



ETNO comments to the Draft RSPG Opinion on the role of radio spectrum policy to help combat climate change

August 2021



Introduction

The European Telecommunication Network Operators' Association (ETNO) welcomes the opportunity to provide feedback to the Draft RSPG Opinion on the role of radio spectrum policy to help combat climate change.

We also positively acknowledge that many of our comments provided in the response to the RSPG Questionnaire¹ were taken into account in the RSPG report on the role of radio spectrum policy to help combat climate change, published in June 2021².

ETNO overall supports the RSPG's focus on sustainability and climate change as a key important horizontal principle and high-level priority.

In general, ETNO believes that efficient spectrum policy and managements also supports climate goals. With sufficient spectrum resources available and by avoiding unnecessary deployment and operation limitations and requirements, spectrum regulators can support to reduce climate impacts.

As stated in our previous comments, any regulatory policy unreasonably entailing an investment unfriendly environment for the sector (e.g. high spectrum awards prices, unjustified restrictions to co-investment, administrative complex procedures for deployment, stricter limits of EMF exposure than the ones European Council recommends) would be counterproductive for the ability of the operators to invest in upgrading the networks in compliance with more efficient and climate neutral standards.

We also take the chance to highlight once more that telecom networks are not only making substantial progresses on sustainability and circular economy targets in their own operation, but they are the backbones of major CO2 reductions enabled by digitalization, across different sectors of the economy and society.

Sectors as diverse as manufacturing, transport, healthcare and the public administration can only achieve carbon neutrality by accelerating their digital transformation. This enabling potential can go up to - 15% of the global CO2 emissions³.

Finally, ETNO would like to express its willingness to contribute to the debate and support RSPG's activity on climate change and we are ready to engage in the debate and provide with our expertise.

¹ <https://etno.eu/library/positionpapers/421:rsp-climate-change.html>

² RSPG21-026final_RSPG_Report_on_Climate_Change.pdf (rspg-spectrum.eu)

³ BCG study for ETNO, 2021 "Connectivity and Beyond: How Telcos Can Accelerate a Digital Future For All" available [here](#)

ETNO considerations and comments to the Draft RSPG Opinion on the role of radio spectrum policy to help combat climate change

RSPG Recommendations	ETNO considerations/comments
<p><i>Methodologies to assess the impact of ECS wireless technologies on climate change</i></p> <p>1) RSPG invites the European Commission with Member States to promote the development of methodologies to assess the impact of ECS wireless technologies on climate change (i.e. Energy Efficiency, Circular Economy, etc.) with the involvement of ECS stakeholders and all interested parties (including citizens) and, where appropriate, with the support of the European Telecommunications standardisation Institute (ETSI) including if needed CEN, CENELEC. Those methodologies should include a focus on ECS radio component (base stations and user terminals) including the impact of frequency bands.</p> <p>2) RSPG invites the European Commission to always take energy efficiency and other climate related aspects into account when funding research within the wireless sector, such as 6G.</p> <p>3) RSPG invites the MS to initiate national climate and environmental strategies within the ICT sector and urges the European Commission to put forward an EU wide strategy based on the national strategies.</p>	<p>Recommendations 1) and 2)</p> <ul style="list-style-type: none"> • ETNO agrees that it is important to define methodologies to assess the impact of ECS wireless technologies on climate change. We would like to stress that such methodologies should be based on a transparent and robust calculation model. • As also brought up on the RSPG report, currently there is no standard model to assess energy efficiency or emissions in the sector. Accordingly, available figures vary significantly. • The purchase of renewables should also be taken into account when assessing the environmental impact. <p>Recommendation 3)</p> <ul style="list-style-type: none"> • While we recognise the national climate and environmental initiatives in ICT sector, ETNO calls for EU wide strategy and harmonization. The equipment and tools used by the sector are developed for global market, and thus EU wide strategies and harmonization are necessary. They also support predictable investment environment, as well as help to mitigate gap between MS on service availability, quality and price.
<p><i>Use of environmentally friendly energy sources and self-regulation</i></p> <p>4) RSPG invites stakeholders which manufacture and operate any equipment, which uses frequencies, to use environmentally friendly energy sources.</p> <p>5) The RSPG welcomes self-regulation and other voluntary initiatives of the wireless ECS sector to incentivise an increased percentage share of electricity consumed coming from environmentally</p>	<p>Recommendations 4) and 5)</p> <ul style="list-style-type: none"> • ETNO supports the encouragement for using environmentally friendly energy sources and self-regulations. RSPG report notes impacts on direct and indirect emissions. • By focusing on energy efficiency in manufacturing and operation, it is possible to influence direct emissions, whereas services provided by the sector as well as innovation on new services impact largely in indirect emissions (such as travel substitution, transportation optimisation, and change in user behaviour).

