

Digital Dividend Public Consultation

DigiTAG, a digital terrestrial television (DTT) industry association, welcomes the opportunity to respond to the European Commission's consultation on the digital dividend.

The EU roadmap is an important step in allowing for a coordinated approach to spectrum usage across Member-States. Such a roadmap can provide the market with confidence in how spectrum will be used, enable economies of scale, and limit market fragmentation. However, it will be important that such a roadmap takes into consideration the importance of the terrestrial television platform and its development within EU Member-States.

Importance of the terrestrial television platform

The DTT platform has provided viewers across Europe with access to digital services, ensured the universal coverage of free-to-air services, and renewed competition between television service operators.

The terrestrial television platform is currently one of the most economic broadcast transmission systems, especially with the move from analogue to digital technology. It allows for broadcasters to easily provide content to a maximum number of viewers at a low, per-viewer cost. The unique features of the DTT platform allow viewers to benefit from regional and local services as well as portable and mobile reception.

The terrestrial platform also provides nearly universal coverage to all television households. At this stage, only satellite can provide a similar level of coverage. However, satellite is not an option for all households given that in many areas, local rules prohibit the installation of satellite antennas. In addition, it can be important for the market to give viewers choice between more than one delivery platform to access television services.

The launch of DTT services has enabled many households to access digital television for the first time. In France, over half of all digital television households rely on the DTT platform for access to digital television services and the DTT platform is leading the growth of digital television, most notably because of its provision for free-to-air access.

The launch of the DTT platform has increased competition in the television market. Not only can viewers choose the medium used for the delivery of television services but they also have greater choice regarding pay television services. Viewers have also benefited from the unique business models adopted on the pay-DTT platform, allowing for such services as pay-per-view events, near video-on-demand, and basic pay bouquets. The increase in competition between service providers has allowed viewers to benefit from appealing content and lower prices.

DigiTAG Project Office

c/o EBU, Ancienne Route 17 - CH 1218 Grand Saconnex/Geneva

Tel: +41.22.717.2735 Fax: +41.22.717.2462

E-mail: projectoffice@digitag.org <http://www.digitag.org>

The broadcast industry has recently re-affirmed its confidence in the terrestrial television platform through the development of the DVB-T2 standard. With this standard, it will be possible for the terrestrial television platform to continue its development and provide viewers with access to new and enhanced services. However, for this to be possible, it may be necessary for national administrations to continue making spectrum available for broadcast services.

Current DTT market developments in Member-States

The launch of DTT services has enabled the terrestrial television platform to retain its competitiveness vis-à-vis other television delivery platforms. In some countries, especially those with traditionally few television households depending on the analogue terrestrial television platform for their primary television services, the reliance upon the terrestrial platform has increased significantly. This has been the case in both the Netherlands and Germany.

Primary television viewers

Viewer dependency on the terrestrial television platform for primary television services varies significantly between Member-States. In some countries, the terrestrial television platform is used by well over 50% of viewers (France, Greece, Italy) while in other countries it is used by approximately 10% of viewers (Belgium, Germany, the Netherlands) for primary television services. Policy decisions made at an EU-level must take into consideration the variations in television usage by Member-States.

Secondary television sets

In many homes, including those that subscribe to cable, IPTV, or satellite providers, the terrestrial television platform is used for most of the secondary television sets. It is generally estimated by the consumer electronics industry that households own an average of 2.2 television sets which leads to the assumption that at least one television set in every household in Europe relies on the terrestrial television platform.

In the United Kingdom, where 9.8 million households rely exclusively on the DTT platform, it is estimated that 17.8 million households watch DTT services on at least one television set. The significance of the terrestrial television platform is therefore much greater than may be assumed from the number of television households that rely on the DTT platform for their primary television services.

The market for DTT services is further augmented by the inclusion of the DVB-T standard in all digital television sets. At this stage, DVB-T is the de-facto standard present in nearly all television sets sold in EU Member-States, and legislation in several countries reinforces this market reality.

