



ecta RESPONSE

**TO THE PUBLIC CONSULTATION BY
BEREC ON THE**

**DRAFT BEREC REPORT ON SUSTAINABILITY: ASSESSING
BEREC'S CONTRIBUTION TO LIMITING THE IMPACT OF THE
DIGITAL SECTOR ON THE ENVIRONMENT**

14 APRIL 2022

1. Introductory remarks

1. **ecta**, the **European Competitive Telecommunications Association**,¹ welcomes the opportunity to provide feedback on the *Draft Berec Report on Sustainability: Assessing BEREC's Contribution to Limiting the Impact of the Digital Sector on the Environment* public consultation launched on 16 March 2022 (hereinafter “The Draft Report”).
2. **ecta** represents those alternative operators who, relying on the pro-competitive EU legal framework that has created a free market for electronic communications, have helped overcome national monopolies to give EU citizens, businesses and public administrations quality and choice at affordable prices. **ecta** represents at large those operators who are driving the development of an accessible Gigabit society, who represent significant investments in fixed, mobile and fixed wireless access networks that qualify as Very High Capacity Networks (hereinafter “VHCN”) and who demonstrate unique innovation capabilities.
3. **ecta** welcomes BEREC’s initiative to elaborate a report on this strategic topic for European Union citizens, businesses and institutions.
4. **ecta** sincerely appreciates this BEREC initiative because the time is ripe to start on:
 - i. A methodical collection of the voluntary actions undertaken by the electronic communications network and services providers ahead of and in line with the ambitious targets defined by the Commission in its European Green Deal² and successively, in its Fit-for-55 package³ which respectively consist in achieving zero net GHG emissions by 2050 and reducing emissions 55% by 2030.
 - ii. Defining BEREC’s potential contribution to limiting the digital sector’s impact on the environment, focusing particularly on the environmental footprint of ICT sector.
 - iii. Identifying metrics for measuring the positive contribution the electronic communications sector can bring to greening other sectors including the public sector.
5. Given this specific context, **ecta** thinks that it is **relevant for BEREC to play a substantial facilitation role in ensuring the transparency and homogeneity of information on the environmental footprint of the ICT sector, clearly distinguishing electronic communications networks and services from**

¹ <https://www.ectaportal.com/about-ecta>

² COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, The European Green Deal, 11.12.2019 COM(2019) 640 final

³ [Fit for 55 - The EU's plan for a green transition - Consilium \(europa.eu\)](#)

other dimensions (computing resources, hardware (e.g. users' devices), and services provided by Content and Application Providers (CAPs)).

6. There are no doubts: the ambitious environmental goals defined by the European Union and the outcome of several studies as reported by the Draft BEREC Report⁴ showing that electronic communications networks and services will have a crucial role in **enabling a significantly lower energy consumption in other sectors, put electronic communications at the center of the green deal and gives electronic communications a special status with respect to the other sectors.**
7. [ecta](#) therefore considers this BEREC initiative timely, necessary and appropriate and is happy to submit its considerations and constructive proposals on the Draft Report.
8. In Sections 4 through 8 below, [ecta](#) addresses the most relevant points of the Draft Report, following the order of the chapters of the Draft Report. Before doing so, [ecta](#) presents key considerations (Section 2), and briefly presents key [ecta](#) members' environmental initiatives (Section 3). Section 9 contains [ecta](#)'s comments on the conclusions of BEREC's Draft Report, and Section 10 constitutes [ecta](#)'s own concluding remarks.

2. Key ecta considerations

9. The current state of the electronic communications market is characterized by a situation in which there are already:
 - i. A great number of relevant voluntary actions undertaken by the providers of electronic communications networks and services to limit the negative footprint of the sector on the environment. In Section 3 below, we briefly list selected [ecta](#) members' initiatives, highlighting stand-out features.
 - ii. Several studies that show how ICT's role in enabling the green deal objectives for the other sectors is already crucial and will be even more essential in the future with the acceleration of the pace of the digital transition.
 - iii. Many different methodologies to measure the ICT sector's footprint on the environment and to calculate the progress to limit its footprint. There is in fact significant controversy around what to measure and how to measure it.
 - iv. Operators with Significant Market Power proceeding eagerly towards switching off their legacy copper networks with the aim of obtaining significant cost savings in their network operations and making extra

⁴ Belkhir, L. & Elmeligi, A. (2018), 'Assessing ICT global emissions footprint: Trends to 2040 & Recommendations', Journal of Cleaner Production (estimates 3.5% by 2020 and 14% by 2040). The Shift Project, (2019). 'Lean ICT – Towards Digital Sobriety': (estimates 4% by 2020) GreenIT.fr, 'ICT's global environmental footprint', September 2019; Arcep, 'Future Networks - Digital Tech's Carbon Footprint', October 2019; CGE, 'Reducing digital technology's energy consumption', December 2019; and Citizing, 'ICT's carbon footprint in France: are public policies enough to handle increasing usage?', June 2020.

revenues from sale of copper as a precious raw material used in other sectors.

10. Given this context, **BEREC**, which represents the European Regulators for Electronic Communications, and which holds a long standing and strong knowledge of the electronic communications sector, **has the ability, competence and responsibility to:**
 - i. **Provide an efficient and effective contribution to the green transition** of the electronic communications sector, and the wider ICT market and digital ecosystem, while:
 - ii. **Continuing to guarantee, in accordance with its mandate, the constestability of** electronic communications network and services markets.

Indeed, BEREC needs to ensure **that competition is not distorted by instrumentalizing the concept of incentivizing the green transition in violation of competition principles** clearly set out in the EU legal and regulatory framework for electronic communications⁵.

