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RADIO SPECTRUM POLICY GROUP

RSPG report on the results of the public consultation on the Review of the EU Telecommunications Framework

RSPG REPORT

Results of the public consultation evaluating and reviewing the regulatory framework for electronic communications

Executive Summary

- The RSPG welcomes the public consultation evaluating and reviewing the regulatory framework for electronic communications. The European Commission held a timely consultation[1] on spectrum management and wireless connectivity and on institutional arrangements which gathered considerable interest from stakeholders in all Member States as well as from stakeholders from outside the Union.

- The RSPG notes that the synopsis[2] of the responses received to the consultation is more balanced than the short summary[3] of the public consultation available on the Digital Agenda web page. Having examined the responses received the RSPG is of the considered view that the synopsis provides greater visibility of the results of the public consultation.

- This public consultation confirmed common views which are highlighted in the synopsis but also shows a number of diverging views between respondents - for example the differing view of mobile operators and broadcasters, and those of the alternative operators' associations who highlighted national specificities and who expressed their general satisfaction with the current framework.

- EU spectrum policy for the Digital Single Market is broader than the Electronic Communications Services that the Framework Review focuses on. The RSPG is the expert body charged with providing recommendations to balance the interests of all spectrum users in line with EU policy objectives.

- The current regime has ensured the availability of harmonised technical conditions supporting the Digital Single Market. The current legal instruments (Spectrum Decision[4], RSPP[5]) were supported by respondents to the public consultation. The RSPG has delivered timely and influential recommendations on a number of strategic topics[6], including meeting the target in the RSPP of making 1200 MHz

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[1] The public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services took place from 11 September 2015 to 7 December 2015

[2] https://ec.europa.eu/digital-single-market/en/news/full-synopsis-report-public-consultation-evaluation-and-review-regulatory-framework-electronic

[3] https://ec.europa.eu/digital-single-market/en/news/summary-report-public-consultation-evaluation-and-review-regulatory-framework-electronic

[4] Decision 676/2002/EC of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision)

[5] Decision 2012/243/EU of the European Parliament and the Council

[6] See RSPG « the last 3 years » http://rspg-spectrum.eu/wp-content/uploads/2013/11/RSPG15-628-the_last_3_years.pdf

of spectrum available for wireless broadband, and it will continue to support the implementation of EU public policies.

- The RSPG is now considering recommendations to facilitate the quick introduction of 5G and to respond to ITS and IoT needs to benefit Europe. The RSPG will also work according to the target (such as aims, timing as appropriate) identified by the relevant EU public policy objectives. The RSPG could address conflicting demands and make recommendations accordingly.

- The RSPG is working to increase the exchange of best practices and knowledge sharing among national experts to facilitate more effective and efficient strategic spectrum management. The RSPG is also engaging in closer cooperation in overlapping areas with BEREC whose expertise is in competition issues on electronic communications.

- The RSPG is also implementing a "Peer Review" process to share best practices on a voluntary basis on spectrum awards. This will be done without imposing additional administrative burdens or delays to spectrum release.

- The RSPG is bringing its "Good Offices" expertise in resolving cross-border issues to the new and pressing issue of the re-purposing of the 700 MHz band for mobile broadband: helping to ensure timely spectrum re-planning across Europe.

- In doing all these tasks, the RSPG benefits from the contributions of CEPT and ETSI and stresses that the cooperation between those organisations is a key asset for Europe.

- The RSPG recognises the complexity of spectrum management and the need for coherent approaches reflecting the needs of all spectrum users. The RSPG will continue to provide visibility and understanding on spectrum management issues to policy makers. At this challenging time it is increasing its work with Member States and the Commission, and will take an active part in the ongoing Framework Review, as proposals are made and discussed in Council and the European Parliament.

