of sufficiently valuable alternatives, the freedom from coercion and manipulation, and a sufficient degree of information. Article 19 urges BEREC to consider the above elements as targets of its concrete action towards the empowerment of end users.

Liberty Global considers that BEREC will have an instrumental role in promoting regulatory best practice (incl. evidence-based consumer policy) and consistent application of these Code provisions across the EU. In this regard, Liberty Global notes that BEREC has been tasked with providing the Commission with an opinion by 21 December 2021 on market and technological developments, and their impact on the application of the end-user rights provisions of the Code. Liberty Global agrees that transparency over telecommunications services is essential and that providing easily understandable and relevant information to consumers throughout the entire contractual relationship is essential it is important that providers do not burden consumers with providing too much information.

ECTA notes with regret that BEREC's text is very short (merely 5 paragraphs) and BEREC's focus is nearly entirely on consumers. Whilst empowering consumers is clearly important, and ECTA has always stood firm in promoting consumer choice and switching, ECTA explicitly asks BEREC to revise the text to refer to end-users in their entirety, including notably also business and public sector users. Furthermore, ECTA considers that competition should be explicitly recognised by BEREC as a driver of end-user empowerment.

ETNO, GSMA, FTTH, Facebook and BEUC welcome very much the concept of end-user empowerment. There is a common belief that protection rules should be applied in a harmonised way.

At the request of BEUC, BEREC has deleted "a certain level of" in the second sentence of the first paragraph of this section

In response to BEUC's concern (ref. above) that digitalisation is not only providing opportunities, but that there are many challenges that must be tackled as well, BEREC confirms that it will build its knowledge base on AI and explore ways to safeguard consumers against potential risks

IV. Cooperation with EU institutions and institutional groups

BEUC welcomes that interinstitutional cooperation now has a more prominent role in BEREC's strategy. Breaking the silos of regulators is essential in a digitalised society and economy. BEUC urges caution about focusing on connectivity/5G and platform regulation. As BEREC stated in this consultation, while the objectives of the EECC will still be at the centre of BEREC work in the coming years, BEREC will need to prioritise its work and resources to realise these objectives.

Article 19 is convinced that BEREC possesses unique knowledge and expertise on economic concepts that could inform the action of other regulators and bodies dealing with digital markets. However, Article 19 believes that this exchange and assistance should be reciprocal, and that BEREC should also inform its action taking advantage of the knowledge and expertise of those regulators and bodies. Article 19 notes that of the strategy to respond to the pandemic will rely on digital instruments and services and will result in the establishment of a surveillance infrastructure. Part of it already exists, part will likely be set in the coming days, weeks and months. BEREC, in cooperation with other relevant institutions, has a role to play to make sure that this infrastructure will not be permanent, and that as soon as the emergency will be over this surveillance apparatus will be dismantled.

DIGITALEUROPE welcomes BEREC's focus on strengthening its international network and cooperation. DIGITALEUROPE notes, however, the lack of mention of future cooperation with the United Kingdom. DIGITALEUROPE recognizes the uncertainty surrounding the future relationship between the EU and the UK but at the same time believes both sides would benefit greatly from the continued close collaboration.

ECTA supports BEREC's proposals relating to institutional (and international) co-operation. ECTA suggests that all BEREC's Opinions to the European Commission should be subject to two-stage public consultations. ECTA welcomes BEREC's intended involvement in spectrum peer review processes. However, there are serious concerns that this will be a closed process. At the very least, industry stakeholders should be able to receive information about BEREC's policy line and reports on the positions taken by BEREC in peer reviews and their outcomes.

BEREC notes that there is a general support for the more ambitious role for BEREC in institutional and international cooperation in the new strategy. BEREC has added a reference to the new recommendation relating to the usage of mobile apps to fight COVID-19 of 8th April 2020 where BEREC is mentioned along other EU bodies and groups.

V. Stakeholder engagement

ETNO commends BEREC for taking additional steps in increasing transparency and stakeholder engagement. ETNO acknowledges that many BEREC WGs have increased the level of engagement with stakeholders through calls for early inputs and stakeholder meetings. ETNO welcomes the practice of “2-stage consultations”, as this provides stakeholders more opportunity to provide inputs and to exchange views with BEREC. ETNO would also welcome the establishment of a Permanent Stakeholder Group (PSG) and encourage BEREC to define the objectives and functioning of this group.

GSMA appreciates the improvements provided by BEREC in its interaction with the stakeholders and its willingness to continue this line of actions. Particularly, GSMA appreciates that BEREC recognizes “that in order to provide quality responses to BEREC’s consultations, stakeholders need sufficient time to respond” and that “In this regard, BEREC will strive to afford stakeholders the maximum possible time to provide input to its projects”. An improvement in this respect will be welcome.

BEUC thanks BEREC for acknowledging that sufficient time to respond to a consultation is needed. BEUC encourages granting longer consultation periods. As a way of example, the Outline BEREC Work Programme 2021 was approved on 30 January 2020 but was only put to consultation on 10 March. Even if a more elaborated work programme will be subject to consultation again, it would have been better to put it into consultation already on 31 January so we would have one month and a half extra to get input from our 45 member organisations. In addition, BEUC encourages BEREC not to publish several consultations at the same time as this means organisations like BEUC need to prioritise which consultations to respond to due to lack of resources.

Liberty Global appreciates BEREC’s efforts to allow sufficient time for stakeholders to respond to consultations, the increased frequency of stakeholder workshops and its efforts to facilitate direct engagement between Expert Working Groups and individual stakeholders during the Annual Stakeholder Forum. Liberty Global strongly supports BEREC’s new two-stage process for consultation, which includes a preliminary Call for Input. However, Liberty Global would urge BEREC to enable operators to engage with BEREC regarding the input they provide at this initial stage of input. Liberty Global was particularly disappointed with regard to the VHCN guidelines that no opportunities were given to engage with BEREC between the first Call for Input stage and publication of the draft Guidelines. In this regard, Liberty Global note that stakeholder engagement is not a one-way street. Whilst Liberty Global highly value the ability

to provide input to BEREC's activities, it is also important that BEREC engages with this input in a meaningful way.

DIGITALEUROPE welcomes the increased level of engagement with BEREC EWGs as this provides stakeholders more opportunities to provide inputs and to exchange views with BEREC.

ECTA would welcome BEREC extending or otherwise providing a certain flexibility with its consultation deadlines as a positive contribution to the collective effort in the fight against this pandemic.

BEREC wants to intensify stakeholder engagement for instance by introducing more two stage consultations by giving the stakeholders the opportunity to give their input at an early stage.

This approach is very much welcomed by all stakeholders. BEREC realises that this approach puts an extra burden on their work and on BEREC's resources. Practical experience with the public consultations will be evaluated and procedures adapted if necessary.

VI. BEREC WORK

Developing the right tools

Facebook highly appreciates BEREC's prompt response to the current Covid-19 crisis in and is of the view that the current regulatory framework (is well placed to deal with these extraordinary circumstances.

The COVID-19 crisis has clearly demonstrated that connectivity is essential and a must have for all parts of society. In this unequalled situation, BEREC's task is to remain vigilant and ensure that measures taken during the COVID-19 crisis are pragmatic and subject to regular review to ensure regulatory principles are upheld in the mid- and long-term. In this context, BEREC will thoroughly examine the experience acquired during this persistent COVID-19 crisis to draw conclusions and learn from it.