

**ABERTIS TELECOM COMMENTS ON RSPG
PUBLIC CONSULTATION ON THE DRAFT
OPINIÓN CONCERNING RSPP**

INTRODUCTION

abertis telecom, the leading broadcaster network operator in Spain, welcomes the opportunity to express its views on the draft RSPG Opinion on the Radio Spectrum Policy Programme and the opportunity to make a contribution which is the object of this public consultation.

abertis telecom recognises the importance of this process and believe in the potential that new technology and digital delivery platforms (Digital Broadcasting and broadband) have for Europe's citizens. Spectrum is a scarce natural resource which is used to bring audiovisual content to large majority of viewers and listeners, hence essential for making content available to as many EU citizens as possible and fulfilling important economic as well as social, political and cultural functions. Efficient use of spectrum is very important and shall be required from all users.

Spectrum is a crucial resource for vibrant and innovative terrestrial broadcasting. A sufficient amount of spectrum is needed to keep and fully exploit the benefits of terrestrial broadcasting, today and in the future. The digital dividend for services other than broadcasting should be limited to the 800 MHz band taking account of the overall environment. Any further reduction of broadcasting spectrum is likely to entail a significant migration to other broadcasting platforms, involving additional costs for broadcasters, network operators and the public. Furthermore, this would make the terrestrial platform less viable in the long run and would consequently reduce competition between broadcasting platforms.

Terrestrial broadcasting is optimal for the delivery of radio, TV and innovative media services to large audiences whilst respecting diversity and different local, regional and national perspectives. In Spain it is, and will remain in the future, a fundamental way to guarantee universal access to radio and TV content for fixed, mobile and portable devices and to fulfil the EU general interest objectives assured by audiovisual policies. No other single platform can replicate these benefits.

Abertis telecom would like to highlight some facts which in our opinion have been overlooked in the recent debate on UHF spectrum:

- Digital Terrestrial Television (DTT) provides near universal coverage (98,5% of the population in Spain) and access to television services from the public service and commercial broadcasters. Massive investments would be needed in order to reach high population coverage with NGN/NGA and this process will take a long time.
- Also in a long term perspective, the DTT platform will be the only platform that guarantees nearly all viewers throughout Europe access to a broad range of both free-to-air and commercial television services.
- The DTT platform remains one of the most economic broadcast transmission systems. It allows broadcasters to easily provide content to a maximum number of viewers at a low per-viewer cost. DTT platform is the unique platform allowing viewers to benefit from regional and local content as well as portable and mobile reception.
- DTT is not only an existing service but it is, above all, a constantly renewing and developing service giving access to a wide choice of high-quality broadcasting content and which is ready to address the future consumer demand for new and enhanced services, such as HDTV and 3DTV.

The RSPP is likely to be based on a set of assumptions about the future market developments and spectrum demand for a number of services. These assumptions need to be reviewed on a regular basis, in particular the actual spectrum use, in order to adjust the spectrum policy if and as necessary.

It is important that policy objectives and corresponding timeframe will be coordinated and aligned between European Commission, CEPT and ETSI in a timely manner, while the activities of each organization should remain within their respective areas of competence.

Stakeholders, including spectrum users and industry, should be involved in the process of establishing the EU spectrum policy and implementing the spectrum policy decisions. Specific national circumstances should be taken into account where necessary.

CEPT is well placed to represent and promote European spectrum interests in international forums. The main strengths of CEPT are its large geographical footprint of CEPT, its recognized and respected position at the international spectrum management scene (e.g. in ITU) and an established process that facilitates negotiations between countries in Europe as well as between CEPT and other world regions.

I. CONTRIBUTION TO THE EU2020 VISION. THE UHF BAND

The EU spectrum policy needs to strike the right balance to support Cultural, Media, Social and economic policies. It should not favour one over the other. Sufficient flexibility is required to accommodate specific national requirements and needs.

Broadcast sector has invested in the digital switchover, thus has created the digital dividend in the first place. Implementation of digital terrestrial networks (DTT) was a major innovative step, based on an open European standard (DVB-T) and adopted around the world, co-ordinated and harmonized across Europe and beyond (i.e. via the GE06 Agreement) thus creating large economies of scale.

Innovation in broadcasting technology and services is further accelerating with HDTV, mobile TV, data services, 3D-TV, etc. Spectrum is crucial for vibrant and innovative terrestrial broadcasting. A sufficient amount of spectrum, including the digital dividend, must be available now and in the future to accommodate the evolving needs of terrestrial broadcasting and to protect the investments made by broadcasters, network operators and the public. The needs of both public service and commercial broadcasting must be taken into account, while respecting the specific circumstances in each country.