**RSPG expresses the following views in reaction
to the results of the public consultation**

EU Spectrum Policy extends beyond Electronic Communications/Wireless Broadband

The public consultation focused logically on electronic communications and wireless Broadband due to the scope of the review. Nevertheless, the results of the public consultation confirmed the need for an EU Spectrum policy to consider EU objectives other than those related to electronic communications/wireless broadband. This demand was identified in the recent RSPG Opinion on the RSPP which highlights the importance of EU spectrum policies beyond wireless broadband. In line with this Opinion, the RSPG noted further, that no doubt was expressed concerning the right of Member States, individually or collectively, to organise and use their spectrum for public order, public security purposes and for defence.

Each sector is entitled to request access to the spectrum including those sectors responding to EU public policies which are not limited to wireless broadband. Sectoral demands, sometimes conflicting, must be equally addressed in order to develop harmonised measures including those in response to EU Policy objectives. EU Member States, with full visibility of national and European spectrum policies, are actively contributing within the CEPT and RSCOM structures to ensure the continuing development of harmonisation for applications such as PMSE, short range devices, earth-exploration satellite, radars, ITS, IoT, etc. EU Member States are also active in supporting EU public policy objectives requiring spectrum such as Galileo, Copernicus, Single European Sky (SESAR), road safety and connected/autonomous cars.

The RSPG recalls that spectrum demand from applications supporting EU public policy objectives requires a careful assessment especially if the spectrum targeted is already used by another application supported by another EU public policy (RLAN and ITS at 5.9 GHz, for example).

> **The Digital Single Market is broader than Electronic Communications/Wireless Broadband. The RSPG is the competent body able to provide recommendations to balance the interests of all spectrum users in line with EU policy objectives.**

The current regime has ensured the availability of harmonised technical conditions supporting the Digital Single Market

The harmonised use of spectrum is understood to be an essential driver of the large scale uptake of new applications and technologies across the digital single market. The RSPG notes the views expressed by a majority of respondents from a range of sectors confirming that the current regime, encompassing the CEPT and the RSC, has directly contributed to harmonised technical conditions. This is in line with the analysis of the RSPG which confirmed the benefit of maintaining the current legal instruments (Spectrum Decision, RSPP) and mechanisms in order to deliver harmonised technical conditions in a timely manner when requested either by the market or by EU public policies.

As highlighted by respondents to the public consultation, as regards the current spectrum governance, the technical side of harmonisation is seen by most respondents to be working well and achieving its objective of harmonising the least restrictive technical conditions. The one criticism which has been raised is the perception that the time taken to achieve harmonisation is too long – the challenge is how to make the current process faster. RSPG members are engaged in various multilateral processes to find the best solutions for Europe (see Annex 1). For example, 700 MHz harmonisation has been developed in a short time frame as requested by the European Commission. The RSPG is actively engaged in 5G, IoT and ITS and the "*Good offices*". The RSPG provided recommendations to successfully respond to the "*1200 MHz RSPP target*" for Wireless Broadband and relevant harmonised solutions have been developed in a timely manner. Harmonised spectrum suitable for 5G is already available in Europe. The RSPG is actively working to clarify these opportunities and to identify additional suitable spectrum which could respond to 5G needs.

Due to its diverse competence and its increasing interactions with stakeholders, the RSPG delivers recommendations to policy makers on how to respond to spectrum needs in relation to various EU public policies within the requested time scale. The deep involvement of EU Member States in CEPT, with active contributions from industry, and RSC ensures that further steps translating these policy recommendations into practical implementation (technical harmonisation) is fulfilled in a timely manner. In advance of the technical harmonisation process or in parallel, RSPG anticipates undertaking a spectrum policy initiative in order to support Digital Single Market objectives.

> **The current legal instruments (Spectrum Decision, RSPP) were supported by respondents to the public consultation. The RSPG has delivered timely and influential recommendations to policy makers to support the Digital Single Market, including meeting the target in the RSPP of making 1200 MHz of spectrum available for mobile broadband, and will continue to support the implementation of EU public policies.**

Importance of wireless connectivity and wireless broadband

The importance of wireless connectivity and wireless broadband is highlighted in the current RSPG work program which includes work streams on 5G and IoT. The RSPG recognises the need from the industry in general for co-ordinated approaches and regulatory certainty to support investments and possibilities in new wireless and mobile communications, including 5G, throughout the EU.

