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RADIO SPECTRUM POLICY GROUP

Work Programme for 2022 and beyond

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RADIO SPECTRUM POLICY GROUP

Work Programme for 2022 and beyond

The RSPG approved its previous Work Programme “2020 and beyond” in February 2020 which resulted in several RSPG Opinions and Reports adopted in 2021. Some of the work areas are permanent or ongoing such as the Peer Review, the good offices or the preparation of WRC-23. In this regard, the new Work Programme updates these work items and introduces new work items on several strategic spectrum issues.

RSPG has identified the following work items to be developed during the next years:

- Peer review and Member States cooperation on authorisations and awards
- WRC-23
- “Good offices” to assist in bilateral negotiations between Member States
- Mobile technology evolution – experiences and strategies
- Digital decade 2030
- The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks
- Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU
- Role of Radio Spectrum Policy to help combat Climate Change

The draft Work Programme for 2022 and beyond has been subject to public consultation from 25th November to 6th January. 34 responses were received from various stakeholders and the draft Work Programme has been modified to take into account comments and proposals. It was noted that many comments were already proposing some guidance on the work items and the RSPG will take them into account during the development of the relevant deliverables. Some other comments were addressing work methods, e.g. more transparency in the process of organising stakeholder workshop or in reporting peer review forum, which will be taken into account in the activities of RSPG and its sub-groups, noting that such work methods have to follow some rules, including Article 35 EECC for Peer Review.

In accordance with the provisions of the EECC it should be noted that there could be further requests for an RSPG Opinion from the Commission, the Council or the European Parliament.

Peer review and Member States cooperation on authorisations and awards

Rationale

This work item was originally established in 2017 to facilitate peer learning between Member States on spectrum awards and authorisation. Therefore, the RSPG hosts a voluntary “Peer Review” platform (EC CIRCABC website) allowing Member States to share documents and experience and to seek advice from their peers during the award design process. In addition, the RSPG holds Peer Review workshops to share experience and expertise on specific (planned or completed) awards.

According to Article 35 EEC, from 21 December 2020 on, this informal process is formalised for draft selection measures that are subject to Article 55 (2) EEC in relation to radio spectrum, which has been harmonised in accordance with Decision No 676/2002/EC in order to enable its use for wireless broadband networks and services. It is normally up to the national authority concerned to decide whether to subject its draft measure to a Peer Review Forum under Article 35 EEC. The RSPG may also exceptionally take the initiative to convene a Peer Review Forum where it considers that any draft measure would significantly prejudice the ability of the national authority to achieve the objectives set in Articles 3, 45, 46 and 47 EEC.

Scope of RSPG activity

With regard to harmonised spectrum, the RSPG uses the formalised processes (Peer Review Forum) according to Article 35 EEC.

In addition, the exchanges based on pre-existing workshops for past and future awards will continue. It is to be noted that this scope of the RSPG work is somewhat larger than anticipated in Article 35 EEC.

Planned type of deliverable

Peer Review Forums according to Article 35 EEC with regard to harmonised spectrum.

At the request of the concerned national authority: as appropriate, reports and opinions on voluntary Peer Review Forums, Article 35 (7), (9).

Annual reports according to Article 35 (8) EEC (published each February).

Informal workshops on upcoming and past awards.

Stakeholder workshops on awards and/or other relevant topics, as appropriate (at least twice a year).

Time schedule

Throughout the work programme period.

WRC-23

Rationale

The draft Agenda for the next World Radiocommunication Conference (WRC-23) has been defined at WRC-19. The RSPG has already started its work in order to prepare recommendations, including on European Union position(s), on items which are of particular importance for Union policies as early as possible in the preparation process for WRC-23. To this extent, the RSPG assists the European Commission in formulating its proposal for a council decision on the positions to be taken on behalf of the European Union in the International Telecommunication Union (ITU) WRC-23. Similar to the processes successfully carried out for past WRCs, RSPG will continue its work based on the recently published Interim Opinion on WRC-23¹.

The RSPG has recommended a forward looking approach on *EU coordination*² at WRC, which was successfully applied during WRC-19 (see RSPG *Report on the WRC-19 results*³).

