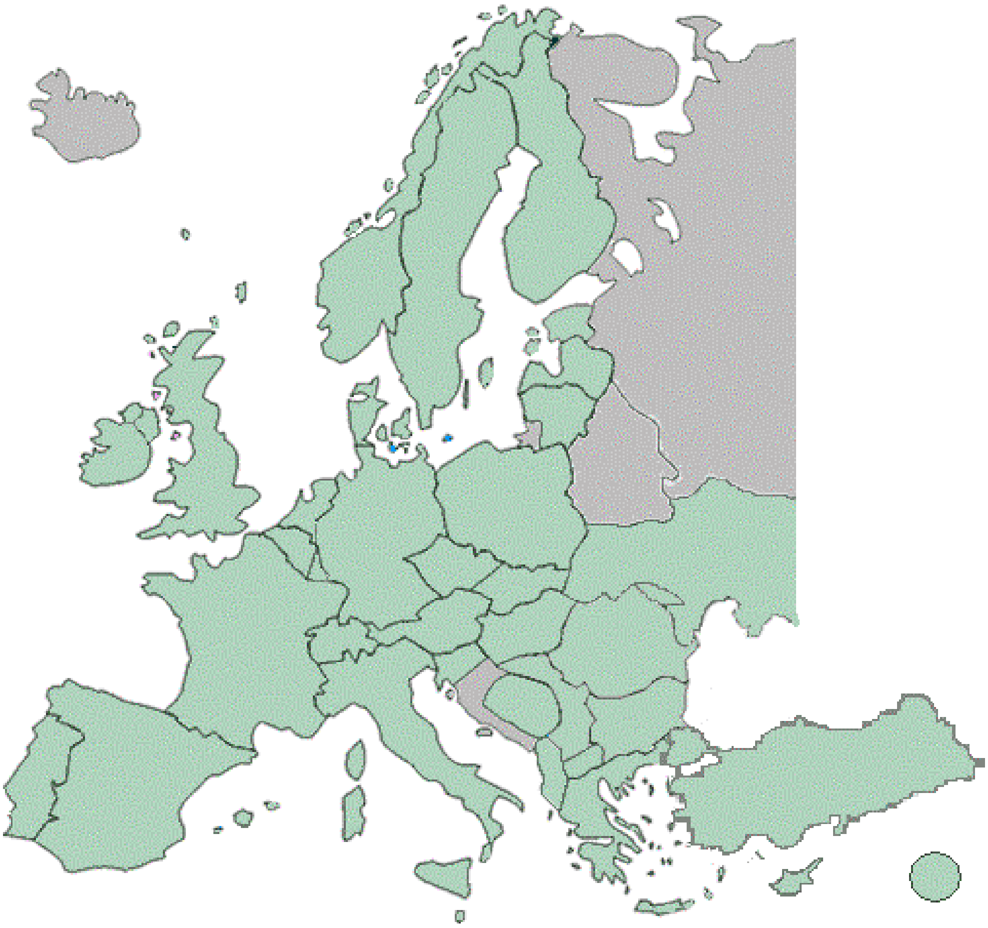


Working Group on Digital Terrestrial Television in EPRA Countries

Coordinated by AGCOM (Italy)

Final Report

June 2nd, 2004

Table of contents

Introduction

DTT Working Group

The Digital Terrestrial Television Working Group was established during the 19th EPRA plenary session in Cyprus, on suggestion of the Italian (AGCOM) delegation. An experimental group was set up, in order to evaluate whether the creation of permanent or long term working groups on specific common interests for the EPRA members could add value and effectiveness to the work of the Platform.
The work has been coordinated by the AGCOM team who has, after setting up the working group and consulting with the other participants, collected relevant information trough questionnaires sent to all EPRA members and processed them according to specific assumptions agreed upon with the other WG colleagues. The whole work has been conducted on line, with an intermediate meeting, that was held in Rome on April 2nd, 2004, aimed at assessing the intermediate findings and at discussing the research hypotheses.
The questionnaire has been sent to 38 countries; 29 countries provided information by returning the questionnaires[1], and colleagues from 18 countries took actively part in the Working group. Delegations from 13 countries attended the Rome meeting.
The AGCOM team was composed by:
Paola M. Manacorda (Commissioner)
Lisa Di Feliciantonio (Regulatory Department)
Paolo Alagia (Economic and Competition Analysis Department)
Maja Cappello (Assistant to President Cheli)
Daniela Talamo (Assistant to Mrs. Manacorda)
Simona Rogari (Mrs. Manacorda staff)
with the support of the European and International Relations Service (Laura Di Fraia) and of the Legal and Community Affairs Service (Ivana Nasti).[2]
The team wishes to thank all participants. Being aware that collecting and sending information was a complex and time consuming task for all participants, we appreciate and consider excellent the cooperation and support shown by other delegations. We apologises in advance for any misunderstanding or mistake we might have possibly done.

The mission of the group

The mandate of the DTT working group was to carry out a research in order to assess the state of the art of digital terrestrial television across EPRA countries and attempt an evaluation of the factors that can facilitate its take up within a specific broadcasting environment.

[1] Data on France and Turkey not included in the report as questionnaires returned late (Turkey 28 April, France 18 May); info on Luxembourg also not included as data provided not complete and not in the format required. Data for these countries are available in the annexes.

[2] Some other people from AGCOM took part in the discussion workshop, among them: Sara Del Monte (Economic and Competition Analysis Department), Gianni Gianassi (Assistant to Mr. Traversa) and Francesco Sciacchitano (Supervision and Control Department).

A special focus in the course of the research work was placed on the approach adopted by different countries in regulating the transition to “all digital” and the tasks assigned in each country to sector regulator in the digital changeover.
These two elements have been assessed in the research to:

i) evaluate the role played across Europe by NRAs in designing the switchover policies and
ii) identify the major regulatory alternatives as well as assessing the specific pros and cons of each choice.

A thorough analysis of these two aspects, although still in a tentative phase, might be an effective contribution to countries that are getting ready to launch DTT in order to help them identify the optimal regulatory transition model.

The research was based on the assumption that there is a connection between the degree of development and penetration of DTT and certain elements of the broadcasting environment. Specifically the following aspects have been taken into account:

a. features of the broadcasting background of each country such as the reception pattern and the degree of penetration/development of multichannel television;
b. the degree of interest and proactive attitude of the terrestrial broadcasters, specifically the PSB and the terrestrial commercial channels;
c. public policies introduced to sustain the take up of DTT;
d. regulatory model adopted for transition.

All data, unless a different date or period is specified, refer to 31 December 2003

Executive summary

Purpose and methodology of DTT WG

The main aim of this research is to assess the state of art of DTT development across Europe and to attempt an evaluation of the factors that can determine its success or accelerate the transition within a specific broadcasting environment; this has been achieved by analysing the main features of the broadcasting markets in different countries, comparing and defining different models of DTT development and assessing the role of regulators in the switchover process.

The information have been collected through questionnaires and processed in order to compare the different regulatory approaches taken in each country in order to define models and identify relationship between different variables. The aim of the research is to verify whether and to what extent **there is a correlation between the degree of development and penetration of DTT and certain features of the broadcasting environment and of policies adopted for the roll-out of DTT**.

Classification of the countries according to the penetration of DTT

In the first place, countries have been classified into three clusters according to the achievement and progress in the transition towards DTT:

A first cluster (cluster A) includes the countries where DTT has already been commercially launched and where the regulation and policies for the DTT start up and the switchover process have already been drafted.

A second cluster (cluster B) includes the countries where DTT is ready to be launched and where the regulatory framework is at a very advanced stage.

A third cluster (cluster C) consists of countries where a regulatory framework for the launch of DTT has not yet been established and the transition to DTT is still in a very early stage.

Data analysis shows a variability of situations within cluster A, therefore the A group countries have been analysed according to one additional parameter, that is the penetration of DTT, considered both as a percentage of total TV households and as a percentage of "terrestrial only" households.

As a result, countries in the A group have been classified into three sub-clusters.

A1 group includes those countries where DTT penetration among terrestrial households is above 15%: Finland, Sweden, UK and Germany.[3]

[3] Due to the "island" migration model adopted, Germany has been included in the A1 sub-cluster in relation to the penetration achieved in the Berlin region. DTT has been launched in the Berlin area in 2002 and the analogue switch off in this area has been completed in August 2003. Therefore 100% of the terrestrial households in this region receive DTT as it is the only terrestrial platform available.

A2 group includes countries where DTT penetration is between 10 and 15%: Netherlands.
A3 group includes countries where DTT has been launched commercially but its penetration is still below 10%: Italy, Spain and Switzerland.

As prices in the consumer electronic market usually decrease as devices become mass-market products, the price of DTT receivers has been considered as a potential additional indicator of the DTT stage of development[4]: the results emerged appear to validate the classification already made on the basis of penetration rates.

DTT start-up date have also been considered as a factor that affects the different level of DTT penetration. Not surprisingly, penetration of DTT is higher in some of the countries (UK, Sweden) where DTT has been launched earlier. Nevertheless, other "early adopters" countries, like Spain, have a lower DTT penetration, while "late adopters", like Germany, have a high DTT penetration degree, confirming that the penetration levels are also influenced by the effectiveness of the switchover model adopted.

After the classification of the countries different elements have been analysed to identify their correlation with the degree of development and penetration of DTT.
Specifically the following variables have been taken into account:

a) features of the broadcasting background of each country such as the reception pattern and the degree of penetration/development of multichannel television;
b) the degree of interest and proactive attitude of the terrestrial broadcasters, specifically the PSB and the terrestrial commercial channels;
c) public policies introduced to sustain the take up of DTT;
d) regulatory model adopted for transition.

Features of broadcasting environment and their influence on DTT development

In the first place the broadcasting environment in each country has been analysed to verify whether different degrees of penetration of multichannel television and of digital platforms, and therefore different levels of competition among platforms, might have had any influence on the development of DTT.

Results show that **DTT develops more quickly in a television context where multichannel TV has already reached significant levels and alternative digital platforms have developed**. Competition with other multichannel platforms appears to have a positive impact on its development.
This could be explained through to the fact that where multichannel TV is already a familiar concept, marketing the new platform is easier, especially when DTT, because of the free-to-air business model or the offer structure, is conceived as a complementary platform to cable and satellite. Also the roll-out of digital cable and satellite has probably played a role, at least in some countries, in the early launch of DTT, by increasing the competitiveness of the broadcasting environment. In countries with more digital platforms available, terrestrial broadcasters may perceive DTT as a tool for a more effective competition with other platforms, and therefore be encouraged to develop it quickly.

---

[4] It has to be remarked that when DTT receivers will be available throughout Europe, their off the shelf cost may be influenced by different factors such as the general difference in price levels between Western and Central Europe countries. Therefore, at a later stage and in a different and wider context, this data may not be significant any longer

DTT success, therefore, appears to be affected, among other factors, by the level of development of satellite and cable television and the extent of "differentiation" of DTT from other platform offers.

Role of Public Service Broadcasters (PSB)

One of the assumption of the research was that DTT penetration could be driven by the degree of interest and proactive attitude of the "incumbent" player, that is the PSBs and the other commercial terrestrial broadcasters.
As the analysis shows, the PSB capability to play a primary role in the roll-out of DTT platforms appears to be the results of two factors: the regulatory approach taken by different countries in granting technical (bandwidth) and financial resources on one hand and, on the other, the positive attitude of the PSBs in developing new channels and upgrading its networks. As far as the capacity is concerned, what is relevant is not just the quantity (i.e. the number of channels the broadcasters are allowed to air on DTT) but also the role played in the management of the platform.
When the proactive approach of the PSB meets a regulatory model that assigns them the resources to play a leading role, the DTT seems to find a favourable context to develop.

Also the obligations and constraints imposed to the PSB by the regulator/legislator in return for the capacity given play a role in driving the DTT development and shaping the switchover strategies. Although there is no standardized approach some common features can be identified: the PSBs are generally given a great degree of freedom in using their capacity; no minimum coverage is established by law, but in some cases the coverage is agreed upon by all parties involved; some countries have included a sort of "use it or loose it" clause in their licenses, imposing the PSBs to start simulcasting their channels or to switch on the new channels for which they have been assigned the capacity .

Generally speaking we can draw the conclusion that althgough in most cases PSBs have been guaranteed technical and financial resources to play a leading role in the roll out of DTT, very few obligations have been imposed to make sure the broadcasters would carry out their task. It is also interesting to note that some countries that have not imposed a minimum coverage or other requirements when licensing the capacity are considering to introduce some kind of measure shortly.