Responses to the proposed actions for the EU roadmap

Issue 4.1

DigiTAG members agree that high quality standards must be used in the provision of DTT services. This is precisely why the whole membership of the broadcast industry

value chain has been involved in the development and implementation of the DVB family of standards.

The recent specification of the DVB-T2 standard highlights the broadcast industry's confidence in the continued evolution of the DTT market. This new standard provides for the maximization of spectrum efficiency so that markets can launch new services on the DTT platform. This is the case in Finland and the United Kingdom which have announced plans to use the DVB-T2 standard in combination with MPEG-4 AVC compression technology to provide HD services.

The success of the DTT platform has demonstrated that the introduction of new technology should be combined with the introduction of new and/or enhanced services rather than as a simple replacement for existing services. In countries where DVB-T services simply replicated the existing analogue platform, DVB-T penetration has been difficult to achieve and viewers have resented the requirement to "upgrade" equipment without a return in value-add.

A coordinated approach to the launch of new DTT services and the adoption of a common set of receiver requirements throughout Europe can help ensure that markets are provided with the necessary receivers in a timely manner and can fully benefit from economies of scale.

Point 4.1 a

Market evidence shows that the MPEG-4 AVC compression technology is increasingly being integrated in to DTT receivers. Markets that have launched DTT services since 2008 have overwhelmingly adopted MPEG-4 AVC while markets that presently use MPEG-2 will likely transition to MPEG-4 AVC. In France, and as from 2010 in Spain, all HD receivers must include an MPEG-4 AVC chipset. As a result, MPEG-4 AVC is expected to become the de-facto compression technology used in almost all DTT receivers.

Mandating the inclusion of MPEG-4 AVC in DTT receivers will penalize consumers in markets that only make use of MPEG-2 given the price difference between the two technologies, which as of mid-2009, remains significant. Consumers will be required to pay a higher cost for receiver features that do not function in their market. However, this will only be the case until the price difference between MPEG-2 and MPEG-4 AVC chipsets is eliminated, which may occur in several years.

While it can be assumed that consumers generally purchase a new television set every 5-8 years, many of the older television sets continue to remain in use. Secondary television sets are widespread and their lifecycle surpasses 8 years. Any change of technology will need to address the widespread usage of secondary television sets and ensure that measures are taken to allow for their continued performance.

Point 4.1b

It is essential that all DTT receivers are able to resist interference so as to ensure a high quality viewing experience. The requirements of the current interference levels

have been established based on the use of adjacent frequency channels as per the ITU Radio Regulations.

Changes made to increase interference resistance will require the coordinated effort of the broadcast industry, and specifically the consumer electronics manufacturers. The cost for the development and inclusion of any new “anti-interference specification” should also be taken into consideration. Products currently in the market will not benefit from any revision made to increase interference resistance.

Issue 4.2

The efficient use of spectrum can allow for the provision of new services. This has been the case in the conversion from analogue to digital technology and could be furthered with the adoption of more efficient technologies. Experience with digital switchover had demonstrated that a successful shift in technology will require the provision of new services to entice consumers to purchase the necessary conversion equipment. However, such a conversion requires significant investments by the national administrations, the broadcast industry, and viewers.

Point 4.2a

Member-States should be encouraged to collaborate in their future broadcasting network deployment plans. Such cooperation and coordination can help to ensure that products are available in a timely manner and allow consumers to benefit from economies of scale of the whole European market.

However, because of the unique television market conditions in individual EU Member-States, it can be expected that consumer demands will differ making a common approach and full cooperation difficult to achieve.

Point 4.2b

Single Frequency Networks (SFNs) can provide better spectrum efficiency compared with Multiple Frequency Networks (MFNs) and it is for this reason that they have been implemented by some national administrations. This only works where the same programs are watched everywhere with no regional or local differentiation. However, frequency modifications made to a DTT network after its deployment can create difficulties for the market.

