

**WG III: Regulatory Approach to Digital TV
Experiences and Lessons learned
Information paper on status of digital television
28th EPRA Meeting, Dublin, 29-31 October 2008
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The issue of implementation of digital television strategies and take-up of digital TV was addressed one year ago at the meeting in Sofia. This information paper is intended to outline the current status of digital television, in particular DTT and recap on some of the problematic issues of implementation. There have been many developments since the European Commission Communication of 2005 (COM(2005) 204) on accelerating the transition from analogue to digital broadcasting: switch-off is now complete in 4 EU countries and Switzerland; there has been significant uptake of DTT services in many countries. Working Group III will consist of presentations from two countries at different stages of the process of DTT implementation/ Sweden and Montenegro.

Overview of status of DTT and developments on other platforms¹

The take-up of DTT services is highest in Finland, Spain, the UK, France, and Italy, with between 30 and 50% of households using these services. There is also a relatively high take-up in Malta and Denmark. For those countries where cable is the most widespread form of television reception, two patterns have emerged: analogue switch-off will be (or has been) a less difficult process as far less people rely on the terrestrial signals; at the same time digital TV penetration has been slower as the digitisation of cable services has required a good deal of investment. Exceptions include Luxembourg and Finland where digital cable is well developed.

In many countries digital satellite services are playing a significant role in the overall take-up of digital television: Ireland, Romania, Bulgaria, Cyprus, Germany, Austria, France, the UK, Hungary, Italy, Poland, Portugal, Slovakia, Sweden, Luxembourg, and Norway. The take-up of IPTV services is also proving to be significant as regards digital television development in several countries, in particular in France. There has also been a rapid development in this area in Estonia, Latvia, Belgium, Sweden and Slovenia. For example, in Slovenia, IPTV is as significant as satellite television as a reception mode. Overall it could be said that digital satellite is competing with DTT (and mainly winning as it was available first) in rural areas, while in urban areas telecoms operators in certain countries are racing to take customers (with double and triple play offers) from cable, as cable companies try and speed up the digitalization process. Tables 1-4 below outline the current status of DTT implementation in various countries.

In other countries, strategies have been developed for the process of implementing television. A Draft Digital Switchover strategy was adopted earlier this year in Montenegro. The DTT Forum in Bosnia and Herzegovina has also been working on DTT implementation. A draft Strategy for DTT introduction will be submitted for adoption by the end of 2008. In October 2007 the National TV and Radio Broadcasting Council of Ukraine amended the Plan of national broadcasting development and determined the main principles, issues, and organizational arrangements for the implementation of the digital broadcasting.

¹ This paper was prepared without the use of an EPRA questionnaire as 2 questionnaires were developed for other topics. Hence, it has used a variety of other sources including RA websites. The EPRA Secretariat would be happy to receive any comments and clarifications on this data, and also any information, links or reports providing data on digital TV development in the various EPRA countries.

Table 1: DTT development: Group A – DTT operational – Switch off completed/ almost complete

	Digital Switch Over	DTT coverage	DTT take-up*	DTT Households*	Total Digital TV take-up	No. of MUXs currently operating	Expected Total MUXs	Mobile DVB-H services	Pay DTT services	High Definition services HDTV
Finland	Switch-off 2007		54%	1.3m	93%	4	6 DTT 2 DTT local 2 HDTV DTT	YES	YES	
Luxembourg	Switch-off 2006		2%	0.004m	63%					
Netherlands	Switch-off 2006		7%	0.6m	38%			YES	YES	
Sweden	Switch-off 2007		16%	0.7m	61%	5	7		Yes	
Switzerland	Switch-off complete 2008		8%		36%					
Germany	Completion expected end 2008	90% by end 2008	9. 2	3.9m	38,9%			YES but there have been problems with the project	YES	
Austria	Completed in 11 of 16 regions		11.5%	0.4m	56.9%	2 (3 rd for regional services)	6	YES available in most cities		
Norway	2008- 2009 region by region		5%		40%				YES	
Belgium Flanders	November 2008			0.06m	24% (all Belgium)	1	8			

Sources: MAVISE database country overviews, Digitag, Broadband TV news, Rapid TV news, RAs, ministries, and DTT information organizations, EPRA country reports (see sources below for links).

Group A consists of the countries where switch-off has been completed or is almost complete. For the most part, these are countries with high levels of cable penetration (over 40%). The rate of consumer use of DTT is not particularly high in any of the countries with the exception of Finland. The higher levels of overall penetration of digital TV reflect the rates at which the cable services have been digitized, and/or the availability of satellite packages.