Role of terrestrial commercial broadcasters

As opposed to what happens with PSBs, the information gathered shows that **capacity in most cases is assigned to commercial broadcasters by channel rather than by multiplex – meaning that, in most cases, commercial broadcasters are granted bandwidth or access to the networks only for channels selected individually through public selection procedures (beauty contest) and have therefore less freedom than PSBs in using their capacity.**

Consistently, in most cases, commercial broadcasters act merely as content providers and, with few exceptions (Netherlands, Italy, Norway, Slovakia), they do not manage platforms. Except few cases, commercial broadcasters are granted a less prominent role than PSB in the digital switchover process.

Nevertheless in some case mandatory start-up date have been imposed (UK, Sweden, Spain) or different kind of agreement have been reached. **The start up date has been considered in many countries a key regulatory decision** as commercial channels, that are already broadcasting on the analogue network, may see the simulcast as a cost not associated with an immediate revenue, and may be tempted to postpone the launch of their channels on DTT to a later stage. This in turn could have a negative impact on the appeal of the line-up and create a delay in the take up of the platform.

This may explain why, **although government/regulators seem to have reserved in most cases a weaker role to terrestrial commercial broadcasters in the development of DTT platforms, in some cases regulation has already been introduced to avoid delay and other possible set-back in the start up of DTT by those operators.**

Regulatory models for allocation of digital capacity and access to DTT networks

The regulatory model chosen by different countries for the allocation of digital capacity (spectrum) has also been considered as a factor that affects the development of DTT.

Very different regulatory approaches have been adopted: in most cases (Germany, UK, Netherlands, Italy, Spain, Austria, Ireland, Lithuania ...) the capacity is allocated to one or more network/multiplex operators. In other cases (Sweden and Finland) the capacity is allocated directly to channels.
In evaluating the regulatory model though, what appears to be relevant, rather than **who** has been assigned the capacity, is **how** access to this capacity is regulated.

Two different regulatory approaches seem to emerge: in a first group of countries (e.g. Finland, Germany, Sweden) the channels' line-up is the result of a selection made directly by the regulator/government through public procedures that are very similar to those used in the analogue environment; in this case whether the frequencies are allocated directly to the broadcaster or to a network operators, the line-up of channel that have access to the capacity is predefined by the government/regulator.

In a second group of countries (Italy, UK, Norway) the capacity is managed as a whole by a multiplex/network operator who is relatively free in using the capacity and selecting the channels part of the line-up. In this case, some limitations or constraints (must carry, capacity reserved to special categories of broadcasters, etc.) are imposed in order to preserve public interest objectives such as diversity and pluralism.

As far as the offer structure and the business model are concerned, two different DTT models and "paradigm" for DTT appears to emerge:

- a "free to air" model, where DTT is conceived as a technologically advanced version of the analogue TV offer, thus aiming at covering almost the entire population with an improved line-up and some additional services;
- a "pay-basic" model, where DTT is seen as alternative/complementary to TV offers provided by cable and satellite. This last model has been adopted in some countries also as a way to strengthen the " national" character of terrestrial broadcasting versus the increasing number of foreign channel on satellite/cable TV channels (Northern European countries, Netherlands)

Policy measures introduced to support the penetration of DTT

A relevant section of the research was aimed at assessing policies introduced in different countries to support the development of DTT.
Generally speaking, the analysis of the information collected shows that only in few countries demand-side policy measures have been adopted in order to support the diffusion of receivers in the households. Among them, only in Italy public subsidies have been introduced (€ 150 for every MHP interactive STB), whereas in all the other countries policy measures to support the diffusion of the receiver are focused on technical standardization.

As far as offer-side support measures are concerned, in several countries some form of indirect incentives or regulatory measures have been introduced to stimulate the creation of new channels for the digital platforms and to support specifically network and platform operators.

Role of Regulators in the digital switchover

In most countries a lot of highly qualifying activities are dealt with by NRAs as far as the digital switchover is concerned.

The main policy making activity carried out by the NRAs seems to be supporting the legislator in drafting the relevant Acts, followed, especially in the A Group countries, by the governance of analogue turn-off. As far as implementation of policy is concerned, the main activity of NRAs is drafting and carrying out licensing procedure, followed by frequency allocation and composition of multiplexes.

As it appears from the experience of the countries that have already launched DTT, the NRAs will increasingly be involved in the challenges posed by the digital switchover. Their technical, economic and juridical competence will be crucial in designing the most suitable regulatory framework. Also, as in the digital broadcasting scenario terrestrial broadcasters will become in most countries "network operators" and as such subject to the New European Regulatory Framework for electronic communication networks, new knowledge and professional skills will have to be gained in order to manage this "double nature" of the broadcasting that will be regulated on one hand as a communication network and on the other for the audiovisual contents carried.

Analysis of the development and features of DTT in some EPRA countries

1. Parameters to evaluate the state of the art of DTT transition in EPRA countries

In order to evaluate the relation between the development of DTT in EPRA countries and some features of the broadcasting environment, it was necessary, in the first place, to classify the countries in relation to the progress and results achieved in the transition process.

Tab. 1.1 – DTT development in EPRA countries

	Countries	Degree of DTT development		Degree of DTT regulation					
		DTT platform commercially launched	DTT penetration beyond 0%	Regulation for the start up of DTT already drafted	Digital frequency planning implemented	Capacity already allocated to operators for the launch of DTT	Start up date for DTT of PSB established	Switch off of analogue frequency set by the law	
A	Finland	P	P	P	P	P	P	(3)	A
	Germany	P	P	P	P	P	P	P	
	Italy	P	(6)	P	P	P	P	P	
	Netherlands	P	P	P	P	P	P	(4)	
	Spain	P	P		P	P	P	P	
	Sweden	P	P	P	P	P	P	P	
	Switzerland	P	P		P		P		
	United Kingdom	P	P		P	P	P	(5)	
B	Austria			P	P				B
	Czech Republic								
	Denmark			P	P	P	P		
	Hungary	(1)			P				
	Ireland			P	P	P			
	Lithuania	(2)		P	P				
	Norway			P	P	P	P		
	Slovakia			P	P				
C	Bosnia and Herzegovina								C
	Israel								
	Latvia								
	Malta								
	Montenegro								
	Poland								
	Portugal								
	Republic of Macedonia								
	Romania								
	Slovenia								

(1) DTT experimental channels launched in 1999
(2) DTT experimental channels launched
(3) Not yet officially set - presumably 31.8.2007
(4) ATO in preparation
(5) Not yet officially set - it will be probably set between 2006 and 2010
(6) Penetration above 0 but no official data available at 31 Dec 2003

In order to assess the state of advancement of digital transition in different countries, a mix of qualitative and quantitative variables have been considered.

Specifically, three different types of variables have been selected.
First of all, market conditions were analysed. In order to assess the degree of development of DTT, it is a prerequisite to verify in which countries such platforms have been commercially launched and whether their penetration is actually above 0%.
The other two categories of information deal with legislation/regulation. Column 3, 4 and 5 in table 1.1 consider whether preliminary steps essential for the launch of DTT have been taken: whether or not a legislative framework for DTT launch has been drafted, whether a frequency for the DTT have been planned and whether capacity for the start up of the network has already been allocated.
The last column (switch-off of analogue frequencies set by law) may be considered as an indicator for the commitment of government and regulators to the goal (DTT successful start-up). In a market driven environment or in a soft regulation approach, the lack of a date for analogue turn-off is not necessarily an indicator of the development of DTT, as such date may be introduced at a later stage.

Countries have therefore been classified not according to the number of "checks", but mostly according to the type of checks collected: a check in the first two columns, for instance, has been considered as a prerequisite for being included in the first group.

Tab. 1.2 - Status of transition to DTT in EPRA countries

Leaders	Intermediate	Followers
A group	B group	C group
		Bosnia-Herzegovina
Finland	Austria	Israel
Germany	Czech Republic	Latvia
Italy	Denmark	Malta
Netherlands	Hungary	Montenegro
Spain	Ireland	Poland
Sweden	Lithuania	Portugal
Switzerland	Norway	Republic of Macedonia
United Kingdom	Slovakia	Romania
		Slovenia

As a results of this preliminary analysis three clusters have emerged:

A. Countries that have a check in the first two columns and in most columns of the second block. These are the countries were DTT has already been launched and where the regulation and policies for the DTT start up and the switchover process have already been drafted.
B. Countries with checks in the second or third block. These are the countries that are getting ready to launch and where the regulatory framework is at a very advanced stage.
C. The third cluster includes the countries that have not yet established a regulatory framework for the launch of DTT; some of these countries have launched studies or working groups to evaluate different regulatory options, whereas other countries have not yet taken any initiative for regulating a future switchover process.

Data analysis shows a variability of situations within cluster A. Between Finland and United Kingdom, on one hand, and Italy, Switzerland and Spain, on the other, there is a remarkable difference that has to be pointed out.
The A group countries have therefore been analysed according to one additional parameters, that is the penetration of DTT, considered both as a percentage of total TV households and as a percentage of "terrestrial only" households[5].

Tab. 1.3 – Penetration of DTT in total TV households and terrestrial households

	Countries	Total TV hh	hh with Terrestrial TV as main reception platform		DTT households			
			hh	%	hh	% of total TV hh	% of terrestrial TV hh	
A	Finland	2.200.000	673.000	30,59%	145.000	6,59%	21,55%	
A	Germany	36.230.000	1.620.000	4,47%	160.000	0,44%	9,88%	(1)
A	Sweden	4.075.000	1.281.500	31,45%	230.000	5,64%	17,95%	
A	United Kingdom	24.500.000	14.100.000	57,55%	2.900.000	11,84%	20,57%	
A	Netherlands	6.767.000	189.000	2,79%	20.000	0,30%	10,58%	
A	Italy	21.500.000	18.750.000	87,21%	0	0,00%	0,00%	(2)
A	Spain	13.408.000	10.737.621	80,08%	20.000	0,15%	0,19%	
A	Switzerland	3.400.000	200.000	5,88%	1.000	0,03%	0,50%	

(1) Germany: DTT penetration refers to the Berlin area. Penetration as a percentage of the terrestrial households may actually be considered 100% as analogue tv has already been switched off.

(2) Italy: penetration beyond 0% but official data not available at 31 dec 2003.

If we consider the penetration level as a percentage of the total TV household, UK is definitely the country where DTT has the highest level of development.
If we consider instead the penetration level as a percentage of the terrestrial only TV households, Finland and Sweden - due to the very high penetration of cable and satellite TV - and Germany - due to the "island" migration model[6] adopted and the very early switch off date for the Berlin region where DTT has been launched - have to be considered as the most successful business cases.

[5] This last parameter has been made under the assumption that most families that have adopted DTT receive TV exclusively via terrestrial platform and are not already subscribers to cable or satellite pay platforms. Although this assumption may not be totally true in some countries, this parameter gives a more accurate tool for measuring the state of the migration to a "whole" digital scenario.

[6] In Germany DTT has been launched in the Berlin area in 2002 and the analogue switch off in this area has been completed in August 2003. Therefore 100% of the terrestrial household in this region receive DTT.

Tab. 1.4 – Classification of A group countries according to DTT penetration

% of total TV hh	A group countries		*% of terrestrial hh*
> 1	Finland Sweden United Kingdom	Finland Germany* Sweden United Kingdom	> 15
		Netherlands	10 < % ≤ 15
≤ 1	Germany Italy Netherlands Spain Switzerland	Italy Spain Switzerland	≤ 10

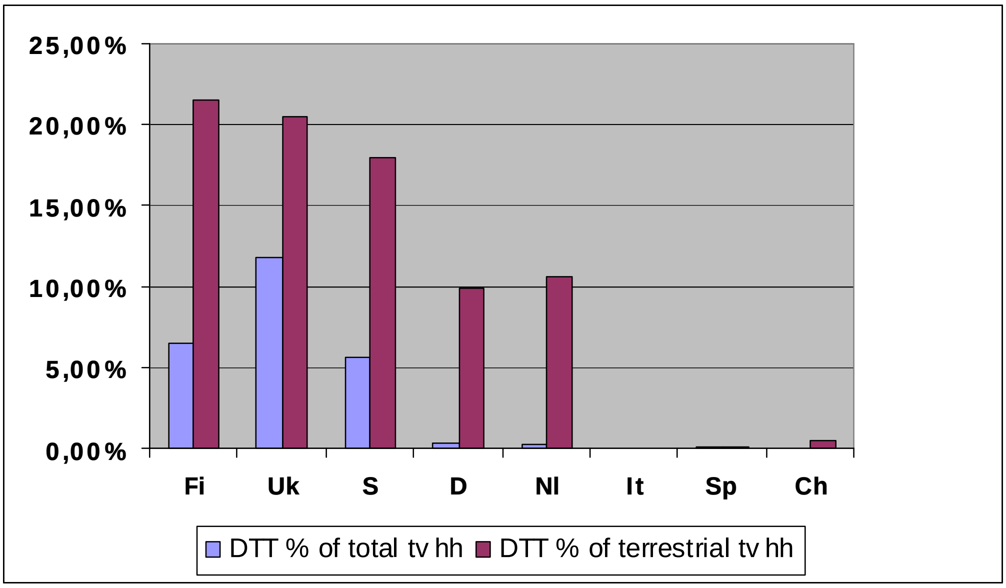
* Berlin region

As a result of the analysis, countries in the A group have been classified into three sub-clusters.
A1 group countries are those were DTT appears more successful so far: the penetration among terrestrial households is above 15%. Finland, Sweden, UK and Germany[7] are in this group.

