

EBU response to the public consultation on
The Draft RSPG Opinion on a long-term strategy
on the future use of the UHF band (470-790 MHz) in the European Union

The EBU welcomes an opportunity to provide comments on the draft *RSPG Opinion on a long-term strategy on the future use of the UHF band (470-790 MHz) in the European Union*. In particular we welcome an open and transparent debate about future use of the UHF band and recognize an essential role of the RSPG in this process.

The UHF band is the core frequency band for digital terrestrial TV (DTT) and PMSE services in Europe and beyond. DTT is essential to EBU Members as it is the only TV platform that provides free-to-air services in all Member States and has the potential to reach everyone, and thereby enables EBU Members to fulfil their public service obligations. In addition, the right to use UHF frequencies has been and is still often associated with general interest obligations, including the provision of large coverage and investments in national and European content production.

EBU Members concur with Mr. Lamy that *‘in most EU Member States DTT represents the backbone of the European audiovisual model. Due to its characteristics of delivering high-quality TV programmes (the so-called linear TV services) to mass audiences and ensuring universal and free-to-air access for citizens, it will continue to play an essential role as a major distribution platform for the foreseeable future. ... Its sustainable development is dependent on spectrum in the UHF band, which gives it capacity to further innovate and develop and thus to remain viable and competitive.’*¹

The EBU welcomes the RSPG recognition of the importance of the DTT platform and the need to provide certainty for investments in broadcasting infrastructure.

Terrestrial broadcasting is Europe’s most popular TV platform and it serves as the principal means of receiving TV services in more than 40% of the households². When second TV sets are included this figure is significantly higher.

Furthermore, as highlighted in the ECC Report 224³:

- In many CEPT countries the terrestrial broadcast coverage often exceeds 98% of the population and free-to-air access to Public Service Broadcasting (PSB) is mandatory.
- Even in countries where cable, satellite or broadband platforms hold a significant market share, terrestrial broadcasting is regarded, alongside these other platforms, as an essential, flexible, reliable and cost-effective way of delivering broadcast content to a mass audience.
- The broader benefits of a free-to-air platform such as DTT are that it can afford a range of other content, (i.e. non PSB), that offers diversity and choice and sustains platform innovation and ultimately competition.
- The terrestrial broadcast platform undertakes a key role in many European countries to support social inclusion.
- As a result, the terrestrial broadcasting platform generates significant social and economic benefits which cannot be replicated on any other platform without investments and complex migration of DTT households.

In terms of innovation, as noted by the RSPG, several Member States are planning an increase in the number of programmes, an expansion of HDTV, additional mobility and the possible introduction of Ultra High Definition TV on their DTT platforms. Without sufficient spectrum, these plans will not be achievable and the inter-platform competition in the EU will be reduced.

¹ Report to the European Commission on the results of the work of the High level Group on the future use of the UHF band (470-790 MHz), by Pascal Lamy, page 3.

² According to Special Eurobarometer 414 (from March 2014), DTT is used in 37 % of EU households while analogue terrestrial TV is used in 6% of the EU households.

³ ECC Report 224 on a *Long term Vision for the UHF broadcasting band*, pages 12-14.

Therefore, we call on Member States and the European Commission to guarantee that DTT will retain access to the entire spectrum below 700 MHz (i.e. 470-694 MHz) until at least 2030. This should be recognised in the next Radio Spectrum Policy Programme and reflected in the position taken by EU Member States at the forthcoming ITU WRC-15 against a co-primary mobile allocation in this frequency band.

Furthermore, it is the EBU view that:

- The 700 MHz band can be made available to the providers of Electronic Communications Services (ECS) in any particular geographical area only after the transition of DTT out of the band has been completed in that area and in neighbouring areas. It is unlikely that the required frequency coordination process and transition could be completed by all Member States by the proposed deadline (i.e. 2020 or 2022). Instead, EBU members consider 2025 to be a more realistic time frame for an EU-wide release of the 700 MHz band, noting that an earlier release may be feasible in some Member States.
- The broadcasting and PMSE sectors, as well as EU citizens, should not be disadvantaged by the transition of DTT out of the 700 MHz band. Thus, Member States should give early clarity regarding full compensation in terms of funding, consistent with state aid provisions, and the repurposing of those existing licensing rights affected by the release of the 700 MHz band.
- Any decision on spectrum allocation should be based on an in-depth impact assessment, taking into account various political, social, cultural and economic interests. This must include the impact on investments on original European audiovisual content.

