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DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND
TECHNOLOGY

Connectivity
Radio Spectrum Policy Group
RSPG Secretariat

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RSPG21-025 FINAL

RADIO SPECTRUM POLICY GROUP

Progress Report of the RSPG Sub Group on Climate Change

Progress Report of the RSPG Sub Group on “Climate Change”

The RSPG Working Group on “Climate Change¹” (hereinafter: SG) held five Webex meetings since the last RSPG plenary (26 February, 9 April, 11, 21 and 26 May). Between meetings the material for topics within the draft report and draft opinion has been developed by email (The SG mailing list includes more than 40 subscribers). The group presents the draft Report to the plenary for approval. The group also presents a draft Opinion to the plenary for approval prior to public consultation.

1. Webex meetings

The meetings since the last RSPG plenary have had four focuses i) consolidating the topics into the Report, ii) obtaining consensus on the text, iii) extracting points for the opinion and iv) reaching consensus prior to public consultation on the Opinion. Work will begin in the autumn to review the responses to the consultation and to finalise the Opinion with the aim to present a final Opinion to the plenary in November.

2. Identify climate change-related aspects within spectrum management

The headings under which the SG is preparing its report include:

- Possible actions of the wireless sector to decrease the use of energy (in general) by wireless communications technologies.
- Possibilities for wireless solutions to help sectors (other than communications) become more environmentally friendly.
- Spectrum usages relevant for monitoring climate change or gathering climate-related data.

The SG is considered a number of legal and administrative aspects in its report;

- The legal basis for overseeing climate protection measures in spectrum management.
- Possible issues associated with introducing climate protection aspects in spectrum management.
- Possible administrative instruments for spectrum management and climate mitigation

3. Climate-related initiatives within the RSPG

The SG reminds the plenary of the possible climate-related initiatives within the RSPG:

- Making the work of the RSPG more eco-friendly?

1. Role of Radio Spectrum Policy to help combat Climate Change

- Use of web meetings to lessen our ecological footprints?
- More eco-friendly physical meetings, at least in terms of travel.

4. Aspects about which Opinion points are expressed

- Methodologies to assess the impact of ECS wireless technologies on climate change
- Use of environmentally friendly energy sources and self-regulation
- Harmonised spectrum for purposes related to combatting climate change
- Further considerations on ensuring spectrum is made available to support initiatives to combat climate change
- Spectrum used in weather forecasting, monitoring climate change and gathering long-term climate related data
- Concerns regarding effective functioning of existing 5.6 GHz meteorological climate monitoring systems
- Wireless ECS: Spectrum management actions and the EECC framework

5. Documents for approval by the RSPG

RSPG is invited to:

- approve the report on the role of radio spectrum policy to help combat climate change and
- approve for public consultation the draft opinion on the role of radio spectrum policy to help combat climate change

6. Next steps

The next meeting will be in September/October 2021, with further SG meetings as necessary planned up to the beginning of November 2021. Dates are to be determined after the RSPG plenary.

RSPG work item: update to Plenary	
Work item	Climate change mitigation
Rapporteur/s	Robert Lindgaard, Danish Energy Agency, Rory Hinchy, Department of the Environment, Climate and Communications, Ireland
Rationale	<p><u>Rationale</u></p> <p>Radio spectrum is the basis for electronic communications and broadband, but also key to important areas like climate change. Climate change is one of the predominant topics in European Union policies. In her political guidelines, the new Commission President Ursula von der Leyen has prioritised a ‘green deal’ stating: “I want Europe to strive for more by becoming the first climate-neutral continent”. The climate-neutral target for Europe is 2050. The RSPG shares the opinion that the fight against climate change and its negative consequences is of utmost importance. Therefore, the RSPG established a work item to focus on spectrum policy aspects which are closely related to the efforts of ensuring climate-neutrality.</p>
Scope	<p>Under the Climate Change work item, the RSPG will issue a debate within the Group, as well as with the relevant stakeholders, on how spectrum policy can help to combat climate change. To this end, questions that should be addressed are:</p> <ul style="list-style-type: none"> • Identify climate change-related aspects within spectrum management; • How can spectrum management help to combat climate change? • What concrete actions should be recommended at EU level?
Planned deliverables and timing	<p>RSPG Opinion(s) or Report(s) as seen appropriate. Public workshops</p> <p>Time schedule:</p> <ul style="list-style-type: none"> • Report: June 2021 • Opinion: November 2021
Analytical approach	<p>Overall ambition for RSPG to communicate early about possible steps which can be taken to mitigate climate change in light of EU climate targets</p> <p>Identify the actions which could be taken to decrease green house gas emissions of wireless systems.</p> <p>Assess how wireless solutions could help other sectors become more environmentally friendly.</p> <p>Identify spectrum usages relevant for monitoring climate change or gathering climate-related data and consider the need to protect these.</p> <p>Analyse the legal basis for overseeing climate protection measures in spectrum management.</p> <p>Identify administrative instruments for climate mitigation activities in</p>

	spectrum management. Assess challenges associated with introducing climate protection aspects in spectrum management.
Project plan	Phase 1 – Information gathering Phase 2 – Analysis and assessment (including stakeholder engagement) Phase 3 – Review conclusions Phase 4 – Conclude and report
Dependencies	This work is linked to the RSPG work item on RSPP and WRC .