Table 2: DTT development: Group B – DTT operational – Switch off starting/ high uptake of DTT/High digital TV penetration

	Digital Switch Over	DTT coverage	DTT take-up*	DTT Households*	Total Digital TV take-up	No. of MUXs currently operating	Expected Total MUXs after SO	Mobile DVB-H services	Pay DTT services	High Definition services HDTV
United Kingdom	2008-2012 region by region		36%	9.6m	83%	6			YES	Three HD channels to be launched on MUX B.
France	Progressive from 2009 - 2011	90% end of 2008	30%	8.2m	75,4%	6	13 (including 2 DVB-H)		YES	Multiplex license granted
Spain	2010 in four stages	89%	36%	11.2m	76,5%	5			Under discussion	Yes
Italy	2008-2012 region by region	90%	29%	6.3m	44%	8		YES Very high take-up	YES and P-P-V	

Sources: MAVISE database country overviews, IRIS Merlin database, Digitag, Broadband TV news, Rapid TV news, market reports of RAs, ministries, EPRA country reports.

Group B countries are those where, although complete switch-off of analogue signals has not taken place, very high levels of DTT take-up have been reached (over one third in each country). These are mainly countries where cable transmission is not of importance (less than 14% in France and the UK, and practically non-existent in Italy). Hence the roll out, and promotion, of DTT has been far more vital than in the A group above. Satellite services are also of importance in these countries and have contributed to the uptake of digital television.

In the 2 countries with extremely high levels of digital TV penetration, there is still work to be done in promoting conversion to DTT. Currently, in France 28.7% of households still rely on the analogue terrestrial platform for their primary television viewing, while in the United Kingdom the number of TV sets relying on the analogue terrestrial platform is 32%.

Table 3: DTT development: Group C – DTT operational and developing

	Digital Switch Over	DTT coverage	DTT Penetration*	DTT Households*	Total Digital TV penetration	No. of MUXs currently operating	Expected Total MUXs After SO	Mobile DVB-H services	Pay DTT services	High Definition services HD
Denmark	2009		19%	0.5m	43%	1	At least 4 more (Boxer)	Yes trials	YES	
Estonia	2010	93%	3.2%	0.017m	15%	3		Yes trials	YES	Trials PSB
Slovenia	2010	80%			12%	- A PSB - Tender for B launched				
Lithuania	2012	95%							YES	
Malta	2010	95%	20%		50,8%					
Czech Republic	2011	42%	9.2%	0.39m	27%		4	Yes trials	1	
Croatia	2011	70%	10%		21%			September 2008		

Sources: MAVISE database country overviews, IRIS Merlin database, Digitag, Broadband TV news, Rapid TV news, market reports of RAs, ministries, EPRA country reports.

This group represents those countries with operational DTT systems that are still developing.

In many of these countries, cable is a very important mode of television reception (particularly Denmark, Estonia and Malta). Exceptions are the Czech Republic and Croatia with more than half the population reliant on terrestrial television reception. In both of these the levels of DTT reception are already quite high.

Table 4: DTT development: Group D – DTT about to be launched

	Digital Switch Off	DTT coverage	DTT penetration	Total Digital TV penetration	Tenders launched	Multiplexes allocated	Services to launch	Expected Total MUXs	Mobile DVB-H trials	Pay DTT services
Greece			15%	25%		7	November 2008			
Hungary	2011	60% end 2008	2%	15,7%		For 3 MUXs in 2008	December 2008	5	MUX reserved	
Slovakia	2012	-	0.3%	15%	For two Multiplexes Aug 2008					
Poland	Region by region to 2014		0,2%	22.4%	2 nd	1 st	January 2009		Tender launch Oct 2008	
Belgium Walloon	2011	-	-	-	24% (all of Belgium)	1 PSB			Yes trials	
Ireland	2012	-	-	55.6%		1 Multiplex PSB. 3 Boxer July 2008	September 2009	6		
Portugal	2012	-	-	20,7%		2 allocated		6		YES but contested
Latvia		-	-	22%					YES	
Cyprus	2011			20%						
Romania	2012	-	-	27%	2009		2009	8		
Bulgaria	2012	-	-	-				3 national 15 regional		

Sources: MAVISE database country overviews, IRIS Merlin database, Digitag, Broadband TV news, Rapid TV news, market reports of RAs, ministries, EPRA country reports.

This Group includes those countries that are just about to launch DTT services. Many of these countries rely heavily on cable transmission (most at least 1/3 of homes, for some over 70% of homes use cable), which should allow for an easier switch-off despite the late launch of DTT. Satellite transmission also plays an important role in the uptake of digital television, particularly in Ireland, Romania, Cyprus and Poland.

Issues for discussion

Managing Switch-over and ensuring universal coverage of the DTT offer

During the discussion at the EPRA meeting in Sofia, it was recognised that the establishment of a specific organisation to implement the DTT strategy including information campaigns was important for successful implementation of digital television. Examples included the Digital Platform Austria; the Swedish Digital TV Commission; The UK Digital Television Project; the German TV Platform, the French public interest group, France Télé Numérique, and the Italian joint industry/government/ regulatory committee Italia Digitale. Recently working groups, forums of committees have also been established in Cyprus, Bosnia and Herzegovina, and Bulgaria.