Having adopted the EC Decision on harmonized technical conditions in the band 790-862 MHz for terrestrial systems apt to provide ECN services to be done on a non exclusive basis, those Member States applying that measure are obliged to ensure the protection of the services operated in adjacent bands, namely broadcasting deployed below 790 MHz boundary. RSPP would guide the regulators on the integration of the protection clauses into the national call for candidates to provide UMTS/LTE mobile services in the 800 MHz band, if that call is launched.

The ECC Reports 30-31 refer to the additional mitigation measures to assure the compatibility between mobile broadband and broadcasting involving the overhaul of hardware and software components. RSPP should insist on an equitable approach to avoid putting the burden on one particular system, i.e broadcasting, mainly when affecting to the economies of the Digital TV viewers. Moreover, the measures must be oriented to protect not only the quality reception of DTT signals but other innovative Digital TV services: HDTV, 3D TV, interactive TV, etc, in need of the 470-790 MHz frequencies to get deployed.

The European Commission has accomplished several initiatives to harmonize the re-farming of other spectrum bands able to operate mobile broadband systems: 2500/2600 MHz, 900/1800 MHz, 3400/3800 MHz, 2000 MHz, even to amend the GSM Directive 1987 to erase the exclusive GSM use in that band. The EC effort in conjunction with CEPT/ETSI is on the edge to show the coexistence of UMTS/GSM signals with LTE signals in adjacent channels, thus a combination of these suitable bands would be the right choice to offer the mobile broadband systems, specially taking into account that the preferred duplex configuration of the digital dividend into the 800 MHz, 2x30 MHz, might be not sufficient to allocate all the mobile operators aiming to provide mobile broadband services, especially when the sharing of mobile broadband infrastructures would be not feasible or acceptable in commercial terms.

There are several significant consequences for the broadcast business due to the change of use of the 800 MHz band that RSPP must consider:

- The migration of existing DTT services to the spectrum below 790 MHz, RSPP to guide on clear and applicable migration strategies at national level to assure the continuation of DTT services with minimal disruption for the viewers. It is necessary to mobilize sufficient and timely available funds to cover the costs of the migration process.
- The protection of the broadcasting services from mobile interferences in the long term, the public kept informed about potential interference issues whilst adequate mechanisms to be implemented for detection, reporting and swift resolution of the interference incidents.
- The further stress put on the 470-790 MHz band to make room for DTT frequencies just expelled from the 800 MHz spectrum following the GE06 Agreement rules, at the same time to serve the expected demands of additional GE06 layers to allocate the Digital TV advanced services, or to attend the frequency needs to allocate the PMSE or SAP/SAB services likely unfitted for the 800 MHz band. Therefore, the RSPP must pronounce the 470-790 MHz band as not eligible for any further ECN service with a primary status, in particular the mobile broadband services, to discard any intent of extension of a UHF-based digital dividend. Same criteria should apply to the ongoing activities searching for "white spaces" within the UHF band, to require the EU strategy to point to the exploration of more than one appropriate range of frequencies for that purpose.

RSPP is going to be based, among others, on the criteria of technology neutrality which leads to look after many alternative ways to offer similar type of services, to promote the building up of the NGN, next generation network, fitted to provide the most advanced broadband audiovisual services by means of the interoperation of complementary wired or wireless systems. A universal broadband provision entails a mixture of technologies concerning network and services.

The combination of broadcasting and broadband systems would be a practical solution to enable broadcasters to offer a full range of services to maximize the benefits for all the stakeholders, making the convergence of telecom and audiovisual services a commercial and general interest reality, to facilitate the social inclusion as well as the bridging of the digital divide. Broadcasting networks present the advantages of the universal coverage of the population and the high transmission capacity to convey the expanded broadband traffic.

II. SPECTRUM GOVERNANCE IN THE EU. POLICY ISSUES.

The RSPP, Radio Spectrum Policy Programme, represents a core element of the Spectrum Governance in the European Union, which should be conducted in the most transparent manner, RSPG consultation on its draft Opinion is a good example, to provide a certain long term perspective to the spectrum users, to the industry and to the EU citizens upon the cost and benefits of the different alternatives on the allocation of these strategic assets. The importance of making the appropriate choices based on the EU policies must be similar to the shaping of a set of reliable rules and criteria to guide the decisions.

To this end, the RSPP, as a proper legislative process and institution, should be produced in full conformity with the EU regulations, in particular those related to the Telecom Regulatory Frame to get enforced next 2011, at the latest, by the Member States. Therefore, the decisions regarding the EU harmonized use of frequencies or the identification of new spectrum for specific applications would set to consider:

- The economies of scale and the interoperability of the services, the efficient use of the spectrum or the principal demands for a EU harmonized allocation.
- The appreciation of the market value of the spectrum, taking into account the actual market demand for the respective services.
- The EU technology neutral approach linked to the verified evolution of the affected technologies.
- The appreciation of the public value of the spectrum which refers to the general interest objectives, notably those associated to the Cultural Diversity and Media Pluralism as expressed in the Telecom Regulation.
- The competence of the Member States on the Spectrum management, as well as upon the definition of the general interest objectives within their respective territories.
- The protection of the legitimate rights of the authorized users of spectrum, with special emphasis on the rights of the citizens to a lean reception of the information society services.

