

Public Consultation on the BEREC Draft Report on Sustainability: Assessing BEREC's contribution to limiting the impact of the digital sector on the environment

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During its 50th plenary meeting (10 March 2022), the BEREC Board of Regulators has approved the Draft BEREC Report on Sustainability: Assessing BEREC's contribution to limiting the impact of the digital sector on the environment for public consultation.

This Draft Report on Sustainability provides an overview of the results of BEREC's groundwork on ICT sustainability to assess and better understand the impact of the digital sector, including electronic communications networks and services, on the environment. It sets out an outline of BEREC's approach to environmental sustainability of the sector.

This Draft report constitutes the first step: BEREC will continue to build up its knowledge on the important topic of sustainability to be able to contribute with its expertise in shaping the green and digital twin transition. Collaboration with relevant stakeholders will be of importance in this process, notably to share analysis and experiences related to ICT sustainability.

For structured responses to this consultation, BEREC kindly asks you to submit your comments/remarks per each chapter of the draft report in the following questions below. You will have also the opportunity to upload a supporting document at the end of the survey (file size limit: 1 MB).

Responses should not be submitted later than **14 April 2022 (17:00 CET)**.

* Name

Rita de Castro

Organisation

GSMA

EU member states

BE - Belgium

* email

rdecastro@gsma.com

Feedback on each chapter of the Draft Report

1) Please enter your comments on Chapter 1 (Introduction) here:

- GSMA welcomes BEREC's acknowledgement of the key role connectivity plays enabling the 'green transition'. In addressing the climate crisis, GSMA recognises that the mobile industry has a unique role to play. The mobile industry is committed to reducing its own emissions however, its greatest contribution to combating climate change is reducing the emissions of wider industries through smart connected technologies.
- By increasing connectivity, improving efficiency and impacting consumers behaviour, mobile network enabled technologies are helping avoid reducing emissions. In fact, research conducted by the GSMA with the Carbon Trust found, while the mobile industry is currently responsible for around 0.4% of carbon emissions globally, it enables carbon reductions in other sectors that are 10 times larger, equivalent to approximately 4% of global emissions. Furthermore, new research launched by the GSMA at COP26, showed that connectivity can help enable 40% of the required cuts in carbon emissions by 2030 in the manufacturing, transport, energy, and buildings sectors.
- The mobile industry has long been a leader on climate action. In February 2016, we were the first industry to commit fully to the 17 United Nations Sustainable Development Goals. Since then, we have been contributing toward achieving every one of the goals while focusing particularly on SDG13 – Climate Action.
- In February 2019 the GSMA Board set an ambition on behalf of the industry to reach net zero carbon emissions by 2050 at the latest. This action by the mobile industry not only made it one of the first sectors in the world to set such an ambitious target, it also put it ahead of all major world economies. We have come a long way since the Paris Agreement, with 82 per cent of the industry globally now disclosing to the Carbon Disclosure Project (CDP). Most of our members CDP questionnaire responses are public, which means the data is available to BEREC and National Regulatory Authorities (NRAs) through the CDP website.
- Operators covering 42 per cent of global mobile connections and 62 per cent of industry revenues have committed to science-based targets. A significant proportion of operators has also committed to Net Zero targets by 2050 or before: 34 per cent of global mobile connections and 44 per cent of the industry by revenue has a net zero target, making the mobile sectors one of the first to break through the 20 per cent target as set by the UN Race To Zero campaign.
- Through the European Green Digital Coalition (EGDC), many GSMA members committed to investing in the development and deployment of green digital solutions and to becoming net-zero no later than 2040.

2) Please enter your comments on Chapter 2 (Case studies) here:

- GSMA welcomes the recent interest on the topic of sustainability shown by NRAs. It calls on NRAs to take into due account the work done to date at global level by the mobile industry.
- GSMA invites BEREC to also look into recent initiatives by the Spanish regulator - Comisión Nacional de los Mercados y la Competencia (CNMC). Spain has been front-runner in copper switch off. Operators have been closing thousands of copper plants, thanks to the implementation of FTTH fibre, which represents a major advance in digitalisation in Spain. The review of broadband markets was helpful. There is data showing that the copper switch off programme is a step forward, not only from the point of view of sustainability, but also considering the multiple advantages this technology brings to both businesses and households. Please see here: Adiós al cobre: 1.000 centrales de Telefónica cerradas - CNMC Blog

3) Please enter your comments on Chapter 3 (Outcomes on BEREC's previous work on sustainability) here:

Energy consumption & rebound effect & lack of standardised data (3.1)

