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Electronic Communications Networks and Services
Radio Spectrum Policy Group
RSPG Secretariat

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RSPG20-030 FINAL

RADIO SPECTRUM POLICY GROUP

Progress Report of the RSPG Working Group on Spectrum Sharing – Pioneer initiatives and bands

Progress Report to the Plenary of the sub-group on Spectrum Sharing

Following the activities described in the previous progress report (RSPG20-015), the work of the sub-group has continued in the direction of structuring the Opinion on Spectrum Sharing and drafting the sections of the document. In particular a Section containing a first set of draft recommendations has been prepared during the summer period and circulated for the first time at the meeting of 14 September.

In June the co-Chairs attended the GSMA roundtable, with a section on Spectrum Sharing. The debate was lively, yet on sharing the views of stakeholders were in substance not much different compared with the position expressed in December 2019 while commenting on the draft Work Programme. In particular, the GSMA expressed some concerns on the possibility of imposing obligations to the mobile operators on this matter, but in general the Association considers spectrum sharing as a good approach provided that it is applied to the proper bands.

In line with the mandate in the RSPG Work Programme, the sub-group is carrying out work to investigate the means to improve spectrum sharing and to implement innovative sharing solutions, including trials (sandboxes), pioneer scenarios/bands and new forms of licensing. In particular, the sub-group has deepened the investigation of the 'state-of-the-art' of the various technologies which can be used to enable/improve frequency sharing, focusing also on innovative sharing mechanisms able to facilitate broader and more sophisticated coexistence solutions. The sub-group has also analysed the possible types of spectrum sharing approaches (e.g. 'single-tier' and 'multi-tiered' shared access) leveraging on such technologies, also taking into account and highlighting the concrete national experiences on implementing spectrum sharing solutions (e.g. geolocation database, LSA, club use, etc.). Moreover, the sub-group has considered the developments of technologies related to 5G, which are expected to enable new sharing opportunities and paradigms, as well as of other technologies of the broader ICT sector, that might also be employed to realize an ever innovative and more efficient spectrum sharing, such as Artificial Intelligence and Blockchain. .

So this part of the work represents now a solid section on the regulatory and technical framework that allows the development of Spectrum Sharing. In particular the section on technologies and approaches should be seen as a toolbox aimed at enabling various forms of spectrum sharing, both in licensed and unlicensed bands.

Based on the above elements, the sub-group has started to elaborate on the possible policies and recommendations for increased spectrum sharing and for identifying key pioneer initiatives and bands, which are now under discussion. At the meeting of September the sub-group has discussed in particular on the extent which the Recommendations should cover, namely whether they should remain at a high and general policy level, or trying to outline more concrete actions, that on the other hand may become too regulatory prescriptive. For instance, in the assignment of ECS bands, a possible recommendation for Commission and Member States could be more generally to encourage the adoption of the "*use-it-or-share-it*" / "*share-it-or-lose-it*" principle, or recommending to verify the possibility of the introduction, not mandatory, at the time the rights of use are granted of specific provisions to share spectrum among licensed operators in order to achieve specific objectives according to the EECC. The analysis of the issue is just started and is going on.

Since the current version of the draft Opinion has a quite extensive part regarding the regulatory background and the analysis of the spectrum sharing technologies and approaches, the proposal of the sub-group to the Plenary is to make this main part an accompanying Report of the final Opinion, while keeping the section related to the recommendations as the actual Opinion, shorter and structured along the main lines of the work item.

The work has continued to be carried out by AVC meetings and written comments and ideas exchanged electronically. We would like to renew the thanks to the Commission for making the virtual

rooms available and providing support, and to the members of the sub-group for their valuable input so far.

Next steps

The ongoing planned drafting activities will continue to further proceed with the elaboration of the Opinion. The next meeting is scheduled for 27 October 2020 in AVC. By the end of this year, other two meetings could be held, if deemed necessary, the first one in November and the second one in December 2020.

On 15 October the RSPP SG is preparing a workshop with external stakeholders. A section of the agenda, within the Strategic Spectrum Issues, will be devoted to Spectrum Sharing and the co-Chairs will then have the possibility to stimulate the discussion and collect the stakeholders views on the matter.

The RSPP SG has expressed the need to receive some input from the Spectrum Sharing SG in order to develop the relevant section in their Opinion. So the Group will discuss at the next meetings how to address this issue.

Requests to the Plenary

Take note of the progress and provide any possible steering view.

Possibly agree with the proposal to split the deliverable into an Opinion and an accompanying Report.