11. **ecta** strongly believes that **BEREC can “make the difference” by contributing to the improvement of the quality of environmental data available** based on its technical expertise in a way to support the work of relevant bodies working on horizontal environmental aspects (such as environmental agencies) with the aim of assessing which data is optimal for collection and how to analyse such data.
12. **ecta** believes that the reduction of the ICT sector’s carbon footprint is a collective effort involving all the actors of the value chain and therefore the Draft Report should be **supplemented, or a follow-up BEREC report should urgently be initiated, addressing:**
 - i. **Metrics for measuring the positive contribution the electronic communications sector can bring to greening other sectors** including the public sector.
 - ii. **The data consumption increase, and** the impact that such increase could have on the industry efforts to limit the environmental footprint of electronic communication networks and services.
13. However, with respect to several important issues contained in the Draft Report coming both from the WIK-Ramboll external Study⁶ (hereinafter “The External Study”) published by BEREC on 10 March 2022, and from BEREC itself, **improvements are possible and necessary**, related mainly to:

⁵ [EUR-Lex - 32018L1972 - EN - EUR-Lex \(europa.eu\)](#)

⁶ [External Sustainability Study on Environmental impact of electronic communications \(europa.eu\)](#)

- i. Absence of analysis on the positive impact of the electronic communications sector towards greening other sectors including the public sector in the context of the green deal.
- ii. WIK-Ramboll's suggestion⁷ on boosting the copper switch-off via deregulation of SMP operators.
- iii. BEREC's emphasis on gathering additional knowledge on the most suitable way for the energy sector (verticals) to access to radio spectrum through the awarding of radio spectrum licences to non-telecom entities.

ecta notes with concern that **if those issues would be confirmed** in the final Report, **they could lead to a partial assessment** (with particular reference to point i. above) **and cause a significant alteration of the competition dynamics in the European telecoms market, harming the existing investments and business of the access seekers, and ultimately causing detriment to European end-users.**

14. ecta therefore considers of utmost importance that the final BEREC Report:

- i. Provides more substantive insight on the role of electronic communications networks and services, and if applicable the features of ICT, that allows this sector to play an important role in the significant reduction of energy consumption.
- ii. Puts emphasis on evidence regarding the strategic importance and positive contribution of the ICT sector as an enabler of the green transition for other sectors.
- iii. Provides more detailed insight on the increasing data consumption by businesses and consumers⁸, more substantial information on the so called "rebound effects" where a higher consumption of data might offset the improvement in energy efficiency.
- iv. Explicitly clarifies that no deregulatory provision, be it through wholesale copper price increases or lifting of regulated access conditions imposed on operators with significant market power, could be granted with the motive of fostering the incumbent's copper switch off through more environmentally friendly networks when the NRA has already ascertained that they hold Significant Market Power.
- v. Specifies that in the process of additional knowledge gathering in relation to the most suitable way for the energy sector (verticals) to access radio spectrum, it will take into consideration, in its assessment, the primary objective of not distorting the electronic communications market and not

⁷ As reported by BEREC's Draft Report at page 27.

⁸ This is only briefly mentioned by BEREC's Draft Report at page 8, footnote 7.

devaluing the spectrum already assigned to the electronic communications network operators.

3. Selected ecta members' initiatives, briefly highlighting stand-out features

15. Prior to the announcement of the EU Green Deal, and increasingly over time, ecta members (both larger and smaller companies, both stand-alone electronic communications providers and those combining this with the operation of data centers and cloud computing, as well as equipment suppliers) have taken strong actions for limiting their own environmental footprint and to enable the green transition in other sectors.

16. Identifying initiatives of some of ecta's members, and highlighting stand-out and perhaps atypical features, the following is brought to BEREC's sustainability working group's attention, with the expectation that it will be studied by BEREC, and reflected in BEREC's Final Report and future outputs:

- i. Iliad, operating in France, Italy and Poland as a fixed and mobile network operator (6th largest mobile operator in the EU), and active also in data centre and cloud solutions, has a track record over nearly 10 years in the reduction of its environmental footprint. In January 2021, it issued 10 climate pledges:

https://iliad-strapi.s3.fr-par.scw.cloud/200121_Iliad_Infographies_climat_ENG_4a319519a0.pdf

<https://www.iliad.fr/en/nos-engagements/pour-l-environnement>

Among the striking stand-out features is not only the scale of the financial commitment, the systematic methodology, but also the Net Zero Initiative of Carbone 4, which focuses determinedly on removing emissions rather than offsetting emissions. A point of interest is also, for instance, the scrapping of air freight for transporting equipment.

- ii. MásMóvil, operating in Spain and Portugal as a mobile and fixed network operator, is active also in green energy solutions (including bundles between telecom and energy services).

Among the striking elements is the fact that MásMóvil was the first European telecommunications company to achieve zero emissions, and the first European telecommunications company and the largest company in Spain to have obtained a B Corp certification from B Lab (non-profit organization). It publishes an annual external audit of its environmental performance. Its 2021 'Memoria de Sostenibilidad' is already available:

<https://blog.grupomasmovil.com/primer-operador-telco-europa-b-corp/>

<https://www.bcorporation.net/>

<https://grupomasmovil.com/es/sostenibilidad-esg/>

- iii. Bouygues Telecom, operating in France as a mobile and fixed network operator, has defined a plan based on 4 pillars and 9 tangible priorities.

Among the striking elements is that it seeks to involve its customers in its climate action, by making them more conscious of their behaviour, including with regard to their devices and data usage.

<https://www.corporate.bouyguestelecom.fr/nos-engagements/demarche-societale-environnementale/>

- iv. 1&1/United Internet, operating in Germany as a mobile and fixed provider, also active in data centres and online services (e.g. online services also outside Germany), has been using renewable energy for its data centres for over a decade.

Among the striking elements is its reliance on ISO standards (e.g. ISO 50001 for the energy management system of data centres, applied since 2018) to determine, document, and measure energy performance.

https://www.united-internet.de/fileadmin/publications/United_Internet_AG_SR_2020.pdf

- v. Fastweb, operating in Italy as a fixed network, fixed-wireless access network and mobile services operator, entered the top 20 of the European Climate Leaders 2022 ranking compiled by the Financial Times (FT) for cuts in greenhouse gas emissions. It achieved a 30.6 percent reduction in emissions relative to revenue during the 2015-2020 period, making the company into the highest ranked telecommunications operator in the FT list.

