

POSITION PAPERS

ETNO Common Position on the World Radiocommunication Conference – WRC-15



October 2015

Executive Summary

With the 2015 World Radiocommunication Conference (WRC-15) approaching, ETNO urges European regulators to recognize the key role of the Conference decisions for the mobile industry. Availability of sufficient spectrum is a precondition for the development of mobile broadband, which is an important driver of economic growth in all European Member States.

ETNO would like to stress the following points regarding the WRC-15 Agenda Items which are most relevant from the operators' point of view:

- **Agenda Item 1.1:** ETNO believes that there is a strong need for additional identification of spectrum for IMT in order to satisfy the ever increasing data traffic in mobile broadband networks.
- **Agenda Item 1.2:** ETNO expects the final confirmation of the allocation to the Mobile Service and identification for IMT systems of the band 694-790 MHz, as well as an agreement on regulatory conditions that do not hinder the development of 700 MHz mobile broadband networks across Europe.
- **Agenda Item 1.3:** PPDR use must not constrain commercial IMT networks in the globally harmonised IMT bands by exclusive reservations. PPDR communications can be successfully provided via commercial networks.
- **Agenda Item 10:** The agenda for WRC-19 shall contain an Agenda Item to identify/allocate additional spectrum for IMT-2020/5G. Bands out of the whole

range from 6 to 100 GHz – in particular the part below 24.5 GHz – shall be studied by the ITU-R.

Introduction

The World Radiocommunication Conferences represent fundamental opportunities for the development of the global radio sector, to update the Radio Regulations and to provide the global regulatory basis for the development of mobile radio services.

The European Digital Agenda has recognized the impact of ICT on innovation and economic growth, and has set bold broadband targets, which should be met by 2020. Moreover, the recent Digital Single Market Strategy of the European Commission has underlined the importance of mobile connectivity for the future of the European digital economy.

Already today, many European citizens expect to have high-speed internet access whenever and wherever. Media consumption has exploded and is still rapidly increasing in the mobile broadband segment. In addition, the Internet of Things will multiply the number of devices relying on mobile networks in the coming years.

Mobile network operators are constantly working on adapting the capacity of their networks to accommodate the ever increasing data traffic. Densification of network structures and deployment of more efficient innovative technologies are basic measures to respond to the “data tsunami”. However, without additional allocation/identification of IMT spectrum it will not be possible to secure the provision of future mobile broadband services in an economical manner and meet the expectations of consumers.

Harmonisation of frequency ranges and usage is a success factor for viable commercial mobile services. Only a WRC can allocate spectrum on a global basis and identify it for IMT, which is the best solution for the development of a harmonised technology and harmonised mobile services. Without a WRC decision there are no real harmonised “global bands”, nor harmonised mobile services (economies of scale) and hence no real market success for mobile services in a certain frequency band. In particular, identification of a band for IMT provides a decisive signal to industry players that this band is intended for use by technologies of the IMT family, and hence constitutes a reliable basis for investment.

ETNO has contributed to the European preparatory work for the WRC-15 and developed positions for the Agenda Items relevant to mobile network operators. These positions are presented in this paper.

ETNO urges European regulators to recognize the crucial role of WRC-15 decisions to the mobile industry. Availability of sufficient spectrum is a precondition for the development of mobile broadband which is an important driver of economic growth in all European Member States.

Main Items

The following are the ETNO positions on the main areas of interest of ETNO operators that will be discussed at WRC-15.

Agenda item 1.1: “additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT)”

ETNO believes that there is strong need for additional identification of spectrum for IMT in order to satisfy the ever increasing data traffic in mobile broadband networks. The existing resources will not be able to meet the need of the future demand of IMT-Advanced services, which will require data rates of up to 1 Gbit/s.

ETNO supports the CEPT proposal to identify the L-Band (1427-1518 MHz) for IMT services. The L-band would further enhance the capabilities of delivering wide area IMT services. It should be noted that the process of assignment of rights of use has already begun in Europe.

ETNO supports allocating the C-Band (3.4-4.2 GHz) to the mobile service on a primary basis and identify at least the 3.4-3.8 GHz band for the IMT services. Europe has already decided to allocate the 3.4-3.8 GHz band to the mobile service and to identify it for IMT applications. ETNO would like to highlight the unique opportunity to get the 3.4-3.8 GHz band globally allocated to mobile service and identified for IMT systems, thus enabling future IMT deployments in the band according to market demand. ETNO calls upon countries to globally identify the 3.4-3.8 GHz band for IMT at WRC-15 and to continue investigating the compatibility in the upper part of the band to secure the global identification of the whole C-band in the future, according to market demand.

Furthermore, ETNO supports the allocation of the band 2.7-2.9 GHz to the mobile service and its identification for IMT. The band is not extensively used in many countries while there is a growing interest for IMT in the band. Additionally, some studies have shown that there are possibilities to share the band between IMT and other applications. ETNO therefore regrets that the CEPT adopted a ‘no-change-ECP’ for this band thus reducing the possibility to openly discuss and promote the identification of this band for IMT services at WRC-15.

