



**EUROPEAN COMMISSION**  
Information Society and Media Directorate-General  
Electronic Communications Policy  
**Radio Spectrum Policy Group**  
**RSPG Secretariat**

Brussels, 03 April 2012  
DG INFSO/B4/RSPG Secretariat

**RSPG12-415 - Final**

**PUBLIC DOCUMENT**

## **RADIO SPECTRUM POLICY GROUP**

**Subject: Request for an Opinion on Strategic Challenges facing Europe in addressing the Growing Spectrum Demand for Wireless Broadband**

## Request for an Opinion on

### STRATEGIC CHALLENGES FACING EUROPE IN ADDRESSING THE GROWING SPECTRUM DEMAND FOR WIRELESS BROADBAND

#### 1. INTRODUCTION

The identification of spectrum to address the growing demand for broadband services has taken the central stage in European spectrum policy. Furthermore, the European and international regulatory environments have recently evolved with the adoption of the first Radio Spectrum Policy Programme and with the results of the World Radio Conference 2012 respectively. Therefore, the European Commission seeks the advice of the RSPG on the strategic issues and challenges to be addressed in Europe in order to meet the objective to satisfy the demand for wireless broadband services in the context of the latest regulatory environment. This also aims at providing transparency on the policy approach, and to provide stakeholders with information which may be useful in establishing their own individual plans, including planning and timing elements.

The envisaged time frame should include both the period 2012-2015 where the Council and European Parliament have already set an objective of a minimum of 1200 MHz to be available for wireless broadband but also extend to the period 2015-2020 which coincides with the longer tail of the Digital Agenda for Europe.

#### 2. MOST RELEVANT REGULATORY ELEMENTS

##### 2.1. Radio Spectrum Policy Programme (RSPP): target of a minimum of 1200 MHz of spectrum to be available by 2015

Article 3 of the Radio Spectrum Policy Programme<sup>1</sup> states:

*“In order to focus on the priorities of this Decision, Member States and the Commission shall cooperate to support and achieve the following policy objectives: [...] seek to allocate sufficient and appropriate spectrum in a timely manner to support Union policy objectives and to best meet the increasing demand for wireless data traffic, thereby allowing the development of commercial and public services, while taking into account important general interest objectives such as cultural diversity and media pluralism; to that end, every effort should be made to identify, based on the inventory established pursuant to Article 9, at least 1200 MHz of suitable spectrum by 2015. That figure includes spectrum already in use; [...]”*

Article 9 of the RSPP provides for the establishment of an inventory of spectrum use between 400 MHz and 6 GHz. The inventory shall serve, inter alia,

---

<sup>1</sup> The Radio Spectrum Policy Programme (Decision n. 243/2012/EU) will enter into force on 10 April 2012.

*“to help identify frequency bands that could be allocated or reallocated in order to improve their efficient use, promote innovation and enhance competition in the internal market, to explore new ways for sharing spectrum, to the benefit of both private and public users, while taking into account the potential positive and negative impact of allocation or reallocation of such bands and of adjacent bands on existing users; [...]”.*

## **2.2. Radio Spectrum Policy Programme (RSPP): assessment of the future demand for wireless broadband**

With respect to the general assessment of future demand for wireless broadband services, Article 6 paragraph 5 of the RSPP states that:

*“Member States shall, in cooperation with the Commission, continuously monitor the capacity requirements for wireless broadband services. On the basis of the results of the analysis referred to in Article 9(4) [the inventory, n.o.e.], the Commission shall assess and report to the European Parliament and the Council by 1 January 2015 on whether there is a need for action to harmonise additional frequency bands.”.*

With regards to the inventory in reference above, proposals for a methodology have to be adopted by the Commission as implementing measures, taking utmost account of the views of the RSPG, by 1 July 2013, as per article 9, paragraph 2, of the RSPP. In this respect, the RSPG has already adopted an Opinion on the “Review of spectrum use”<sup>2</sup> which will be the main input in response to the RSPP requirements regarding the inventory. The work on methodology is now ongoing in the Radio Spectrum Committee.