- BEREC's work on sustainability covered the topic of energy consumption, namely the enabling role of ICT in the digitalisation of the society which can lead to significantly lower energy consumption in other sectors while noting the potential 'rebound effect'.
- GSMA has been working on the topic of mobile energy efficiency for decades. Energy efficiency is a strategic priority for mobile network operators globally. With the roll-out of new 5G networks, there is again upward pressure on operators' energy usage to power the new equipment. But the characteristics of 5G are different to previous generations. It has been built with network energy efficiency in mind, with 5G's specification calling for a 90 per cent reduction in the energy use to transfer each bit of data. We invite BEREC to read GSMA's Mobile Net Zero Report - Mobile-Net-Zero-State-of-the-Industry-on-Climate-Action.pdf (gsma.com)
- Sustained cost pressures and commitments to net zero in support of the 2015 Paris Agreement have made energy efficiency a strategic priority for many telecoms operators around the world. This is a long-term story. As mobile data traffic continues to grow dramatically with the rise of LTE smartphones and the expansion of 5G, energy consumption is consequently increasing. To help provide an evidence base for measuring progress, the GSMA partnered with a group of operators to develop an Energy Efficiency Benchmarking tool. The tool is based on real-world data inputs from operators on a fully anonymised basis to quantify network energy consumption and efficiency levels, allowing for comparisons at the network and regional levels
- The research is set against a context of broader efforts to help tackle climate change and embed sustainable business practices into the telecoms industry and its supply chain including:
 - a. The GSMA Climate Action Taskforce – which now has more than 50 operators globally as members – shares, promotes and works together on climate topics such as energy efficiency, renewables, circular economy, supplier engagement and using connectivity for climate mitigation and adaptation.
 - b. Sustainability Assessment Framework - to help the industry move towards a more sustainable future, the GSMA has developed an assessment framework to better understand the landscape of operator efforts in social and environmental sustainability.

BCRD Review (3.2)

- The review of the Broadband Cost Reduction Directive (BCRD) should result in an effective pan-European instrument supporting new network deployment, which is vital in connecting Europe for a greener and digital future.
- The BCRD review is an opportunity to address various barriers to network deployment - from administrative burden linked to permit granting to issues linked to the availability of information, infrastructure sharing and also EMF exposure limits. For instances, in the few Member States where EMF limits are more restrictive there are not only delays in delivering to customers the many benefits of 5G, but operators are also less able to share sites and have to build more sites to achieve the same network capacity, with higher costs and increased energy use.
- As a separate chapter, simple and effective switch-off of mobile legacy network without excessive bureaucracy is necessary to generate significant savings in energy consumption.
- Further incentives are necessary to motivate commercially agreed network and infrastructure sharing.

For instances, current rules relevant for mobile RAN sharing are unclear to the point of disincentivising possible cooperation projects with clear benefits for the environment. In parallel, access to the infrastructure under control of public bodies and agencies, such as rooftops, is necessary to advance 5G rollout, the sooner, the better.

- The establishment of regulatory incentives for “environmentally sustainable” networks would miss the fact that operators already have strong incentives to deploy and operate energy efficient networks.
- Therefore, the GSMA cautions against any discriminatory approach regarding deployment incentives which would be at odds with the principle of technology neutrality enshrined in the European Electronic Communications Code and risks jeopardizing the deployment of networks. Should there be any incentives to “environmentally sustainable” networks, such incentives should not turn into obligations nor constraints.
- A better approach would be to recognise the industries enabling role. For instances, the BCRD could include an explicit acknowledgement of networks’ crucial role as enabler that saves energy in other sectors. This could be a strong signal to investors that seek for green investments. Also, companies’ compliance to taxonomy technical criteria could attract funds for investments.

4) Please enter your comments on Chapter 4 (Inputs from stakeholders) here:

Sustainability and spectrum management

- Efficient spectrum policy can support climate goals. By ensuring availability of sufficient spectrum resources and avoiding unnecessary deployment limitations and requirements regulators can reduce climate impacts, for example: (i) availability of sufficient spectrum resources decreases the number of mobile sites needed, leading to smaller energy consumption, network duplication and smaller number of network equipment; (ii) availability of < 1GHz spectrum resources decrease the number of macro sites needed, leading to lower energy consumption, and less network equipment; (iii) availability of spectrum for 5G enables operators to enable new technologies and 'enable' other sectors; (iv) allowing operators to switch-off older mobile technologies (2G/3G) leads to less, more efficient, network equipment, enables more efficient spectrum use with newer technology, and thus smaller energy consumption; (v) avoiding excess coverage and data speed obligations, enables optimizing network operations, energy consumption, and number of network equipment based on actual and timely demands.
- GSMA cautions against spectrum policy initiatives that can potentially affect the enablement effect. Spectrum scarcity and high spectrum prices negatively impact coverage and end user prices, jeopardising the digitalisation of customers and the potential for them to benefit from technologies that enable emission reductions.
- Regarding energy efficiency in mobile networks themselves, spectrum regulators have a key role to play and may have a key: restricting spectrum supply, inducing licensees to maintain legacy technologies running, and restricting network sharing.
- In general, it is more energy efficient to expand capacity by adding spectrum, because densification increases the number of sites and overhead use of electricity. Artificially restricting spectrum supply for mobile services, or imposing unnecessary constraints to protect other spectrum users, can therefore result in higher energy use than necessary.
- Introducing rules that prevent sharing of active equipment is another way in which spectrum administrations could negatively impact the fight against climate change. Spectrum pooling, for example, generally requires explicit regulatory approval. When evaluating the benefits and drawbacks of sharing, environmental considerations should be given proper attention.

