



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND  
TECHNOLOGY

Connectivity  
**Radio Spectrum Policy Group**  
**RSPG Secretariat**

Brussels, 7 June 2022

**RSPG22-020 FINAL**

## **RADIO SPECTRUM POLICY GROUP**

### **Progress Report of the work item on the development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks**

<b>RSPG work item: update to Plenary</b>	
<b>Work item</b>	The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks
<b>Rapporteur/s</b>	Heidi Himmanen, Traficom, Finland, Bo Andersson, PTS, Sweden, Tassos Lyratzis, EETT, Greece
<b>Rationale</b>	<p>5G is at present the most important evolution of wireless broadband. Over time the RSPG has developed three Opinions as its strategic roadmap towards 5G for Europe, in which it has identified 5G pioneer bands and addressed implementation challenges for 5G.</p> <p>The evolution of the next generation of wireless broadband is well underway. Although the commercial launch of 6G is not expected until around 2030 the start of the standardisation work is expected to have started by 2025. There are many development activities ongoing in Europe as well as in other parts of the world. Especially the 6G part of the European partnership program Smart Networks and Services is expected to develop results that are of importance for RSPG in this area. The technical developments are expected to bring new possibilities broadening the scope of wireless broadband to various areas, possibly including mitigating negative environmental impact and climate change as well as satisfying new operational needs and new services addressed to consumers and verticals. Some research initiatives are starting to consider spectrum issues and relevant needs in sub-THz spectrum but also in spectrum bands targeted for 5G including low and mid bands.</p> <p>Within this work item, the RSPG will follow and investigate the research and development of 6G and study European 6G test plans and trials. The RSPG will further investigate and identify early indications of additional spectrum and harmonisation needs and/or potential implications on spectrum regulation in order to be prepared for the development of 6G roadmaps later on (beyond 2023).</p>
<b>Scope</b>	<p>The RSPG will conduct an evaluation of 5G in Europe (licensing strategies, auction design, deployment progress, etc.) with the aim to gain knowledge around what has been successful and what still needs to be addressed, thus providing valuable input when designing future 6G strategies.</p> <p>Regarding the pivotal role of wireless broadband, the RSPG will consider early signals of demand for additional spectrum as well as the necessity to make a certain amount of harmonised spectrum available in a timely manner including in spectrum bands targeted for 5G including low and mid bands. This may involve continuing the move further up to higher bands, thus enabling early exploratory work in the sub-THz bands.</p> <p>RSPG will continue to engage in the sharing of information and experience in support of a successful development and future roll-out of 6G in the EU, and will provide targeted guidance on authorisation and implementation issues, if such a need is identified.</p> <p>This work may form the basis for and may lead to future 6G spectrum roadmaps of the RSPG later on (beyond 2023). This activity will not address WRC-23 agenda item 10 which remains to be addressed solely under the activity regarding the preparation of EU position for WRC-23.</p>

<b>Planned deliverables and timing</b>	<p>RSPG Opinion</p> <p>High-level workshops addressing the entire industry including verticals</p> <p><u>Time schedule</u></p> <p>Draft Opinion for Public consultation: January 2023</p> <p>Final Opinion: June 2023</p>
<b>Analytical approach</b>	<p>RSPG will continue to engage in the sharing of information and experience in support of a successful development and future roll-out of 6G in the EU. The analyses will include 5G development evaluation, 6G research, need for 6G spectrum, licensing and regulatory aspects. Inputs will be gathered from regulators, leading research programs, the telecom sector as well as vertical industries.</p>
<b>Project plan</b>	<p>Phase 1 – Information gathering (including stakeholder engagement)</p> <p>Phase 2 – Analysis and assessment</p> <p>Phase 3 – Review conclusions (including stakeholder engagement)</p> <p>Phase 4 – Conclude and report</p>
<b>Dependencies</b>	<p>We plan to have regular discussions with the rapporteurs for other relevant work items and possibly joint meetings / workshops to ensure we share information and align the work as appropriate.</p>

#### Members, stakeholders and resources

Members	<p>Austria, RTR</p> <p>Croatia, HACOM</p> <p>Czech Republic, CTU</p> <p>Denmark, Danish Energy Agency</p> <p>EU, DG CNECT</p> <p>Finland, Traficom</p> <p>France, ANFR</p> <p>France, ARCEP</p> <p>France, Ministere des finances</p> <p>Germany, BNetzA</p> <p>Germany, BMVI BUND</p> <p>Greece, EETT</p> <p>Greece, Ministry of Digital Policy</p> <p>Hungary, NMHH</p> <p>Ireland, DCENR</p> <p>Ireland, COMREG</p> <p>Italy, AGCOM</p> <p>Luxembourg, SMC</p> <p>Malta, MCA</p> <p>Norway, NKOM</p> <p>Poland, Ministry of Digital Affairs</p> <p>Portugal, ANACOM</p> <p>Serbia, RATEL</p> <p>Slovenia, AKOS</p> <p>Spain, Minetur</p> <p>Sweden, PTS</p> <p>The Netherlands, Minez</p> <p>Turkey, BTK</p>
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Key stakeholders	Telecom operators Vertical industries Equipment suppliers
Other resources	
Other work items	

**Work flow (internal and external milestones)**

<b>Date</b>	<b>Action / deliverable</b>	<b>Internal Sub-group only</b>	<b>External Plenary, Publication</b>
Year 2022			
29 March (Webex)	First meeting of sub-group – discuss scope and plan following new <i>RSPG Work Programme</i> and new work item on <i>Mobile technology evolution – experiences and strategies</i>	Sub-group	
16 May (Webex)	Second meeting of sub-group – discuss draft questionnaire to member states on development of 6G. - discuss draft plan for workshop.	Sub-group	
7 June	Progress of work presented to Plenary Questionnaire to member states on development of 6G submitted to Plenary for adoption Draft plan for workshop presented to Plenary	Rapporteur	Plenary
Future dates and actions to be decided in light of work plan			