

**Telecom Italia response to the
draft RSPG Opinion on Common Policy Objectives for WRC-15**

(RSPG14-578(rev1))

(12 January 2015)

Executive Summary

Telecom Italia is pleased to provide comments on the WRC-15 Agenda Items having impacts on TLC sector business, in particular:

Agenda Item 1.1: Telecom Italia supports the identification of new spectrum to be allocated to Mobile Service and identified for IMT as a tool to cope with the objectives of the European Digital Agenda, and in particular the around 1.5 GHz band (1427-1518 MHz) and the 3400-3800 MHz band. Regarding the band 470–694 MHz, Telecom Italia thinks that a mobile co-primary allocation at WRC-15 is an essential prerequisite to continue discussing the future use of the band.

Agenda Item 1.2: Telecom Italia supports the proposal of fixing 694 MHz as the lower edge for the allocation to Mobile Service on a co-primary basis with the Broadcasting Service and identification for IMT in the 700 MHz band.

Agenda Item 1.3: Telecom Italia supports the identification of regional PPDR frequency ranges with no obligation on the use of specific technology and specific frequency bands for this class of service and recognizes that PPDR is a national issue. .

Agenda Item 10: Telecom Italia is interested in the studies and investigations on next generation mobile services (commonly known as 5G), and thinks that further extensive studies on the spectrum requirements for mobile broadband, including IMT, in the 470–694 MHz band should be promoted for the next WRC.

Remaining Agenda Items: Telecom Italia doesn't have specific comments, provided that any new allocation of a certain band to a specific service protects the existing use and does not hamper the deployment of the Fixed and Mobile Services used or intended to be used directly or in support of mobile broadband application including IMT.

Introduction

Telecom Italia welcomes the Radio Spectrum Policy Group invitation to express comments and views in relation to the draft RSPG Opinion on Common Policy Objectives for WRC-15.

Telecom Italia considers that this document could be a reference document not only for Member States and the European Commission, but also for the whole European industry.

After the transposition, by Member States, of the 2009 EU regulatory framework for electronic communications networks and services, coordination on the spectrum issues becomes a pillar of the evolution towards a single EU market, as spectrum principles and rules will be applied by member States in accordance with feasibility analysis carried out by CEPT and ITU.

Several agenda items of WRC-15 are addressing spectrum policies which are of interest of EU such as broadcasting, communications, sustainable transport and mobility, weather forecasting, monitoring of environmental changes, and responses to emergencies.

The rapid take-up of 4G-based mobile broadband services is expected to increase the overall demand for data capacity to serve ubiquitous broadband connectivity and seamless user experience. Therefore further capacity will be required in the mid/long-term to satisfy increasing traffic demand.

The following pages cover in more detail the positioning of Telecom Italia on the agenda items having direct impacts on TLC sector business.

Agenda Item 1.1

Telecom Italia supported the introduction of an agenda item addressing the identification of new spectrum to be allocated to Mobile Service and identified for IMT as a tool to cope with the objectives of the European Digital Agenda.

The availability of new suitable spectrum will lower the cost of mobile networks deployment thus allowing the delivery of mobile broadband services to rural areas and hence helping to reach the broadband for all delivery.

In this context, we consider as essential the harmonization activity developed by RSPG, CEPT and the Commission to extend the existing allocations for electronic communication services in EU Member states to a global level to gain benefits from economies of scale and increased opportunities.

Regarding the possible mobile allocation for the band 470–694 MHz, Telecom Italia thinks that a mobile co-primary allocation is an essential prerequisite to continue discussing the future use of the band. A failure in the WRC-15 would result in a mobile broadband slowdown deployment in the 2020 decade. Moreover, provisions should be made at WRC-15 for starting studies concerning IMT identification of the band for future IMT usage (see also Telecom Italia's comments on agenda item 10).

Concerning the around 1.5 GHz band (1427-1518 MHz), Telecom Italia agrees on the worldwide allocation to Mobile Service on a primary basis and identification for IMT.

As the use of the band around 1.5 GHz varies in different regions it is important to ensure that the band usage by different services will be feasible.

For example, the mitigation techniques with radars include frequency separation and/or geographical separation such as exclusion zones around radar antennas.

