

RECENT DEVELOPMENTS IN PREPARATION FOR THE ITU WRC-15

CONTEXT

The aim of this fact sheet is to assist EBU members in their dialogue with National Administrations in regards to their position on Agenda Item 1.1 at the ITU World Radiocommunications Conference in 2015 (WRC-15).

Within the scope of Agenda Item 1.1, the Conference will identify additional spectrum bands for mobile broadband services. One of the candidate bands for a possible mobile allocation is 470 – 694 MHz, which is currently used for terrestrial TV services. If a mobile allocation is introduced in this frequency band, it would significantly limit any future development of the terrestrial TV platform. Therefore, it is important to ensure that National Administrations take a position against such a mobile allocation.

SUMMARY OF RECENT REPORTS

During the past months, a number of reports have been published that support the use of 470-694 MHz bands for digital terrestrial television (DTT) in the foreseeable future. These reports will be useful in the discussions with National Administrations.

1. European Commission (EC) High Level Group – The chairman's report on the use of the UHF band 470-694 MHz that noted:

- The primary consumer device today is the home big-screen TV.
- Linear TV viewing will remain dominant for the foreseeable future.
- Mobile standards are not currently capable of supporting broadcasting to mass audiences on big screens.
- Reassurance should be given to broadcasters to secure the next cycle of investments.

The report recommends that the 700 MHz band be cleared by 2020/22 for mobile broadband but **there should not be a co-primary allocation below 700 MHz band (i.e. 470-790 MHz) until 2030**. A review of the market situation should take place in 2025.

2. RSPG UHF Opinion – The Radio Spectrum Policy Group (RSPG) has formulated an opinion on the future use of the UHF band (470-790 MHz) in the European Union. The opinion proposes that:

- EU Member States should clear the 700 MHz band from DTT by 2020 or 2022 – a common deadline is yet to be decided.
- **Frequencies below 700 MHz band shall remain available for DTT “for the foreseeable future” and gives an example date of 2030.**
- Member States would have the flexibility to use frequencies below 700 MHz for mobile broadband downlinks if compatible with broadcasting, for example through GE06 mask concept.
- The issue of compensation needs to be addressed at a national level.

3. RSPG WRC-15 Opinion – The RSPG has also published an opinion to assist in developing a set of common policy objectives on all agenda items that are to be discussed at WRC-15. With respect to agenda item 1.1 it recommends:

- That at WRC-15 additional spectrum is identified for IMT and allocated to mobile services as appropriate, including the 700 MHz band.
- EU Member States should **“support no change to allocations in the band 470–694 MHz”**.

TECHNOLOGY FACT SHEET

4. Spectrum Inventory – The EC has undertaken a review of spectrum usage and reported the following:

- Spectrum demand by both the broadcasters and mobile operators is expected to increase in the short, medium and long term.
- The level of under-utilised spectrum for mobile broadband is still significant (c. 30%).
- In 2012, 71 percent of all wireless data traffic on smart phones and tablets was off-loaded to Wi-Fi. This is expected to grow to 78 percent by 2016.
- The EC believes there is currently **no need to for additional spectrum harmonisation** beyond the 1200 MHz target identified in the last Radio Spectrum Policy Programme (RSPP) in the range of 400 MHz – 6GHz for licensed wireless broadband.

5. Broadcast/broadband convergence study (Plum) – The EC commissioned a study looking at the developments in the delivery of audio-visual and internet services over the next 15 years and the cost/benefits of a wireless converged platform. The main findings are:

- **The economic case for a converged platform is not as yet made** due to big uncertainties in the value of sub-700 MHz spectrum and the impact on DTT of IPTV.
- A number of technical uncertainties need to be resolved first.
- A review is proposed in 3-5 years.

6. TG6 – The CEPT's Task Group 6 has published an ECC Report 224 on a "Long term vision for the UHF broadcasting band." The Report is the result of a study on the future use of UHF frequencies, with a focus on the 470-694 MHz band. The report:

- Highlighted the **important role of the DTT platform** that provides free-to-air access to TV services and is essential for Public Service Broadcasting.

7. ITU -R Studies – The results of the technical sharing studies summarized in the draft CPM text show that, if one country wants to use the band for broadcasting and a neighboring country wants to deploy IMT networks, **sharing will be very difficult**.

The results of the ITU-R questionnaire show that a majority of countries that responded in ITU Region 1 (including Europe, Africa and parts of Asia) indicated a future spectrum requirement of **at least 224 MHz of UHF spectrum for DTT**.

8. Aetha study – A consortium of broadcast-based companies, including the EBU, published a cost-benefit analysis of a possible clearing of the band 470-694 MHz for mobile broadband use. The report notes:

- Based on the most aggressive mobile traffic forecast, the costs of clearing DTT from the spectrum would outweigh the benefits by a factor of almost four.
- When a less aggressive traffic forecast is used, the benefits of using the spectrum for mobile would be near to zero.
- **The economic benefits for the EU are maximised if the 470–694MHz band continues to be used for DTT over the next 15 years.**

RELATED PUBLICATIONS

1. [Pascal Lamy's Report on the future use of the UHF band](#)
2. [RSPG Opinion on a long term strategy on the future use of the UHF band in the EU](#)
3. [RSPG Opinion on common policy objectives for WRC-15](#)
4. [Commission Report COM\(2014\)536 on the Radio Spectrum Inventory](#)
5. [Plum Study on broadcast-broadband convergence and its impact on spectrum and network use](#)
6. [ECC Report 224 Long Term Vision for the UHF broadcasting band](#)
7. [ITU-R Draft CPM Report](#)
8. [Aetha's Future use of the 470 -694MHz band](#)