A2 group countries are those were DTT penetration is between 10 and 15%.
Netherlands is in this group.

A3 group countries are those where DTT has been launched commercially but its penetration is still below 10%. Italy, Spain and Switzerland are in this group.

Tab. 1.5 – Different DTT penetration rates



[7] As far as Germany is concerned, for this section we consider only the penetration data for the Berlin region where DTT has been launched and switch off has been successfully completed. See also footnote n. 2

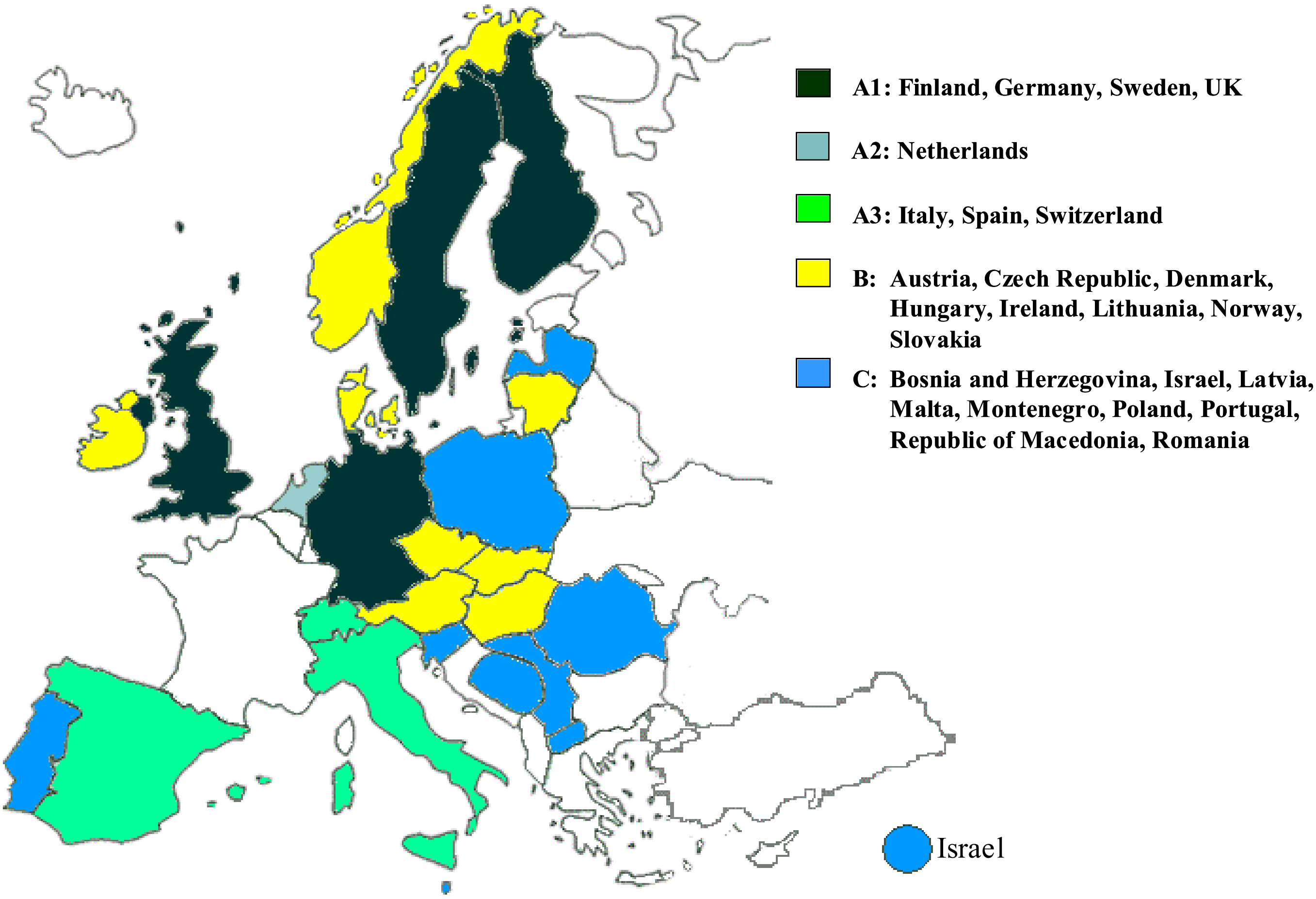
A further element that has been considered to double-check the results of this classification is the price range of available receivers (without considering subsidies) and the off the shelf price of the cheapest model on the market.
Although the price of the electronic consumer products may vary considerably and be influenced by a number of factors, it may be assumed that the prices of the electronic consumer goods are likely to decrease remarkably as these products become "mass product" as in the case experienced recently for DVD readers, mobile phones etc.

Tab. 1.6 – Lowest prices for DTT receivers

Countries	Lowest price (€)
United Kingdom	60
Germany	80
Finland	100
Netherlands	150
Italy	150
Sweden	160
Spain	/

Three countries out of four in the A1 group (Finland, Germany and UK) are also the countries where the cheapest receivers are available on the open market.
This test can further validate the three sub-groups and the inclusion of Finland, Germany and UK in the A1 cluster.
It has though to be remarked that when DTT receivers will be available throughout Europe, their off the shelf cost may be influenced by different factors such as the general difference in price levels between western and central Europe countries. Therefore at a later stage and in a different and wider context, this datum may not be significant any longer.

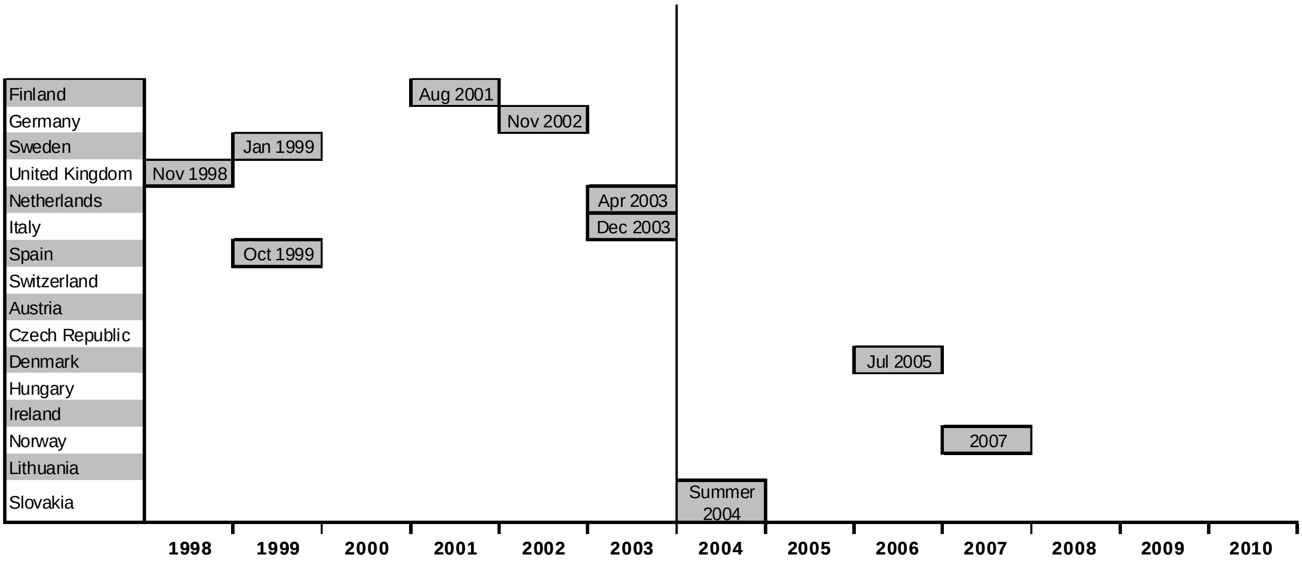
Tab. 1.7 – DTT in EPRA countries (map of Europe)



Penetration level is also influenced by the very different start up dates throughout the A group countries, not simply by the effectiveness of the regulatory model and the switchover policies.

Table 1.8 illustrates the start-up dates for the different countries. Not surprisingly, penetration of DTT is higher in some of the countries (UK, Sweden) where DTT has been launched earlier. Nevertheless, the table shows that other "early adopters" countries, like Spain, have a lower DTT penetration, while "late adopters", like Germany, have a high DTT penetration degree, confirming that the penetration levels are also influenced by the effectiveness of the adopted switchover model.

Tab. 1.8 - DTT start-up dates



Note:

Effective/supposed start up date

Tab. 1.9 - DTT supposed start-up dates in different German Länder

Lower Saxony		May 2004
Schleswig-Holstein		Nov. 2004
North Rhine - Westphalia	Cologne/Bonn	May 2004
	Dusserdolf	Nov. 2004
Saxony, Saxony-Anhalt und Thuringia		spring 2005
Bavaria		2nd quarter 2005

2. Basic features of broadcasting environment in EPRA countries

The tables in this section are an attempt to describe some elements of the broadcasting environment in the EPRA countries, such as the main features of terrestrial television, DTH and cable TV. Basic information is provided on terrestrial, satellite and cable platforms, plus a special focus on xDSL, a technology that is being rolled out as a potential TV platform in many EPRA countries.

Table 2.1 gives basic information for analogue terrestrial television, such as the number of national and local/regional channels and TV households. It is worth to note that PSB channels account, in most of the EPRA countries, for a large part of the total terrestrial channels. An other issue is the remarkable variability in the offer of local terrestrial channels: Italy, Bosnia-Herzegovina, Netherlands, Romania, and Switzerland have more than 80 local/regional channels, whereas in other countries the offer is focused on channels that have national coverage.

Tab. 2.1 - Main features of terrestrial television in some EPRA countries

	Countries	PSB: N. of national analogue terrestrial channels	PSB: No. of national terrestrial channels	No. of local terrestrial channels	Terrestrial tv households
A	Finland	4	2	3	673.000
A	Germany	5	3	50	1.620.000
A	Sweden	3	2	0	1.281.500
A	United Kingdom	5	5	19	14.100.000
A	Netherlands	3	3	115	189.000
A	Italy	11	3	520	18.750.000
A	Spain	5	2		10.737.621
A	Switzerland	7	6		200.000
B	Austria	3	2	8	530.868
B	Czech Republic	4	2	30	2.497.020
B	Denmark	3	2	20	98.000
B	Hungary	4	2	52	1.313.319
B	Ireland	4	3	0	461.000
B	Norway	3	2	35	505.000
B	Lithuania	5	2	25	576.000
B	Slovakia	4	2	13	1.081.144
C	Bosnia and Herzegovina	5	3	500	
C	Israel	2	1	0	290.000
C	Latvia	4	2	23	
C	Malta	4	1	0	12.801
C	Montenegro	2	2	12	190.000
C	Poland	7	3	8	6.495.320
C	Portugal	4	2	2	3.261.000
C	Republic of Macedonia	5	3	54	479.388
C	Romania	5	2	110	3.745.414
C	Slovenia	5	2	18	340.898

Table 2.2 describes the main features of DTH television: pay-TV platforms name, subscribers, prices and number of channels for basic and premium packages, channels owned directly by DTH platform and pay-per-view costs. A very rough analysis of data shows a standardized price structure: basic and premium packages are on average, respectively, less than 20 € per month and less than 50 € per month. Penetration rates of DTH in EPRA countries are given in table 2.4.