Broadcasting services correspond outright to the cultural and social participation of the citizens, including the making of the national or group identity, or the access to the information. Under the perspective of the next generation networks and seamless information infrastructure, the broadcasting systems contribute to the

convergence of media and telecom signals, becoming active part of the integrated provision of Broadband and Audiovisual services.

The broadcasting has been singled out in the new Telecom Regulation in relation to the granting of rights of use, to pursue general interest objectives, or regarding the EC implementing measures to identify the appropriate bands for the transfer or the lease of rights to use radio frequencies, responding to the requirements of the public and market value of the broadcasting spectrum.

The broadcasting sector launched the digital switchover action, in cooperation with the EU and Member States public institutions, to offer the DTT, terrestrial digital TV, signals. National authorities fixed as the main priority to reach coverage of 100 % of the population, becoming a universally accessible service. This rather complex and costly process has reinforced the efficiency use of the spectrum allocated to broadcasting by multiplying the offer of high quality TV channels over a reduced amount of spectrum to serve to all the citizens.

The innovation pace of Digital TV is outstanding having developed commercial and public advanced services: HDTV, high definition TV, 3D Digital TV, interactive Digital TV, etc, which are using the frequencies rendered available by the completion of the digital switchover project. A significant proportion of the innovations associated to the advanced Digital TV has been developed under the frame of the EU and national Research and Technology programmes to enhance the competitive position of the European industry.

III. SPECTRUM GOVERNANCE IN THE EU. TECHNICAL ISSUES.

Several of the paragraphs of the Draft RSPG Opinion on the RSPP, 13-19-22-23, refer to the technical aspects of the Spectrum Management which entails the best coordination between the European Commission, Member States, CEPT and ETSI. An equitable management of Spectrum aiming to meet the market and public demands very much depends on the scientific and engineering skills to solve the sharing of the same bands, co-channel, or the compatibility of diverse signals operated in adjacent bands. Further, those elements are the fundamentals for a flexible management of frequencies.

On the other hand, to prevent the interferences or to reach an adequate protection of the authorized services, in particular the reception-only functions related to the provision of general interest services, the EU institutions should foster a dialogue amongst the interested parties: regulators, industry, operators, etc, to achieve a consensual arrangement allowing to deploy the affected systems at national or European level. The agreed technical parameters must be part of the conditions attached to the granting of the authorizations concerned.

This dialogue should be extended to the national planning dealing with the implementation of the mitigation techniques to avoid harmful interferences, since the selection of any particular mitigation measure leads to economical and operational consequences affecting the network and service configuration of the concurrent systems. As an example, the ECC Report 30 related to the technical conditions in 800 MHz band to operate the mobile broadband services presents a list of applicable mitigation measures to be shouldered by DTT or MBS systems meaning significant impacts on the respective operational costs and network configuration.

The scope of a flexible management of spectrum as expressed in the WAPECS approach or through some of the CEPT contributions, i.e. ECC Report 137 adopted in January 2010, may be extended to the process to introduce the Cognitive Radio technologies: software defined radio, cognitive radio devices, etc, under the perspective of getting a major efficiency on the spectrum usage as well as to improve the reliability of the transmission channel.

Cognitive technologies should apply to both the transmission and the reception functions, notably to define the concept of unused frequency channel or to implement the detection systems by means of the combination of sensing and geo-location capacities. In any case, the introduction of CR technologies can not disturb the authorized services in the area to maintain the standards of security and integrity of the incumbent network and services. As an example, the RSPG Report on Cognitive Radio when referring to the UHF band draws attention on the differences on the regulation and standards between Europe and United States, otherwise the ECC Report 24 remarking the importance of solving the proper detection of DVB-T reception sets as an essential feature of the potential use of the CR systems in the UHF band.

On the search for a flexible allocation of spectrum the RSPP should consider the restrictions regarding the Community law, being critical the fulfillment of the obligations of the RTT Directive to verify the performance of CR equipment is compatible with the efficient use of spectrum and applied only for the notified purpose. The declaration of conformity, one of the critical pieces of the RTT

Directive, should be traceable by the application of unequivocal methods. The contribution from the ESOs, the European Standards Organizations, CEN/CENELEC/ETSI, would be crucial to undertake a thorough selection of the appropriate bands for the introduction of the CR techniques or to outline the main regulatory issues on the subject.

The positions related to other aspects of the RSPG Draft Opinion on the RSPP can be found in the Abertis Telecom comments (see Annex) to the Public Consultation/Call for Input in preparation for the RSPP, launched by the European Commission, April 2010.