<https://www.ft.com/climate-leaders-europe-2022>

Fastweb announced separately that, as of 2021, it has already achieved carbon neutrality for all direct emissions and for those related to the provision of services to customers, and has the ambition to become fully carbon neutral by 2025.

Fastweb also joined the Science Based Targets initiative in order to fight climate change and committed to reduce its direct CHG emissions by 62% in 2030 and its indirect emissions by 15% in 2030 from a 2018 base year. Moreover, Fastweb committed to annually sourcing 100% renewable electricity through 2030.

<https://www.fastweb.it/corporate/azienda-e-sostenibilita/sostenibilita/>

<https://sciencebasedtargets.org/companies-taking-action#table>

<https://www.fastweb.it/corporate/futuro-piu-ecosostenibile/fastweb-carbon-neutral/>

- vi. Eurofiber, building and operating fibre-optic fixed access, backhaul and core networks serving business-to-business and wholesale customers in The Netherlands, Belgium and Germany, as well as its own data centres and

the connections to essentially all third party data centres, has taken the following key initiatives.

It is an ISO14001 certified company. Its datacenters hold an ISO50001 certificate in addition. This means that it has environmental and energy risk management systems in place, meeting both EU and local environmental legislation. These systems include programs that can be plotted on two of Eurofiber's climate ambitions; net-zero and 100% circular.

Net-zero: Eurofiber's power purchases are green ('hollandse wind' (Dutch wind power)). The company also has a policy in place to limit flying and compensate unavoidable flights. Eurofiber aims to prove that its emission reduction efforts are real, by choosing Science Based Targets:

<https://sciencebasedtargets.org/companies-taking-action#table>
<https://www.eurofiber.com/en-be/about-eurofiber/about-us/corporate-social-responsibility>

100% Circular: In case a customer terminates a service, it is asked to return the Customer Premises Equipment to Eurofiber for refurbishment or recycling. Also, Eurofiber does not allow certain substances in its products, as these may end up in the environment at end of life.

- vii. Further references and examples from **ecta** members are available, for instance as follows:

<https://www.colt.net/resources/the-12-achievements-of-sustainability/>
<https://s.turkcell.com.tr/hakimizda/en/yatirimciliskileri/InvestorReportLibrary/Turkcell-IAR-2020-ENG.pdf>

17. **ecta** and its members recognize that, so far, companies have focused on different areas, and that there are different methods of measurement for assessment of the impact of their actions on the environment and that there is a lack of harmonized indicators. Whilst there is undoubtedly mutually reinforcing learning going on between companies, this is a real challenge for **ecta** members, particularly when it comes to the measurement of the positive impact of electronic communications networks and services on the green deal.

18. **ecta** believes that there is a role for BEREC and NRAs in working on methodologies and measurement tools, helping our sector to make progress, both on addressing the negative effects (e.g. CO2 emissions, e-waste, use of raw materials, water, etc.) and on harnessing the positive role electronic communications and ICT more broadly can play. **ecta** considers that BEREC should be well placed, especially since it should be able to bring its understanding of the sector to bear, reflecting the diversity of market participants (having Significant Market Power or not, being large or smaller, being fixed or mobile (or both), being focused on consumer markets or on business markets (or both) etc.

4. Comments on Chapter 1 of the Draft BEREC Report (the Introduction)

19. **ecta** agrees with the contextualization provided by the Draft Report with regard to the objectives set at the global and European levels and with the ‘issue setting’ forward looking analysis performed with respect to the impact that ICT has and will have on the environmental footprint.
20. However, **ecta** regrets that no detailed consideration, argument and reflection is put forward by BEREC when it comes to the positive role of electronic communications in enabling the reaching of the objectives defined by the Paris Agreement and European Green Deal.
21. In fact, the Draft Report, while mentioning the Paris Agreement and the UN’s 2030 Agenda for Sustainable Development which relies on 17 Sustainable Development Goals (SDGs) for actions to cut Green House Gasses (hereinafter “GHGs”) emissions and build climate resilience, limits itself to specifying that: *“New technologies will play an essential role in achieving these targets and tackling future societal challenges, highlighting the importance of promoting ICTs’ development and connectivity as a pre-requisite for such development being a key enabler for the environmental transition”*.
22. Having expressed this positive though very brief point, the entire Draft Report concentrates exclusively on the **negative** contribution of ICT on global GHG emissions. It also refers to the actions undertaken by BEREC, by other national and European public authorities, bodies, institutions and selected companies, with a specific focus on the measurement techniques and definition of indicators and on the proposals coming from the external WIK-Ramboll study and from BEREC itself. **ecta** is frustrated that its member companies are not given a prominent role in terms of the voluntary initiatives they have already undertaken (see Section 3 above). The final BEREC Report should strive for balance in referring to industry stakeholders’ initiatives.
23. It follows that the Draft Report does not provide any detail on the **positive and enabling impact that electronic communications will have on limiting the environmental footprint** and the related measurement techniques and the quantification of those positive contributions.
24. **ecta** recalls the relevance of such positive impact in the overall impact assessment of the ICT sector in reaching the environmental objectives and underlines that the **final BEREC Report should better mention the positive impact in its analysis**. **ecta** requests that BEREC includes this aspect much more prominently in its proposals regarding indicators/harmonized methodology definitions. Specifically, **ecta asks BEREC to supplement its report in this regard, or to commit explicitly to initiating work rapidly on a follow-up BEREC report, addressing metrics for measuring the positive contribution the electronic communications sector can bring to greening other sectors including the public sector**.