## **2.3. Result of the ITU World Radio Conference 2012**

On 17 February 2012 the World Radio Conference (WRC-12) approved the following Resolutions having force of international treaty.

a) Resolution COM5/10 (provisional number) on the “Use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and the related study” where ITU resolves:

*“1. to allocate the frequency band 694-790 MHz in Region 1 to the mobile, except aeronautical mobile, service on a co-primary basis with other services to which this band is allocated on a primary basis and to identify it for IMT”;*

*“2. that the allocation in resolves 1 is effective immediately after WRC-15”*

[...] *“4. that the lower edge of the allocation is subject to refinement at WRC-15, taking into account the ITU-R studies referred to in invites ITU-R below and the needs in countries in Region 1, in particular developing countries”*

and

*“5. that WRC-15 will specify the technical and regulatory conditions applicable to the mobile service allocation referred to in resolves 1, taking into account the ITU-R studies referred to in invites ITU-R below”.*

---

<sup>2</sup> RSPG-12 408 Rev.1

In order to fulfil the tasks of the above resolves, ITU decided to start the appropriate study for the spectrum requirement for the mobile service and for the broadcasting service in the 700 MHz frequency band, in order to determine as early as possible the options for the lower edge referred to in resolves 4 and for the channelling arrangements for the mobile service to be adopted in the frequency band below 790 MHz.

b) Resolution COM6/8 (provisional number) on the “Studies on frequency-related matters on International Mobile Telecommunications and other terrestrial mobile broadband applications” where ITU resolves:

1. to study additional spectrum requirements, taking into account:

- technical and operational characteristics of IMT systems, including the evolution of IMT through advances in technology and spectrally-efficient techniques, and their deployment;
- the bands currently identified for IMT, the technical conditions of their use, and the possibility of optimizing the use of these bands with a view to increasing spectrum efficiency;
- the evolving needs, including user demand for IMT and other terrestrial mobile broadband applications;
- the needs of developing countries;
- the time-frame in which spectrum would be needed;

2. to study potential candidate frequency bands, taking into account the results of the studies under resolves 1, protection of existing services and the need for harmonization;

### **3. REQUEST FOR OPINION**

This Request for an Opinion reflects the intention expressed by the RSPG in its Work Programme 2012 to address the issue of future spectrum for wireless broadband as well as the new elements mentioned in the introduction and background section above.

The Commission seeks therefore the advice of the RSPG on the strategic impact of the growing demand for wireless broadband services on spectrum already used by other services. In particular the Commission requests the RSPG to examine the possible evolution of existing services operating in the frequency bands that are the most likely to be affected in the future, for example the broadcasting service operating in the 700 MHz of the UHF band.

The Commission is also looking for an assessment of the strategic options in terms of spectrum re-organisation and re-allocation in order to meet the future demand wireless broadband and the key objectives of the Digital Agenda while minimising the impact on other services. On the basis of this strategic assessment, the RSPG should also present guidance to enable a common "roadmap ahead" in the context of the single market for digital services.

More specifically, the requested Opinion on "**Strategic challenges facing Europe in addressing the growing spectrum demand for wireless broadband**" should:

- Assess the possible solutions and options for meeting the future demand for wireless broadband services in the time frame 2013-2020, including the intermediate target in the RSPG to make 1200 MHz of spectrum available for wireless data traffic by 2015. This should include a specific consideration of the

bands already earmarked by the European Parliament and Council, i.e. the 700 MHz band, the 1.5 GHz band and the 2.3 GHz band. The RSPG should also assess the economic and social implications of the various options at macro level.

- Indicate to which extent shared spectrum access could also contribute to meet the demand for spectrum for wireless broadband by reducing the need for dedicated frequency bands. This aspect will require a close liaison with the other RSPG activities related to shared use of spectrum.
- To come forward with guidance for a common "roadmap ahead" which would strengthen the single market for digital services, including options for future harmonisation, while noting the different situations existing in Member States.

In developing this Opinion, the RSPG work should be carried out in close coordination with the other ongoing processes (such as the inventory or the interim results of the ITU and CEPT studies), as well as with the other related RSPG activities such as the Opinion on cross border spectrum coordination and the Report on strategic sectoral needs (the latest in particular to assess possible methods/timing elements of a "common roadmap" in the area of cross-border spectrum coordination).

#### **4. ORGANISATIONAL ASPECTS**

Deliverable:	RSPG Opinion
Timing:	Early to mid 2013
Public Consultation:	Yes