Scope of RSPG activity

The RSPG plans to:

1. Prepare a Final Opinion for EU-positions on Agenda Items of WRC-23 with relevance⁴ to EU-policies in order to assist the European Commission in formulating proposals for a Council Decision.
2. Consider the timeline of a Public Consultation on the Final Opinion, taking into consideration the confidentiality of EU positions.
3. Possibly identify actions for the European Commission in order to provide political support to promote European Union position(s) in regular meetings between EC and non-EU countries.
4. Review and report on the outcome of WRC-23, including the Agenda for the next WRC, and identify any issues of relevance for EU spectrum policy.

Planned type of deliverable

RSPG Final Opinion on EU positions for WRC-23

RSPG Report on WRC-23 results

Time schedule

Based on the planned date of WRC-23 in November-December 2023 and on the time necessary for EC to propose a draft Council Decision:

- Draft Final Opinion on EU position for WRC-23: June 2022
- Final Opinion on EU position for WRC-23: November 2022
- RSPG Report on WRC-23 results: June 2024

¹ RSPG21-031; https://rspg-spectrum.eu/wp-content/uploads/2021/06/RSPG21-031final_RSPG_interim_opinion_WRC23.pdf

² RSPG19-009: http://rspg-spectrum.eu/wp-content/uploads/2013/05/RSPG19-009final_RSPG_Opinion_EU-coordination.pdf

³ RSPG20-022 ; https://rspg-spectrum.eu/wp-content/uploads/2020/06/RSPG20-022final-RSPG_report_WRC19.pdf

⁴ WRC-23 Agenda Items relevant to EU policies have been listed in the Interim Opinion on WRC-23. Additional items relevant to EU policies, not identified in the Interim opinion, could also be covered in the final opinion

“Good offices” to assist in bilateral negotiations between Member States

Rationale

The RSPG Good Offices function was originally established in 2012 based on opinion RSPG12-409⁵ to assist in bilateral spectrum management negotiations between its members and with third countries. The principle of radio spectrum cooperation among Member States was later enshrined into Article 28 of the EECC⁶. When Member States have difficulties in cross-border coordination or from harmful interference with another Member State, they may request the RSPG to use its good offices to address it. The good offices will investigate the matter and report to the RSPG.

In addition, at the request of a Member State prevented from using harmonised radio spectrum due to such cross-border harmful interference, the RSPG may adopt an opinion recommending a coordinated solution, in accordance with Article 28(3) EECC.

Scope of RSPG activity

The RSPG will investigate any coordination issues between Member States brought to its attention, including harmful interference issues, and will develop and propose appropriate solutions.

For cases within the scope of Article 28 (3) of the EECC, the RSPG may issue an opinion proposing a coordinated solution. At the request of any affected Member State, the European Commission may, taking utmost account of any opinion of the RSPG, adopt decisions to resolve cross-border harmful interferences.

The RSPG will continue to monitor the delivery of harmonised frequency bands, including the 700 MHz and the 3.6 GHz frequency bands and address the situations where a cross-border coordination agreement has not been reached, including with non-EU countries.

In addition, the good offices will continue to provide support to the European Commission for bilateral negotiations with countries outside EU.

Planned type of deliverable

RSPG opinion, where appropriate, in cases covered by Article 28(3) EECC

RSPG report, as appropriate.

Time schedule

Throughout the period of the work programme.

⁵ RSPG opinion on the process for EU assistance in bilateral negotiations with third countries and between EU countries
<https://rspg-spectrum.eu/rspg-opinions-main-deliverables/>

⁶ DIRECTIVE (EU) 2018/1972 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 establishing the European Electronic Communications Code.

Mobile technology evolution – experiences and strategies

Rationale

Over the course of the next 5-10 years many of the core bands and licenses are up for re-awards or reallocation in many member states. This comes in conjunction with the phasing out of both 2G and 3G technologies. There are some questions in relation with the implication of the technology neutrality principle, also in the context of the GSM Directive. Sharing experiences, lessons learned and strategies on an RSPG level will be a valuable tool for enabling and preparing for this mobile technology evolution.