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25. An external study⁹ commissioned by an **ecta** member, Huawei, reveals that as far as Green scenarios are concerned, the overall usefulness of ICT can reduce the GHG (i.e. carbon footprint in industrial domains) on industrial sectors that is 7 to 10 times the ICT carbon footprint.
26. **ecta** underlines that decarbonization efforts in the ICT industry would not be fully assessed unless the assessment measures the overall impact (negative and positive). Focusing only on the absolute reduction is taking too narrow a view.
27. For **ecta**, the “Green ICT” and “ICT for Green” are two different sides of the same coin, but in order to assess the real value of such coin they both should be assessed through adequate and harmonized measurement methods based on common and harmonized indicators.
28. As described also by the European Commission¹⁰, the “Green ICT” actions, as also emerges from the Draft Report and external WIK-Ramboll study, mainly consist in the policies aiming at the minimizing environmental footprint of the ICT sector. This includes increasing energy efficiency of data centres and lifespan of electronic equipment, ensuring the transparency of carbon footprint of ICT infrastructure, undertaking eco-labelling actions, diffusion of green public procurement to make sure that greener submissions in public procurement tenders receive more points, promotion of IoT and Edge computing – processing where the data is.
29. “The ICT for Green” actions, aimed at enabling energy and resource efficiencies (i.e. through circular economy) in other sectors, may take many forms such as digitalization for stable decarbonized energy grids, climate smart cities and communities, smart mobility, energy efficiency of buildings, precision farming, digital for agri-food, sustainable manufacturing and waste treatment, extreme weather and climate impact modelling, etc.
30. **ecta** firmly believes that such actions are extremely relevant in assessing the overall impact of ICT on reaching environmental targets and therefore respectfully asks for the final BEREC Report to:
- i. Include in the Introduction Chapter a detailed description of “ICT for Green” actions and their positive impact by clarifying that the overall impact assessment should keep in consideration both “sides of the coin”.
 - ii. Specify (also in Chapter 6 containing Conclusions) that BEREC’s contribution to indicator and measurement methodology building should include also the indicators and measurement methods of the positive impacts deriving from the electronic communications sector’s role in enabling to reach the environmental objectives set by the European Union.

⁹ [the-path-to-net-zero-for-ict-requires-technology-innovation-v2 \(huawei.com\)](https://www.huawei.com/en/ict/industry/industry-4.0/industry-4.0-2020)

¹⁰ [4.3 Greening ICT - Science, Research and Innovation Performance of the EU 2020 \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&code=sdg_13_3_1)

31. **ecta** also notes that the Draft Report only briefly mentions the increasing data consumption: *“For instance, Belkhir, L. & Elmeligi study predicts that increasing ICTs’ emissions could account for up to 14% of global emissions of the 2016-level worldwide by 2040 if no action is taken (this figure does not take into account potential enabling or rebound effects”*. The Draft Report states *“the rebound effect occurs when improvements in energy efficiency are offset by other means (such as change of behaviour or more consumption of data) leading to steady state or an increase of the overall energy consumption)* but it does not provide any detailed insight or any forward thinking.
32. As video traffic keeps growing, mobile networks require always more capacity. Currently video traffic accounts for 69% of all mobile data traffic; a share that is forecast to increase to 79%¹¹.
33. **ecta** believes that BEREC, NRAs and operators should take this into utmost account when it comes to limit the environmental footprint of electronic communications networks and services.
34. **ecta** also believes that BEREC and NRAs could help the sector by reflecting on regulatory proposals and sector initiatives that explore ways to encourage data optimization and end user empowerment.
35. **ecta** has already put forward some proposals in response to previous BEREC¹² and European Commission¹³ consultations, and wishes to reiterate these on this occasion: empowering end users to act on the data consumption of their handheld and other devices that are a major direct source and indirect generator of carbon, could be a relevant means to combat climate change. This is particularly relevant for video streaming at 4K and 8K resolution to handheld and other small devices, which do not improve the user experience in practice compared to FHD resolution. What it does is causing far greater bandwidth consumption, forcing operators to dimension their networks to a larger scale (larger dimensioning of core network and RAN equipment, more equipment at more locations), and thus potentially leading to a larger than needed environmental impact. End users could be empowered via streamsaver solutions which would help adapting the video resolution to the screen size (e.g. 480 pixels for smaller screens).

5. Comments on Chapter 2 of the Draft BEREC Report (the Case Studies)

36. **ecta** would like to highlight that in relation to chapter 2, the case of Arcep is particularly appreciated. The French NRA appears rightly as a pioneer among the NRAs by starting to analyse the environmental impact of the ICT ecosystem as a

¹¹ <https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-traffic-forecast>

¹² See in particular **ecta** Response to the Draft BEREC 2022 Work Programme, submitted on 5th November 2021, page 17, para 37.

¹³ **ecta** Response to the European Commission Targeted stakeholder survey on 5G in the context of the Digital Decade strategy, submitted on 3rd September 2021,

whole, and to take concrete steps in a way that such analysis does not remain at a theoretical and academic study level. In particular, [ecta](#) emphasizes the following actions:

- i. Arcep started building **an environmental barometer/index considering the digital ecosystem**. Arcep has been mandated by the French State through a new law that extended Arcep's environmental data collection power to all market players, to enable the NRA to build a barometer describing the digital sector more widely. Arcep is expected to publish the first indicators in 2022.
 - ii. **Collaboration with the French Agency for ecological transition (ADEME)**. [ecta](#) particularly appreciates that the two authorities have prepared **a multi-criterion (with 11 environmental metrics in addition to GHG emissions), multi-component (networks, devices, data centres) and multi-stage (life cycle approach from manufacturing to end of life) study to assess the environmental footprint of digital technologies**. The study allows to distinguish relevant environmental metrics to describe the footprint of digital technologies. According to the Draft Report, the two institutions are currently working on a prospective analysis (time horizon 2030 and 2050).
 - iii. Investigating the consideration of environmental issues in spectrum allocation design: Arcep has been mandated by the government to start investigating **potential means to better consider environmental issues by designing the criteria for the future allocation of spectrum, notably the 26 GHz band**. Arcep delivered its first conclusions to the French government in January 2022.
37. [ecta](#) would like to express how those actions are aimed at a wider and more complete assessment of the impact of ICT on the environment, and not only on GHG emissions and to the application of such evaluative approach to the decision making processes (impact of environmental issues in spectrum allocation design). [ecta](#) would welcome BEREC giving a strong endorsement of this approach, which could be adopted also by the other NRAs upon the adaptation of the national legislative framework as has been done by the French State.
38. In relation to the Irish COMREG case study, while appreciating some of the actions undertaken by the NRA such as a call for inputs on connectivity and decarbonization, [ecta](#) would like to call on BEREC and other NRAs to adopt a cautious approach with respect to direct spectrum grants to vertical industries in general, including the energy companies.
39. [ecta](#) acknowledges and totally agrees with the significance of the contribution that energy companies could make to limiting their environmental footprint through the implementation of more energy efficient networks and services. That being said, [ecta](#) believes that to pursue this objective, the NRAs should prioritize the encouragement of wholesale access to the spectrum of the electronic communications operators (MNO and FWA) rather than grant spectrum rights-of-

use directly to industry verticals. **ecta** provides more arguments on the appropriateness of this policy choice in section 9 below.