Tab. 2.2 - Main features of DTH television in some EPRA countries

	Countries	DTH platforms name	N. of subscribers (estimates)		Price of basic DTH package (2)	No. of tv channels in the basic package (1)	Price of top premium package (2)	No. of channels in the top premium package	Channels owned by DTH operator	Pay per View cost
			hh	% of TV hh						*movie*
A	Finland									
A	Germany	Premiere Digital*	2.800.000	8%	€ 5		€ 49	26	21	€ 3
A	Sweden	Viasat Canal Digital	n.a. 370.000	18%	n.a. € 18	n.a. 33	n.a. € 38	n.a 34	n.a 0	€ 4,28
A	United Kingdom	Sky	6.890.000	28%	€ 20	96	€ 299		20	€ 5,24
A	Netherlands	CanalDigitaal (Luxembourg)	535.000	8%	€ 7		€ 45			
A	Italy	Sky Italia srl	2.300.000	11%	€ 22	43	€ 55	67	20	€ 5
A	Spain	DIGITAL+	1.815.072	14%	€ 30	39	€ 57	65	19	€ 3,75
A	Switzerland	SRG SSR idée suisse (FTA)	160.000	5%	**	7				
B	Austria									
B	Czech Republic	UPC Direct			€ 21	23	€ 41	25	0	
B	Denmark	Viasat Canal Digital	300.000	13%	€ 28 € 11	7 7	€ 43,3 € 51	34 50	12 0	
B	Hungary	UPC Direct Kft.		0%	€ 17	47				
B	Ireland	SKY	297.000	23%	€ 19	90	€ 60	206	24	
B	Lithuania	---								
B	Norway	Canal Digital ViaSat	555.000	29%	€ 22,91 € 7,94	26 8	€ 45 € 32	30 33	0 2	3,7-5,2€
B	Slovakia	UPC Direct	20.000	1%	€ 18	35	€ 37			n.a
C	Bosnia and Herzegovina				€ 17		€ 47			
C	Israel	YES	410.000	24%	€ 32	43	€ 54		7	€ 3,00
C	Latvia									
C	Malta									
C	Montenegro									
C	Poland	Cyfra+ Polsat Cyfrowy	700.000 240.000	8%	€ 9,5 € 9	31 21	€ 22,5 € 9	46 21	5 3	
C	Portugal	TV Cabo digital	323.000	7%	€ 27,39	35			n.a.	€ 13,29
C	Republic of Macedonia									
C	Romania									
C	Slovenia	RTV Slovenia	3000	8%						

(1)FTA channels excluded)
(2)VAT included except for Spain
* 6 DTH platform free to air: ARD digital, ZDF vision, RTL world, Prosiebensat.1, multiThematique, T-Systems
** 31,72 (una-tantum) no monthly charges

Cable television prices appear to be considerably lower than DTH prices (see table 2.3). Broadly speaking, cable prices are half the DTH ones. This may be due to the fact that cable broadcasting is a more mature market compared to DTT: the first cable networks were rolled out in some countries during the '60s. Also, in most countries, cable TV was developed by telecom operators to provide basic television services where, for geographic reasons, it proved to be a more reliable platform compared to terrestrial TV. This has influenced both service and price range.

Tab. 2.3 - Main features of cable television in some EPRA countries

	Countries	Major cable operators	N. of cable channels available (~)	N. of subscribers: hh	N. of subscribers: % of TV HH	basic: price	basic: no of channels	premium: price	premium: no of channels	VOD: movie
A	Finland	About 50 local operators	14	1.060.000	48%	€ 7,5	14	---	---	---
	Germany	Kabel Deutschland	40	20.130.000	56%	€ 12,0	6	€ 22,0	2	---
		Tele Columbus Gmbh&Co.KG				€ 9,9	6	€ 20,0	8	---
		PrimaCom AG				€ 6,0	22	€ 20,0	2	---
		ish GmbH & Co. KG				---	18	€ 3,0	13	€ 3,0
		Kabel BW				€ 9,9	6	€ 20,0	8	---
		Bosch Breitbandnetze				€ 12,0	6	€ 22,0	8	---
		EWT Communications				€ 12,0	---	€ 10,0	20	---
		iesy Hessen GmbH & Co				€ 10,0	6	€ 22,0	17	---
	Sweden	Com Hem	80	2.060.000	51%	€ 14,1	16	€ 78,8	30	€ 4,7
		UPC				€ 16,3	29	€ 49,0	34	---
		Canal digital				---		---		---
		Kabelvision				€ 14,1	20	€ 37,1	30	---
	United Kingdom	ntl	120	3.800.000	16%	€ 27,0		€ 71,0	119	€ 5,2
		Telewest				€ 20,0		€ 74,0	100	€ 5,2
	Netherlands	UPC	150	6.160.000	91%	€ 12,0	34	€ 32,5		€ 3,6
		Casema						€ 23,5		
		Essent						€ 27,5		
	Italy	Ebismedia	30	50.000	0,23%	€ 5,9	15	€ 50,9	32	€ 5,0
	Spain	ONO	41	858.380	6%	€ 14,9	20	€ 53,9	154	€ 3,0
		AUNA Telecomunicaciones				€ 18,0	44	€ 33,0	52	€ 3,0
		Retecal				€ 15,0	35	€ 21,3	39	€ 3,0
		Euskaltel				€ 12,4	32	€ 29,6	49	€ 3,0
		Telecable				€ 15,0	32	€ 25,0	na	€ 3,0
		R Cable				€ 15,2	37	€ 25,7	44	€ 3,0
		Tenaria				€ 16,2	40	€ 25,0	43	€ 3,0
	Switzerland	Cablecom	60	2.700.000	79%	€ 12,7		---		€ 7,9
		Teleclub				€ 25,3		€ 38,0		
B	Austria	UPC Telekabel AG	48	1.183.260	37%					
		Liwest								
		Cablecom								
	Czech Republic	Karneval Media		841.100	23%	€ 4,8	14	€ 26,6	35	
		UPC Ceska				€ 3,7	10	€ 21,7	40	
	Denmark	TDC	110	1.924.000	80%	€ 20,0	14	€ 36,0	35	---
		Telia Stofa				€ 7,5	7	€ 25,0	30	---
	Hungary	Matavkabel TV	335	2.163.113	56%	€ 3,7	10	€ 15,0	40	---
		UPC Magyarorszag				€ 2,3	5	€ 15,0	52	---
	Ireland	ntl	5	542.000	42%	€ 18,0	15	€ 50,0		
		Chorus communications				€ 29,5	58	€ 70,0	---	
	Lithuania	59 local operators	40	285.000	31%	€ 5,5	18	---	---	---
						€ 10,0	40	---	---	---
	Norway	Telenor Avidi	32	840.000	44%	€ 20,7	18	€ 29,5	32	€ 4,5
		Upc				€ 16,2	16	€ 34,0	30	---
	Slovakia	UPC Slovensko	65	730.000	40%	€ 2,0	4	€ 33,0		---
C	Bosnia and Herzegovina	---	---	---	---	---		---		---
	Israel	HOT	63	1.000.000	59%	€ 32,0	32	€ 55,0		---
	Latvia	BaltkomTV SIA	---	200.000		€ 2,3	12	€ 2,2		---
		Telia Multicom	---							
		Dautkom TV	---							
	Malta	Melita cable plc	56	98.941	77%	€ 8,3	20	€ 55,0	50	---
	Montenegro	---	---	---	---	---		---		---
	Poland	UPC Telewizja Kablowa	187	3.747.300	30%	€ 1,5	4	€ 25,0		---
	Portugal	TV Cabo Portugal		1.334.000	27%	€ 19,6	44	€ 27,4	20	€ 3,0
	Republic of Macedonia	Sprint - Veles	55	71.000	12%	€ 6,0	55	---		---
		Telekabel1 - Skopje								
		KTV Zora - Skopje								
		Mobi - Bitola								
	Romania	Various cable operators	227	---	---	€ 4,0	40	€ 10,0		---
	Slovenia	Telemach	52	238000	41%	€ 16,0	58			
		KRS Tabor				€ 10,0	43	€ 30,0		
		Ljubljanski kabel				€ 15,5	55	€ 35,5		
		KRS Rotovz				€ 10,0	43	€ 30,0		

Tab. 2.4 - Penetration of DTH in some EPRA countries

Subscribers (% of total tv hh)	A group	B group	C group
% > 20	United Kingdom	Ireland Norway	Israel
10 < % ≤ 20	Italy Spain Sweden	Denmark	
% ≤ 10	Germany Netherlands Switzerland	Slovakia	Poland Portugal Slovenia

Cable television is the main platform for television distribution in 8 countries and accounts for a relevant number of access in other 9 countries (see table 2.5).

Tab. 2.5 - Penetration of cable TV in EPRA countries

Subscribers (% of total tv hh)	A group	B group	C group
% > 50	Germany Netherlands Sweden Switzerland	Denmark Hungary	Israel Malta
25 < % ≤ 50	Finland	Austria Ireland Lithuania Norway Slovakia	Poland Portugal Slovenia
% ≤ 25	Italy Spain United Kingdom		Rep. of Macedonia

Table 2.6 gives comparative information on the penetration of DSL lines in some EPRA countries.
Recent innovations in ADSL technologies make audiovisual content available through the telephone copper lines. This means that in the near future TV channels or single events could be broadcast to a wide range of internet users. The impact of this potential new platform on television offer could be relevant. In order to give a measure of the phenomenon, table 1.6 provides information on ADSL broadband access and its penetration rate with respect to TV households.

Tab. 2.6 - ADSL and broadband development in some EPRA countries

	Countries	Lines	% of TV HH
A	Finland	345.600	16%
	United Kingdom	1.804.609	5%
	Germany	4.498.086	18%
	Netherlands	920.155	14%
	Sweden	555.113	14%
	Italy	2.158.458	10%
	Spain	1.676.466	13%
	Switzerland	na	
B	Austria	279.500	9%
	Denmark	473.193	20%
	Hungary	na	
	Irland	25.180	2%
	Norway	na	
	Lithuania	na	
	Slovakia	na	
C	Bosnia and Herzegovina	na	
	Israel	na	
	Latvia	na	
	Malta	na	
	Montenegro	na	
	Poland	na	
	Portugal	185.237	5%
	Rep. of Macedonia	na	
	Romania	na	
	Slovenia	38.330	7%
	Total	17.007.367	

After this preliminary analysis, a number of indicators will be assessed in order to describe more specific features of the TV environment in each country and the DTT regulatory framework and whether there is any relationship between the effective development of DTT in the "A" group countries and the elements considered in the assumptions as potential variables.

3. Reception patterns and penetration of digital TV: the impact of inter-platform competition on DTT development

There is a general consensus on the idea that competition may be one of the most relevant drivers of the adoption and development of DTT platforms. DTT is considered as a way to stimulate the development of new services, applications and contents. Consequently, DTT competes for resources (audiences, advertising, subscribers) with both analogue terrestrial television and multi-channel television offered on other platforms. Whereas the latter (intra-platform competition) is at stake just during the transition period, the former (inter-platform competition) will get more and more relevant as the penetration of DTT reaches more significant levels.
In any case, DTT success might be affected, among other factors, by the level of development of satellite and cable television and the extent of "differentiation" of DTT from other multichannel offers.

With regards to inter-platform competition, i.e. competition among DTT on the one side and satellite/cable digital TV on the other, the main issue is, in fact, the identification of the relevant product market. The questions is whether DTT and the other digital platforms are sufficiently interchangeable or substitutable, not only in terms of their features, (by virtue of which they are particularly suitable for satisfying the constant needs of consumers, their prices or their intended use) but also in terms of the conditions of competition and/or the structure of supply and demand on the market in question. The model of competition among platforms varies according to answers provided.

In this section the development of multichannel, pay-TV and alternative digital platforms is under analysis to verify whether different degrees of penetration of multichannel television and of digital platforms, and therefore different levels of competition among platforms, might have had any influence on the development of DTT.
For this purpose, the following indicators are taken into account:

- Degree of penetration of satellite and cable (multichannel TV) in different countries,
- Degree of penetration of digital-TV.

Table 3.1 illustrates the penetration level of cable and satellite television in different countries. The total DTH + cable column can be interpreted as indicating the penetration level of "multichannel television" in each country.