Further comments are provided below to address some specific issues raised in the RSPG consultation document.

1. The band 470 - 694 MHz

The EBU strongly supports the RSPG recommendations that the frequency band 470-694 MHz band shall be used for downstream audiovisual content distribution for the long term, even beyond 2030, and that it shall remain available for DTT for the foreseeable future. In the EBU view, the viability of DTT should be ensured as long as there is market demand for terrestrial TV distribution.

The EBU strongly supports the RSPG recommendation that, *‘when considering any options for the future usage of the frequency band 470-694 MHz, aspects such as the requirements, technological developments, consumer behaviour, the importance of delivering free-to-air/free-to-view television and the various political, social, cultural and economic general interest objectives when this is achieved entirely or partly through the DTT platform, should be taken into account.’*⁴ These are the central considerations around which Public Service Broadcasters frame their distribution strategies.

Furthermore, as demonstrated by a recent study⁵, even in the most aggressive mobile traffic forecast, the costs of clearing DTT from the frequency band 470-694 MHz significantly outweigh the potential value of using this spectrum for mobile by a factor of almost four. When a less aggressive traffic forecast is used, the costs of clearing DTT are unchanged but the value of using the spectrum for mobile would be near to zero. It is clear that the economic benefits for the EU are maximised if the 470-694 MHz band continues to be used for DTT for at least the next 15 years.

Another benefit of ongoing use of the UHF band below 700 MHz by DTT is that it could enable dynamic access to the interleaved spectrum, assuming that strong guarantees were put in place for existing users of this spectrum. As recognised in the Aetha report⁵, this could further strengthen the economic case against co-primary allocation to mobile.

With regard to the RSPG recommendation that Member States should have the flexibility to use the 470-694 MHz band for wireless broadband downlink (WBB), we emphasise the need to ensure that a possible introduction of WBB downlink not only does not create constraints on current DTT operation, but also that it does not hinder the future evolution of the DTT platform.

We note that the concept of *‘flexibility’* in this context is not yet fully understood and it requires more study before it can be adopted as an objective. These studies on flexibility should assist with understanding how WBB downlink can be introduced in the UHF band without undermining the

⁴ Draft RSPG Opinion, page 27, the fifth paragraph.

⁵ *Future use of the 470–694MHzband - Report for Abertis, Arqiva, BBC, BNE, EBU and TDF*, Aetha Consulting, October 2014

certainty of access to spectrum for DTT in the long term. The EBU is willing to contribute to these studies, as appropriate.

We further note the inherent flexibility in the current regulatory environment, in particular the ITU Radio Regulations and the GE06 Agreement, as recognised in the ECC Report 224⁶.

2. The 700 MHz band

The EBU recognises the pressure towards repurposing the 700 MHz band for the provision of wireless broadband services. However, in our view the perceived urgency for the release of this band from DTT is not justified. Moreover, it is evident from the Commission's Report on the Radio Spectrum Inventory⁷ that significant amounts of spectrum already available to mobile services have not yet been fully utilised.

Furthermore, it is correctly noted in the draft RSPG Opinion that *'the 700 MHz band represents approximately 30% of the total remaining UHF spectrum used by the television broadcasting and that the impact of an exclusive reallocation of this spectrum to wireless broadband will therefore be significantly more important for the broadcasting service than in the case of the 800 MHz band'*⁸.

We would like to stress that the reallocation of the 700 MHz band to wireless broadband will have greater negative consequence for DTT than in the case of the 800 MHz band. After the release of the 700 MHz band, the total potential DTT transmission capacity will be significantly lower than at present, even if more efficient coding and modulation standards are adopted.

Timing of the release

Therefore, the urgency of making the 700 MHz band available for the provision of wireless broadband services should be balanced with the need to allow enough time to ensure the future viability of DTT. This could be achieved, for example, through maximising its transmission capacity within the remaining spectrum below 700 MHz and allowing sufficient time for adoption of new technologies such as DVB-T2 or HEVC, which would allow broadcasters to provide their DTT services with comparable quality as on other TV platforms. It should be taken into account that during such an evolution the DTT platform may require additional spectrum resources.

The EBU agrees with the RSPG recommendation that the Member States should develop and communicate to stakeholders and neighbouring countries in due time, a framework for the migration of broadcasting services below the 700 MHz band.