5) Please enter your comments on Chapter 5 (Key findings of the external study) here:

PLEASE SEE ATTACHED DOCUMENT FOR FULL RESPONSE

5.1 Evaluation and impact assessment

- GSMA read with interest the study commissioned by BEREC which gives an overview of the scale and trends in the GHG emissions stemming from electronic communications, the sources of these emissions and possible measurement methodologies.
- GSMA highlights that the mobile industry is tackling climate change, voluntarily developed a decarbonisation pathway aligned with the science-based target initiative (SBTi) and in line with the Paris Agreement target of achieving net-zero emissions by 2050. The mobile sector is taking collaborative action to be fully transparent about the industry's own climate emissions and have developed an industry-wide climate action roadmap, to achieve net-zero greenhouse gas (GHG) emissions by 2050, in line with the Paris Agreement.

- The mobile industry is making continued progress on disclosing climate data (rather than performance) and setting targets for emissions reductions. At the end of 2021, 66% of operators by connections and 82% by revenue disclosed their climate impacts, energy and GHG emissions via the internationally recognised CDP global disclosure system.
- Operators covering 42 per cent of global mobile connections and 62 per cent of industry revenues have committed to science-based targets. A significant proportion of operators have also committed to Net Zero targets by 2050 or before: 34 per cent of global mobile connections and 44 per cent of the industry by revenue has a net zero target

5.2 Sustainability-related initiatives

- GSMA welcomes the reference to different best-practice actions across the industry at different stage of the lifecycle: during the deployment, the operation or the commissioning stage. More could be said about industry-led initiatives.
- The GSMA Climate Action Taskforce – which now has more than 50 operators globally as members - shares, promotes and works together on climate topics such as energy efficiency, renewables, circular economy, supplier engagement and using connectivity for climate mitigation and adaptation. For more information:
<https://www.gsma.com/betterfuture/climate-action>
- The report briefly mentions the European Green Digital Coalition (EGDC). European telcos comprise a significant proportion of the founding members with 10 GSMA mobile operator members, alongside industry suppliers Ericsson and Nokia. This shows the voluntary commitment from our European members to go beyond the ICT sector decarbonisation pathway of net zero by 2050 and align with the increased ambition proposed by the European Union to be net zero by 2040. The EGDC project recently started and we expect it to deliver interesting results when it comes to developing methods and tools to measure the net impact of green digital technologies on the environment.

5.3 Potential levers available to limit the sectors environmental footprint (SEE ATTACHED DOCUMENT)

- (i) Facilitate network deployment and operation
- (ii) Support Network Sharing
- (iii) Support mobile network switch-off
- (iv) Efficient Spectrum Policy
- (v) Incentivise data optimisation

6) Please enter your comments on Chapter 6 (Conclusions and outline for BEREC's future work on sustainability) here:

GSMA welcomes the recent interest on the topic of sustainability shown by NRAs. It calls on NRAs to take into due account the work done to date at global level by the mobile industry (without regulatory constraints).

7) Please enter any other comments you may have:

- GSMA recalls that the mobile industry showed outstanding leadership and was one of the first sectors to align itself to the goals of the Paris Climate Agreement. The mobile industry has been investing heavily to be exemplary and is working on reducing its own environmental footprint with efforts to reduce its emissions across Scope 1, 2 and 3 and with the objective of being 'Net Zero' by 2050 or before, using a high rate of renewable electricity and shifting towards a circular economy model for its equipment.
- The GSMA agrees with BEREC that measurement of whole value chain emissions is difficult currently. This is partly because of a lack of a standardised approach to measuring Scope 3 emissions across the industry. In response to this challenge, last year the GSMA created a global project group to develop a standardised approach to measuring each of the 15 GHG Protocol Scope 3 categories. This guidance is due to be published in summer 2022.
- On environmental impacts beyond carbon emissions, in 2021 the GSMA created a project group to begin to understand how to move towards a more circular economy for network equipment. In March 2022 the GSMA published a strategy paper on this topic, with one of the key recommendations being the provision of standardised data sets from network equipment manufacturers. GSMA members support agreement on standardised measurement for life cycle carbon emissions and other environmental impacts.

Please upload here any supporting document that you deem relevant:

5587dc51-fb9a-4fe5-83f3-0bbff99f7f87/GSMA_-_response_BEREC_sustainability_report_FV_RC.pdf

In accordance with the BEREC policy on public consultations, BEREC will publish all contributions and a summary of the contributions, respecting confidentiality requests. Any such requests should clearly indicate which information is considered confidential.

Confidential contribution:

- ☐ Yes
☒ No

If yes, please specify the information which should be treated as confidential:

Background Documents

[Draft BEREC Report on Sustainability](#)

Contact

Sustainability_PC@berec.europa.eu