In its Opinion on 5G[7] the RSPG is contributing actively to the development of Europe's spectrum policy strategy regarding 5G. It provides visibility to policy makers and industry on spectrum suitable for the launching of the 5G ecosystem, whilst taking into account likely variations in demand between and within Member States and the need to meet the needs of all European consumers.

In addition RSPG work is also ongoing on IoT and ITS.

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[7] Currently under public consultation

As mentioned previously by the RSPG, the results of the public consultation confirmed the need for flexible and/or shared access to spectrum to meet the future demand for spectrum. The public consultation confirmed the need to ensure coexistence between various usages and regimes. The RSPG notes that vendors and operators insist on exclusive or licensed shared access to ensure the quality of services offered. Nevertheless the RSPG recalls that various forms of sharing are possible at the national level[8] and that the interest in LSA varies according to national context.

Furthermore, the RSPG notes the diverging views concerning the shared access to spectrum on the basis of general authorisation for wireless backhaul, the Internet of Things and M2M. This divergence confirms the need for different forms of authorisations to respond to various forms of market demands. The RSPG published its analysis on wireless backhaul[9] and will address 5G and IoT/M2M in several future RSPG deliverables.

> **The RSPG will address conflicting demands and recommend spectrum policies to facilitate the quick introduction of 5G, ITS and IoT for the benefit of European Interests. The RSPG will work according to the target (such as aims, timing as appropriate) identified by the relevant EU public policy objectives.**

The most effective process for awarding spectrum for wireless broadband

A number of respondents to the public consultation expressed diverging views on the most effective process for assigning spectrum for wireless broadband: auctions and hybrid models have been supported as well as general authorisations. The combination of those regimes has been recognised as largely effective and this is in line with previous analysis from the RSPG which confirmed that there is no one size fits all[10]. The main drawback of the general authorisation regime has been pointed out by the responses to the public consultation: it does not provide any rights of protection, neither in-band nor out of band.

The RPSG noted in particular the diverging views expressed on the example of two processes under either article 4 of Spectrum Decision or article 7 of the Framework Directive which have been proposed by the public consultation for the "Peer Review". As has been noted by the public consultation, RSPG is developing a "Peer Review" process: this includes a library function and peer assistance to share best practices on a voluntary basis on spectrum awards. RSPG, benefiting from its previous work on "good offices", will strengthen that capability without additional administrative burden or delays to early-mover initiatives.

The public consultation confirmed the RSPG understanding concerning pan EU or regional authorisations: a preponderance of answers to the public consultation viewed assignments/authorisations as national matters.

The RSPG notes that the current system has been criticised for not delivering services in a sufficiently coordinated and timely manner. The RSPG identified in its recent

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[8] see various RSPG deliverables on Sharing issues : RSPG 08-244, 10-306, 11-392, 13-538
[9] See RSPG 15-607
[10] See RSPG 16-004 Report on Efficient Awards and Efficient Use of Spectrum – section 4.2

Opinion on "*Future Spectrum challenges / implementation of the current RSPP and its revision to address the next period*" the need for improvement in that domain and publicly consulted on its analysis. The RSPG supports harmonisation of the radio spectrum when it delivers economies of scale for equipment, facilitates cross border use or reduces the complexity of cross border frequency coordination. However there may be occasions where harmonised spectrum is left unused or not heavily used because the demand for wireless BB services is not the same across EU countries. As a consequence, the RSPG prefers a band by band analysis and provided recommendations in this Opinion for the 700 MHz, 1452-1492 MHz and 2.3-2.4 GHz bands. The RSPG welcomes in particular the European Commission initiative on 700 MHz on technical conditions and additional policy measures to make the band available for ECS in line with the RSPG's proposal.

