

**digitaluk**

**arqiva**

**BBC**



**Response to consultation:**

Draft RSPG Opinion

Common Policy Objectives for WRC-15

12 January 2015

This response is submitted by Digital UK on behalf of its Members – the BBC, ITV, Arqiva and Channel 4 - the holders of the UK terrestrial Broadcasting Act and Wireless Telegraphy Act licences.

## 1. Introduction

### About Digital Terrestrial Television (DTT)

Digital Terrestrial Television (DTT) is Europe's most popular TV platform. In the UK, DTT provides a universally available service offering a range of more than a hundred free-to-air TV, radio and text-based services. At the heart of DTT in the UK is Freeview, which is used in around three quarters of homes.

Prior to digital switchover (DSO), more than four million UK households could not access DTT services and elsewhere signal strength was variable. Thanks to industry investment in excess of a billion pounds, switchover made DTT available to 98.5 per cent of homes.

### About Digital UK

Digital UK supports the UK's terrestrial TV service and its viewers.

We are responsible for day-to-day operational management, including the Freeview electronic programme guide, and lead on developing platform strategy, working with our broadcast partners and industry. We also provide viewers with information and advice about terrestrial TV channels, services and reception.

Digital UK is owned by the BBC, ITV, Channel 4 and Arqiva

## 2. Executive Summary

We broadly support the key proposals relevant to terrestrial broadcasting contained in this draft RSPG Opinion. The RSPG has rightly emphasised the importance of DTT as a vital broadcast platform for the foreseeable future and the need for technical conditions to prevent viewers suffering interference caused by mobile services operating in the 700MHz band.

However, as Pascal Lamy's recent report to the Commission<sup>1</sup> makes clear, there is a wealth of evidence regarding the need to strike a balance between the demand for mobile broadband capacity and sustaining the health of DTT as the 'backbone' of the EU's audio-visual sector. Essential to achieving this balance will be ensuring that DTT has sufficient spectrum to secure its long-term health and that spectrum changes are well planned.

As we set out below, there are a number of reasons why common policy objectives which support no mobile allocation in the 470-694MHz band are in the interests of the EU citizens. In particular, such a position would recognise the vital role DTT plays in delivering social and economic value to member states and also the need for commercial certainty at a critical stage in the platform's ongoing evolution, including the development of integrated on-demand services and improvements in picture resolution.

The implications of a co-primary allocation would also pose significant risks. Based on the precedent of previous changes to the Radio Regulations, a WRC decision to approve a co-primary allocation would signal the start of a countdown to switching off terrestrial television.

The risk of regulatory decisions creating commercial uncertainty was among the factors cited by UK regulator, Ofcom, in its update on WRC-15 preparations in which it stated its intention to oppose a co-primary allocation in this band.<sup>2</sup>

Far from promoting flexibility in the deployment of new services, a co-primary allocation allowing different approaches by neighbouring countries would also cause considerable challenges in terms of international co-ordination.

The proposed clearance of the 700 MHz band is a complex process for which transition planning and frequency plans are still required. While a harmonised approach is desirable, until these elements are in place it is difficult to know whether the proposed timeline set for Europe is realistic. As we note in our response to the RSPG's parallel consultation on the long term strategy on the future use of the UHF band, the timings which may be achievable in the UK could prove challenging for other member states.

We fully support the RSPG view on the need for improvements to receiver performance to minimise interference from LTE services but note that co-existence modelling has been based on DVB-T2. In the event that Member States continue with DVB-T operation there will be an enhanced risk of interference which will need to be resolved.

We would also ask the RSPG to note the significant challenges which agenda item 1.1 has created and the resulting uncertainty for the DTT sector. Now that there is an authoritative body of evidence pointing to DTT's important and enduring role in Europe's audio-visual

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<sup>1</sup> Results of the work of the High Level Group on the future use of the UHF Band (470-790MHz), September 2014

<sup>2</sup> Update on the UK preparations for the World Radiocommunication Conference 2015, January 2015

model, we would urge the RSPG to recommend a common policy position opposed to considering this audio-visual band for mobile use at WRCs prior to 2025.