6. Comments on Chapter 3 of the Draft BEREC Report (Outcomes of BEREC's previous work on sustainability)

40. **ecta** takes note of the outcomes of the workshops that BEREC organized with participation of stakeholders such as DG Connect, Joint Research Centre (JRC), Council of Energy Regulators (CEER), Radio Spectrum Policy Group (RSPG), International Energy Agency (IEA), Global enabling Sustainability Initiative (GeSI) and Ericsson.
41. Those workshops showed that: i) there is a lack of standardized data collection and common measurement methodologies, and ii) the role of electronic communications sector regulators could be to facilitate transparency of information on the environmental footprint of the different networks, services and products (users' devices, etc.), as this is within the scope of NRAs' responsibilities. **ecta** stresses the importance of ensuring clearly distinct treatment of electronic communications networks and services on the one hand, and hardware (e.g. users' devices) and services provided by Content and Application Providers (CAPs) on the other hand, given that these represent different categories.
42. **ecta** calls on BEREC to become the leading actor in facilitating standardization and transparency of information relating to sustainability for the electronic communications sector, and to conduct its work with the other competent bodies, such as national energy and environmental transition agencies. BEREC becoming the leading actor is important to ensure that due account is taken of the diversity of the electronic communications sector, and that the competition dynamics (and the legal requirement for NRAs to promote competition) are duly reflected, for instance the fact that there are operators with Significant Market Power and challenger operators, companies focused on different market segments (consumer, business, wholesale), fixed and mobile, with different intensity of infrastructure, etc.
43. As a matter of fact, BEREC and its members, the NRAs, appear in principle to be the best suited entities not only for facilitating the data collection for electronic communications and the wider ICT/digital ecosystem, but also in the definition of the indicators and the measurement methodologies together with other relevant public authorities. This is the case because BEREC and NRAs have a strong and long standing knowledge of the electronic communications sector, in its diversity (operators large and small, having SMP or being challengers, etc. and the sector-specific legal framework which includes a mandate to maintain pro-competitive policies), and they have a deep experience in data gathering from the electronic communications operators in their national markets.
44. The above being stated, **ecta** in its capacity as an industry association, considers that it and its members have not benefited from equal opportunities to present the

position of the alternative operators to the BEREC sustainability working group so far. Not involving **ecta** to the same extent as other stakeholders causes damage not only for **ecta**'s members but it is harmful also for BEREC, which deprives itself of the opportunity to interact with **ecta** and possibly obtain additional insight and ideas that could be lost by receiving solely a written contribution. **ecta** therefore kindly invites BEREC to ensure that all industry associations are invited to intervene as speakers in future workshops and events without giving prominence and priority only to selected associations. This is crucial to allow all stakeholders to express themselves and to exchange ideas, information and evidence with BEREC.

45. In relation to the BEREC Opinions on the European Commission's consultation on the revision of the BCRD and on the State Aid Guidelines regarding sustainability related issues, **ecta** shares the views expressed by BEREC. However, while totally agreeing with BEREC on the fact that *"Carbon emissions are a significant analytical framework to assess to some extent ECNs environmental footprint but have to be completed by other types of variable and indicators of environmental impacts such as water consumption linked to electricity consumption and cooling circuits, the artificialization of soils through the mining of rare earths including fossil fuels, and the consumption of abiotic resources"*, **ecta** once again would like to underscore that the overall assessment should also include the positive impact of electronic communications (and the wider ICT/digital ecosystem) on the green transition, especially those impacts that consist in enabling the green transition of the other sectors. To such purpose, the process of definition of harmonized measurement methods and indicators should capture these positive impacts as well.

7. Comments on Chapter 4 of the Draft BEREC Report (Inputs from Stakeholders)

46. **ecta** takes note of the overview provided by BEREC of the initiatives and work done by other competent authorities, regulatory and third party bodies: OECD Working Party on Communication Infrastructures and Services Policy (WPCISP), the European Commission, ETSI's Environmental Engineering Committee (TC EE), ITU-T Study Group 5 (SG5), the European Parliament (IMCO and ENVI committees), the International Energy Agency (IEA), and the Radio Spectrum Policy Group (RSPG). **ecta** responded to the RSPG's consultation on the role of radio spectrum policy to help combat climate change. **ecta** wishes to put it on record that bodies such as the OECD and RSPG are constituted by ministries that form part of the same governments that own several operators with Significant Market Power. Participation in ETSI and ITU-T is very costly and time consuming, which leads to a situation where the operators with Significant Market Power are represented, and challenger operators mostly are not. Care is therefore needed on the part of BEREC in considering the positions taken by such organizations.
47. **ecta** notes that there are specific initiatives, such as the definition of: product passports, labelling requirements, data standardization, spectrum policies and management to help to combat the climate change, that by their own nature

should necessarily involve BEREC as the partner to the competent authorities. [ecta](#) not only kindly invites BEREC to become an active partner, but [ecta](#) also calls on BEREC to involve in those definition processes, without any discrimination nor preferential treatment, all relevant stakeholders including the electronic communications operators and service providers with their industry associations which represent their interests.

