



EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND TECHNOLOGY

Digital Decade and Connectivity
Radio Spectrum Policy Group
RSPG Secretariat

Brussels, 12 February 2025

RSPG25-005 FINAL

RADIO SPECTRUM POLICY GROUP

Progress Report of the work item on 6G strategic vision

| RSPG work item: update to Plenary | |
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| Work item | 6G strategic vision |
| Rapporteur/s | Heidi Himmanen, Traficom, Finland, Tassos Lyratzis, EETT, Greece |
| Rationale | <p>The RSPG in its Opinion on “The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks” recognized, that a proactive position is essential for supporting the development and deployment of 6G in Europe. This includes further work by RSPG on early recognition of spectrum needs, so that the initial launch and operation of 6G networks/services can start in 2030. This work contributes to this target by providing strategic guidance on the spectrum component of 6G taking into due consideration further development of 5G prior 2030 including densification of networks, introduction of additional spectrum at national level, initiatives in mmW bands (i.e. 26 GHz, 42 GHz).</p> <p>Also, this work intends to address the long-term spectrum availability and the implementation strategies for 6G that could be considered taking into account the European influence on the international environment. Furthermore, the RSPG noted the need to assess spectrum requirements for an introduction of 6G in the EU including evaluation of coverage and capacity needs for 6G use cases and usages scenarios. This should respond to capacity/coverage needs, eco-systems including for terminals, timing for making available spectrum, etc. and need for a coordinated and common timing in order to provide availability of harmonized spectrum in Europe taking into account the challenge of launching 6G at a time where most terminals will not be 6G-compatible. RSPG intends to further assess the impacts of technology neutrality within harmonized bands, national mobile operators’ strategy on the timing of launch of 6G, taking into account various factors such as competition and market demand, availability of spectrum resources, expiration dates of existing authorizations.</p> <p>Due to the current trend in 5G, the spectrum needs for local and vertical use may increase. This needs to be taken into account in future 6G spectrum strategies considering also relevant developments/timing of harmonisation in bands recommended for verticals. Non-Terrestrial Networks are becoming part of 5G and expected to be part of 6G. Although the technology neutrality principle applies, EU and national policies have encouraged a coordinated timing for initial deployment of 5G supporting mass market, which might also be considered for 6G launch in the benefit of EU interests.</p> |
| Scope | <p>The RSPG intends to take a proactive position to support European Commission to set an attractive policy framework for the initial launch, development and deployment of 6G in the EU. This work focuses on early recognition of spectrum needs, including evaluating the coverage and capacity needs for 6G use cases and usages scenarios, so that the initial mass market launch and operation of 6G networks/services can start in 2030. This early recognition of spectrum needs should be based on a proper evaluation of coverage and capacity needs for 6G use cases and usages scenarios, also considering Non-Terrestrial and licence exempt use.</p> <p>The RSPG should take into account input from all active stakeholders (research institutes, manufacturers, MNOs, spectrum users' associations, etc.), to develop the Report/Opinion as appropriate. The RSPG work on upper 6 GHz should be considered.</p> |

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| Planned deliverables and timing | <ul style="list-style-type: none"> • RSPG Report/Opinion as appropriate on 6G strategic vision, including the evaluation coverage and capacity needs for 6G use cases and usages scenarios with initial considerations on the 6G spectrum vision. • After finalizing the main deliverable, i.e. Report/Opinion as appropriate on 6G strategic vision, RSPG will continue to be engaged in the 6G developments in order to prepare, as soon as deemed appropriate a 6G spectrum roadmap. • RSPG Workshops with the stakeholders: as appropriate <p><u>Time schedule</u></p> <ul style="list-style-type: none"> • Draft Report/Opinion as appropriate on 6G strategic vision: November 2024 • Final Report/Opinion as appropriate on 6G strategic vision: February 2025 |
| Analytical approach | 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. |
| Project plan | <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> |
| Dependencies | RSPG WI on “Long-term vision for the upper 6 GHz band” |