Scope of RSPG activity

In the June 2021 RSPG Opinion on a Radio Spectrum Policy Programme⁷ this topic was introduced with the following wording:

“6.1. Migrating regulatory service obligations to the latest technologies

The RSPG recommends

- *the European Commission, when deviating from the principle of technology neutrality, to promote a particular wireless technology supporting services responding to EU public policies (i.e. e-call), to analyse the possible impact and respond to arising challenges. Such an analysis has to take note of the different stages of development of wireless technologies in Member States including the reasoning behind, like their support of national policies (i.e. 4G coverage, 5G coverage).*
- *European Commission and Member States should anticipate any impact of possible future phasing out of some legacy systems (2G, 3G, and 4G) in the next decade.”*

This work item would be a relevant initiative for carrying the issue forward, with a focus on the latter bullet.

Planned type of deliverable

Strategic stakeholder workshops

Report on practices, strategies and sharing experiences.

Possibly, RSPG Opinion

Time schedule

Stakeholder workshop and fact-finding spring 2022

Report (Public Consultation): November 2022

Final Report: February 2023

⁷ RSPG21-033 FINAL

Digital decade 2030

Rationale

In 2016, the European Commission (EC) Communication '*Connectivity for a Competitive Digital Single Market – towards a European Gigabit Society*'⁸ set out new connectivity objectives for the Union supported, among others, by 5G policy regulatory initiatives in Europe. This policy initiative has been updated with the publication of the Commission Communication "*2030 Digital Compass: the European way for the Digital Decade*"⁹. Widespread deployment of very high capacity networks including radio networks are among the main objectives stated by this policy initiative. In mid 2021, the European Commission launched a large consultation on the "*2030 Digital Compass*"¹⁰ and discussion¹¹ including various topics such as "governing digital decade", "digital infrastructure", "multi country projects".

RSPG contributed to the European Commission's targeted consultation on the "*2030 Digital Compass*" issued on June 22, 2021. In relation to spectrum matters, the RSPG Opinion¹² elaborated on potential actions relating to spectrum roadmaps and initiatives, spectrum management and support mechanisms for spectrum awards. These issues were partly addressed in questions 18, 52 and 53 and in a few other questions in this EC consultation.

The European Commission proposed on September 15, 2021 a 2030 Policy Program "*Path to the Digital Decade*" further to the Digital Compass and others policy initiatives. It sets in particular policy objectives on digital infrastructures convergent with European Green Deal goals. It targets in particular, in accordance with the 2030 Digital Compass, that all European households will be covered by a Gigabit network with all populated areas covered by 5G in 2030. The Digital targets set out by this proposal are intended to be reviewed by 2026. The EC intends to submit annually to the European Parliament and the Council a report on the "*State of Digital Decade*". According to this Commission's proposal, Member States should report to the EC on an annual basis the progress concerning the national Digital Decade strategic roadmaps which could include, for example, policies, measures, actions related to radio spectrum resources that have been or are committed to be allocated or assigned nationally. The EC proposes to recommend policies, measures and actions to be taken. Regarding spectrum these possible recommendations would be without prejudice to the possibility for the EC to propose a new Radio Spectrum Policy Programme (RSPP). This new EC initiative intends also to trigger multi Country Projects. In addition, the EC maintains International partnerships for the Digital Decade. This Work Item has been adopted during the negotiation on the Decision "*Path to the digital decade*".

RSPG already recommended spectrum harmonisation initiatives in support to 5G and will continue as appropriate in order to help the European Commission to launch harmonisation

⁸ COM/2016/0587 final - Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society - <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52016DC0587>

⁹ COM/2021/118 final Digital Compass: the European way for the Digital Decade <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52021DC0118>

¹⁰<https://digital-strategy.ec.europa.eu/en/consultations/consultation-and-discussion-forum-eus-2030-digital-decade-vision>

¹¹ <https://futurium.ec.europa.eu/en/digital-compass>

¹² RSPG Opinion in response to questionnaire on Digital Compass [Document RSPG21-037](https://www.rspg.europa.eu/Document/RSPG21-037)

initiatives or to develop roadmaps: i.e. 6 G (See RSPG Opinion on RSPP and response to Digital Compass questionnaire”) and in the International partnerships when addressing spectrum.

Scope of RSPG activity

The RSPG, as recalled in its Opinions on RSPP and Digital Compass⁵ is ready to advise the EC, the Council and the European Parliament as required, on matters within its areas of competence, in order to support a 2030 policy program “*path to the Digital Decade*”.

