10 things you need to know about...

Digital switchover & new opportunities

1 – TV is migrating from Analogue to Digital Terrestrial TV

After many decades of analogue transmissions, terrestrial TV is undergoing a progressive conversion to digital technology. This is probably the most profound change since the beginning of TV broadcasting.

2 – It is not just about migrating existing services, but exploiting the increased opportunities of digital television

Digital technology brings many benefits to the viewers and broadcasters alike, such as additional programmes, additional reception modes (mobile and portable), improved quality including HDTV, new type of services (e.g. EPG, interactivity), and a prospect of further development (e.g. push VOD, 3DTV)

3 – When is the migration from analogue to digital going to be complete?

The European Commission has recommended that its member-States complete digital switchover by 2012. Many countries are planning to reach this deadline although it is not yet certain that all will be able to do so. International agreements allow for the protection of analogue TV services until 17 June 2015.

4 – Some countries have already completed their migrations to digital terrestrial TV

In many European countries, analogue switch-off is well underway. Already, Andorra, Finland, Germany, Luxembourg, the Netherlands, Sweden and Switzerland have completed the process while a further 8 countries have begun to switch-off analogue services in certain regions. In the United States, analogue switch-off was completed in June 2009.

5 – The two main factors affecting the switch-off process are DTT coverage and receiver penetration

As increasing numbers of terrestrially-dependent households convert to digital television services, it becomes feasible to switch off the analogue platform. For this reason, it is essential to reach a high level of DTT network coverage and penetration of DTT receivers. Co-operation and co-ordination of all stakeholders is essential, including broadcasters (both PSBs and commercial), network operators, equipment manufacturers and retailers as well as national administrations. Communications campaigns to inform viewers about the switchover is also essential.

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10 things number 10
September 2009

6 – But digital switch-over doesn't imply that technological development in terrestrial television platforms will stop – on the contrary, developments will accelerate creating new opportunities

The digital switch over is the main challenge affecting the DTT platform at present. However, once the switch-over is completed, technology development will not stop, on the contrary. There are a number of technological developments that are currently taking place and are progressively being implemented on the terrestrial platform. The main goal is to sustain a vibrant terrestrial platform and a viable alternative to other delivery media, such as satellite, cable and increasingly broadband

7 – What about the introduction of DVB-T2?

The main digital transmission standard adopted in Europe is DVB-T, although some countries, notably the UK and Finland, are investigating DVB-T2. This new standard offers increased multiplex capacity and allows for larger SFNs than DVB-T. For many countries, it offers the opportunity to offer new services on the DTT platform that would not have been otherwise possible given frequency capacity constraints. The clearest example of this is the launch of HDTV over DVB-T2 in the UK. EBU Technical doesn't envisage DVB-T2 replacing DVB-T.

8 – EBU believes that HD services will ultimately replace all SD programmes.

Most of the existing digital services are delivered in standard definition (SD), with some channels are already available in HD format. EBU's vision is that all broadcast services will be in HD format in the future. Some countries have already begun delivering HD services on the DTT platform - this trend will accelerate.

9 – Similarly, EBU believes that MPEG-4 (H.264) will gradually replace MPEG-2 because of its higher performance

There is currently a mixture of compression formats. Some TV services use MPEG-2 while others use MPEG-4. As MPEG-4 offers higher capacity, it is expected that all transmissions will be upgraded in due course to MPEG-4. MPEG-2 isn't likely to disappear overnight though and many countries will likely use it for many years to come.

10 – But won't legacy receivers curtail the deployment of new technologies?

One of the key components in any migration is the receiver. It is essential for any change in the transmission technology to be matched with the suitable receivers that are widely available, affordable and of a good technical quality. Whilst backwards compatibility would ease transitional issues and simulcast, it is not always economically feasible. In this event, it is important to have clear consistent messaging to educate the viewing public.

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