Tab. 3.1 - Penetration of multichannel television (analogue + digital)

	Countries	Total hh	Total DTH		Total cable		DTH + Cable	
		No.	No.	%	No.	%	%	
A1	Finland	2.200.000	417.000	18,95%	1.110.000	50,45%	69,41%	
A1	Germany	36.230.000	14.460.000	39,91%	20.130.000	55,56%	95,47%	
A1	Sweden	4.075.000	733.500	18,00%	2.060.000	50,55%	68,55%	
A1	United Kingdom	24.500.000	6.890.000	28,12%	3.800.000	15,51%	43,63%	
A2	Netherlands	6.767.000	418.000	6,18%	6.160.000	91,03%	97,21%	
A3	Italy	21.500.000	2.700.000	12,56%	50.000	0,23%	12,79%	
A3	Spain	13.408.000	1.796.000	13,39%	858.379	6,40%	19,80%	
A3	Switzerland	3.400.000	500.000	14,71%	2.700.000	79,41%	94,12%	
B	Austria	3.198.000	1.662.960	52,00%	1.183.260	37,00%	89,00%	
B	Czech Republic	3.622.220	284.100	7,84%	841.100	23,22%	31,06%	
B	Denmark	2.400.000	378.000	15,75%	1.924.000	80,17%	95,92%	
B	Ireland	1.280.000	294.400	23,00%	542.000	42,34%	65,34%	
B	Hungary	3.862.000	386.000	9,99%	2.162.720	56,00%	65,99%	
B	Lithuania	931.000	0	0,00%	285.000	30,61%	30,61%	(1)
B	Norway	1.900.000	555.000	29,21%	840.000	44,21%	73,42%	
B	Slovakia	1.831.156	20.000	1,09%	730.000	39,87%	40,96%	
C	Bosnia and Herzegovina	NA	NA		NA		NA	
C	Israel	1.700.000	410.000	24,12%	1.000.000	58,82%	82,94%	
C	Latvia	800.000	0	0,00%	200.000	25,00%	25,00%	
C	Malta	127.970	16.228	12,68%	98.941	77,32%	90,00%	
C	Montenegro	190.000	0	0,00%	0	0,00%	0,00%	
C	Poland	12.491.000	2.248.380	18,00%	3.747.300	30,00%	48,00%	
C	Portugal	4.939.000	344.000	6,96%	1.334.000	27,01%	33,97%	
C	Republic of Macedonia	557.000	0	0,00%	71.000	12,75%	12,75%	
C	Romania	*7.670.000*	NA		NA		NA	
C	Slovenia	581.898	3.000	0,52%	238.000	40,90%	41,42%	

data in italic from European Observatory Yearbook 2002

(1) 70.000 hh in Lithuania equipped for satellite reception mainly receiving FTA foreign channels.

The first result that emerges from table 3.1 is that A1 and A2 countries compared to the A3 countries have a stronger development of satellite and cable market than countries such as Spain or Italy in the A3 group. This could mean that once rolled out, DTT develops more quickly in a television context where multichannel TV has already reached significant levels. Competition with other multichannel platforms appears to have a positive impact on the development of DTT.
This could be explained through to the fact that where multichannel TV is already a familiar concept, marketing the new platform is easier, especially when DTT is conceived as a complementary platform to cable and satellite because of the business model (free-to-air) or the offer structure.

Tab. 3.2 – Classification of countries according to penetration of multichannel television

Subscribers (% of total tv hh)	A group	B group	C group
% > 60	Finland Germany Netherlands Sweden Switzerland	Austria Denmark Ireland Hungary Norway	Israel Malta
30 < % ≤ 60	United Kingdom	Czech Republic Lithuania Slovakia	Poland Portugal Slovenia
% ≤ 30	Italy Spain		Latvia Rep. of Macedonia

As far as B and C countries are concerned, countries where cable and satellite TV have a high penetration (such as Denmark and Ireland) are at a more advanced stage of planning of DTT or are getting ready to launch it.

Table 3.3 illustrates the penetration of digital cable and digital satellite platforms in EPRA countries.

Tab. 3.3 - Penetration of digital television in EPRA countries

	Countries	Total	Digital DTH		Digital cable		total	
		No.	No.	%	No.	%	No.	%
A1	Finland	2.200.000	57.000	2,59%	50.000	2,27%	107.000	**4,86%**
A1	Germany	36.230.000	2.740.000	7,56%	1.920.000	5,30%	4.660.000	**12,86%**
A1	Sweden	4.075.000	733.500	18,00%	160.000	3,93%	893.500	**21,93%**
A1	United Kingdom	24.500.000	6.890.000	28,12%	2.800.000	11,43%	9.690.000	**39,55%**
A2	Netherlands	6.767.000	49.000	0,72%	106.000	1,57%	155.000	**2,29%**
A3	Italy	21.500.000	2.700.000	12,56%	50.000	0,23%	2.750.000	**12,79%**
A3	Spain	13.408.000	1.796.000	13,39%	357.144	2,66%	2.153.144	**16,06%**
A3	Switzerland	3.400.000	0		0		0	**0,00%**
B	Austria	3.198.000	223.860	7,00%				**7,00%**
B	Czech Republic	3.738.100						**0,00%**
B	Denmark	2.400.000	259.000	10,79%	34.000	1,42%	293.000	**12,21%**
B	Ireland	1.280.000	294.400	23,00%	94.000	7,34%	388.400	**30,34%**
B	Hungary	3.862.000	0		0		0	**0,00%**
B	Lithuania	931.000	70.000	7,52%	0	0,00%	70.000	**7,52%**
B	Norway	1.900.000	555.000	29,21%	64.000	3,37%	619.000	**32,58%**
B	Slovakia	1.831.156	20.000	1,09%	0	0,00%	20.000	**1,09%**
C	Bosnia and Herzegovina	NA	NA		NA			**0,00%**
C	Israel	1.700.000	410.000	24,12%	550.000	32,35%	960.000	**56,47%**
C	Latvia	800.000	0		0		0	**0,00%**
C	Malta	127.970	16.228	12,68%	0	--	16.228	**12,68%**
C	Montenegro	190.000	0	--	0	--	0	**0,00%**
C	Poland	12.491.000	749.460	6,00%	0	--	749.460	**6,00%**
C	Portugal	4.939.000	0		0		0	**0,00%**
C	Republic of Macedonia	557.000	0	--	0	--	0	**0,00%**
C	Romania	*7.670.000*	NA		NA			**NA**
C	Slovenia	581.898	3.000	0,52%	NA			**0,52%**

Tab. 3.4 – Classification of countries based on digital television penetration

Subscribers (% of total TV hh)	A group	B group	C group
% > 24	United Kingdom	Ireland Norway	Israel
10 < % ≤ 24	Germany Sweden Italy Spain	Denmark	Malta
% ≤ 10	Finland Netherlands Switzerland	Austria Czech Republic Hungary Lithuania Slovakia	Latvia Montenegro Poland Portugal Rep. of Macedonia Slovenia

In most countries of the A and B groups the penetration of digital platforms is above 10%. As far as the C group is concerned in most countries digital platform has not yet been launched, whereas in Malta and Israel digital cable and satellite show remarkable penetration rates.

The degree of development of digital cable and satellite has probably played a role, at least in some countries, in the early launch of DTT. This is extremely clear, for instance, in the UK where the development of digital cable and satellite has created a very competitive broadcasting environment. In this context DTT has been perceived by the terrestrial broadcasters as a tool for a more effective competition with other platforms. Therefore we could say that, in some cases, a strong penetration of digital cable and satellite might have played a significant role in the early launch and development of DTT.

4. Role of terrestrial analogue broadcasters in the transition

In this section some indicators are assessed to evaluate the role played by terrestrial broadcasters in the switchover process and their attitude towards DTT. One of the assumptions set at the beginning of the research, was that the attitude and the role played by existing terrestrial broadcasters, and especially the PSBs, may have a strong influence in the take up of DTT platforms.

In order to test the assumption, different elements have been taken into account:

- § broadcaster financial resources and investment in DTT,
- § digital activity: development of channels and other services for digital platforms,
- § obligations set by law for terrestrial broadcasters in developing DTT.

The above mentioned indicators will help in assessing whether and in which countries a "leading role" has been played by terrestrial broadcasters thanks to the regulatory framework and policy actions on the one side and the initiative and capability of the broadcasters themselves on the other.

Data have been analysed separately for PSBs and commercial broadcasters.

Public Service Broadcasters

Financial resources of PSBs

With table 4.1 two kinds of information have been put together:

1. PSB's financial resources gathered through the annual fees paid by viewers and, when applicable, advertising; the financial resources are expressed both in terms of PSB's annual revenue and as "annual revenue per household".

2. If and how specific additional resources have been granted by the governments to the PSBs to support the PSBs in activities related to DTT or to other digital platforms. These may be resources allocated either to build/upgrade terrestrial networks or to create digital thematic channels.

The combination of these two elements may give a first picture and preliminary indications about the capability of PSBs in some countries to play a "leadership role" or simply to be more active in the development of DTT.

Tab. 4.1 - PSB's economic resources and finances granted for development of DTT or digital activities

	Countries	Annual revenues of PSB (mln Euros)		Annual revenues per hh (2002)	Specific financial resources granted to PSB for DTT or digital activities		
		2001	2002		Y/N	(mln €)	through
A	Finland	350,9	340,5	155	P		Increase of annual fee paid by viewers PSB allowed to sell asset to finance DTT
	Germany ARD	3.723,90	3.790,20	153	P		Increase of annual fee
	Germany ZDF	1.769,40	1.778,40				
	Sweden	n.a.	411,8	103	P	65,62	From viewers fee (for a five year period)
	United Kingdom - BBC	3.546,72	3.789,37	155	P		Rise of annual fee for PSB - although it is not intended specifically for DTT but for development of all digital platforms
	Netherlands	802	n.a	119			
	Italy	2.332,00	2.355,00	112			
	Spain	2.055,80	2.616,00	195			
	Switzerland	1.055,00	1.063,30	313			
B	Austria	723	713,5	223	P	7,5	Digitization fund
	Czech Republic	141,1	141,6	38	P		Rise of annual fee
	Denmark DR	360	371,9	155			
	Denmark TV2	214,7	218,4	91			
	Ireland	193,2	213,2	167			
	Hungary	82,1	80,7	21	---		---
	Lithuania	14,5	14,5	16	---		---
	Norway	575	606,3	319	---		---
	Slovakia	41,5	38,6	21	---		---
C	Bosnia and Herzegovina	35,1	91,1		---		---
	Israel	n.a.	n.a	---	---		---
	Latvia	n.a.	n.a	---	---		---
	Malta	n.a.	n.a	---	---		---
	Montenegro	6,8	9,2	48	---		---
	Poland	480,4	426,8	34	---		---
	Portugal	129,3	143,7	29	---		---
	Republic of Macedonia	8,3	9,4	17	---		---
	Romania	n.a.	226,9	30	---		---
	Slovenia	105,5		182			

n.a. figure not available

--- matter not yed defined by law or regulation

PSBs in the A group countries not only appears to have larger financial resources and therefore a better capacity to invest in the development of DTT, but have in most cases been assigned additional financial resources through different means, either to specifically develop DTT networks and content or, more generally, as appears to be the case in the UK, to develop digital thematic channels for all available platforms. In both cases the PSBs in these countries have been given the means to play a proactive role in the development of DTT.

PSB's role in DTT platform: content creation, capacity assigned by law or regulator and channels aired on DTT platform

With table 4.2 three groups of information are taken into consideration.

1. The first block of columns shows the number of terrestrial channels of the PSBs and the number of additional channels PSBs have developed for cable and satellite. This information is taken as an indication of the capability of the PSB to create content for digital platform, e.g. to go beyond its original mission (creation of one-two general entertainment/information channels) and adapt its role to the new digital environment.

2. The second block of columns reports the capacity assigned to the PSB by law or other decision and shows whether the capacity is given "by multiplex" (1 or more frequencies that the PSB can autonomously decide how to use) or "by channels" (in this case a decision on which PSB channels will be aired is presumably taken before the capacity allocation). Also, a specific information is given with regard to whether the capacity allocated to the PSB is enough only to simulcast existing terrestrial channels of the PSB or to allow the broadcasters to add new channels to its terrestrial line-up. This information identifies not just the capacity given to the PSB, but also, in a way, the role assigned to the PSB by the legislator/regulator. When the legislator allocates a large part of the DTT capacity to the PSB, we can assume that it sees the PSB playing a leadership role in the development of the new platform.

3. The third columns (only for the A group countries where DTT has been launched) reports the PSB channels in the DTT platforms and thus provides information on how the capacity assigned has been actually used.