Mobile operators supported greater coordination of assignment processes. This has been identified by the RSPG in its recent analysis when developing the Report on "*Spectrum Awards and Efficient Use of Spectrum*" and it's Opinion on the "*Review of the Radio Spectrum Policy Programme*". A number of economic operators expressed a need for general principals and objectives. Further to the public consultation, the RSPG provided a framework for approaching spectrum awards design based on experiences from Member States on awards conducted to date (see Annex 1 : "*Spectrum Awards analytical framework*" of the report on "*Spectrum Awards and Efficient Use of Spectrum*").

Member States and NRAs will benefit from the sharing of best practices regarding Mobile Broadband coverage including where commercial interest is low. In particular, this will help to facilitate, from a spectrum management perspective, the deployment of mobile broadband networks including in denser areas. The RSPG noted in particular for such networks that other measures beyond spectrum management are needed to support the deployments of denser networks and supports improvements of these regulation and frameworks.

> **The RSPG will increase the exchange of best practices, know-how and knowledge sharing among national experts to facilitate a more effective and efficient process according to the regulatory framework. The RSPG is engaging in closer cooperation in overlapping areas with BEREC (having expertise in competition issues on electronic communications and national markets).**
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> **The RSPG is implementing a "Peer Review" process to share best practices on a voluntary basis on spectrum awards and will strengthen that capability without imposing additional administrative burden or delays on early-mover initiatives.**

Cross-border coordination issues

The public consultation addressed the outcomes of cross-border coordination efforts between Member States including the "good offices" provided by the RSPG.

The RSPG recognises that the cross-border coordination issues have been addressed by the public consultation due to its relation with 800 MHz and, in future, with 700 MHz in respect of EU harmonisation objectives. In both cases, Member States had (or still have for some of them) to migrate TV broadcasting below 790 MHz (in future

below 694 MHz) in order to make these two frequency bands available for Mobile Broadband. This means finding a new "TV plan" with various neighbouring countries, including EU and non EU Members States in some cases (i.e. distribution of TV channels which can be used at the border of each country).

The RSPG would like to highlight that the concept of "equitable access" raised by the public consultation may raise difficult interpretation issues. The RSPG Report on "*proposed spectrum coordination approach for broadcasting in the case of a reallocation of the 700 MHz band*" stresses that this is not only the number of TV channels available at the border which need to be considered but also the relevant technical conditions to be implemented at the border of each country: i.e. the level of interference accepted by each country, the size of the SFN, etc. In this circumstance, "equitable access" is reached when administrations signing a cross-border agreement are satisfied with the agreement (i.e. the agreement is satisfying their needs). The RSPG highlights that it would be pointless to try to define in quantitative terms the "equitable access".

For the 700 MHz issue, the RSPG recognises that its "good offices" may be important to anticipate any blocking situation in cross border negotiation and to help in solving them in due time.

At this stage, EU Member States are actively cooperating bilaterally or multilaterally among themselves and with countries outside the EU to develop cross border coordination agreements to migrate broadcasting below 694 MHz. This action is in line with the RSPG Report on "*proposed spectrum coordination approach for broadcasting in the case of a reallocation of the 700 MHz band*"[11] which recommended that "the negotiation approach should preferably, similarly to the 800 MHz, be based on bilateral and multilateral coordination with coordination groups such as WEDDIP " and
- to encourage the creation of new groups if needed; and
- to ensure that the discussions in these groups would result in multilateral formal agreement(s); and
- to define a realistic deadline, consistent with the implementation objective.

The regional initiative, WEDDIP, paved the way for 700 MHz cross-border coordination between UK, the Netherlands, Belgium, France, Luxembourg, Germany and Ireland with an agreement signed in April 2016. In order to facilitate the optimisation of the usage of frequency resources and operation without harmful interference of services in the UHF band other regional initiatives are NEEDIF[12] and SEDDIF[13]. The SEDDIF was established in October 2015 and according to the agreed timetable the work will be finalized in the second half of 2017.