48. The setting of those parameters or processes will have direct and immediate impact on the infrastructures, services and products offered by the electronic communications providers. Moreover, those providers are best suited to provide insight and information on the functioning of their networks, services and products to define from the outset correctly those parameters and processes in line with the environmental objectives.

49. Overall, [ecta](#) wishes to highlight the importance that all types of industry stakeholders are included in the definition process.

8. Comments on Chapter 5 of the draft BEREC Report (Key findings of the External Study)

50. [ecta](#) has read with great interest the study by WIK-Ramboll.

51. [ecta](#) agrees with a finding of the WIK-Ramboll study as regards the impact assessment methodologies: they are numerous and mainly focus exclusively on GHG emissions and fail to assess other environmental impacts. Therefore, WIK-Ramboll states that the impact assessment is complicated in terms of environmental impact tracing.

52. [ecta](#) agrees with the WIK-Ramboll findings on the trade-off between increased data consumption and proliferation of devices which **increase** the GHG emissions and the increased energy efficiency and reliance on renewable energy which **decrease** the GHG emissions.

53. However, [ecta](#), despite understanding the difficulties that can derive from assessing thoroughly the positive impact of ICT on limiting the environmental footprint, highlights that such assessment is fundamental to the purpose of ensuring an adequate and effective impact assessment. In this sense, [ecta](#) regrets that the WIK-Ramboll Study does not include any type of information to help such assessment. [ecta](#) deems this a missed opportunity and calls again on BEREC to supplement its report in this regard, or to commit explicitly to initiating work rapidly on a follow-up BEREC report, addressing metrics for measuring the positive contribution the electronic communications sector can bring to greening other sectors including the public sector.

54. With specific reference to the recommendations of the External Study (called in the Study “potential levers available”) to limit the sector’s environmental footprint, especially the potential area of actions categorized in the study as in the context of the EEC and sector-specific directives (e.g. BCRD), [ecta](#) agrees with the

statement in the Study that NRAs could consider also promoting **network sharing** in the context of Article 61(4) of the EECR when appropriate, and finds this statement proper and to the point.

55. The External Study, in fact, also recalls that network sharing could create trade-offs with the regulatory objective to promote infrastructure competition and might decrease incentives for alternative fixed and mobile operators to invest in their own infrastructure to achieve higher coverage and/or quality, and undermine the ability of operators to innovate.
56. **ecta** would like to highlight that these potential competitive problems associated to network sharing agreements depend significantly the market position of the parties to the agreement and on the specific conditions defined in the sharing agreement.
- i. A network sharing agreement that significantly limits the future independence and autonomy of the parties in deploying their own network or upgrading it, in terms services design and offering, or which includes contractual clauses to make the information sharing easier, also beyond what is strictly necessary for ensuring the good functioning of the shared network components, *irrespective from the underlying environmental motivations to the said agreement*, can be problematic, whereas an agreement which does not have those potential competition restraints may not be problematic.
 - ii. Equally a network sharing agreement between the first and second biggest mobile operators, especially where there are either three mobile operators and small MVNOs or four mobile operators but there is a gap between the first and second in terms of market shares with respect to the third and fourth operators, this agreement *irrespective from underlying environmental motivations*, will require at least higher scrutiny than an agreement between the third and the fourth mobile operator in the said market.
57. Finally **ecta** wishes to express its significant concerns on the proposal put forward by the WIK-Ramboll Study regarding the legacy copper networks. The BEREC Draft Report recalls among the External Study proposals: *“NRAs could play an important role in facilitating the switch-off of legacy copper by potentially lifting access obligations in light of switch-off plans, when and where more future proof technologies are in place”*.
- ecta deems such policy recommendation unacceptable both from a formal and substantial standpoint: it is unnecessary and totally inappropriate.**
58. From the regulatory and legal standpoint, the WIK-Ramboll recommendation is clearly unreceivable by BEREC and it is not legally possible for NRAs to put in it practice. This is the case because it is not in line with the EU regulatory framework for electronic communications, which governs the regulatory treatment of

operators declared as having Significant Market Power. **Environmental sustainability grounds are not listed as a basis for lifting wholesale access obligations imposed on operators with Significant Market Power**¹⁴. The EECC also includes a specific Article 81 on migration from legacy infrastructure, addressed only to operators with Significant Market Power, which also does not foresee environmental grounds for changing or lifting price controls or further deregulation.

59. From a substantial standpoint, the WIK-Ramboll recommendation is unnecessary and inappropriate because, as of today, what emerges from a multitude of European national telecoms markets shows clearly that the operators with Significant Market Power, which own essentially all copper networks, do not need any regulatory incentives to switch off their copper network. Indeed, they have already many structural (economic and operational) incentives to switch off their copper networks because of the following reasons:

- i. Fibre networks are more efficient, less energy-consuming, and less sensitive to the vagaries of the weather.
- ii. In absence of copper switch off, they incur significant costs in maintaining two wireline networks. This automatically leads them to copper switch off because running two wireline networks has a cost for them. The environmental aspects are there objectively, and are systematically highlighted when they interact with policy-makers and regulators.
- iii. Telefonica¹⁵ expects to reduce by 85% the CO2 emissions and energy usage thanks to the closure of the copper network in Spain.
- iv. Telefonica has also been a leader in expressing its ability to substantially monetise the extracted copper as a raw material. The specialized press reports that it has sold EUR 131m worth of copper and other (electronic) waste material in the year 2020¹⁶, and Telefonica's annual report for 2020 refers to copper sales¹⁷. To this purpose, the chart shown below supports the significance of such revenue stream. The international geopolitical situation has further pushed the prices for raw materials significantly up. Copper is now trading above the \$10K per tonne at the London Metal Exchange (LME). LME is the world centre for the trading of industrial metals.