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<p>friendly energy sources including renewable energy sources.</p> <p>6) The RSPG welcomes wireless ECS sector cooperation and coordination to develop energy efficient standards and to design services and equipment based on such standards.</p> <p>7) RSPG invites the European Commission to investigate and if necessary propose EU actions to enable MS inter-alia to enhance voluntary initiatives and self-regulatory measures, aiming at combatting climate change within the wireless sector. Such actions should follow the criteria for all regulatory actions such as non-discrimination. They should be based on relevant facts and analysis, so as to use the most efficient measure from an overall societal point of view. The principle of service and technological neutrality should underpin any measure, and any such measure should be general rather than specific.</p>	<ul style="list-style-type: none"> • Regulatory efforts that support provision of high-quality network services, can have impact in both direct and indirect emissions. • Concerning the direct emissions, the telecommunication sector has been very active and it is expected to remain very active to reduce its own emissions, especially through innovative energy efficiency measures and the use of renewable energy. • ETNO companies reduced their use of non-renewable energy by 23% and increased their use of renewable energy by 24% in one year (Period: 2018-2019). This is a further improvement compared to the previous period 2017-2018, where renewable went up 18% and non-renewable decreased by 9%⁴ • Concerning the indirect emissions, the sector provides services to citizens and various verticals helping them to reduce their emissions and increase energy efficiency (enabling potential can go up to - 15% of the global CO2 emissions³). • An adequate mix of self-/ co-regulation/other voluntary initiatives can be an equally or even more effective instrument to reach environmental goals, even in a more innovative way. For example, the climate targets of some telecom operators are currently based on the Science Based Target Methodology. Such Science Based targets in the ICT industry were developed through a cooperation between ITU, GeSI and the GSMA. <p>Recommendation 6)</p> <ul style="list-style-type: none"> • Sector coordination and cooperation on sustainability initiatives is already advancing prominently in the telecom sector. For example, Deutsche Telekom, Orange, Telefónica, Telia Company and Vodafone are the founding members of the Eco Rating consortium⁵ that has been launched in June this year. Its ambition is to create a holistic methodology that combines the various aspects of the ecological performance into an easy to understand score plus sub-scores related to durability, reparability, recyclability as well as climate and resource efficiency.

⁴ ETNO's The State of Digital Communications 2021 available [here](#)

⁵ <https://www.ecoratingdevices.com>

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	<p>Recommendation 7)</p> <ul style="list-style-type: none"> • Detailed regulation e.g. on prescribing specific actions, may not be efficient but result in unnecessary burdens, which eventually may not lead to best overall results. • Therefore, we support the reference to service and technological neutrality to guide any upcoming measures to be broad enough for ensuring legal certainty and flexibility for operators.
<p><i>Harmonised spectrum for purposes related to combatting climate change</i></p> <p>After a review of existing processes to gather the spectrum needs and various sectoral needs to combat against climate change</p> <p>8) RSPG points to the fact that</p> <ol style="list-style-type: none"> a. At this stage, current harmonised spectrum could respond to various technology needs, stakeholders' strategies and development trends b. spectrum needs and demands to help combat against climate change can change over time due to a number of factors, in particular the implementation of energy regulations resulting from the Green Deal. It is consequently important to regularly review the forecast long-term spectrum needs and spectrum demands aimed at combating Climate change. <p>9) RSPG confirms that all the sectors, which can benefit by using wireless technologies in their efforts to reduce emissions, already have a process available (either at international or European or national level) in order to address either future specific spectrum needs or spectrum demands triggered by the evolution of technology.</p> <p>In addition, RSPG is of the view that:</p> <p>10) Any further request for spectrum harmonisation should be addressed via the current mechanisms in place.</p>	<p>Recommendations 8) - 14)</p> <ul style="list-style-type: none"> • As already stated, we believe that spectrum policy should support environmental targets and provide sufficient flexibility for network operators to decide on how to best improve efficiency. • We agree that at this stage harmonized spectrum could address various needs and that for addressing the potential future needs the mechanisms are in place through CEPT and ITU-R processes, as well as with ETSI-CEPT coordination. • ETNO is of the view that, when considering new spectrum demands for specific/dedicated needs, climate and environment aspects should always be considered as well. Mobile network operators already address various demands of citizens, industries as well as governments by using harmonized mobile spectrum, and are expected to address various demands even better with 5G. Providing services in public mobile networks, instead of dedicated networks, supports energy efficiency in operation and manufacturing. • Also, mobile operators update networks regularly with new technologies and thus with more energy efficient equipment, in order to be able to address the increased capacity demands.

