

ABU DBS-2015

Friday 6th March

Industry Debate: **Is Spectrum Essential for Broadcasting**

Moderator and Chair: Dr. **Amal** Punchihewa

Panellists: **Simon** Fell, Dr. Ahmad **Zaki**, **Kathryn** Brown, **Martyn** Horspool, **Ruxandra** Obreja

Reported by Lindsay Cornell, Principal Systems Architect, BBC Future Media

Amal introduced the session, pointing out the difficulty of having a debate when all the delegates and panellists already agree that broadcasting needs spectrum, but who will argue against them? So **Amal** has collected together some questions to create the debate. The important thing is to demonstrate that all of us understand and actively support by our actions the importance of spectrum to our business of broadcasting and communicate this to our colleagues, national regulators and so on, so that our future is protected.

Broadcasters, whether radio or television, create content and then package it, by analogue or digital techniques, and deliver it to consumers. But the telecoms people claim that they can do it better! But is this true? What do we say to counter these arguments? How do we convince regulators and governments that broadcasters do an essential job to inform, educate and entertain the people?

Amal asked **Martin** what does an equipment company, which could make equipment for any industry, defend the need for broadcast? **Martin** said that through their international contacts and contracts, he believed that broadcasting would continue for a long time to come. Issues of economy, reliability, emergency warning information, local, regional, national coverage all pointed to the essential role of broadcasting. **Amal** thanked **Martin**, but said is this unique? The telecoms and mobile operators say that they can provide better efficiency, personalised content, more jobs, social factors, and so on.

Amal turned to Dr **Zaki**, asking if OTT and other IP based solutions can replace all the broadcasting. Dr **Zaki** said that when he first was asked to join the panel with the title "Is spectrum essential" he thought it was a joke, because of course spectrum is essential! IP was never invented to do broadcasting. IP connectivity is always one-to-one; whatever the standards say. No big event can be covered with IP, there is simply not enough bandwidth. Regarding OTT, it is essential for broadcasters to move with technology. Media Prima feels that its OTT offering is complimentary to the traditional broadcasting platforms. Especially young people do not like to do as their parents do, so to reach them with our services, OTT helps enormously. But it is only complimentary - it cannot replace broadcast.

Ruxandra highlighted the role of radio in the event of national disasters. In her experience, following news stories, the only communication remaining is radio - TV and mobile become useless, whilst battery powered radios keep going. Analogue radio does this and digital even better because with digital additional information can be supplied, like messages in multiple languages. In the lower frequency bands radio can be delivered from long distances away - UK to India, New Zealand to Brazil.

Kath added that CRA had requested information from operators after the flooding in Eastern Australia about what had happened to their services. The high power broadcast transmitters were still in operation, but most of the mobile telecoms base stations were not working because of no mains power, which was lost for three days. This supported **Ruxandra's** comments about radio being the only service still available.

Simon Fell had chaired a debate at IBC in September 2014 between broadcasters and telecoms companies. **Amal** asked him to explain what was involved.

Simon reiterated that DTT is the major platform in Europe - it provides services to 250m people. Most DTT users are consuming free-to-air content and that is really only possible with dedicated terrestrial spectrum.

Simon mentioned OTT platforms where a large proportion of viewing is catch-up for linear free-to-air TV - content that has established itself due to its mass-audience broadcast tradition. One of the great things about free-to-air linear

TV is serendipity: if you always have to search for content then you may end up with just watching one show, whereas with broadcast TV you see something you didn't expect to enjoy and so you can enrich your life. This is surely an important point in terms of social cohesion - if people only consume what they already know, their prejudices will be enforced rather than dissipated.

Amal: is the difference between a "viewer" and a "customer" important? Free-to-air broadcasters tend to use the former, whereas telcos use the latter!

Amal asked about quality: how do network operators guarantee quality in broadcast? And how does that differ for the mobile service? Are there differences between broadcast and mobile networks in terms of quality and reliability?

Martin responded that broadcast is expected to be always available and people take that for granted. He knows several people who still use over-the-air for some of their TV viewing despite having it available on cable, along with masses of choice, because the over-the-air pictures are better due to less compression. He also mentioned the monitoring network used in Russia to ensure that the broadcast network was always available and working well.

Kath mentioned the position being put forward by mobile operators at Mobile World Congress in Barcelona that broadcast will be gone by 2030 and that they are looking to have not only LTLP but also HTHP. **Kath** emphasised that if your transmission has been contracted to a tower operator, you might face in the future the problem that they will sell the best aperture to the one who pays most... and that will most likely not be the broadcasters.

What about access with satellite or IP? What is the experience with OTT? Is it reliable? What about quality? Dr **Zaki** said that whilst rain-fade affects satellite, no such problem with UHF! Throughout the years broadcast spectrum has been eroded: from 470-860 down and down. How far will it go? These things happen at the WRCs and there is another one this year. The report M.2990 says that requirements for IMT will triple but others have studied the report [EBU] and show that it makes no sense! It is based on estimates of population growth, etc., but the assumptions are not reasonable. **Simon** said there is also a paper from LS Telecom questioning the measurement methods proposed. He also shared that the figures are

incredibly speculative - Cisco have revised their estimates downwards by 50%. **Simon** also mentioned C-band distribution of TV in tropical regions and the threat from IMT. The spectrum that IMT already has is not fully used, but no-one is properly checking this. Most use of IP video is not by mobile broadband, but via Wi-Fi (87%) and the projections in M.2290 do not take account of that. These discussions, though, need to be turned into action so that these arbitrarily large demands for spectrum are countered.

Ruxandra said that spectrum is so very valuable these days, but since we have had it so long, we understand it differently to incomers. We need to raise our arguments and make sure that governments understand that they must not take broadcasting for granted - they must look after the spectrum for broadcasting if they want the benefits to continue.

LTO - LTE mobile offload - the idea is that an LTE network operator can use DVB-T2 PLP mechanism to fit LTE frames into a DVB-T2 broadcast. This needs a lot of collaboration, but the idea is that perhaps some broadcast spectrum can be shared with mobile instead of it being auctioned. **Simon** said that actually this is a question of devices, and mobile operators have a track record of restricting broadcast receive technologies in mobile terminals in order to force a shift by users (e.g. FM disabled in US phones).

Les Sabel: Is there an ulterior motive from the mobile operators?

Luc: Plan properly.

SUMMARY

Ruxandra: Lobby our representatives. Try to understand the whole picture. Get to grips with our own needs and work together. We need to continue to make very good content so that we continue to have a strong argument.

Martin: I agree with **Ruxandra**.

Kath: Build the armoury of evidence: various reports show that broadcast is much cheaper than LTE for radio content. Collect evidence of the value of broadcast. Present the case for the car, where radio has prime dominance now. Lobby to make broadcast receivers mandated in smart phones for disaster situations.

Zaki: We have to work together. We recommend that each country should have a national spectrum policy; examples are Singapore, UK, USA. Spectrum is limited and more and more demand from newcomers. A national spectrum plan gives more certainty to all operators in the market.

Simon: Europe had a "high level group" in front of the EU to discuss between telcos, broadcasters, etc. Some agreements were reached about the impact in changes to UHF spectrum. Important issues are publicising a date for changes, agreement that compensation is needed for incumbents, and having a plan that allows all involved to have some certainty.