Members, stakeholders and resources

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| Members | <p>Austria, Ministry of Finance BMF</p> <p>Austria, Telecommunications Regulatory Authority RTR</p> <p>Belgium, BIPT</p> <p>Czechia, Czech Telecommunication Office</p> <p>Germany, German Federal Network Agency</p> <p>Germany, German Federal Ministry for Digital and Transport</p> <p>Denmark, Agency for Data Supply and Infrastructure</p> <p>EC, DG CONNECT</p> <p>ECO, European Communications Office</p> <p>Greece, Hellenic Telecommunications & Post Commission (EETT)</p> <p>Spain, Ministry of Economic Affairs and Digital Transformation</p> <p>Finland, Finnish Transport and Communications Agency (TRAFICOM)</p> <p>France, French National Frequency Agency (ANFR)</p> <p>France, French Regulatory Authority for Electronic Communications, Postal and Print media distribution</p> <p>France, French Ministry of Economy and Finance</p> <p>Croatia, Croatian Regulatory Authority for Network Industries (HAKOM)</p> <p>Hungary, National Media and Infocommunications Authority (NMHH)</p> <p>Ireland, Department of the Environment, Climate and Communications</p> <p>Italy, Ministry of Enterprises and Made in Italy</p> <p>Italy, Italian Communications Regulatory Authority (AGCOM)</p> <p>Luxembourg, Ministère d’Etat/ Service des médias, de la connectivité et de la politique numérique (SMC)</p> <p>Montenegro, Agency for Electronic Communications and Postal Services of Montenegro</p> <p>Malta, Malta Communications Authority (MCA)</p> <p>Netherlands, Ministry of Economic Affairs and Climate Change</p> <p>Norway, Norwegian Ministry of Digitalisation and Public Governance</p> <p>Norway, Norwegian Communications Authority (Nkom)</p> <p>Poland, Ministry of Digital Affairs</p> <p>Poland, RSPG Chair - Polish PermRep</p> <p>Portugal, Portuguese National Communications Authority (ANACOM)</p> <p>Sweden, Swedish Post and Telecom Authority (PTS)</p> <p>Slovenia, Agency for Communication Networks and Services of the Republic of Slovenia</p> <p>Ukraine, National Commission for the State Regulation of Electronic Communications</p> |
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| Key stakeholders | Telecom operators Vertical industries Equipment suppliers Research organisations |
| Other resources | |
| Other work items | |

Work flow (internal and external milestones)

| Date | Action / deliverable | Internal Sub-group only | External Plenary, Publication |
|------------------------------|---|----------------------------|----------------------------------|
| Year 2024 | | | |
| 22 April (Webex) | First meeting of sub-group - discussions on scope and plan following new <i>RSPG Work Programme</i> and new work item on <i>6G strategic vision</i> - proposal for table of contents and layout of deliverable presented by the co-chairs | Sub-group | |
| 16 May (Webex) | Second meeting of sub-group - further discussions on the draft content and MS contributions. - planning for a workshop / hearing with stakeholders in September 2024 (online). | Sub-group | |
| 18 June | Progress of work presented to RSPG Plenary #64 | Co-chairs | Plenary |
| 16 September (Webex) | Third meeting of sub-group - 6G strategic vision hearing plan discussion - revision of the draft report | Sub-group | |
| 27 September (Webex) | RSPG 6G strategic vision hearing - presentation of the 6G strategic vision work item to stakeholders - presentations on the topics of interest by stakeholders - discussion and conclusion by all participants | Sub-group | |
| 1 October (Webex) | Fourth meeting of sub-group - further discussions on the draft content of the report, including information from stakeholders as presented during the hearing and MS contributions. | Sub-group | |
| 29 October (Webex) | Fifth meeting of sub-group - Final discussions on the report before submitting to the RSPG plenary for approval and Public Consultation | Sub-group | |
| 13 November | Progress of work presented to RSPG Plenary #65 Draft report submitted for approval for Public Consultation | Co-chairs | Plenary |
| 16 November – 27 December | Public consultation on Draft Report (RSPG024-030) | | |

| Year 2025 | | | |
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| 22 January (Webex) | Sixth meeting of sub-group - Discussion and changes of the final report based on the responses received during the Public Consultation - Editing of the Final draft before submitting to the RSPG plenary for approval and publication | Sub-group | |
| 30 January | Seventh meeting of sub-group - Discussion and changes of the final report based on the responses received during the Public Consultation - Editing of the Final draft before submitting to the RSPG plenary for approval and publication | Sub-group | |
| 12 February | Progress of work presented to RSPG Plenary #65 Draft report submitted for approval for Publication | Co-chairs | Plenary |
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| Future dates and actions to be decided in light of work plan | | | |