![epra logo — european platform of regulatory authorities]

Tab. 4.2 - Content creation, digital capacity assigned and channels aired on DTT platform

	Countries	PSB activity: PSB analogue terrestrial ch.	PSB activity: extra channels on cable/DTH	Capacity assigned by law to PSB – capacity allocated: by MUX	Capacity assigned by law to PSB – capacity allocated: by ch.	Capacity assigned by law to PSB – capacity enough for…: simulc. of terrestrial ch.	Capacity assigned by law to PSB – capacity enough for…: extra channels	PSB role played in DTT platform – PSB channels on DTT: No.	PSB channels on DTT: name of TV channels	FTA / pay	simulc. of terrestr. ch.	simulc. of DTH / cable	DTT only
A	Finland	2 (YLE)	3	1			P	5	TV1; TV2; YLE 24; YLE Teema FST News	FTA	2	3	
A	Germany (Berlin)	11 (ZDF+ARD)	10	3			P (1)	14	ARD; MDR; NDR; RBB Berlin RBB Brandeburg; ARTE; Phoenix; ZDF; ZDF Dokukanal; ZDF Infokanal; KIKA; Sudwesthfehrsehen; WDR; 3Sat	FTA	8	6	
A	Sweden	2 (SVT)	2	1			P	4 + 2 planned	SVT1; SVT 2; barnkanalen; SVT 24 2 channels yet to be developped	FTA	2	2	
A	United Kingdom	2 (BBC)	6	1 (2)			P	8	BBC; BBC 2; BBC 3; BBC 4; CBBC; Cbeebies; BBC News 24; BBC Parliament	FTA	2	6	
A	Netherlands	3	0	1			P	3 + 2 planned	Nederland 1; Nederland 2; Nederland 3 other 1-2 channels planned	as part of PAY package	3	0	
A	Italy	3 (RAI)	5 FTA + 5 pay ch.	2			P	8	RAI 1; RAI 2; RAI 3; RAI Sport; RAI News 24; RAI Edu; RAI Doc; RAI Utile	FTA	3	3	2
A	Spain	2 (TVE)	2 + thematic ch. operated by PSB of autonomous region	(3)	2 (national) 2 (PSB of autonomous region)	P		2 (national) 2 (local)	TVE; La 2 2 local PSB channel for each autonomous region	FTA	2 2		
A	Switzerland	7	0	2-3		P		7	*SF1; SF2; TSR1; TSR2; TSI1*	FTA	6		
B	Austria	2	0		2	P	(4)						
B	Czech Republic	2	0	1		---	---						
B	Denmark DR	1	1	1	2		P						
B	Denmark TV2	1	1		1	P							
B	Ireland	3	0	1,5			P						
B	Norway	2	0	1			P (5)						
B	Hungary	2	0										
B	Lithuania	2	0		2	P							
B	Slovakia	2	0		2	P							
C	Bosnia and Herzegovina	3	0			---							
C	Israel	1	0			---							
C	Latvia	2	0			---							
C	Republic of Macedonia	3	1			---							
C	Malta	---	0			---							
C	Montenegro	2	0			---							
C	Poland	3	0			---							
C	Portugal	2	0			---							
C	Romania	3	TVR International			---							
C	Slovenia	2	0			---							

(1) German broadcast law stipulates that ARD and ZDF have in total 50% of all DTT capacity. When PSB is the network operator it has no limitation in the composition of the multiplex.
(2) In UK, only 1 mux reserved to BBC, but most of digital capacity managed by Freeview, which is participated by BBC itself.
(3) One multiplex allocated to PSB after switch off - untill then capacity only forsimulcast of existing channels - legislation currently under revision.
(4) The two Austrian PSB channels have not been given capacity by law but have been granted must carry rights on the future dtt network.
(5) In Norway the capacity has been assigned to PSB through a parliamentary decision.

The third block of columns can be assumed as the "results" of the elements depicted in the two other blocks: if the broadcaster has been granted capacity and has content and channels already available it will be able to play a more proactive and leading role in the DTT platform.

The role played by the PSB in the DTT platforms appears to be the consequence of two different factors:

a. the proactive approach of the PSB in the creation of thematic channels for DTH and cable platforms, therefore its capacity to diversify its activity;
b. the kind and amount of digital terrestrial capacity assigned to the PSB by the legislator/regulator, that is whether or not it has been allocated enough capacity to broadcast more channels in digital than it originally aired on the analogue network.

Most PSBs in the A country, and especially those in the A1 group, had already developed a remarkable number of thematic or general interest channels to be broadcast via satellite or cable. The availability to those PSBs of extra content and channels has definitely proven to be an advantage for the development of DTT. Most of these channels are now being broadcast via digital terrestrial, giving the PSB a leading role and making the digital platform more attractive compared to the terrestrial analogue channels line-up.
Only Italy has developed channels specifically for the terrestrial digital networks, whereas most PSBs are broadcasting on DTT channels already on air on other platforms.

In terms of the role played by the PSB in each countries, in all cases except Spain, the PSBs have been allocated one or more multiplexes, rather than the capacity to simulcast only existing terrestrial channels. In most cases PSBs have been free to decide how to compose the multiplex.

From the table 4.2 two different "visions" of DTT emerge:

a) in one case DTT is seen by the PSB as a complementary platform: all content created for cable/satellite platforms are now broadcast on the new terrestrial network;
b) in other cases, DTT appears to be conceived as an alternative platform, in competition with cable and satellite.

In all cases the development of DTT seems to be directly connected to the synergy of the two factors mentioned above: when the proactive approach of the PSB meets a regulatory model that assigns a leading role to the PSB, the DTT seems to find a favourable context to develop.

In countries of the C group, regulation is either non existent or in the course of being prepared, therefore very little information is currently available to assess the role that the PSB will play in those countries for the development of DTT.

It can be said that the PSB capability to play a primary role emerges from the regulatory approach taken by the different countries as far as two kinds of resources are concerned: the amount of capacity (bandwidth) assigned and whether or not specific financial resources are granted for the PSB digital activities.

Tab. 4.3 – Classification of countries in relation to technical and financial resources assigned to PSBs for the development of DTT

Specific financial resources granted to PSB for DTT activity		Capacity assigned to PSB ...for extra channels: A group	Capacity assigned to PSB ...for extra channels: B group	Capacity assigned to PSB ...for simulcast: A group	Capacity assigned to PSB ...for simulcast: B group
Yes	A group	Germany UK** Sweden			
Yes	B group				Austria
Yes	C group				
No	A group	Finland Netherlands Italy		Spain Switzerland	
No	B group		Denmark Ireland Norway		Hungary Lithuania Slovakia

* Data for C group are not available
** Rise of annual fee for BBC not intended specifically for DTT but for development of all digital platforms

PSB's obligation in developing DTT

Table 4.4 takes into consideration the obligations and constraints imposed on the PSB by the regulator/legislator in return for the capacity given or, in some cases, for the leadership role assigned. Information has been gathered on whether there is an obligation set by law for the PSB to guarantee a certain coverage and whether there is any specific requirement in using the digital capacity, such as mandatory "start up date" to simulcast or to switch on new channels.

Tab. 4.4 - PSB's obligation in developing DTT

	Countries	Minimum coverage set by law		Specific requirements in using digital capacity	Comments
		Y/N	coverage		
A	Finland	No*		No	*94% population coverage agreed upon by operators
A	Germany	No*		DTT start up date agreed upon by the state regulator, PSB and commercial broadcaster involved in DTT for each region No pay channels	* Minimum coverage for DTT start-up is the result of agreements between the responsible state regulator, PSB and commercial broadcasters, network operator and the Lander.
A	Sweden	No		No pay channels	Parliament will decide if introducing a minimum coverage in Spring 2004
A	United Kingdom	No*		Terrestrial broadcaster had the obligation to start simulcasting in December 1998 Only 10% of capacity may be used for data services	* Some DTT obbligation and target coverage may be introduced in the new digital licenses to be issued in 2004
A	Netherlands	No	Roll-out to be as fast as possible	No	No minimum coverage established because availability of frequencies is uncertain. Operators must roll out nationwide as soon as frequencies become available
A	Italy	Yes*	50% in stage one 70% after one year	Must offer obbligation for channels of "particular value identified by the NRA**	* Provision included in the new broadcasting act currently before parliament ** Regulation currently in preparation
A	Spain	Yes	50% pop. by june 2000 80% pop. by 2001 95% pop. by dec 2011	Terrestrial broadcaster given a compulsory start date for simulcasting their channels on DTT Maximum 20% capacity to be used for interactive services	
A	Switzerland	Yes	global coverage in the country	Obligation in terms of "linguistic exchange"; "universal service" and "co-utilisation par des prives"	
B	Austria	Yes*	95%	Activity of PSB different from the broadcasting of the two TV terrestrial channels has to be outsourced to subsidiary company	*Coverage of DTT by PSB must be the same of terrestrial analogue channels
B	Czech Republic	---	---	---	---
B	Denmark DR Denmark TV2	Yes	National coverage	Obligation to develop new digital services	
B	Hungary	---	---	---	---
B	Ireland	No		If capacity is not fully utilised within an agreed frametime it can be used to carry other services	Transmission to be managed by a separate section of the PSB independent from the broadacsting section
B	Norway	Yes*		Network should be in operation by 2007 and completed by 2008	*Coverage of DTT by PSB must be the same of terrestrial analogue channels
B	Lithuania	---	---	---	---
B	Slovakia	---	---	---	---
C	Bosnia and Herzegovina	Yes	85%	---	---
C	Israel	---	---	---	---
C	Latvia	---	---	---	---
C	Republic of Macedonia			*Regulation currently being assessed*	
C	Malta	---	---	---	---
C	Montenegro	---	---	---	---
C	Poland			*Regulation currently being assessed*	
C	Portugal			*Regulation currently being assessed*	
C	Romania	---	---	---	---
C	Slovenia			*Regulation currently being assessed*	

--- answers not provided

Although there is no standardized approach, some common features can be identified:

a) the PSB are generally given a great degree of freedom in using their capacity;

b) no minimum coverage is established by law (except few exceptions) but in some cases the coverage is agreed upon by all parties involved;
c) some countries that have not imposed a minimum coverage or other requirements when licensing the capacity are considering to introduce some kind of measure shortly.

As far as mandatory start up dates are concerned, some countries have included a sort of "use it or loose it" clause in their licenses, forcing the PSB to start simulcasting their channels (Spain, UK) or to switch on the new channels for which they have been assigned the capacity (Sweden, Ireland, Denmark).

To sum up, whereas in most cases PSBs have been guaranteed technical and financial resources to play a leading role in the roll out of DTT, very few obligations have been imposed to make sure that broadcasters would carry out their task. Only in a few countries regulation imposing minimum coverage and a mandatory start up date have been introduced to avoid the risk of dilatory attitude of terrestrial broadcasters.

Terrestrial commercial broadcasters

Tables 4.5, 4.6 and 4.7 mirror the structure of tables 4.1, 4.2 and 4.4 offering the same information for terrestrial broadcasters that have not the status of public service broadcasters.

Tab. 4.5 - Economic resources and specific financial resources assigned for development of DTT and digital activities (2002)

	Countries	Terrestrial broadcasters	Annual revenues (mln Euros)(1)		Specific financial resources for DTT or digital activities	
			2002	per hh	Y/N	Comments
A	Finland	MTV3; Nelonen	205,6	93	P	Analogue licence fees reduced by 50%; no licence fee for digital broadcasting
A	Germany	RTL Group; Prosiebensat; other	4.117,00	113		
A	Sweden (2)	TV4	208,1	52		
A	United Kingdom (2)	ITV; Channel 4; Channel 5; GMTV; S4C	3.922,50	160		Digital dividend - Resources were provided for devolpment of digital TV in general but not specifically for digital terrestrial TV (3)
A	Netherlands	RTL Nederland; SBS Broadcasting	511,5	76		
A	Italy	Mediaset; La7-MTV	2.006,00	96		Measures as the reduction of the licence fees may be considered
A	Spain	Antena 3; Telecinco; Canal+	1.693,30	126		
A	Switzerland					
B	Austria	9 broadcasters	n.a.		P	Digitization fund to support broadcaster during simulcast phase
B	Czech Republic		141,45	38		
B	Denmark	TV Danmark	15,2	6	---	
B	Hungary	Magyar RTL; MTM-SBS	189,4	50	---	
B	Ireland	TV3	41	0	No	
B	Norway (2)	TV2	180	95	No	
B	Lithuania	LNK; TV3 (MTG) TV4			No	
B	Slovakia	TV Markiza; JOJ	171,6	95	No	
C	Bosnia and Herzegovina	26 channels			---	---
C	Israel	Channel 2	118,8	0	---	---
C	Latvia	LNT; TV3; TV5 Riga			---	---
C	Republic of Macedonia	TV A1; TV Sitel			---	---
C	Malta				---	---
C	Montenegro	13 channels			---	---
C	Poland	Polsat PLN; TVN PLN; TV4 PLN; Telewizia Niepokalanow	153,6	12	---	---
C	Portugal	TVI; SIC	477,6	97	---	---
C	Romania	6 channels			---	---
C	Slovenia	18 channels			---	---

(1) Total annual revenue of all commercial broadcasters in each country.
(2) Commercial broadcasters in UK, Sweden and Norway also have PSB status and obbligations.
(3) UK - digital dividend a reduction of yearly fee paid by broadcasters linked to the penetration of digital platforms. It can't be considered a measure to support specifically DTT but it has to be mentioned as an additional financial resource that has helped broadcasters to develop channels or infrastructures.

