

**Telecom Italia response to the
draft RSPG Opinion on a long-term strategy on the future use
of the UHF band (470-790 MHz) in the European Union**

(RSPG14-585(rev1))

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Executive Summary

Telecom Italia supports the approach proposed by the RSPG Opinion for the complete availability of the 700 MHz band for Wireless Broadband Services.

Telecom Italia agrees with the date ranges under consideration by RSPG for the release of the band, as, in our view, the 2022 year appears as the minimal viable deadline, considering the several necessary activities related to the release itself.

Telecom Italia recommends to also indicate a common European starting date for the release of the band that should be approximately set three years before the complete release (i.e. 2019).

A key element to facilitate the release of the 700 MHz band is the implementation of national plans to foster the development of Next Generation Access Networks. Such plans should facilitate the migration of video content from broadcasting networks to fixed fiber networks.

Another key element is the necessity to set a coordinated plan based on a harmonized window for the 700 MHz band release, which could be included in the next RSPP, to avoid the uncoordinated and fragmented approach occurred for the 800 MHz band in Europe

Concerning PPDR, Telecom Italia agrees with RSPG that PPDR is a national issue and has to be managed by the national relevant authorities.

Introduction

Telecom Italia welcomes the RSPG decision to submit to public consultation its opinion regarding a long-term strategy on the future use of the UHF band in the European Union.

Telecom Italia has always recognized the importance of EU spectrum policy to enhance the quality of European citizens' life by enabling and improving technologies and services as well as by promoting competition in the markets.

Telecom Italia, consequently, supports the initiatives aimed to assess the needs for spectrum resources in the long term and to trace a "roadmap" going beyond 2015 for the allocation of spectrum in the EU and the technological trends to determine the best allocation of spectrum.

In this context, particular attention should be paid to those frequencies and services that could mainly be subject to spectrum shortages, such as the mobile broadband communication services, for which the demand is expected to significantly increase over the next years.

Therefore the analysis should not be limited to the current demand, but should also take into account the mobile broadband spectrum need for the next 10-15 years, since the reallocation process generally requires a long time period.

Release of the 700 MHz band for WBB

In the recent years there has been a dramatic increase in the mobile data traffic driven by new devices that incorporate cellular connectivity (smart phones, tablets, USB dongles, e-book readers, gaming consoles etc.) and innovative mobile applications.

These devices offer larger screen sizes and higher resolution and, hence, increase data consumption and encourage the use of traffic-intensive applications such as video applications.

Consequently, future demand of spectrum is mainly concentrated in the development of WBB services.

It is worth mentioning that mobile operators are investing significantly and using spectrum as efficiently as possible. As a matter of fact, it has to be noted that in 15 years mobile operators have gone from 2G to 4G taking advantage of new network architectures as well as by refarming frequency bands, initially licensed for specific GSM technology (e.g. the 1800 MHz band used for 2G is now the world's most popular 4G band).

As the 700 MHz band has been assigned to Mobile Service on a co-primary basis and identified for IMT for the provision of WBB services, the harmonized technical conditions for this provision are becoming more and more urgent. Therefore, the activity for the release of the 700 MHz band shall start as soon as possible and shall regard all the Member States.

RSPG, and recently OFCOM, are supporting the objective to make the band available for the mobile service by 2020 or later in 2022, and RSPG is recommending Member States to make the 700 MHz band available as early as possible setting a deadline for making the band available for effective use for IMT WBB.

Telecom Italia supports the time planning proposed by RSPG, as 2022 appears as the proper deadline considering the activities related to the release of the 700 MHz band.

At the same time, Telecom Italia deems that a strong effort should be made by the European Commission and RSPG to harmonize the release of the 700 MHz band minimising the cross border issues.

Consequently, Telecom Italia recommends to indicate jointly with a deadline, a common European starting date for the release of the band, that should be approximately set three years before the complete release (i.e. 2019), taking into account the 3 year period envisaged by the RSPG Report "on proposed spectrum coordination approach for broadcasting in the case of a reallocation of the 700 MHz band". This could also relax the cross-border coordination agreements timeframe and could limit the derogation requests from Member States.

Impact of 700 MHz development on Digital Terrestrial Television networks

The release of the 700 MHz band will imply some cost related to the change in digital terrestrial television (DTT) that currently use the 700 MHz band.

Any activity should ensure that this change safeguarding the benefits that DTT deliver to citizens and consumers. The change may involve moving parts of these services from the 700 MHz band to other frequencies.