Due to ongoing dependence on the terrestrial network, for example: in Hungary 25% of the population; in France 28.7%; and in the UK 32%, access to television will have to be ensured and there are several approaches. In several countries, DTT channels are being provided (or there are plans to do so) for free over satellite platforms, at least temporarily, for example where households are unable to access the DTT platform in a region where switch-off is taking place (UK, France, Spain). In many countries multiplexes will need to simulcast both analogue and digital signals at first (Slovakia and Slovenia).

Choice of standards for compression: for countries that are later in developing strategies and implementing DTT, they have the advantage of adopting higher technology standards. This has, however, already caused conflict in the tender for MUX licenses in Slovakia (see below) as not all operators agree with or can operate with this standard. In addition as technology and standards change, for those countries with long established DTT services, this can imply that older set-top boxes are no longer appropriate and need to be updated. This has happened in the UK.

Different approach of DTT development in East and West Europe

Regarding the introduction of DTT in Eastern European countries, where due to the present development of new standards in DTT (MPEG4 and DVB-T2), countries are faced with the dilemma on how to introduce DTT. The broadcasting industry relates MPEG4 and DVB-T2 to HDTV while HDTV production is still rather low - especially in Eastern Europe. Therefore there is a threat of low penetration of DTT MPEG4 receivers due to the uncertainty of HDTV standard in particular countries.

Public awareness and consumer information

Organisations such as those mentioned above are also central to improving public awareness of switch-off. In Germany the website *dasÜberallfernsehen* (everywhere television) provides an information service for consumers regarding roll-out, reception in their areas, equipment, receivers etc; (run by the German TV Platform). Similar information websites exist in Italy, Spain and Norway (see links below).

In Ireland DTT operator Boxer has recently recommended that the government appoint a body to oversee digital switchover in Ireland to ensure a smooth transition. According to Boxer there is still limited public awareness about digital switchover which is set to be completed by 2012. In France, approximately 66% of households are unaware of analogue switch-off, according to recent TDF research.

In addition, consumers need to be informed about the necessary equipment needed to receive digital television. According to recent data, in Spain 90% of TVs are being sold with a digital tuner. The Spanish government has warned that it will fine retailers who sell analogue television sets without properly warning consumers. In the UK, the government has been criticised for allowing the sale of analogue television sets. Half of all new TV sets sold in the first seven months of 2007 were analogue.

Slow development of legislation, legal challenges and other conflicts

Many countries have been slow to develop strategies and pass legislation necessary to implement DTT. In some cases where DTT has been slow to evolve, the market has already moved ahead with digital television provision. As already noted above, the expansion of satellite services has been very significant in many countries. In Romania, there are five satellite packagers competing with a total of 2million households subscribing to these services. In Albania, there is already a Pay-DTT service operating without a license, with over 100 000 subscribers. There have also been cases of challenges to decisions on allocations of licenses and other regulatory issues (see below).

- in Slovakia, the DTT licensing procedure has been halted following legal action taken by the broadcast network operator Telecom Corp claiming procedure is biased in favour of certain candidates since it calls for the use of the MPEG-4 AVC compression

Pay DTT services are also frequently a source of controversy:

- In Portugal, the DTT operator Airplus has (in September) initiated a legal proceeding against the decision to award a Pay DTT licence to Portugal Telecom (PT). Both had bid for the tender. The pay-DTT license provides the right to operate 5 DTT multiplexes. A sixth DTT multiplex, to be operated by PT, will provide free-to-air services.

- In Norway, there is a conflict over the access to the DTT platform for a second Pay-TV operator.

Ofcom launched a consultation on the proposal by BSkyB to launch pay-DTT services in September. They have proposed to replace existing FTA DTT services with 5 premium services. Following this, BSkyB has decided to drop its plans to launch pay services on the DTT platform, blaming Ofcom for delaying the regulatory process.

- The Spanish government announced in September 2008 that the introduction of legislation to introduce pay DTT services will first require the consensus of all broadcasters. Such services are not considered to be a priority.

Sources of information on digital TV development

General Sources

Digital Terrestrial Television Action Group (Digitag) : <http://www.digitag.org/>

MAVISE database of the European Audiovisual Observatory for market developments and digital television penetration: <http://mavise.obs.coe.int/welcome>

MERLIN database of the European Audiovisual Observatory for legal developments

Country sources

France: Le Barometre TDF :

http://www.tdf.fr/assets/files/upload/Presse/Barometre_TDF_Aout_2008.pdf

Germany: market development: [Digitalisation Report \(ALM website\)](#)

German TV Platform:

Italy: industry and consumer information:

DGTVi: <http://www.dgtvi.it/stat/DGTVi/Page1.html>

Norway: public information DigitalTVinorge.no: <http://www.digitaltvinorge.no/en-gb/>

Spain: Data on DTT development: <http://www.impulsatdt.es/>

United Kingdom: Ofcom Communications Market reports:

<http://comment.ofcom.org.uk/cmr08/>