Both in Finland and UK, countries in the A1 group, as well as in Austria, policy measures have been adopted in order to allocate specific financial resources to commercial terrestrial broadcasters involved in the launch of DTT or in the development of digital platforms. In Finland and UK a reduction of the fees paid by the broadcaster for the use of the frequency has been adopted as a way to allocate specific financial resources to support the investment needed for DTT start-up. In the UK specifically the so called "digital dividend" is a reduction of the fee paid for the use of the frequency connected to the number of viewers that adopts one of the three digital platforms. These kinds of policy can prove as a strong incentive for the broadcasters to adopt strategies that help the rapid take up of digital platforms.

Terrestrial commercial broadcasters' activities on DTT platforms: content creation capability, capacity assigned and channels aired on DTT platform

As for the PSBs, two sets of elements have been analysed: the proactive approach of terrestrial broadcasters in the creation of thematic channels and, on the other hand, the role assigned to them by the regulation.
In the second block of columns (capacity allocation) two separate kinds of information are offered: whether the capacity has been allocated by channel or by multiplex and whether the broadcaster is a multiplex or/and network operator or just provides its channels to the platform.

The third block of columns offers information about the channels aired to the DTT. As for the PSBs we could say that the capacity of commercial broadcaster to play a primary role in providing content to the DTT platform, is a result of the combination of two elements: the degree of pro-activity in the creation of thematic channels and the capacity allocated to terrestrial broadcasters by the regulation. What is relevant in this case is not just the quantity (i.e. the number of channels that terrestrial broadcasters are allowed to air on DTT) but also the role played in the management of the platform.

Unlike what we have seen happening with PSBs, the information gathered shows that capacity in most cases is assigned to commercial broadcasters by channel rather than by multiplex – this means that in most countries terrestrial broadcasters are or will be granted capacity only for channels selected individually through public selection procedures (beauty contest) and have therefore less freedom than PSBs in using their capacity.

Consistently, in most cases, commercial broadcasters act merely as content providers and, with few exceptions (Netherlands, Italy, Norway, Slovakia) they do not manage platforms.
Except few cases, terrestrial broadcasters are not granted a prominent role in the digital switchover process.[8]

[8] Italy may really be considered as the only exception due to the very peculiar situation in the digital switchover. Capacity in the transition is not assigned through a public procedure, but it is acquired through the so called "frequency trading". This procedure gives a more prominent role to existing broadcasters: by acquiring capacity from small or local channels, national terrestrial broadcasters get the capacity to become network and multiplex operators.
This might also be the reason why the main commercial broadcaster is not broadcasting its thematic channels on DTT: as the switchover to digital DTT platform is perceived as a way to allow a more pluralistic environment, it would have been inappropriate to fill Mediaset DTT network with Mediaset channels.

epra european platform of regulatory authorities

Tab. 4.6 - Terrestrial broadcasters on DTT

	Countries	Terrestrial national channels: Name	N.	Extra channels on cable/DTH(*): Name	N.	Broadcasters' role: Platf. Op.	Broadcasters' role: Content pr.	Capacity assigned: by MUX	Capacity assigned: by ch.	Capacity allocated is enough for… …simulc. of terrestr. ch.	Capacity allocated is enough for… …extra channels	Channels on DTT: No	Channels on DTT: name of TV channels	simulc. of terrestrial ch	simulc. of DTH/ cable	DTT only
A	Finland	MTV3; Nelonen-Channel4	2		2		P		P		P	6	MTV; MTV3+; Channel4; Nelonen+; SubTV; Sports Canal	2	2	2
A	Germany (1)	RTL group (RTL; RTLII; Vox)	3	Super RTL; RTL Shop; RTL osterreich; Vox Schweiz; NTV	5		P	P (2)	P		P	4	RTL; RTL II; SuperRTL; Vox	4		
		Prosieben (Prosieben; SAT1; N24)	3	Sat1 osterreich; kabel1 osterreich; Kabel1 schweiz; ProSieben schweiz; Kabel1	5							4	ProsiebenSat1; Kabel1; N24	4		
		Others (9 Live; DSF; MTV2 Pop; Tele5)	4									6	DSF; Fab; Viva plus; 9live; BBC World; Eurosport	0	6	
A	Sweden	TV4	1	TV4 plus; Med i tv	2		P		P		P	3	TV4; TV4 plus; Med i TV	1	2	(5)
A	United Kingdom	ITV	1	ITV2; ITV news	2		P (3)	1,5		P (3)		3	ITV1; ITV2; ITV News	1	2	
		Channel 4	1	E4; Filmfour	2							1	channel 4	1		
		Channel 5	1	---								1	Five	1		
A	Netherlands	SBS (SBS6; Net5; Veronica)	3	0		P	P		P (4)	P		6	SBS6; Net5; Veronica; RTL4; RTL5; Yorin	6		
		RTL Ned. (RTL4; RTL5; Yorin)	3	0												
A	Italy	Mediaset (Canale 5; Rete4; Italia 1)	3	Duel TV; Happy Channel; MT	3	P	P	P			P	3	Canale5; Italia1; Rete4	3		
		La7 (La7; MTV)	2	---								2 (7)	La7 ; MTV	2		
		Other (Sport Italia)	1	---								1	Sport Italia	1		
A	Spain	Antena3; Telecinco; Canal+	3	Megatrix + several thematic channel			P		P	P (6)		3	Antena3; Telecinco; Canal+	3		
A	Switzerland	local channels	85	---		Not yet decided					(8)	---				
B	Austria	ATV	1		0		P (9)			P (9)						
B	Czech Republic	Nova Tv; Prima TV	2		0	yet to be decided										
B	Denmark	TV Danmark	1		0		P	P (10)			P					
B	Hungary	Magyar RTL MTM SBS	2		0	yet to be decided										
B	Ireland	TV3	1		0		P		P		P (11)					
B	Norway	TV2	1		0	P	P (12)	P (13)			P					
B	Lithuania	LNK; TV3; TV4	3		0	yet to be decided										
B	Slovakia	TV Markiza; JOJ	2	TA3	1	P	P	P (14)			P					
C	Bosnia and Herzegovina	local/regional broadcasters	26		0	yet to be decided										
C	Israele		1		0	yet to be decided										
C	Latvia	LNT; TV3	2		0	yet to be decided										
C	Malta															
C	Montenegro		13		0	yet to be decided										
C	Poland		5		0	yet to be decided										
C	Portugal	SIC; TV1	2		0	yet to be decided										
C	Republic of Macedonia	TV A1; TV Sitel	2		0	yet to be decided										
C	Romania		6		0	yet to be decided										
C	Slovenia		18		0	yet to be decided										

(*) Channels on DTH/cable produced/owned by terrestrial broadcasters.
(1) In Germany there is no nationwide terrestrial commercial broadcaster. For our analysis we have taken into consideration the main commercial broadcasting groups.
(2) Digital capacity is made available through tender and granted to the single broadcasters. Capacity can be granted by multiplex or by channel.
(3) In UK the terrestrial commercial broadcasters have been assigned the capacity to simulcast their existing channels. Rest of the capacity is managed by mux operator freeview which is in charge of selecting the line-up. If terrestrial broadcasters want to broadcast extra channels on DTT they have to negotiate capacity with Freeview.
(4) Dutch terrestrial broadcasters get alltogether 4 multiplex via the consortium Digitenne.
(5) Swedish commercial broadcaster TV4 has been licensed for extra 2 channels that has not yet developed.
(6) After the switchoff the terrestrial broadcaster will get one multiplex each.
(7) Other channels available in the multiplex operated by the italian terrestrial broadcasters belong to to independent broadcastersin (Class financial network, BBC world, coming soon television, video dj, sole 24oretV) are not channels developed by the terrestrial broadcasters who is the licensee of the multiplex; other channels are due to be added soon.
(8) Because of frequency restraints, commercial broadcasters will be allocated capacity only after the international conferences for frequency coordination (2006) . In the meanwhile only PSB multiplex is operating.
(9) Terrestrial analogue channels will enjoy must carry privilege on the future DTT network. It has not yet been decided whether additional capacity will be assigned to
(10) The commercial broadcaster will share 1 multiplex with the PSB to simulcast their existing channels No other decision taken for the other 2 multiplex that will be made
(11) Capacity allocated for simulcast of existing channel + 1 extra channel.
(12) The subject that has applied to be mux operator in Norway is Norges Televisjun, a consortium of the PSB and TV2.
(13) TV2 will have at least one multiplex to be managed with NRK (the PSB).
(14) The commercial broadcasters will have one multiplex.

Terrestrial commercial broadcasters – obligations in the development of DTT

Table 4.7 shows whether any specific obligation has been imposed to terrestrial broadcasters that have been assigned capacity on DTT platforms to broadcast their channels or act as multiplex/network operator.

Tab. 4.7 – Obligation in the development of DTT platforms

	Countries	Compulsory starting date for using the digital capacity		Minimum coverage		Specific requirements in using digital capacity	Comments
		Y/N	Date	Y/N	Coverage		
A	Finland			*		None	*94% coverage agreed upon by all broadcasters involved
A	Germany	*		**		None	*Minimum coverage for DTT is the result of agreement between state regulator, PSB and commercial broadcasters **DTT start up date has been agreed upon by the state regulator, the PSB and the commercial broadcaster involved in DTT for each region
A	Sweden	P				One channel (simulcast of terrestrial) free to air + 4 pay channels	TV4 has been given a compulsory starting date for the two extra channels for wich it has been licensed
A	United Kingdom	P	Dec 1998			Only 10% of capacity may be used for data services	Some DTT obbligation and target coverage may be introduced in the new digital licenses to be issued in 2004
A	Netherlands			P		80% TV - 20% data trasmissions for portable-B reception	Broadcaster have the obbligation to roll out DTT as fast as technically possible
A	Italy			P	50% of the population	Obligation to give access to content provider on FTND terms	Minimum coverage to be achieved by DTT network to allow Mediaset to avoid antitrust measures (1)
A	Spain	P	March 2002	P	50% pop. by june 2000 80% pop. by 2001 95% pop. by dec 2011	Maximum 20% capacity to be used for interactive services	Date when commercial analogue broadcasters (Antena 3, Telecinco and Canal +) had the obligation to start simulcast
A	Switzerland	DTT regulation for commercial broadcaster not drafted yet					
B	Austria			P **	90%		Commercial broadcaster has to release analogue frequencies when 70% of its service area is covered by digital network **Analogue turn off after 90% coverage has been reached
B	Czech Republic					---	
B	Denmark					---	
B	Hungary					---	
B	Ireland	P					Unused capacity within a set period of time will be reallocated
B	Norway (2)	*		P **			*Network should be in operation by 2007 and completed by 2008 **Coverage of DTT by PSB must be the same of terrestrial analogue channels
B	Lithuania						
B	Slovakia	No*		P **	80% of population		*Due to launch in Summer 2004 **Coverage to be reached before ATO
C	Bosnia and Herzegovina	DTT regulation for commercial broadcaster not drafted yet					
C	Israel	DTT regulation for commercial broadcaster not drafted yet					
C	Latvia	DTT regulation for commercial broadcaster not drafted yet					
C	Malta	DTT regulation for commercial broadcaster not drafted yet					
C	Montenegro	DTT regulation for commercial broadcaster not drafted yet					
C	Poland	DTT regulation for commercial broadcaster not drafted yet					
C	Portugal	DTT regulation for commercial broadcaster not drafted yet					
C	Republic of Macedonia	DTT regulation for commercial broadcaster not drafted yet					
C	Romania	DTT regulation for commercial broadcaster not drafted yet					
C	Slovenia	DTT regulation for commercial broadcaster not drafted yet					

(1) DTT development is the condition for Mediaset to avoid antitrust measure: one of its three terrestrial channel is supposed to release terrestrial
(2) In Norway there will be one multiplex reserved for the PSB and the commecial broadcaster. They will be subject to the same obligations

Only in a few countries (UK, Sweden, Spain) a mandatory start-up date has been set for commercial broadcasters for using the digital capacity they have been assigned. In most cases the "start-up date" is the result of an agreement between all parties involved.
The start-up date could be a key regulatory decision, because terrestrial channels that are already broadcasting on the analogue network may see the simulcast as a cost not associated with an immediate revenue and may be tempted to postpone the launch of their channels on DTT to a later stage. This in turn could a have a negative impact on the appeal of the line-up and create a delay in the take up of the platform.