The RSPG intends to monitor this policy process and relevant follow up in particular on targets requiring additional initiative from RSPG which are not already covered by the other work items.

Planned type of deliverable

To be defined, as appropriate and if needed, further to the adoption of the 2030 “*path to digital decade*”

Time schedule

Throughout the period of the work programme

The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks

Rationale

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:

- RSPG Opinion on spectrum related aspects for next-generation wireless systems (5G), 30 November 2016
- RSPG Second Opinion on 5G networks (Strategic Spectrum Road Map Towards 5G for Europe), 30 January 2018
- RSPG Opinion on 5G implementation challenges (RSPG 3rd opinion on 5G), 30 January 2019.

These Opinions supported EU policies on 5G and triggered EU harmonisation and regulatory initiatives. As 5G networks have started to be authorised and deployed, the RSPG also developed a joint declaration with BEREC on spectrum-related EMF issues and an opinion on the additional spectrum and harmonisation needs as well as authorisation regimes for successful deployment of 5G, including for verticals:

- RSPG Opinion on Additional spectrum needs and guidance on the fast rollout of future wireless broadband networks, 16 June 2021

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 Services¹³ 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.

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).

Although this Work Item is mainly focusing on 6G, exchanges will also be organised with stakeholders to examine whether there is a need to address also spectrum demand for unlicensed devices, including WiFi, and the particular issue of non-terrestrial networks to maximize 6G coverage.

¹³ The SNS targets for 6G are: Fostering Europe's technological sovereignty in 6G by implementing the related research and innovation (R&I) programme leading to the conception and standardisation around 2025, as well as preparation for early market adoption of 6G technologies by the end of the decade. Mobilising a broad set of stakeholders will be key to address strategic areas of the networks and services value chain from edge- and cloud-based service provisioning to market opportunities in new components and devices beyond smartphones.

Scope of RSPG activity

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.

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.

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. This activity will include inviting presentations and/or organising stakeholders workshop, including to address the issue of spectrum demand for unlicensed devices, including WiFi, and of non-terrestrial networks to maximize 6G coverage.

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.

Planned type of deliverable

RSPG Opinion

High-level workshops addressing the entire industry including verticals are also envisaged.

Time schedule

Draft Opinion for Public consultation: January 2023

Final Opinion: June 2023

Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU

Rationale

In 2015, the RSPG published its Opinion on a “long-term strategy on the future use of the UHF band (470-790 MHz) in the European Union”¹⁴. In addition to recommendations regarding the availability of the 700 MHz band for mobile, the RSPG also expressed its vision about the long term use of the band 470-694 MHz, in particular in its recommends 7, 8, 9 and 11.

In 2017, this RPSG Opinion and the Lamy report recommended the main elements of the compromise which was the basis of the EU Decision 2017/899¹⁵ on “*the use of the 470-790 MHz frequency band in the Union*”. This Council and European Parliament Decision is providing legal certainty until 2030 to terrestrial broadcasting and PMSE in the frequency band 470-694 MHz.

Article 4 of EU Decision 2017/899 establishes that “*Member States shall ensure availability at least until 2030 of the 470-694 MHz (‘sub-700 MHz’) frequency band for the terrestrial provision of broadcasting services, including free television, and for use by wireless audio PMSE on the basis of national needs, while taking into account the principle of technological neutrality. Member States shall ensure that any other use of the sub-700 MHz frequency band on their territory is compatible with the national broadcasting needs in the relevant Member State and does not cause harmful interference to, or claim protection from, the terrestrial provision of broadcasting services in a neighbouring Member State. Such use shall be without prejudice to obligations resulting from international agreements, such as cross-border frequency-coordination agreements*”By mid 2021, the European commission launched a one year study “*to examine latest developments and trends that are relevant for the current and future use of the 470-694 MHz band*”¹⁶, in response to Article 7 of this decision⁴.

As an element of context, WRC-23, on the basis of the review of the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz, will consider possible regulatory actions in the 470-694 MHz band in Region 1 based on the results of the studies foreseen in Resolution 235 (WRC-15) , . It has to be noted that, regardless of any decision made at WRC-23, it does not impact EU Decision 2017/899 and does not create any obligation on the EU after 2030 to change the current harmonised use in the band 470-694 MHz.

