EUROPEAN COMMISSION
Information Society and Media Directorate-General

Electronic Communications Policy
Radio Spectrum Policy

Brussels, 23 March 2012
DG INFSO/B4

ADOPTED

MANDATE TO CEPT
ON TECHNICAL CONDITIONS REGARDING SPECTRUM HARMONISATION FOR TERRESTRIAL WIRELESS SYSTEMS IN THE 3400-3800 MHZ FREQUENCY BAND

1. PURPOSE

In line with the requirements of Article 4[1] of Commission Decision 2008/411/EC[2] (hereinafter: the Commission Decision), which stipulates regular and timely review of this Decision, the main objective of this mandate is to review and amend the technical conditions for the harmonised use of the 3400-3800 MHz frequency band in order to adapt them to the latest developments in technology by preserving flexibility of use in line with the WAPECS approach. This mandate also takes into account the proposal by CEPT/ECC presented in a liaison statement to the Commission for the 38th RSC meeting of 15 December 2011 (RSCOM11-68) to consider amending the technical conditions with a view to updating the Block Edge Mask (BEM) and introducing harmonized frequency arrangements.

The deliverables of this Mandate should aim at ensuring flexibility in the deployment of wireless electronic communications services with different bandwidths, including 20 MHz and beyond, assuming mobile broadband access as a key utilization of the band. This Mandate is a follow-up to the first Commission Mandate of 4 January 2006, and it should promote efficient use of spectrum while keeping maximum flexibility in the scope of compatible wireless systems capable of providing electronic communications services which can be deployed.

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[1] Art. 4 reads: "Member States shall keep the use of the 3400-3800 MHz band under scrutiny and report their findings to the Commission to allow regular and timely review of the Decision."

[2] Commission Decision of 21 May 2008 on the harmonisation of the 3400-3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community

2. JUSTIFICATION

Pursuant to Article 4(2) of the Radio Spectrum Decision[3] the Commission may issue mandates to the CEPT for the development of technical implementing measures with a view to ensuring harmonised conditions for the availability and efficient use of radio spectrum; such mandates shall set the task to be performed and the timetable therefore. Therefore, CEPT is herewith mandated to undertake the work required to identify the most appropriate technical criteria for the inclusion of new technologies and frequencies in the Commission Decision in order to facilitate further deployment of wireless broadband access systems in the European Union.

The first Mandate given by the Commission to CEPT in January 2006 on this issue led to the final CEPT Report 15 of 30 March 2007 (RSCOM07-06 Final) and subsequently to Commission Decision 2008/411/EC[2], which was adopted by the Commission on 21 May 2008. CEPT Report 15 concluded that deployment of fixed, nomadic and mobile electronic communications networks is technically feasible within the 3400-3800 MHz frequency band under the technical conditions described in the ECC Decision ECC/DEC/(07)02 and Recommendation ECC/REC/(04)05.

The deployment of wireless broadband technologies is crucial for increasing economic growth and social inclusion in line with targets of the Europe 2020 strategy. With its large total bandwidth, the 3400-3800 MHz frequency band has a significant potential to accommodate different types of wireless broadband access systems for the provision of a wide range of innovative electronic communications services. Since the adoption of Commission Decision 2008/411/EC wireless broadband technologies (e.g. LTE or Wi-Fi) have marked further development in terms of increased data rates and channel bandwidths. Therefore, a review of the harmonised technical conditions with view to a possible update in pace with recent technology developments would promote take-up of the spectrum in this band and contribute to achieving the DAE targets on broadband connectivity.

Furthermore, the draft Radio Spectrum Policy Programme (RSPP), which has already been formally adopted by both the Council and the European Parliament and is expected to enter into force by the end of April 2012, sets out the objective to promote wider availability of wireless broadband services for the benefit of citizens and consumers in the Union also by making available the 3400–3800 MHz band under the terms and conditions of the Commission Decision 2008/411/EC. Subject to market demand, Member States shall carry out the authorisation process for this band by 31 December 2012 without prejudice to the existing deployment of services, and under conditions that allow consumers easy access to wireless broadband services. The RSPP also stipulates that Member States foster the ongoing upgrade by providers of electronic communications of their networks to the latest, most efficient technology, in order to create their own dividends in line with the principles of service and technology neutrality[4].