Moreover, the RSPG noted that a relevant "realistic deadline" has been proposed by the European Commission for the Decision on 700 MHz band (i.e., end December

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[11] RSPG 13-524

[12] NEDDIF (North-Eastern Digital Dividend Implementation forum) Austria, Czech Republic, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic

[13] SEDDIF (South European Digital Dividend Implementation Forum): Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Montenegro, Macedonia, Serbia and Slovenia

2017, as recommended by RSPG) [14]. A mandatory date for EU Member states to reach cross-border agreements between themselves is foreseen.

The RSPG will publish later this year a report on the RSPG good offices which will explain RSPG activity in relation to cross-border co-ordination issues over recent years.

> **The RSPG highlights that its "*Good Offices*" will be the right tool in helping to implement an ambitious approach to the 700 MHz band. In particular, RSPG will extend its "*Good Offices*" programme of work to a new project, focusing on 700 MHz spectrum re-planning and clearance, particularly on issues of cross-border co-ordination.**

Active cooperation between ETSI and CEPT: a key asset for Europe

The RSPG notes that the public consultation did not address properly the current active cooperation between ETSI, the CEPT and the European Commission.

Nevertheless, the European Commission engages in strategic standardisation initiatives in order to support the implementation of the Digital Single Market[15]. This includes among others: Internet of Things and 5G communications. The European standards organisations, such as ETSI, will play a role in this context.

The RSPG recalls that the current well established and fruitful cooperation[16] between ETSI, as a European standards organisation developing "world class" standards in Europe for global use, and CEPT, developing technical conditions for the harmonised usage of spectrum in Europe, ensures the full coherence between standards and spectrum regulation and is a key asset for spectrum usage in Europe in particular with regard to the 5G, IoT and ITS foreseen challenges. In its respective deliverables, currently under development, the RSPG will also take into account these activities.

The RSPG has already highlighted the key role of this cooperation to ensure a single market for radio equipment ensured by the Radio Equipment Directive (see relevant section of the RSPG Opinion on the review of the Radio Spectrum Policy Programme).

> **The RSPG benefits from the contributions of CEPT and ETSI and stresses the importance of the fruitful cooperation between those organisations**.

Significant support for the role of RSPG

The potential of the RSPG´s capabilities in the development of European spectrum policy should be exploited. The current Framework offers the possibility for the European Parliament and Council to request Opinions from RSPG. This tool has

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[14] Under negotiation in the Council and in the European Parliament

[15] ICT Standardisation Priorities for the Digital Single Market – communication from The European Commission - COM(2016) 176 final

[16] http://www.cept.org/ecc/who-we-are/ecc-and-etsi/; http://www.etsi.org/technologies-clusters/white-papers-and-brochures/e-brochures

never been used. The RSPG Chairman had the opportunity to speak last year at a working session of the relevant EP committee in charge of DSM/spectrum issues. This initiative was welcomed and should be replicated in the future. The RSPG recalled in its recent deliverables its willingness to be more active in the process without introducing administrative burden.

The RSPG noted the significant support for the role of RSPG in assisting and advising the European Commission on radio spectrum policy issues. The interplay between the national experts and the European format is seen to be working well. The RSPG appreciates the proposal in the European Commission Digital Single Market strategy that it plays a more active role and is engaging in line with it. The RSPG contributed to the initial phase of review process of the Electronic Communications Framework and will continue to do so, in particular, in the on-going debate with the Council and the European Parliament according to its work program.

> **RSPG is increasing its common work between Member States and with the Commission and will take an active part in the current review process including with the Council and the European Parliament.**

A more active cooperation with relevant stakeholders

As requested by the public consultation, RSPG is engaging in more active cooperation with relevant stakeholders. In particular, it held a workshop on 30 March 2016 introducing the 2016 RSPG work program which attracted more than 100 participants and any further written contributions were invited.

Active cooperation with BEREC

The RSPG is also actively engaging with BEREC having organised a number of joint workshops to understand spectrum related aspects from the competition perspective as far as electronic communications is concerned as well as from the spectrum policy perspectives.