The Rapporteurs

Mauro Martino

Julia Inmaculada Criado Casado

Annex

RSPG work item: Spectrum Sharing	
Work item	Spectrum sharing - Pioneer initiatives and bands
Rapporteurs	Mauro Martino (AGCOM, Italy), Julia Criado Casado (MINECO, Spain)
Rationale	<p>Today, spectrum sharing is rather static and, in some cases, overly conservative. As also highlighted by the results of the working group on European Spectrum Strategy, spectrum sharing needs further action, especially regarding its potential to achieve more efficient use of radio spectrum, and to give incentives for innovation. The promotion of the shared use of radio spectrum is also a key objective of the European Electronic Communications Code (EECC), as in Articles 45 (2e) and 46 (1).</p> <p>New technologies create new opportunities for more dynamic and efficient spectrum sharing. However, before such new technologies can be introduced on a wider scale, there is a need to build trust among users as well as Member States. Strategically, it is therefore important to facilitate trials, exchange of experiences and collaboration among Member States. A proof of concept helps facilitate a change in the mind-set.</p> <p>Therefore, the means to improve spectrum sharing and to implement innovative sharing solutions should be investigated, especially by promoting trials (sandboxes), pioneer scenarios/bands, new forms of licensing and a strategic focus on take-up of methods using databases and LSA. In addition, the development and market opportunities for methods, including Artificial Intelligence, should be studied with a view to making concrete proposals for coordinated actions at EU level that bring added value to the Member States.</p>
Scope	Building on the rationale and the previous relevant works from RSPG as well as taking into account different spectrum sharing options, this activity aims at investigating more dynamic spectrum sharing options, developing a roadmap for increased spectrum sharing and identifying key pioneer initiatives and bands.
Planned deliverable and timing	<p>RSPG Opinion.</p> <p>Time schedule:</p> <ul style="list-style-type: none"> • Draft Opinion: January 2021; • Final Opinion: June 2021.

Members, stakeholders and resources

Members and Observers	Austria, RTR Austria, BMLRT Belgium, BIPT Czech Republic, CTU Denmark, ENS European Commission Finland, TRAFICOM France, ANFR France, ARCEP Germany, BNETZA Germany, BMVI Greece, EETT Hungary, NMHH Ireland, DCCA
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	Italy, AGCOM Latvia, SAM Luxembourg, SMC Malta, MCA Norway, KMD Portugal, ANACOM Romania, ANCOM Slovenia, AKOS Spain, MINECO Sweden, PTS The Netherlands, MINEZK Turkey, BTK
Key stakeholders	
Other resources	CEPT ECC ETSI

Work flow (internal and external milestones)

Date	Action / deliverable	Internal Work group only	External Plenary, Publication
Year 2020			
6 th March (AVC meeting)	First meeting of the work group. Main items discussed: – scope and plan following the work item on Spectrum Sharing included in the new RSPG Work Programme; - organisation of the work for 2020; - draft index of the opinion; - collection of ideas on the main propositions of the opinion. Number of participants: 15 from 11 MS + EC	Work group	
7 th May (AVC meeting)	Second meeting of the work group. Main items discussed: – overall structure of the circulated draft opinion; - draft text section-by-section. Number of participants: 26 from 15 MS + 1 Obs + EC	Work group	
9 th June (Brussels)	Progress of the work presented to Plenary	Rapporteurs	Plenary
25 th June (AVC meeting)	Third meeting of the work group. Main items discussed: - feedback of the GSMA roundtable; - progress of the circulated draft opinion; - draft text section-by-section; - focus on possible recommendations (e.g. which bands to consider, which sharing approaches, ideas for cross border sharing and trial bands/sandboxes, etc.). Number of participants: 24 from 14 MS +EC	Work group	

Date	Action / deliverable	Internal Work group only	External Plenary, Publication
14 th September (AVC meeting)	Fourth meeting of the work group. Main items discussed: - progress of the circulated draft opinion; - draft text section-by-section; - focus on the draft recommendations; - proposal of moving some sections into an accompanying Report of the final Opinion; - possible participation in the workshop made by RSPP (15 October). Number of participants: 28 from 14 MS +EC	Work group	
7 th October (Brussels)	Progress of the work presented to Plenary	Rapporteurs	Plenary
27 th October (AVC meeting)	Fifth meeting of the work group – agenda to be defined.	Work group	
16 th November (AVC meeting)	Sixth meeting of the work group – agenda to be defined.	Work group	
15 th December (AVC meeting)	Seventh meeting of the work group – agenda to be defined.	Work group	
Future dates and actions to be decided in light of the work plan			