¹⁴ See Arts. 67, 76, 78 and 79 of Directive 1972/20018

¹⁵ Idate Digiworld, White Paper February 2022, Fiber for a sustainable future, A key enabler to lower carbon emissions

¹⁶ <https://www.telecompaper.com/news/telefonica-spain-raised-eur-130-mln-from-copper-cable-sales-last-year--1394388>

¹⁷ Page 230 of <https://www.telefonica.com/en/wp-content/uploads/sites/5/2021/07/Consolidated-Annual-Accounts-2020.pdf>



It is clear that the incumbent operators do not need an extra incentive from the regulator, as they are already incentivized to decommission their copper networks also due to the underlying energy savings they can achieve. Sales of raw materials are an upside for them, which is not available to others.

60. In sum, WIK-Ramboll is erring in connecting copper migration and switch-off with regulatory incentives for operators with Significant Market Power. BEREC should not follow suit. There is no justification for invoking environmental sustainability where there are clear incentives on the operators with Significant Market Power to proceed to copper shut-down based on their internal business logic.

61. Moreover, instead of accepting the WIK- Ramboll recommendation on the lifting of wholesale access obligations or increasing wholesale copper prices of operators with Significant Market Power (increasing wholesale copper prices would have the perverse and opposite effect of disincentivizing the operators with Significant Market Power to switch off their copper network), BEREC should instead incentivize the transition by enabling alternative operators to migrate their customers easily from copper to fibre. Suggested regulatory initiatives in this regard are presented in paragraph 63 below.

62. In light of these considerations, ecta highlights that no regulatory incentive is needed for the incumbents to switch off their legacy networks and even the more, the sustainability motivations cannot and should not be used instrumentally to deregulate the market where there is Significant Market Power. Conversely the access seekers on their side would benefit from regulatory measures to support the quick and voluntary transition they advocate (see minimum conditions listed below), to make sure that competition is preserved on the market.

63. For the sake of clarity, ecta expresses its strong support for a quick and voluntary transition from copper to fibre, also to support the efforts to limit the environmental

footprint of the sector, provided that the following minimum conditions are ensured:

- Stable wholesale copper prices are applied without any changes until the copper network is totally and effectively switched off.
- Appropriate fibre (or on an ad-hoc base an equivalent technology) products and services to substitute the copper-based products are made available in a timely manner.
- Appropriate quality of service (QoS) of wholesale products and services is guaranteed.
- Clear and transparent processes are discussed and agreed with the access takers, including KPIs, service levels and dissuasive penalties in case of breach, that allow a smooth customer transfer.
- Copper switch-off, commercial and/or operational, including the systems used and processes adopted, means copper switch off for everybody, even more so for the incumbent's own retail, wholesale and any internal or other use.
- A non-discriminatory approach is applied also with respect to the receiving fibre network i.e. the incumbent's fibre network versus any alternative fibre network.
- Provide for economic measures in favour of alternative operators to incentivize the migration process to VHCN networks such as, for instance: i) zeroing of the fees for deactivation of the wholesale services on legacy copper networks as well as the fees for activation wholesale services on VHCN networks when there is a migration of wholesale services from legacy to VHCN networks; ii) all the costs related to the switch-off process of the local exchange including co-location and the arrangement of new spaces as well as the upgrading of the ports necessary to manage the migrated customers have to be borne by the incumbent; iii) the incumbent should apply to the migrated lines the same fees applied to the ceased lines until the switch-off of the local exchange has been completed.
- Sufficient safeguards are put in place to guarantee the contestability of the market. Indeed, the copper to fibre transition raises several questions that have not been answered so far. The migration from copper to fibre often resets the retail contract term. Therefore, there is a risk that a rapid transition will lock in retail customers for 12 to 24 months and thus freeze the market. Also, from a sales and marketing perspective, the transition might benefit more the operator with the highest 'copper' market share as it is easier to migrate a customer than to acquire a new customer.

64. In light of the arguments set out above, [ecta](#) respectfully invites BEREC to explicitly clarify in the final Report that no deregulatory provision, be it through wholesale copper price increases or lifting of regulated access conditions imposed on operators with Significant Market Power, could be granted with the motive of

fostering the incumbent's copper switch off to move to more environmentally friendly networks when the NRA has already ascertained that they hold Significant Market Power.

9. Comments on Chapter 6 of the Draft BEREC Report (Conclusions and outline for BEREC's future work on sustainability)

65. **ecta** appreciates and agrees with almost all future actions put forward by BEREC. In particular, those include:

- i. To participate in the process of identification and definition of indicators and set a basic framework for a common and harmonised EU assessment methodology for the environmental sustainability of ECNs/ECSSs.
- ii. To examine the sustainability of ECNs/ECSSs, covering the life cycle of networks and services, and to adopt a comprehensive multi-criteria analysis including GHG emissions and other types of relevant environmental impacts.
- iii. To contribute to improving the quality of environmental data available based on its technical expertise in a way to support the work of relevant bodies working on horizontal environmental aspects (such as environmental agencies), in order to assess which data is optimal for collection and how to analyse such data.

On these specific points, as already expressed in the previous paragraphs, **ecta** energetically calls on BEREC to:

- Provide more substantive insight on the role of electronic communications networks and services, and if applicable the features of ICT and the digital ecosystem, that allows this sector to play an important role in the significant reduction of energy consumption.
 - Assess and provide evidence regarding the strategic importance and positive contribution of the electronic communications sector as an enabler of the green transition for other sectors.
 - Take the lead and by collaborating with other competent authorities to identify metrics for measuring the positive contribution the electronic communications sector can bring to greening other sectors including the public sector.
- iv. Article 44 of the EECR could be used to support environmental targets.
 - v. Access to physical infrastructure under the BCRD could be used to avoid emissions when deploying networks. Its upcoming revision could bring new possibilities to limit the sector's environmental footprint. However, **ecta** recalls that access to civil engineering infrastructure of operators with

Significant Market Power should be governed in the first instance by the EECC-based SMP conditions (and the related EC Recommendations).

ecta adds that, in certain Member States where there are particularly strict regulations that constitute obstacles to new and environmentally friendly network deployment (for instance highly onerous network deployment permit procedures, very strict electromagnetic emission limits), BEREC could provide recommendations to make the use of Article 44 easier. It is worth underlining that those totally unfavorable situations, such as for instance strict electromagnetic emission limits, are particularly harmful for the sector, citizens and for reaching the environmental footprint limitation objectives especially at a time in which VHCN and 5G networks are required to progress the digital transition.