Finally, ETNO is of the opinion that the WRC-15 should allocate the whole 470-694 MHz band to the mobile service on a co-primary basis globally. ETNO recognises that the band is currently used and will likely be used in many countries for digital terrestrial television for years to come. Nevertheless, a co-primary allocation to the

mobile service would provide the needed flexibility for national regulatory agencies to respond to new trends in audio-visual content consumption and to enable an economically efficient implementation of mobile or converged mobile-broadcasting services.

To conclude, ETNO urges administrations to agree at WRC-15 to identify a sufficient amount of spectrum for IMT, in accordance with the forecasts described in ITU-R Report M.2290-0, which predicts that 1340-1960 MHz¹ of IMT spectrum will be needed by 2020.

Agenda item 1.2: “examine the results of ITU-R studies, in accordance with Resolution 232 (WRC-12), on the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1”

ETNO expresses support for CEPT ECP.

ETNO welcomes the CEPT decision according to which only the requirements of the Geneva-06 agreement shall be applied for the coordination with broadcasting in neighbouring countries. Regarding the coexistence with the aeronautical radio navigation service (RR footnote 5.312), ETNO welcomes the objective to seek bilateral agreements for coordination between the countries mentioned in footnote 5.312 and neighbouring CEPT countries.

The roll-out of IMT networks in the 700 MHz band must not be constrained by undue protection requirements of radio services in neighbouring countries. ETNO urges European administrations to avoid the negative example of the 800 MHz network roll-out with derogations in many EU Member States. Therefore, ETNO would welcome a better coordination of the roll-out of 700 MHz mobile broadband networks across Europe.

ETNO welcomes the agreement to support the 2x30 MHz IMT channelling arrangement for the 700 MHz (lower duplexer of the 2x45 MHz APT arrangement) and inclusion of this option in Recommendation ITU-R M.1036. Furthermore, ETNO supports utilizing the duplex gap for supplementary downlink.

Regarding the out-of-band emissions of mobile handsets, ETNO supports the solution of Recommendation ITU-R M. [BSMS] to define a limit of -42 dBm/8 MHz in the frequency band 703-733 MHz with an IMT channel bandwidth of 10 MHz or less and a limit of -25 dBm/8 MHz with an IMT channel bandwidth greater than 10 MHz.

ETNO expects that both recommendations will be adopted by the Radio Assembly 2015.

¹ Where the lower amount is for countries with a lower user density setting and the higher amount for countries with a higher user density setting.

Agenda item 1.3: “to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and the related regulatory provisions, in accordance with Resolution 357 (WRC-07)”

ETNO expresses support for CEPT ECP.

ETNO would like to note that specific spectrum for PPDR systems is only needed for real mission critical communication. Furthermore, PPDR communications can be successfully provided via commercial networks.

ETNO nevertheless supports the ECP for agenda item 1.3 that aims at identifying some specific harmonised spectrum for PPDR systems, provided that it does not constrain commercial IMT networks in the globally harmonised IMT bands by exclusive reservations, e.g. in the 700 MHz band.

Agenda item 10: “to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution 806 (WRC-07)”

The agenda for WRC-19 should contain an Agenda Item to identify additional spectrum for IMT-2020/5G. Bands out of the whole range from 6 to 100 GHz – in particular the part below 30 GHz – shall be studied by the ITU-R prior to WRC-19. ETNO believes that it is necessary to discuss spectrum needs for the fifth generation of mobile networks (5G or IMT-2020) including the “internet of things” or “Machine to Machine” (M2M) communication.

This new mobile generation will need much broader bandwidths than the preceding generations. ETNO therefore expects that additional chunks of contiguous spectrum, each consisting of at least a few hundreds MHz, will be needed to address the various 5G use cases. ETNO supports in principle the CEPT ECP but would like to stress that the frequency bands proposed to be studied by ITU-R (ranging from 24.5 GHz to 86 GHz) may not fully support all 5G use cases. Therefore, ETNO is of the opinion that some bands ranging from 6 to 24.5 GHz should also be included in the list of bands for studies under this Agenda Item. Particularly, the use cases which need wide area mobility and indoor penetration require spectrum in lower frequency ranges.

Even though ETNO understands that studies should be limited to few bands, it should be noted that the inclusion of a certain band to be studied by ITU-R does not mean that this band will eventually be recommended for a mobile allocation by WRC-19. The latter will be done only if studies come to the conclusion that a certain band is compatible with other radio services. The ITU-R studies must be an open process without a predetermined result and therefore, exclusion of lower frequency ranges from the beginning must be avoided.



About ETNO

ETNO (the European Telecommunications Network Operators' Association - www.etno.eu, @ETNOAssociation) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

For questions and clarifications regarding this Common Position, please contact Francesco Versace, Public and Regulatory Affairs Manager – email: versace@etno.eu