### 3. Views on common policy objectives

#### WRC-15 Agenda item 1.1

We welcome the RSPG's recognition of the value and popularity of DTT as an audio-visual delivery platform for the foreseeable future. The corollary of this view is that sufficient spectrum is securely allocated to ensure that DTT services can continue to meet viewers' needs and expectations.

It is therefore appropriate that RSPG recommends that member states do not support a mobile allocation in the 470-694MHz band. It is also consistent with the views set out in Pascal Lamy's recent report to the European Commission. M Lamy's report highlighted the importance of the European audio-visual model which has provided viewers with a broad range of high-quality programming, while also meeting important public policy objectives in relation to cultural diversity and media pluralism. The report identified DTT as 'the backbone' of this model.

This view has been reflected in the UK by Ofcom, which in May 2014 published a discussion paper *The Future of Free to View TV*<sup>3</sup> setting out the public policy benefits delivered by a strong free to view offer. The paper identified DTT as 'the cornerstone technology' for providing free to view television which ensures the following:

- Reach and impact for public service broadcasting
- Platform choice and range
- Competition between platforms
- Mitigation against overly powerful gatekeepers

Set against these benefits delivered by DTT are the significant disadvantages which would result from a co-primary allocation. Ofcom's sets out the challenges facing DTT over the coming years as technology improvements drive changes in audience behaviour. DTT operators in the UK and across Europe are rising to those challenges through the integration of on demand services to create hybrid platforms and increased use of the latest transmission standards to deliver an expanded portfolio of high definition channels.

However, the uncertainty over access to spectrum caused by a co-primary allocation in the 470-694MHz band, would inevitably have an impact on platform operators' and channel providers' ability to make investment decisions in the future. It is also worth noting that a recent report published by Aetha<sup>4</sup> on the future use of the 470–694MHz band concluded that there was no economic case in the period 2015-2029 for switching-off existing DTT networks across Europe on the grounds of spectral efficiency. The study found that even when using

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<sup>3</sup> The Future of free to view TV, Ofcom, May 2014

<http://stakeholders.ofcom.org.uk/binaries/consultations/700MHz/discussion/ftv.pdf>

<sup>4</sup> Future use of the 470-694MHz band, Nov 2014

[https://tech.ebu.ch/docs/news/2014\\_11/Aetha%20Future%20use%20of%20the%20470-694MHz%20band%20in%20the%20EU%2031%20Oct%202014.pdf](https://tech.ebu.ch/docs/news/2014_11/Aetha%20Future%20use%20of%20the%20470-694MHz%20band%20in%20the%20EU%2031%20Oct%202014.pdf)

the most aggressive mobile traffic forecast, the costs of clearing DTT from the spectrum outweighed the potential value of using it for mobile by a factor of four to one.

The Aetha report findings also serve as a reminder of the risks associated with making policy based on highly uncertain forecasts for mobile data requirements. The RSPG will be aware that the acknowledged industry reference for data traffic, Cisco, has twice reduced its data traffic forecasts in recent years and these revised forecasts are still seen by some as significantly overstating the likely level of future data demand.

More recently, analysis by LS Telcom<sup>5</sup> found that the traffic density forecasts used in ITU modelling on future spectrum requirements for mobile broadband were 'orders of magnitude too high'.

Far greater certainty exists concerning the increasingly important role that WiFi will play in meeting the growing demand for data - most notably video - on portable devices. It has been widely recognised that a significant proportion of 'mobile' data consumption is static and facilitated by traffic offload on to Wi-Fi<sup>6</sup>, somewhat questioning the need for additional sub-1GHz spectrum for mobile networks. Most video content is consumed in the home and Wi-Fi is increasingly ubiquitous in towns, cities and on public transport networks.

We would also highlight that the increased use of small cells and mobile network densification to increase data capacity is better addressed by access to higher frequency spectrum, regardless of whether the user equipment is static or mobile.

## **WBB downlinks**

Flexible approaches and spectrum sharing will become increasingly important in achieving the most efficient use of spectrum. DTT and PMSE have had an effective and successful coexistence arrangement for many years. The PMSE community will need security of access to spectrum and appropriate assurances at least for the same timeframe as DTT. Were PMSE to be moved to an alternative frequency band there would be considerable risk to the audio-visual content creation sector, a driver of high economic value creation and employment.