- vi. To propose that state aid schemes take into account environmental aspects of network deployment in the light of the proposed recast of the European Commission's State Aid Guidelines for broadband.
- vii. While keeping in mind its goals of promoting competition, connectivity and end user empowerment, encouraging migration to next-generation technologies and switch-off of more energy-intensive legacy technologies, considering the environmental benefits and potential drawbacks.

With reference to those action points, ecta would like to highlight again its full support for a quick and voluntary transition from copper to fibre, also to support the efforts to limit the environmental footprint of the sector, provided that the minimum conditions listed in paragraph 63 are ensured.

Conversely, ecta firmly believes that no sustainability motivation can be used instrumentally to deregulate the market where there is Significant Market Power and any instrumental use would be in violation of the EU Regulatory Framework.

- viii. To contribute to the establishment of codes of conduct on ECNs/ECSs in cooperation with stakeholders, the European Commission and other competent bodies in the light of the positive example that has emerged from a similar Code of Conduct for data centres.
- ix. To work further on the identification of best practices which could be endorsed as a way to encourage environment-friendly practices and the adoption of high environmental standards by digital players.
- x. To investigate other potential levers, while simultaneously supporting existing efforts by the sector, such as guidelines, recommendations, etc. provided that these do not interfere with the requirement to promote competition.
- xi. To gain knowledge from actors vertically present in the ICT sector as well (e.g. content and application providers, data centres, device manufacturers)

and in general, all entities and industries involved in various stages of digital services).

- xii. To consider supporting communication campaigns addressed to end users with the aim to raise awareness in terms of environmental information about most sustainable practices to reduce the impact of devices and certain uses.
- xiii. To support and encourage recycling and re-use of network equipment, terminal equipment and of end user devices and help promote more sustainable consumer behaviour by making them aware of their consumption patterns.

ecta supports those proposals and respectfully asks that BEREC involves all stakeholders in those activities (i.e. by organizing stakeholder workshops).

- xiv. Spectrum management functions held by some NRAs may offer possibilities to promote environmental sustainability objectives as well (some NRAs in BEREC are exploring the possibility to include sustainability-related matters in the design of licence conditions).

ecta supports this proposal insofar as the inclusion of the sustainability-related matters in the design of licence conditions also supports the promotion of competition, as required by Article 52 of the EECF.

66. Finally with respect to the proposal *“to gather additional knowledge on the most suitable way for the energy sector considering its key role for combating climate change through the development of green energies and irrigating the efforts of other verticals through the use of sustainable solutions such as Smart Grids – to access to radio spectrum either through the awarding of radio spectrum licences or any other best-fit approaches for capacity/spectrum access provisioning (use of public networks through network slicing, spectrum leasing, etc),”* ecta while understanding the rationale of the proposal, invites BEREC to exercise caution.

67. ecta acknowledges the contribution that energy companies could provide to limiting their environmental footprint through the implementation of more energy efficient networks and services. That being said, ecta believes that to pursue these objectives, the NRAs should prioritize the encouragement of wholesale access to the spectrum of the electronic communications operators (MNO and FWA).

68. This statement is made, firstly, because many Member States have already awarded 5G spectrum in both low, medium and high bands (respectively 700 MHz, 3,4/3,8 GHz and 26 GHz as indicated by the RSPG opinion on 5G), raising very significant revenues from mobile and FWA operators and often by associating to the award of such spectrum very strict use, coverage, security and wholesale access obligations.

69. Any award of similar or same spectrum to other parties (i.e. verticals, including energy companies), even at a lower scale and with smaller coverage areas, and even

by applying the same security obligations, would devalue the spectrum and harm the business model of the electronic communications operators, taking into account that 5G intrinsically enables wholesale access, including network slicing.

70. For those reasons, [ecta](#) believes that NRAs should give preference to incentivizing wholesale access by electronic communications operators (MNO and FWA) to the verticals rather than grant spectrum rights-of-use directly to energy companies and other vertical industries.
71. [ecta](#) therefore respectfully requests that the final BEREC Report specifies that in the process of additional knowledge gathering in relation to the most suitable way for the energy sector (verticals) to access to radio spectrum, it will take into consideration, in its assessment, the primary objective of not distorting the electronic communications markets and not devaluing the spectrum already assigned to the electronic communications network operators.

10. [ecta](#) Concluding Remarks

72. In light of the previous observations, evidence and considerations, [ecta](#) respectfully invites BEREC to amend and augment the final Report to:
- i. Provide more substantive insight on the role of electronic communications networks and services, and if applicable the features of ICT, that allows this sector to play an important role in the significant reduction of energy consumption.
 - ii. Put emphasis also on evidence regarding the strategic importance and positive contribution of the ICT sector as an enabler of the green transition for other sectors.
 - iii. Reflect on ways to limit the “rebound effects” where a higher consumption of data can offset the improvement in energy efficiency, such as empowering consumers to act on their carbon footprint e.g. make informed choices and opt for environmentally friendly offers allowing them to adapt video resolution according to screen size.
 - iv. Explicitly clarify that no deregulatory provision, be it through wholesale copper price increases or lifting of regulated access conditions imposed on operators with Significant Market Power, could be granted with the motive of fostering the incumbent’s copper switch off through more environment friendly networks when the NRA has already ascertained that they hold Significant Market Power.
 - v. Specify that in the process of additional knowledge gathering in relation to the most suitable way for the energy sector (verticals) to access to radio spectrum, it will take into consideration, in its assessment, the primary

objective of not distorting the electronic communications market and not devaluing the spectrum already assigned to the electronic communications network operators.

In case of questions or requests for clarification regarding this contribution, BEREC is welcome to contact Mr Luc Hindryckx, [ecta](#) Director General, or Ms Pinar Serdengeçti, [ecta](#) Regulation and Competition Affairs Director.