

World Radiocommunication Conference 2015



Briefing from Digital UK
September 2015

WRC-15: Briefing from Digital UK – September 2015

WRC-15 – why it matters

The World Radiocommunication Conference 2015 (WRC-15) takes place in Geneva from 2-27 November. This global event is convened every three or four years by the International Telecommunication Union (ITU) to agree the rules on how radio spectrum is used.

This year's conference is crucial to the future of digital terrestrial television (DTT) across Europe, Africa and the Middle East. Around half of European households rely on DTT, while in the UK Freeview is used in around three-quarters of homes. The near-universal availability of services like Freeview help underpin public service broadcasting which in turn is a major driver of investment in programme-making and creative industries.

Two agenda items will have a direct impact on terrestrial TV:

Agenda Item: 1.1 – requires the identification of additional spectrum bands for use by mobile broadband, potentially including those currently used for broadcasting.

Agenda Item 1.2 - following agreement at WRC-12 to allow mobile broadband in the 700MHz band, this item will confirm the technical conditions needed to avoid interference to DTT.

In addition to these items, WRC-15 will also agree the agenda for the next conference in 2019 at which further spectrum for mobile broadband will be identified.

Preparations for the conference have seen detailed studies undertaken on these agenda items. Broadcasters have acknowledged the growing demand for mobile broadband while also making the case for the continuing importance of terrestrial broadcasting, which remains one of the most effective and efficient means of distributing audio-visual content.

Recommended positioning on WRC-15 Agenda Items 1.1 and 1.2

Item	Position
Agenda Item 1.1 Identify new spectrum bands for mobile	Spectrum below 700MHz must be safeguarded for broadcasting for the foreseeable future. This requires support for 'No Change' in the 470-694MHz band.
Agenda Item 1.2 To allow allocation of 694-790MHz for mobile	Future mobile services operating in the 700MHz band must not interfere with Freeview

What's at stake for UK viewers with Freeview?

Freeview is the UK's most widely used TV service. It is watched on nearly 11 million main sets with a further nine million homes using it on secondary sets. In total, around three-quarters of homes have at least one Freeview set. It has the highest coverage of any UK platform (coverage reaches at least 98.5 per cent of UK households) which ensures subscription-free access to high-quality television, including public service channels from the BBC, ITV, Channel 4 and Channel 5.

Among the spectrum bands being considered for mobile broadband under Agenda Item 1.1 is the 470-694MHz band. This will be the only spectrum dedicated to broadcasting when television signals are cleared from the 700MHz band to make way for additional mobile broadband. Re-designating 470-694MHz as also suitable for mobile broadband (a 'co-primary' allocation) would expose terrestrial broadcasting to unreasonable commercial uncertainty, inhibiting its ability to evolve with more connected technologies and increased HD content.

Reasons to support 'No Change' in the 470-694MHz band

The pros and cons of changing the Radio Regulations to allow mobile services to use the 470-694MHz band have been the subject of extensive debate and research. This has produced strong evidence to support 'No Change' to the regulations governing this band with most European, African and Middle East countries supporting this position.

Here are 10 good reasons to support 'No Change' on the 470-694MHz band:

1. **The social value of DTT** – Services such as Freeview ensure the universal availability of public service and commercial channels free from subscription. Pascal Lamy's 2014 report to the European Commission concluded that DTT was 'backbone of the European audiovisual model' and recommended safeguarding spectrum for broadcasting until 2030¹.
2. **The economic value of DTT** – In the UK, it is estimated that Freeview delivers value of approximately £80bn over a 10 year period.² European research by Aetha³ concluded that there was no economic case for switching-off existing DTT networks on the grounds of spectrum efficiency.
3. **An efficient system** – Terrestrial broadcasting is a reliable and efficient way to deliver TV to mass audiences. It's further improving efficient use of airwaves by releasing 30 per cent of existing capacity for mobile broadband and making greater use of the most up-to-date DVB-T2 broadcasting standards⁴.

¹ <http://ec.europa.eu/digital-agenda/en/news/report-results-work-high-level-group-future-use-uhf-band>

² The value of DTT in an era of increasing demand for spectrum – Communications Chambers, 2014

³ 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

⁴ Roadmap for the evolution of DTT – Analysys Mason

4. **Sharing with other spectrum users** - Terrestrial TV helps maximise the return from spectrum by sharing with other users such as the radio microphone industry. There's also potential for more sharing with new technologies such as white space devices.
5. **DTT delivers a hybrid future** – Broadcast and catch-up TV are coming together in new services like Freeview Play. Broadcasters are making a major investment in this 'hybrid' service to boost viewer choice⁵ and need certainty of access to spectrum to support investment.
6. **Uncertainty over data forecasts** – Predictions of 'explosive' growth in data demand are highly uncertain with forecasting specialists, such as Cisco, repeatedly revising forecasts downwards.
7. **Questions over ITU modelling** – ITU modelling that generates data traffic forecasts used at WRC-15 have been called into doubt. Spectrum specialists LS Telcom found the modelling used inputs 'orders of magnitude too high'⁶.
8. **Alternative sources of mobile capacity** – there are alternatives to boosting mobile broadband capacity other than allocating ever more spectrum. These include more spectrum sharing and the use of small cells⁷.
9. **Wi-fi will meet most needs** - There is clear evidence of the growing importance of Wi-fi rather than mobile networks in meeting demand for data on mobile devices. Most video content on mobile devices is consumed over Wi-fi, according to an EU report⁸.
10. **IP networks cannot meet viewer needs** – DTT must remain strong in the absence of IP networks able to serve mass audiences. Ofcom has identified significant challenges which will need to be overcome before IP can match the reach and reliability of DTT, which it described as the 'cornerstone technology' for free-to-view television'.⁹

About Digital UK: We work with our member organisations (BBC, ITV, Channel 4, Arqiva), the European Broadcasting Union, the Wider Spectrum Group and others to support terrestrial broadcasting. For more information visit: <http://www.digitaluk.co.uk/futureofdtv>

http://www.digitag.org/wp-content/uploads/2015/01/0694-Roadmap-Report_web-2.pdf

⁵ Press release: http://www.digitaluk.co.uk/__data/assets/pdf_file/0004/87340/5-6-14-Freeview_and_Digital_UK_to_develop_Connected_TV_offer.pdf

⁶ 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)

⁷ Ofcom's mobile data strategy cites these and other approaches for meeting increased mobile data demand <http://stakeholders.ofcom.org.uk/binaries/consultations/mobile-data-strategy/statement/statement.pdf>

⁸ Wik/Aegis, Study on Impact of traffic off-loading, <http://bookshop.europa.eu/en/study-on-impact-of-traffic-off-loading-and-related-technological-trends-on-the-demand-for-wireless-broadband-spectrum-pbKK0113239/>

⁹ <http://stakeholders.ofcom.org.uk/binaries/consultations/700MHz/discussion/ftv.pdf>