Similarly, one of the potential benefits of a primary use of 470-694MHz by DTT is that it could enable dynamic spectrum access or white space devices, assuming that strong guarantees were put in place for existing users of this spectrum. As recognised in the Aetha report, this could further strengthen the economic case against co-primary allocation to mobile.

The RSPG recommends that Member States should have the flexibility to use the 470-694MHz band for WBB downlinks, provided that such use is compatible with the

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<sup>5</sup> Mobile spectrum requirement estimates, getting the inputs right: [http://satellite-spectrum-initiative.com/files/Mobile%20Spectrum%20Forecast%20final%20report%20v106\[1\].pdf](http://satellite-spectrum-initiative.com/files/Mobile%20Spectrum%20Forecast%20final%20report%20v106[1].pdf)

<sup>6</sup> Wik/Aegis, Study on Impact of traffic off-loading and related technological trends on the demand for wireless broadband spectrum, <http://bookshop.europa.eu/en/study-on-impact-of-traffic-off-loading-and-related-technological-trends-on-the-demand-for-wireless-broadband-spectrum-pbKK0113239/>

broadcasting needs in the relevant Member State and does not create a constraint on the operations of DTT in this band, including for neighbouring countries.

While we support the principle of flexibility to deliver greater efficiency, we would urge the RSPG opinion to acknowledge the inherent incompatibility issues with the implementation and operation of adjacent networks. These issues were highlighted in the recent CEPT report 224<sup>7</sup> and an extensive study for the European Commission by Plum and Farncombe<sup>8</sup>. We consider it of critical importance that any new flexible uses of spectrum do not inhibit the existing capacity or coverage of DTT networks and allow for the future evolution of the platform, not simply its preservation in aspic.

### **WRC-15 Agenda item 1.2**

We recognise the International momentum behind a future clearance of the 700MHz band but would note the complexity and challenges associated with reorganising the DTT networks across Europe to accommodate today's services in less spectrum than is currently utilised.

We note that clearance of the band across Europe will be an involved process for which the detailed planning is still to commence and that the frequency plans on which any transition must be based are in the very early stages of development. As such, the dates proposed for a full clearance of the 700MHz band in Europe may be appropriate but without robust plans in place that have been stress tested, it is difficult to conclude whether the timeframes proposed are appropriate.

It should be recognised that the out of band emissions (OOBE) characteristics for IMT services in the 700MHz band have been determined based on modelling where DVB-T2 is the DTT system in service. In the event that DVB-T is being used, then the compromise position adopted for OOBE may not be sufficient to protect the DTT service and channel 48 and additional local interference mitigation arrangements may be necessary.

### **Future WRC agenda items**

Agenda item 1.1 has created significant challenges for DTT and other sectors, creating uncertainty and a serious threat to the services we provide. Now that there is an authoritative body of evidence pointing to DTT's important and enduring role in Europe's audio-visual model, we feel it is vital to give platform operators the certainty and stability required to make long term investment decisions.

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<sup>7</sup> Long term vision for the UHF broadcasting band, November 2014  
<http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCREP224.PDF>

<sup>8</sup> Challenges and opportunities of broadcast-broadband convergence and its impact on spectrum and network use, 2014  
[http://www.plumconsulting.co.uk/pdfs/Plum\\_Dec2014\\_Broadcast-broadband\\_convergence\\_and\\_impact\\_on\\_spectrum\\_and\\_network\\_use.pdf](http://www.plumconsulting.co.uk/pdfs/Plum_Dec2014_Broadcast-broadband_convergence_and_impact_on_spectrum_and_network_use.pdf)

As Pascal Lamy recommended in his report to the Commission, any plans to identify further spectrum bands for mobile broadband should 'follow market realities and market conditions' and be subject to a stock-take of UHF spectrum usage by 2025. In considering future WRC agenda items, we would therefore urge the RSPG to oppose further consideration of the audio-visual band for mobile use at conferences prior to 2025.

In particular, we believe that any future agenda item which seeks to find additional spectrum for IMT is rigorously informed by evidence that demand for mobile services actually requires additional spectrum to that already available to mobile operators.