

## **BNE Chairs Spectrum Session at IBC 2013**

On 15<sup>th</sup> September 2013, BNE Director Dr Peter Couch chaired a session on “Spectrum - Maximising Benefit and Minimising Disruption” as part of IBC 2013, the must-attend event for all players in the world of content creation, management and delivery. Featuring representatives of Analysys Mason, TdF, Sony, the European Communications Office and Digital Mobile Spectrum Limited, the session aimed to discuss the increasing demand for mobile data as well as the consequent pressure for additional spectrum and the challenges that increased coexistence of services generates.

The growth in mobile data traffic is real but the scale of it is still subject to debate, as described by Lluís Borrell, Partner at Analysys Mason, who outlined that the growth in both linear and non-linear content consumption aligned to a rapid adoption of mobile and portable devices is the driver. However, he also acknowledged the demands for spectrum from the broadcasting community with the increasing adoption of Higher Resolution services, e.g. HD and UHD. This all leads to a squeeze on spectrum availability which should be enabled by careful management of the co-existence arrangements and by ensuring the appropriate balance of spectrum is available, both high and low frequency. Ultimately, Mr Borrell emphasised that the spectrum debate should focus on giving consumers the services they demand.

What is of concern though, is how to gain greater spectral efficiency, as demanded by the Regulators and the European Commission, a fact that was reaffirmed by Mark Thomas, Director of the European Communications Office (ECO) who stated that “sharing is the new reality”. Mr Thomas further reminded the audience of the EU Regulatory process and explained the way in which European institutions work hand-in-hand to optimise the exploitation of spectrum within the EU.

In addition, and perhaps more importantly, the key issue is to assess what practical impact does this have when networks with different planning rules, technologies and topologies are implemented in adjacent bands, such as 4G alongside DTT.

Jean-Pierre Faisan, Director of Spectrum Policy at French Broadcast Network Operator and BNE member TdF, provided the viewpoint of the sector following the 4G service launch and its impact on terrestrial broadcast services. Although he acknowledged that the number of interference events had been lower than expected, he stated that mobile operators are currently rolling out their networks actively with consumers remaining highly sensitive towards interference.

So under what conditions would co-existence without interference between the services be possible, if at all?

Jean-Pierre Faisan shared with the audience some of the requirements he feels that need to be implemented in the real world to guarantee this ‘peaceful’ co-

existence; he explained that coexistence between LTE service at 800 MHz and DTT services (with the two services occupying adjacent frequency bands) would appear to be manageable through public information, well organized management of complaints and swift provision of filters, to be paid for by 800 MHz license holders (Mobile Network Operators).

Caution with regard to the alarming statements on the interference issue was reinforced by Simon Beresford-Wylie, CEO of Digital Mobile Spectrum Limited, who explained how the UK Mobile Operators have set-up a company, under the aegis of the British government, to oversee the interference mitigation options. Aside from emphasising the importance of trials and pilots in order to develop appropriate communications and filter provision strategy and systems, Mr Beresford-Wylie also pointed out that the number of interference events has been considerably lower than anticipated, and indicated that the future scale and capability of the mitigation company are being reviewed in light of the experience gained after the launch of 4G services.

Stephen Beck, of Sony, stressed that just as mitigation techniques such as the use of additional filters need to be carefully implemented, he also insisted that filtering should not be integrated into TV receivers, but rather used as an add-on wherever appropriate.

As for the research areas on which both universities and the industry should be concentrating in the future, Mr Beck further emphasised the importance of comprehensive technical studies on DTT/LTE co-existence, particularly with the proposed clearance of the 700 MHz band and the location of mobile terminals adjacent to the broadcast service at Channel 48.

Furthermore, he pointed out that in order to maximise the potential for coexistence, improvements to both TV reception equipment and mobile-device filtering should be encouraged.

The event concluded with a detailed Q&A session centred on the real-life experiences of interference between 4G services in the 800 MHz band and the adjacent broadcast service.