As another example, geographical and frequency separation options with fixed links exist to make this band a strong possibility for IMT and may help satisfy the needs of Agenda Item 1.1. Especially, where countries use the band for fixed links in rural areas, it is possible to use the band for IMT deployment in urban areas at the same time.

Concerning the C band, Telecom Italia agrees on the worldwide allocation to Mobile Service on a primary basis and identification for IMT thus enhancing economies of scale and increased opportunities both for the industry and the users.

The 3400-3800 MHz band is not used yet by mobile service due to a variety of reasons, the first being the present regulatory environment prioritising the incumbent wireless operators such as WiMAX, LMDS and Satellite operators. At this moment, nearly all EU Member States have still assigned this band for "broadband wireless access (BWA)" use and those BWA licenses mostly do not belong to mobile network operators; therefore, there is no mobile ultrabroadband network deployment and use in this band.

Another factor, and perhaps the most crucial one, is the lack of devices that support the 3400-3800 MHz band. Thus the current underutilisation of those bands is largely due to the missing device ecosystem in the market, which is in turn due to lack of mobile operators with licences in this band. This is in contrast to the bands below 1 GHz where there is no lack of use or demand since this spectrum was allocated to Mobile Service and assigned to mobile operators at European level.

With the advent of LTE Advanced as well as the development of the next generation network in the coming years, the need for greater carrier bandwidths and aggregation will be substantial and necessitate the potential the 3400-3800 MHz band can offer for mobile broadband services.

As a critical band identified to facilitate the achievement of the Digital Agenda for Europe, the 3400-3800 MHz band can offer important spectrum capacity for the mobile industry to deliver on those demands and make Europe a leader that it once was.

Concerning the 3800-4200 MHz band, Telecom Italia is of the opinion that this band could also offer great possibilities to mobile ultrabroadband network in the mid/long-term and therefore it can be taken into account for future WRC's allocation activity.

Agenda Item 1.2

Telecom Italia supports the proposal of fixing 694MHz as the lower edge for the allocation to Mobile Service on a co-primary basis with the Broadcasting Service and identification for IMT in the 700 MHz band, while ensuring protection of the Broadcasting Service below 694MHz.

Telecom Italia agrees with RSPG Opinion that no regulatory provisions in RR relevant to coexistence with broadcasting (co-channel, co-frequency and adjacent frequency) in addition to GE-06 agreement have to be adopted.

Telecom Italia also agrees on the importance of cross-border coordination agreements for all countries bordering countries outside the EU operating aeronautical Radio navigation services, even if the cross-border coordination procedure can be concluded after WRC-15, due to the expected plan of release and allocation of the 700 MHz in the UE.

Concerning the harmonized MFCN frequency arrangement in the band 694-790 MHz, Telecom Italia is of the opinion that it should include the option for unpaired frequency arrangement (SDL) channeling in the duplex gap of the paired 700MHz channeling plan. As a matter of fact, this possible solution may represent a more efficient and effective approach than other "non-MFCN" options such as PMSE, PPDR, M2M in the duplex gap.

Regarding PMSE equipment, Telecom Italia is of the opinion that it could be appropriate to identify a number of harmonised frequency bands that wireless PMSE devices can potentially use, as there is a need to have technically appropriate and sufficient spectrum for PMSE.

Agenda Item 1.3

Regarding PPDR, Telecom Italia supports the identification of regional PPDR frequency ranges with no obligation on the use of specific technology and specific frequency bands.

Telecom Italia recognizes that PPDR is a national issue and therefore has to be managed by national relevant authorities, according with the country requirements without any need of coordination at EU level for a harmonized implementation of PPDR applications.

Agenda Item 10

Telecom Italia is interested the studies and investigations on next generation mobile services (commonly known as 5G), although it is assumed that these services refer to the 2020-2030 decade at least. Consequently, Telecom Italia supports the proposal of a future Agenda Item addressing the spectrum needs for the next generation of mobile services, not limiting the focus to frequency ranges above 6 GHz.

Telecom Italia thinks further extensive studies should be undertaken on the future spectrum requirements for mobile and broadcast services in the 470–694 MHz band for the next WRC, including studies concerning IMT identification with relevant frequency arrangements and compatibility between mobile and broadcast services.