> **The RSPG recognises the complexity of spectrum management and the need for coherent approaches reflecting the needs of all spectrum users. The RSPG will continue to provide better visibility and understanding on spectrum management issues to policy makers and will respond to requests for clarification.**

Annexes
1. Various forms of cooperation in spectrum management
2. Example of active sectoral organisations in spectrum issues in Europe.

Annex 1: Various forms of cooperation in spectrum management

Beyond Spectrum Policy, in order to ensure an efficient usage of spectrum, to avoid interferences, to ensure harmonisation and economy of scale, etc., a strong and fruitful cooperation between countries has been established for decades at international (ITU-R) and European (CEPT) level. European Members States of the European Union are active participants within these well recognised entities, recognised by countries and by various sectors (spectrum users, suppliers).

- For a complete preparation of a WRC at ITU-R and to meet EU interests, it is essential for EU Member States to include the view and policies on spectrum issues with community relevance as early as possible. In this regard it should be noted that administrations from EU Member States have a significant influence within the CEPT preparation process as they constitute the majority of CEPT administrations.

- At CEPT level, cooperation between 48 countries, including countries beyond EU, ensures harmonisation beyond the EU to the benefit of the EU Single market.

It is in the interest of many sectors, if not of all sectors, to benefit from global or regional harmonisation: economies of scale, reduction of costs, harmonised usage and sharing of resources of competence, security. In a number of domains, such as civil aviation, maritime and scientific services, allocation of spectrum is harmonised at global level. Even the use of spectrum by the defence sector is, where possible, harmonised. Sectoral organisations are well established and organised in order to contribute to the above process and to benefit from harmonisation measures. A large number of organisations are contributing via CEPT to the development of regional harmonisation measures and in the preparation of WRC position (see annex 2) to the benefit of Europe.

This confirmed that even if spectrum is a national resource, it is not managed in isolation and requires different forms of cooperation:
- Cooperation between EU Member States and the European Commission as requested by the Radio Spectrum Policy Programme: This is mainly done via the RSPG and the RSCOM.
- Cooperation between EU Members States and others countries in Europe: This is mainly done via CEPT, where EU member States have a great influence, and in IUT-R, where CEPT has a strong influence
- Cooperation with sectoral organisations: This is mainly done from a technical perspective via the CEPT[17]. It could be increased from the spectrum policy perspective within RSPG.
- Cooperation within sectors: A large number of sectoral entities are already active on spectrum issues in Europe (see Annex 2).

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[17] See list of Memorandum / Letters of Understanding partners : http://www.cept.org/ecc/mous-and-lous-between-ceptecc-former-erc-and-other-organisations/

Annex 2: Example of active sectoral organisations in spectrum issues in Europe. This list is far from exhaustive.

Automotive: The European Automobile Manufacturers Association, Car 2 Car Communication consortium Forum, European Association of Operators of Toll Road Infrastructures

PMSE: Association of Professional Wireless Production Technology

Broadcasting: European Broadcasting Union, Broadcast Networks Europe, the Broadcast Mobile Convergence Forum, Digital Europe, the European HD Radio Alliance, and World Forum for Digital Audio Broadcasting

Cable: Cable Europe (European Cable Communications Association)

Mobile/wireless broadband: GSM Europe/GSM Association, The European Telecommunications Network Operators' Association, Digital Europe, Universal Mobile Telecommunications System, Global mobile Suppliers Association, WI-FI Alliance, Global TD-LTE Initiative, WIMAX Forum, DECT Forum, Small Cell Forum

Railways: International Union of Railways, ERA

Radio Astronomy: The Committee on Radio Astronomy Frequencies of the European Science Foundation

Meteorological: Network of European Meteorological Services

Radio Amateurs: International Amateur Radio Union

Maritime: International Maritime Organisation

Satellite: ESA, Mobile Satellite Users Association, ESOA

Defence / Public Safety: NATO, Forum Public Safety Communication Europe