Therefore, in order to support the European Commission to respond to Article 7 of the EU decision 2017/899, there is a need for the RSPG to contribute, from an EU perspective, with a strategic vision for sub-700 MHz spectrum use, including an analysis of latest developments¹⁷ with a review of the background and recommendations of the 2015 RSPG Opinion, and the consideration of possible post-2030 scenarios, taking into account what it is established in Article 4 of the EU Decision 2017/899.

¹⁴ Document RSPG15-595 FINAL

¹⁵ DECISION (EU) 2017/899 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union

¹⁶ <https://digital-strategy.ec.europa.eu/en/funding/study-use-sub-700-mhz-uhf-band-470-694-mhz-cnect2021mvp0020-deadline-24052021>

¹⁷ The Commission shall, in cooperation with the Member States, report to the European Parliament and to the Council on developments in the use of the sub-700 MHz frequency band, with a view to ensuring efficient use of spectrum, pursuant to the applicable Union law. The Commission shall take into account the social, economic, cultural and international aspects affecting the use of the sub-700 MHz frequency band pursuant to Articles 1 and 4, further technological developments, changes in consumer behaviour and the requirements in connectivity to foster growth and innovation in the Union.

Scope of RSPG activity

Building on the 2015 RSPG opinion, RSPG will investigate the latest development, as underlined in Article 7 of the EU decision 2017/899, relating to the band 470-694 MHz and develop a strategic vision for sub-700 MHz spectrum use beyond 2030. This includes the following:

- A review of the background and recommendations of its first opinion.
- Discuss how the flexibility set out in Article 4 could be implemented in practice.
- Develop/Describe possible and technically feasible scenarios concerning development of use in this frequency band with relevant key assumptions and conditions, including potential consequences in terms of EU harmonisation framework in this band, in particular for post-2030, and taking into account the links with content regulation.

This activity will not address WRC-23 agenda item 1.5 which remains to be addressed solely under the activity regarding the preparation of EU position for WRC-23.

This activity will be the first step for RSPG to support the European Commission in its response to Article 7 of the Decision. The priority of RSPG will be to address bullet 2 above. RSPG intends to develop subsequent opinions if necessary, in a timely manner.

Planned type of deliverable

RSPG Opinion

Time schedule

Draft Opinion for public consultation: February 2023

Final Opinion: June 2023

Role of Radio Spectrum Policy to help combat Climate Change

Rationale

The RSPG Opinion on the Role of Radio Spectrum Policy to help combat Climate Change provides a series of recommendations to the European Commission, Member States and stakeholders to continue the path towards a more environmentally-friendly society through the use of wireless technologies.

The Opinion suggests further avenues in terms of spectrum regulation, harmonisation, voluntary initiatives, information gathering, etc. It is also recognised that the relationship between sustainability and electronic communications is also covered elsewhere. For example, the BEREC ad-hoc group on Sustainability is aiming to complete a draft report recommending regulatory strategies to increase the sustainability of the digital sector (electronic communications networks in particular), amongst other things, by the end of 2021. Therefore this work should be followed closely in order to avoid a potential overlap.

Two particular points raised by the Opinion fall into the purview of activities of the RSPG and it is therefore proposed to continue working on those points in the RSPG:

- 1) The need for a common set of methodologies in order to understand and assess the impact of ECS wireless technologies on climate change, involving ECS stakeholders and all interested parties, and with a particular focus on the ECS radio component.
- 2) The importance of having accurate information on emissions and energy efficiency related to spectrum use on a national level (e.g. reports from network operators).

These activities will help Member States and the EC to take appropriate regulatory actions within the spectrum area in order to combat climate change.

Scope of RSPG activity

- Identifying methodologies to assess the energy efficiency of wireless technologies, including the influence of variables such as the frequency band, type of access technology, etc. Input from stakeholders (e.g. through a workshop) may be required.
- Collecting practices from Member States on how energy efficiency is measured and managed nationally in relation to the spectrum area, including how data to assess the energy efficiency is collected.
- Assess how efficient spectrum policies can facilitate a green digital transition of Europe, to reduce carbon emissions.

Planned type of deliverable

To be determined.

Time schedule

To be determined.