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<p>11) The common ITU-R process should be used for sectors where the sectoral need for spectrum is mainly worldwide (e.g. Galileo, GMES, scientific services). EU Member States should express these needs in the regular ITU-R study work. This should be actively supported by the European Union in its role as ITU-R Sector Member.</p> <p>12) In the case that potential modifications to the Radio Regulations are identified, the WRC preparatory process (CEPT) has to be used. This process will be accompanied by a respective RSPG Opinion on WRC to assist the European Commission in developing a proposal for a Council Decision on the EU position for WRC.</p> <p>13) In all other cases, the common ETSI-CEPT cooperation is recommended. This cooperation in practice also includes the possibility for the European Commission to issue mandates to CEPT and ETSI.</p> <p>14) Caution shall be applied when trying to address the perceived spectrum needs and requests from the sectors which can benefit from wireless technologies in their efforts at reducing emissions because existing processes may already have been triggered.</p>	
<p><i>Further considerations on ensuring spectrum is made available to support initiatives to combat climate change</i></p> <p>15) Member States should ensure the availability of spectrum for public transport purposes, as appropriate.</p> <p>16) The RSPG recommends that Member States better engage in highlighting the potential of current harmonised spectrum to respond to various technology needs in order to support the development of smart meters and smart grids.</p> <p>17) RSPG notes the development of Wireless Power Transfer, including to evolution of automotive sector,</p>	<p>Recommendation 15)</p> <ul style="list-style-type: none"> • As stated above, before reserving spectrum for dedicated demands, the possibilities to address the demand in more climate friendly manner should be considered. • Reserved frequencies to provide services related in one way or another to the fight against climate change, should be evaluated against the value on alternative uses of the frequencies they request, and against the possibility of using public networks that could fulfil the same purpose at a potentially lower environmental cost. <p>Recommendation 16)</p> <ul style="list-style-type: none"> • ETNO supports using already harmonized spectrum for various new demands, and notes that telecom operators are increasingly using big

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<p>and recommends analysing the coexistence with existing services in the HF band.</p>	<p>data and AI applications to optimize system performance to make networks as sustainable and cost-efficient as possible. The data transmitted by smart meters is used for the targeted implementation of energy efficiency solutions, such as the application of standby mode to limit energy consumption when traffic is slowed down.</p>
<p><i>Spectrum used in weather forecasting, monitoring climate change and gathering long-term climate related data</i></p> <p>RSPG is of the view that:</p> <p>18) Member States should recognize that monitoring of climate change, collecting data for weather forecasting or gathering climate-related data are important tools to provide evidence related to combatting climate change and facilitate the response to its consequences. In consequence, Member States and the European Commission should ensure long-term spectrum availability and protection for radio systems supporting them, where appropriate.</p> <p>19) RSPG notes that bands used for gathering climate-related data by passive sensing require particular protection, as recognised by international regulation.</p> <p>20) Members States should cooperate actively in order to assess and solve interference which impacts upon weather forecasting, monitoring of climate change or collecting data for weather forecasting, gathering climate-related data. Member States should cooperate actively to implement corrective actions, including at international level as appropriate, in order to avoid long term interference situations. The European Commission and Member States, where appropriate, should cooperate on implementing EU regulatory measures or, as appropriate, improvement of the EU regulatory framework</p>	<p>Recommendations 18) - 20)</p> <p>ETNO does not wish to submit comments on this section.</p>
<p><i>Concerns regarding effective functioning of existing 5.6 GHz meteorological climate monitoring systems</i></p>	<p>Recommendations 21) - 22)</p> <p>ETNO does not wish to submit comments on this section.</p>