A key prerequisite for the transition is to successfully complete cross-border frequency coordination. The RSPG has estimated that at least 3 years would be necessary for this task. In fact, the experience with the coordination necessary to clear the 800 MHz band shows that in some cases the process took longer than 3 years. The 700 MHz clearance is considerably more complex, so it might reasonably be expected to take longer than 3 years.

In any given geographical area the 700 MHz band can be made available to wireless broadband providers only after the transition of DTT out of the band has been completed in that particular area and in the neighbouring areas.

It is the EBU view that any binding deadline for making the 700 MHz band available for ECS use should take into account the different national circumstances across the EU, in particular in those Member States where the band is heavily used for DTT. Sufficient time should be provided for the transition of DTT out of the 700 MHz band with minimum disruptions of services and to the public.

Given the issues outlined above, the EBU is of the opinion that the proposed deadline for completing the release of the 700 MHz band (whether 2020 or 2022) would not allow for both the frequency coordination and the transition process to be completed by all Member States. Notwithstanding the possibility for an earlier release in some Member States, 2025 should be considered to be a more realistic time frame for an EU-wide release of the 700 MHz band.

⁶ ECC Report 224 on a *Long term Vision for the UHF broadcasting band*, page 4.

⁷ The Report from the Commission to the European Parliament and the Council on the Radio Spectrum Inventory states that *'The level of under-utilised spectrum for mobile broadband is still significant – approximately 30% ...'* (page 10 - section on Additional harmonised frequency bands for wireless broadband)

⁸ Draft RSPG Opinion, page 12, second paragraph.

3. PMSE

The EBU agrees with the RSPG view that there is a need to have technically appropriate and sufficient spectrum for PMSE and consider that, depending on developments and requirements of such services, there could be a need to identify additional spectrum.

We would like to stress the need for additional spectrum for PMSE to be made available well in advance of the deadline for the release of the 700 MHz band. Furthermore, long term certainty should be provided for the additional PMSE spectrum in order to facilitate investments in the necessary research and development, as well as migration of the PMSE users out of the 700 MHz band.

4. TV receiver specifications

The EBU agrees with the RSPG that TV receiver standards should take full account of the evolution of the 700 MHz band and include as early as possible appropriate receiver parameters. In addition, we emphasise the following:

- DTT receivers should be able to operate throughout the 700 MHz band until the end of the transition period and this needs to be recognised in the new or revised receiver specifications.
- Currently the same TV receivers can be used for DTT and cable TV reception, which facilitates economies of scale. Cable TV receivers will need to continue to be able to operate in the 700 MHz and 800 MHz bands in the future as these frequency bands are commonly used in cable TV networks, sometimes using DVB-T modulations. It is important to avoid fragmentation of the TV receiver market resulting from the new specifications.

5. New DTT technologies

The EBU support the RSPG recommendation that the European Commission should, in cooperation with Member States, support national measures to facilitate transition to more spectrum efficient DTT technology, provided that:

- The timing of any measures that may require inclusion of new technologies in TV receivers is appropriate to ensure availability of both DVB-T2 and HEVC, and
- The overall objective is to increase the transmission capacity of DTT in order to strengthen its competitiveness and viability, and not to present an opportunity for further spectrum release.

6. Convergence

We note that the RSPG Opinion addresses the issue of convergence between DTT and wireless broadband.

Indeed, DTT is an innovative platform that embraces convergence with broadband platforms, where they are available. As pointed out in the ECC Report 224, free-to-air access, near universal availability of DTT and broadband connections are also the key enablers of connected TV services to be provided to all citizens without discrimination.⁹

In addition to the options described in section 6.3 of the draft Opinion we would like to highlight the increasingly popular hybrid solutions for connected TV services (e.g. HbbTV, YouView) where broadcast delivery is combined with broadband access to provide the whole range of linear and on-demand audiovisual services.

7. PPDR

In the event that PPDR services are implemented in the UHF band, the broadcasting services in adjacent bands should be neither subject to harmful interference from PPDR deployments nor subject to additional technical constraints in order to protect PPDR applications.

⁹ ECC Report 224 on a *Long term Vision for the UHF broadcasting band*, page 13

The **European Broadcasting Union (EBU)** is a professional association of public service media organisations with 73 Members in 56 countries from Europe and beyond.

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