For the vast majority of households, the move will require only a simple retune of existing TV equipment. A very small minority of households might need to change their roof-top aerials, but only after the beginning of the activities of releasing the 700 MHz band.

Given that the number of households that may benefit of the terrestrial television decreases as the penetration of NGA networks increases, it's important that Member States implement, in the short term, national plans to foster the migration to fiber networks of a set of contents so long conveyed by TV broadcaster networks and facilitate the release of the 700 MHz band.

Telecom Italia deems, also, that an appropriate planning activity in order to facilitate the migration to more efficient technologies (e.g., DVB-T2, HEVC) in all the Member States with the progressive introduction of new generation TV receivers as well.

Coordinated assignment of the 700 MHz band for WBB

Telecom Italia agrees with the RSPG that a review of the RSPP should include the “roadmap” to be followed for the assignment of the 700 MHz band in the EU.

The RSPP should also address the harmonization conditions for the transition and in this context common conditions, coordination and cooperation across the EU should be agreed among the Member States to develop the review of the RSPP.

For this reason, Telecom Italia is of the opinion that the assignment of the 700 MHz band should follow a coordinated plan to ensure the synchronous introduction of WBB services based on IMT in the 700 MHz band in all European countries, exploiting the opportunities of scale and scope economies.

Consequently, it is crucial that the RSPP include a mandatory deadline for Member States to which the coordinated roadmap issued by the EC should be anchored. Therefore, the RSPP should set the deadline for making the 700 MHz band available for effective use for IMT WBB in line with harmonized technical conditions and the starting point and the deadline by which the national authorization processes should be finalized.

Telecom Italia proposes that the deadline for making the 700 MHz band available for WBB is 2022 at the end of the common European process of releasing the band from the terrestrial television services thus ensuring a coherent implementation and enabling the synchronized availability of WBB services.

All such provisions would be finally homogenous with the guidelines of the European Commission regarding a connected Digital Single Market that intend to overcome national boundaries in telecoms regulation and in the management of radio waves, possibly harmonizing the timing of spectrum release and duration of rights of spectrum, applying a set of principles and criteria aimed at ensuring a coordinated development of an EU wireless space.

The activities between stakeholders and neighboring countries should be supervised and coordinated by the RSPG, EC with the support of CEPT in order to facilitate all Member States meeting the final deadline.

Cross-border negotiations, as well as the negotiations with non-EU neighboring countries should start in a timely manner to ensure that all necessary cross-border coordination agreements will be finalized in time for the starting date (i.e., 2022) of the process of assigning the 700 MHz band to the ECS services. Consequently, such negotiations should be concluded not later than 2019, taking into account the 3 year period envisaged by the RSPG Report “on proposed spectrum coordination approach for broadcasting in the case of a reallocation of the 700 MHz band”.

Approach for the Long Term Strategy for the band 470-694 MHz

The future use of the UHF band (470-694 MHz) is being widely discussed among all the stakeholders. Telecom Italia is participating to several initiatives on the topic and welcomes any

further activity aiming at the development of a long-term strategic policy on the future convergence between broadcasting and mobile platforms and the delivering of media/audiovisual services and high-audience video and data to mobile devices.

As also stated in Plum's study "*Challenges and opportunities of broadcast-broadband convergence*", Telecom Italia deems that more studies concerning the broadcast/broadband convergence should be carried out, including realistic measurements and analysis of video consumption consistent across EU member states over time, to support future policy decisions.

Telecom Italia assumes as reasonable that such a convergence will not be possible before 2030 and consequently the frequency band 470-694 MHz shall remain available for DTT in the foreseeable future. However, a mobile co-primary allocation of the 470-694 MHz band in Region 1 should occur at the WRC-15 to allow the start of the necessary studies before any re-planning activity of that band. In fact, Telecom Italia believes that by ensuring that broadcast and the mobile service share a co-primary allocation in the sub-700 MHz band at WRC-15, Europe will have the flexibility needed to support the right regulatory balance, rather than being constrained by the current situation.

Finally, 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.

Other issues

Regarding the Programme Making and Special Events sector, Telecom Italia deems that it should be appropriate to identify a number of frequency ranges where wireless PMSE devices could potentially be used; therefore, Telecom Italia agrees with the RSPG that there is a need to have technically appropriate and sufficient spectrum for PMSE and there could be a need to identify additional spectrum.

At the same time, Telecom Italia thinks that the activity of reengineering the whole PMSE environment should take place during the next ITU-R study periods thus identifying the necessary frequency bands.

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 a coordination at EU level for an harmonized implementation of PPDR applications.