Members, stakeholders and resources

Members	Austria, BMLRT CEPT, ECC and ECO Cyprus, Ministry of Transport, Communications and Works Czech Republic, Czech Telecommunication Office Denmark, Danish Energy Agency EU, European Commission Finland, Ficora France, ANFR France, ARCEP France, Ministère des finances Germany, BNetzA Germany, BMVI BUND Greece, EETT Hungary, NMHH Ireland, DECC Italy, AGCOM Malta, MCA Norway, KMD Norway, NKOM Poland, Ministry of Digital Affairs Portugal, ANACOM Slovenia, AKOS Sweden, PTS The Netherlands, MinezK
Key stakeholders	Telecom operators Vertical industries Equipment suppliers
Other resources	

Work flow (internal and external milestones)

Date	Action / deliverable	Internal Work group only	External Plenary, Publication
Year 2020			
2 April (Webex)	First meeting of work group – discuss scope and plan following new <i>RSPG Work Programme</i> and new work item on <i>Climate Change mitigation</i>	Work group	

Date	Action / deliverable	Internal Work group only	External Plenary, Publication
6 May (Webex)	Second meeting of work group – discuss topics for inclusion in the report and identify contributors.	Work group	
2 June (Webex)	Third meeting of work group – discuss contributions received on topics.	Work group	
9 June	Progress of work presented to Plenary	Rapporteur	Plenary
10 June (Webex)	Presentation at GSMA/RSPG roundtable.	Rapporteur	Roundtable participants
23 June	Fourth meeting of work group - further refine the text	Work group	
31 August	<i>- discussion on collated text and details of the workshop</i>	Work group	
18/21 September	Workshop with stakeholders	Work group Debriefing	Stakeholder workshop
7 October	Progress of work presented to Plenary. -	Rapporteur	Plenary,
22 October	Fifth meeting of work group – commence work on RSPG contribution	Work group	
29 October	Sixth meeting of work group -	Work group	
24 November	Seventh meeting of work group	Work group	
14 December	Eighth meeting of work group – agree consultations questionnaire	Work group	
Year 2021			
1 February	Ninth meeting of work group – consider a contribution to the connectivity toolbox discussion	Work group	
10 February	Progress of work presented to Plenary. -	Rapporteur	Plenary
26 February	Tenth meeting of work group – further improvement of the topic texts	Work group	
9 April	Eleventh meeting of the work group – review of consolidated text for the draft Report. Discussion of the timeline for the remaining work.	Work group	
11 May	Twelfth meeting of the work group – review of amended draft Report and preparations to finalise the Report. Commencement of the consideration of the draft Opinion.	Work Group	
21 May	Thirteenth meeting of the work group – improvement of the draft Opinion.	Work Group	
26 May	Fourteenth meeting of the work group – preparations to finalise and endorse the draft Opinion prior to public consultation for delivery to RSPG plenary. Endorsement of the draft Report for the RSPG Plenary.	Work Group	

Date	Action / deliverable	Internal Work group only	External Plenary, Publication
16 June	Progress of work presented to Plenary. - Draft Report and Draft Opinion for Public Consultation	Rapporteur	Plenary
(September)	Sixteenth meeting of the work group -	Work Group	
()	-	-	
()	-	-	
24 November	Progress of work presented to Plenary	Rapporteur	Plenary
Future dates and actions to be decided in light of work progress			

Annex

Summary of responses to questionnaire

There were 30 respondents, ranging from support for meteorological sensory systems and systems to improve road/rail transport efficiencies (suggestions of sensors for climate data along road/rail line (temp/ice)), to support for systems which enable smart grid/utility applications and the integration of wind energy sources into the grid. There were responses highlighting the energy efficiency of broadcast technologies in delivering linear audio visual programme services to mass audiences and the potential beneficial role wireless power transfer could play in improving social acceptance and take up of electric vehicles. However there was also a response arguing against wireless power transfer systems, due to risks of radio frequency interference.

Not surprisingly, a number of responses were received from the mobile telecommunications sector which is a significant users of harmonised spectrum under EU legislation. In general, they opposed the assignment of spectrum to vertical industries, arguing that it would be better if vertical industries were customers of the mobile network operators. They supported technology neutral regulations without demanding coverage or data-rate obligations or other climate orientated obligations in auction/award processes. They supported network sharing and encouraged moves toward retirement of legacy wireless technologies. They pointed out the enablement effect where the telecommunications sector could much enable greater energy savings by customers than the energy associated with the operation of the telecommunications networks. They also informed of the commitments they have made to only a 1.5 degree increase in climate by 2030 and to working to achieve net zero greenhouse gas emissions through using renewable energy.

One respondent highlighted the fact that newer 5G technologies have features which enable base stations to be dynamically turned off when idle. When not active, 5G systems could switch down to operate as 4G. More specifically, they could also offer a more granular symbol, channel and carrier shutdown. They point out that newer power amplifiers are up to 50% more efficient than earlier generation amplifiers. These energy saving features could bring a double benefit as there might be less need for air conditioning at base stations. That would bring further cost and energy savings for an operator. In relation to the support of legacy user devices, they suggested that a single national 2G network could be operated to provide basic mobile telephony and data connectivity. That would remove the requirement for all operators to maintain substantial coverage with an old technology (2G/GSM) in support of a small number of user devices.