Broadcast network operators must make changes at each of their transmission sites while viewers will need to re-scan their DTT receivers. In Spain, it will be necessary for modifications to be made at 4,000 transmitters as a result of the decision by the government to remove the DTT network currently deployed in the upper part of Band V (frequencies 790-862 MHz). In the United Kingdom, the need for viewers to re-scan their DTT receivers has required the launch of a massive and expensive publicity campaign. Both operations entail a significant cost to the market.

Issue 4.3

Making the frequencies 790-862 MHz available for low/medium power electronic communications networks, under harmonized technical conditions, can allow for the provision of new bi-directional communication services to consumers. Such a

development is worthwhile so long as it does not impede the development of current and future DTT services.

The cost of migrating existing DTT networks currently located in the 790-862 MHz frequency band to other lower frequencies will likely be high and it is not yet clear who will be responsible for paying this cost. The broadcast industry has made a significant investment in the development of these networks and their frequency transfers will not bring any added value to these broadcast networks. Therefore, it is not for the broadcast industry to fund the cost of a potential migration but for the beneficiaries of the extensive work.

It should be noted that at least 8 EU Member-States in western Europe currently make use of the 790-862 MHz frequencies for their DTT networks.

Issue 4.7

The allocation of spectrum frequencies is a dynamic process subject to such factors as market demands, the development of new technologies, and societal requirements. However, some certainty in frequency allocation is required to provide the market with the necessary confidence to continue investing its resources in the development of new technologies and services.

National administrations in Member-States are in the best position to understand the needs of their market and ensure that the corresponding supply of services is provided.

It should be noted that spectrum will be necessary to allow for the continued development of the DTT platform and the provision of such services as HD and mobile television. Although the take-up of mobile television has been slow in Europe, it can be expected that broadcast technology will be necessary in order to avoid saturation on the 3G and LTE networks. For this reason, it will be necessary to complement mobile telecommunication operators' networks with broadcast networks. It can be expected that evolution of the DTT platform will continue beyond HD and mobile television. Work is already in progress in various part of the world in preparation for the development of 3D TV.

Issue 5.1

The European Commission's call for the completion of analogue switch-off by 2012 may be difficult to achieve for some Member-States. Based on currently available evidence, it can be generally assumed that the digital switchover process will take between 14 years (as in the United Kingdom) and 3 years (as in the Netherlands) from the time of the first launch of DTT services to the switch-off of the last analogue services. Factors that will influence the process include the number of viewers relying on the terrestrial television platform, spectrum availability, and the penetration of DTT services.

Countries that have already launched DTT services and begun to switch-off their analogue terrestrial platform will likely complete digital switchover by 2012.

However, countries that have not yet launched their DTT platforms risk being unable to complete analogue switch-off by 2012.

At this stage, all Member-States, apart from Poland, appear to have confirmed their intention to complete analogue switch-off by 2012. Already, the process have been completed by 5 Member-States (Finland, Germany, Luxembourg, the Netherlands, Sweden) while a further 8 Member-States (Austria, Belgium, Czech Republic, Estonia, France, Italy, Spain, the United Kingdom) have begun switching off analogue services in one or more areas. It is expected that these countries will be able to complete analogue switch-off by 2012, if not earlier.

Member States that have not yet launched DTT services will have more difficulty in reaching a sufficiently high level of penetration to allow for analogue switch-off by 2012. Currently, 7 Member-States (Bulgaria, Cyprus, Greece, Ireland, Poland, Romania, Slovakia) have not yet launched official DTT services. Of these, only two (Bulgaria, Poland) have announced plans to launch services by the end of 2009. Less than two years to complete digital switchover, especially in countries where a significant percentage of the population relies on the terrestrial television platform for their primary television services, will not be sufficient without the significant involvement of national administration.

Sources of information

Digital Progress Report, Q1 2009, Ofcom website,
http://www.ofcom.org.uk/research/tv/reports/dtv/dtu_2009_01/

Observatoire de l'équipement des foyers pour la réception de la télévision numérique, Presentation for the second semester 2008, CSA website:
http://www.csa.fr/actualite/communiqués/communiqués_detail.php?id=128175.