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<p>21) The RSPG recognises the issue of interference into 5.6 GHz meteorological radars and the strategic importance of resolving the issue in order to preserve confidence of incumbent spectrum users on the innovative sharing solutions and EU framework.</p> <p>22) RSPG is of the view that due to the complexity of regulatory framework for RLAN and Met Radars in the 5.6 GHz band, which involves the radio regulatory framework, the radio equipment Directive and harmonised standards as well as a well-functioning Market surveillance carried out by the authorities of the Member States to identify and take off the market non-compliant RLAN devices, initiatives are needed to remedy this interference situation, including initiatives at a policy level. RSPG welcomes the initiative to analyse various options identified at this stage, including those undertaken by CEPT and ADCO RED. There is a need to establish a set of concrete actions, including from European Commission's side, to be implemented within the short/medium timeframe in order to reverse the current trend.</p>	
<p><i>Wireless ECS: Spectrum management actions and the EECC framework</i></p> <p>23) RSPG recalls that the flexibility given by the EECC framework under a general interest objective should be maintained in order to address climate protection.</p> <p>24) RSPG recognises that the availability of large contiguous frequency blocks per operator could avoid the energy consumption associated with the support of multiple carriers and carrier aggregation. Member States may strive to improve the energy efficiency of networks by making available spectrum in the largest blocks possible where appropriate.</p> <p>25) The RSPG considers that Member States should award spectrum in a timely manner for the development of innovative services to mitigate climate change.</p> <p>26) The RSPG recommends that Member States assess how active or passive infrastructure sharing may help</p>	<p>Recommendation 24)</p> <ul style="list-style-type: none"> We positively acknowledge the recognition that large contiguous spectrum blocks are more efficient to deploy, leading to smaller energy consumption, and smaller number of network equipment. Unnecessary fragmentation of spectrum band, e.g. setting as side spectrum for local/vertical use without proper analysis, including socioeconomic and climate impacts should not be allowed. <p>Recommendation 25)</p> <ul style="list-style-type: none"> ETNO would like to stress the importance of long-term spectrum availability plans and encourages Member States to have aligned plans and make spectrum available in timely manner. <p>Recommendation 26)</p> <ul style="list-style-type: none"> Allowing operators to deploy shared networks leads to smaller number of network equipment. Therefore, policy and regulatory support for

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<p>reduce the carbon footprint of wireless ECS while maintaining competition objectives. Based on the results of these assessments, Member States should consider enabling infrastructure sharing among operators.</p> <p>27) The RSPG recognises that the current EU framework to facilitate the roll-out of indoor small cells may also contribute to combat climate change.</p> <p>28) The RSPG recommends that the European Commission, and where appropriate the Member States, determine whether ECS Network operators should be required to report on their emissions and the actions they are taking to achieve the Union's environmental targets. The RSPG will contribute to any such determinations within its field of knowledge and expertise. If legal measures are put in place in respect of such reporting, the RSPG recommends that a harmonised approach to the reporting is adopted across the European Union. Any necessary assessments (in line with recommendation 1) above) should be made as regards the measurement methodologies to obtain reported data.</p>	<p>network sharing agreements appears relevant also from the sustainability viewpoint, while also helping to accelerate network deployment investment. However, we also agree that it is important to maintain competition objectives to ensure fair competition in national mobile markets. Additional guidance on promoting sharing while balancing competition concerns is welcomed.</p> <p>Recommendation 27)</p> <ul style="list-style-type: none"> • ETNO agrees that EU framework to facilitate the roll-out of small cells was a step forward on supporting deployment where unnecessary limitations existed, and that it may have positive impact on climate. We encourage to continue the progress to facilitate efficient deployment in general. Avoiding unnecessary deployment limitations (e.g. unnecessary restrictions to transmission power, stricter EMF limits than recommended by ICNIRP) leads to smaller number of network equipment, and enables energy savings. • ETNO also notes that harmfully high lease prices for deploying small cells on public physical infrastructure – indoors as well as outdoors – may be a deployment barrier (for small cells). This ultimately may delimit – or at best delay – the reductions on emissions caused by the enabling effect in verticals, i.e. in the transport and logistics sector where small cells are foreseen to provide a high-capacity, low latency 5G-network in the coming years. <p>Recommendation 28)</p> <ul style="list-style-type: none"> • Emissions reporting and transparency measures related to environmental targets need to be properly designed without becoming excessively burdensome for companies (e.g. administrative and implementation costs). Instead, they should serve to increase the leverage of sustainability requirements so to consider sustainability objectives as a competitive factor. • The transparent methodologies to assess the emissions should be in place and standardized before legal measures on reporting are implemented. • Many operators do already provide such information on a voluntary basis. Increasingly, reporting such data in a transparent way e.g. in

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	yearly ESG-reports is becoming a parameter of competition between operators. As such, regulatory intervention should be assessed very carefully.

ETNO (European Telecommunications Network Operators' Association) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

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