In addition, in the aforementioned liaison statement (RSCOM11-68) CEPT/ECC point out that a recent ECC analysis has revealed that the Block Edge Mask (BEM) contained in the Commission Decision 2008/411/EC[5] is not suitable for wireless communications networks of large bandwidths (such as 20 MHz). It is stressed that while the currently valid BEM of

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[3] Decision 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community, OJL 108 of 24.4.2002

[4] Article 6 of the RSPP

[5] Based on the BEM included in ECC Recommendation ECC/REC/(04)05

the Commission Decision is justified in the absence of commonly agreed frequency arrangement and where maximum flexibility is needed for broadband wireless access deployments, it would be too restrictive if harmonized frequency arrangements were adopted. In this regard, the CEPT/ECC report presented at the 38th RSC meeting (RSCOM11-63, Annex 4) concludes that the currently valid BEM is not suitable for the introduction of fixed and mobile communications networks due to several reasons including considerations on the type of application, antenna gain, blocking, guard bands as well as spectrum emission masks developed by ETSI.

Therefore, modification of the currently valid BEM of the Commission Decision should be investigated in view of the possibility to introduce harmonised frequency arrangements, in order to take into account the developments in wireless communications technology and facilitate the spectrum-efficient deployment of broadband fixed, mobile and nomadic communications systems for the provision of electronic communications services, while observing the principles of technology and service neutrality enshrined in the EU regulatory framework.

In recognition of the fact that there are existing applications and there may be future applications in the 3400-3800 MHz frequency band other than terrestrial wireless broadband, particular attention should be paid to ensuring co-existence with existing systems, in particular satellite-based.

3. TASK ORDER AND SCHEDULE

In the work carried out under the Mandate, the overall policy objectives of supporting widespread and timely availability of wireless broadband access shall be given utmost consideration. In implementing this mandate, the CEPT shall, where relevant, take the utmost account of EU law applicable and support the principles of service and technological neutrality, non-discrimination and proportionality insofar as technically possible. CEPT is also requested to collaborate actively with the European Telecommunications Standardisation Institute (ETSI) which develops harmonised standards for conformity under Directive 1999/5/EC.

CEPT is hereby mandated to undertake the following activities:

(1) Assess and justify any need to revise the common minimal (least restrictive) technical conditions, including BEM, which underlie the harmonised use of in the 3400-3800 MHz frequency band in the EU[6] and, if necessary, identify modified conditions in view of accommodating developments in wireless broadband access technology in particular larger bandwidths. These conditions should be sufficient to avoid interference, facilitate cross-border coordination, and ensure co-existence with other existing systems and services in the same band and adjacent bands.

(2) Assess and justify any need to introduce channelling arrangements in addition to (1) and, if necessary, develop a harmonised solution that is sufficiently precise for the development of EU-wide equipment.

In performing the aforementioned tasks, avoid undue discrimination towards any specific technology and service, also allowing to the greatest extent possible alternative channelling arrangements and effective coordination with other existing systems and

[6] In compliance with Commission Decision 2008/411/EC

services to accommodate national circumstances and market demand, and the guidance provided by the Commission in consultation with the Radio Spectrum Committee[7].

CEPT should provide deliverables according to the following schedule:

Delivery date	Deliverable	Subject
December 2012	Interim Report from CEPT to the Commission	Description of work undertaken and interim results under this Mandate.
July 2013[8]	Final Draft Report from CEPT to the Commission	Description of work undertaken and final results under this Mandate
November 2013	Final Report from CEPT to the Commission, taking into account the outcome of the public consultation	Description of work undertaken and final results under this Mandate taking into account the results of the public consultation

In addition, CEPT is requested to report on the progress of its work pursuant to this Mandate to all the meetings of the Radio Spectrum Committee taking place during the course of the Mandate.

The Commission, with the assistance of the Radio Spectrum Committee pursuant to the Radio Spectrum Decision, may consider applying the results of this mandate in the EU, pursuant to Article 4 of the Radio Spectrum Decision.

[7] RSCOM10-28 (June 2010): "Effective implementation of Commission Decision 2008/411/EC on 3400-3800 MHz"

[8] Subject to subsequent public consultation