This may explain why, although government/regulators seem to have reserved in most cases a weaker role to terrestrial commercial broadcasters in the development of DTT platforms, in some cases regulation has already been introduced to avoid delay and other possible set-back in the start up of DTT.

5. Regulatory framework and public policies

In this section some indicators will be assessed to evaluate the main features of the regulatory framework implemented in EPRA countries and policies implemented to support the take off of DTT platforms.

Policies in planning of frequency and digital capacity allocation

Table 5.1 recaps the main regulatory decisions taken in EPRA countries in terms of frequency planning for DTT start up as:

- § whether there has been a specific frequency planning for the allocation of the digital capacity;
- § the number of frequencies that have been allocated for the start up;
- § whether some of this capacity has been reserved by law to the public service broadcaster.

Tab. 5.1 - Frequency planning and capacity allocation

	Countries	Frequency planning for DTT	No. of frequency allocated for DTT start-up	No. of freq. reserved for PSB	Comments
A	Finland	P	3	1	
A	Germany	P	9*	3 full Mux + a part of 2 other	Planning done at state level * For the Berlin region
A	Sweden	P	5	1	
A	United Kingdom	P	6	2,5*	*Total capacity allocated to BBC and the other terrestrial broadcasters that in the UK have public service status
A	Netherlands	P	5	1	All capacity to one operator (Digitenne) which is a consortium of broadcasters
A	Italy	P	0*	1**	* Capacity for start up must be acquired by broadcasters interested through frequency trading **After ATO - before then PSB must acquire frequencies through trading like other broadcasters
A	Spain	P	5	part of 1 mux*	*1 mux reserved for simulcast of all terrestrial broadcasters Spain is currently reviewing the regulation on allocating DTT capacity
A	Switzerland	P	5-6	2-3	Capacity not yet allocated
B	Austria				Not established yet - PSB so far has only been granted must carry on the future DTT network for both channels
B	Czech Republic	P	3	1	
B	Denmark	P	1	1*	* The mux will be shared between the PSB broadcaster and TV2 Danmark
B	Ireland	P	6	1,5	2 mux reserved to existing terrestrial broadcasters; remaining 4 mux will be managed by the licensed mux
B	Hungary	P	2	not established yet	
B	Lithuania	P	4	2 video channels	Broadcaster will be selected and licensed by the regulator
B	Norway	P	3	1	
B	Slovakia	P	2	0*	* PSB has to apply for allocation of capacity as the other broadcasters
C	Bosnia and Herzegovina	NO		0	
C	Israel	NO	---		
C	Latvia	NO	---		
C	Malta				
C	Montenegro	NO	---		
C	Poland	NO	---		
C	Portugal	NO	---		
C	Republic of Macedonia	NO	1	1	Frequency planning done for the region of Skopje Frequency allocated for DTT pilot project
C	Romania	NO	---		
C	Slovenia	NO	1	*not decided yet*	

The number of frequencies allocated for the start up varies remarkably from one country to another. Germany and UK have the largest capacity assigned for start up and in both cases a good share of the capacity is managed directly by the PSB.

Most countries in the B group have already planned their capacity for the start up of DTT. With the sole exception of Ireland though, the number of allocated frequencies is so far more limited and so is the capacity reserved to the PSB.

Digital capacity allocation – allocation procedure

Table 5.2 recaps the information on the allocation procedure of digital terrestrial capacity.

The information in the first block of columns refers to the capacity allocated to channels, multiplex operators or network operators not falling into the PSB category.
Information provided includes whether the capacity is allocated to a single network/multiplex operator or is given to individual channels and whether the capacity is allocated through a beauty contest or through an auction to the highest bidder.
Additionally, it is indicated whether the channels in the platform are selected by the multiplex/network operator himself or if he has to carry channels selected and licensed by the NRA or the government through public selection procedures.

What appears relevant in fact, rather than who manages the capacity, is how the access to the capacity is regulated. In some cases the multiplex/network operator is in charge of selecting the channel line-up, whereas in other cases the channels are selected by the NRA or the government. In this latter case, the network/multiplex operator only provides technical and commercial services to the platform.

An additional useful information is whether the business model (i.e. the choice to have a free-to-air commercial platform or a pay model) is chosen by the platform operator or is predefined by the NRA/government or by the law.

The second block of columns refers to the allocation procedures for capacity granted to the PSB. In this case a different aggregation of information is provided with respect to the one already provided in previous tables. What is made clearer is whether the PSB has the freedom to decide the line-up or not.

Tab. 5.2 – Digital capacity allocation procedures

	Countries	MUX/NET operator different from PSB								PSB						Comments
		Frequencies allocated*		Allocation procedure		Channels on platform selected by		Business model chosen by		Frequencies allocated		Allocation procedure		Ch. on platform selected by		
		to mux/ net op.	to TV ch.	by auction	by beauty contest	NRA/ gov	mux/ net op.	NRA/ gov	mux/ net. op.	by mux	by ch.	public application	by law or gov. decision	NRA/go v	PSB	
A	Finland		P*		P	P**		P**		P*			P			*PSB has been allocated a full multiplex, whereas the rest of the capacity is allocated by single channel. **Channels in the multiplex selected by government. Multiplex operator Digita Oy has only the function of coordinator and carrier of the channels.
	Germany (1)	P			P	P*		P		P			P		P	*The multiplex is composed according to the licenses issued to the broadcasters. Network operator has the obligation to carry the licensed broadcasters. It can freely use the bandwidth not allocated through a licence.
	Sweden		P		P	P*		P			P*		P		P	*Mux operator (Boxer) composes the multiplex according to the licences released by gov.t. Conditional access selected by Boxer with the licensees.
	United Kingdom (2)	P		P	***		P*		P**	P			P		P	*Platform op free to select the channels with some limitations - digital programme services has to appeal to a variety of tastes and interests. ** Business model chosen freely but befor the auction. *** Some extra capacity allocated trough beauty contest in 2002.
	Netherlands	P			P		P		P	P			P		P	
	Italy	P		n.a.*			P		P	P			P			* Frequencies are acquired from other broadcasters - after ATO exceeding capacity will be assigned through a beauty contest.
	Spain	P			P	P	P**				P*		P	P		*4 mux assigned to mux op. Quiero; capacity for terrestrial b.casters, channels from autonomous region and new operators (Veo TV and Net TV) allocated by channel. ** Channels on Quiero selected by the platform operator. Free-to air channels selected individually by the government.
	Switzerland				not established yet											
B	Austria	P			*		P***		P		P**		P	P		* Beauty contest criteria: quick coverage of nationl territory; quality of digital signal; plan for the diffusion of receivers; consumer friendly concept. **PSB has been granted must carry for its two channels on the future DTT network. *** Licensing procedure not yet established - it will take place in 2005.
	Czech Republic				not established yet											
	Denmark				**					P				P	P*	*Obligation to simulcast 3 terrestrial channels; PSB free to use rest of the capacity as it wants. **No decision taken for mux 2 & 3 (mux to be allocated to non PSB net op).
	Ireland	P			P		P		P	P*			P		P	*2 mux reserved for PSB and commercial terrestrial broadcasters - simulcast + extra channels.
	Hungary				not established yet							not established yet				
	Lithuania	P		P		P			P		P		P	P		
	Norway	P			P		P		P	P			P		P	
	Slovakia	P			P	P					P*	P				*PSB has to apply for allocation of capacity within multiplex as commercial broadcasters
C	Bosnia and Herzegovina				not established yet							not established yet				
	Israel				not established yet							not established yet				
	Latvia				not established yet							not established yet				
	Malta				not established yet							not established yet				
	Montenegro				not established yet							not established yet				
	Poland	P			P	P		---	---	P			P			Broadcasting Act still being amended so answers are tentative
	Portugal				not established yet							not established yet				
	Republic of Macedonia				not established yet							not established yet				
	Romania				not established yet							not established yet				
	Slovenia				not established yet							not established yet				

(1) In Germany the capacity is allocated to network operators by multiplex but licenses are released to broadcasters that will be carried on the networks on a channel by channel basis. Only the PSB has no limitation in the composition of the multiplexes.

(2) UK: licenses given to the highest bidder but competition was preliminary based on the range and quality of services that would be offered in return for DTT spectrum.

Some features and peculiarities can be highlighted:

1. Beauty contest procedure is widely adopted as a way to allocate capacity as opposed to auctions which is more commonly used when allocating spectrum for telecom use.
2. In most cases (Germany, UK, Netherlands, Italy, Spain, Austria, Ireland, Lithuania ...) the capacity is allocated to one or more network/multiplex operators. In Sweden and Finland the capacity is allocated directly to channels.
3. In Germany, as well as in Lithuania, Slovakia and Poland, the network/multiplex operator is a provider of technical and commercial services and has to carry the channels that have been selected and licensed; in UK, Netherlands, Italy, Austria, Ireland and Norway the multiplex operator has a greater level of freedom and can establish the channel line-up and also the business model.

The situation is slightly more peculiar in Spain where the multiplex operator Quiero, once assigned the capacity, had the freedom to select the channels in the pay-TV platform. The capacity for free to air channels in the platform – including the PSB and the existing terrestrial broadcasters - has instead been allocated "by channel" to each specific broadcaster. After the failure of Quiero the DTT regulation and the allocation procedure are now under revision.

To conclude, whether the capacity is allocated to multiplex/network operators or directly to the broadcasters, it is still the Government or the NRA that in some cases retain the power to make the selection of the channels on the platform through a licensing procedure.

The only exceptions in the A group are Italy, UK and Netherlands where the multiplex operator/s have a great degree of freedom in establishing the content they want to carry. Italy presents an anomaly also under the profile of the procedure for allocating capacity, as frequencies for DTT are not acquired through a standard administrative procedure but through the so called "frequency trading". In the B group a relevant number of countries (all the countries where regulation has actually been defined) is instead choosing regulatory options that give a relevant role to the platform/network operator.

Public policy measures adopted for protecting pluralism, diversity and fair access to network

Table 5.3 recaps the information on whether policy measures have been adopted in each country to guarantee pluralism and diversity.
The first block of columns gives information on regulation that influences the process of allocation of the capacity highlighting:

1. whether there is a threshold or any other limitation to the number of multiplex or frequencies than can be allocated to the same operator;
2. if any subject has been excluded from competing for the capacity;
3. if there is any cross ownership limitation that affects the allocation of digital capacity.

The second block of columns gives information on measures adopted to protect pluralism and diversity once the capacity has been assigned. It goes without saying that this second kind of measures are not relevant when capacity is assigned directly to broadcasters or when channels are selected by the government. This can be considered in fact as the most effective measure to guarantee pluralism and diversity.

Tab. 5.3 – Policy measures for the protection of pluralism and access to network

Countries	Policy measures to guarantee pluralism in the process of assigning the capacity			Obligations imposed to the mux/netw. op in the composition of the bouquet		
	limit to the capacity that can be awarded to the same mux/net op	exclusion of specific subjects from operating DTT capacity	cross ownership limitation	must carry obligations	capacity reserved to special categories of b.casters	other limitations or constraints
Finland				mux/netw op (except PSB) must carry licensed channels		
Germany				mux/netw op (except PSB) must carry licensed channels		
Sweden				mux/netw op must carry licensed channels		
United Kingdom	Disqualification on holding more than 6 licences to provide multiplex services (1)	Religious organizations, political organizations, local authorities not qualified to apply	Local newspaper companies may not hold licence or providing digital program in the same area (2)			Digital program services has to appeal to a variety of tastes and interests. Data services limited to 10% of the capacity.
Netherlands	None - All capacity allocated to one operator	Cable operators have been excluded Tel operators limited to 30% ownership		*National PSB must transmit regional programming		At least 80% of the capacity to be used for TV programs
Italy	One third of total capacity reserved for local broadcasters			(3)	Experimantal phase: 40% of the mux capacity reserved to independent content providers; after the licensing procedure mux/net op. "must offer" capacity to independent channels of particular value at FTND conditions	
Spain	See under cross-ownership limitation		National TV operators can not hold more than 5% stakes in other national channels. They can hold stakes in autonomous or local channels whose coverage doesn't go beyond 25% of the national population	Regulation for digital capacity allocation is currently under revision		
Switzerland	*yet to be decided*					
Austria	*yet to be decided*			net/mux op. must carry existing terrestrial broadcasters (PSB and commercial)		Bigger part of the capacity allocated to mux operator reserved for TV channels
Czech Republic	*yet to be decided*					
Denmark	To be decided as criteria for allocation of mux not yet established					
Ireland	*yet to be decided*					
Hungary	*yet to be decided*					
Lithuania				mux/netw op must carry licensed channels		The NRA approves a plan of allocation of capacity for broadcasters within each multiplex
Norway	P				Licensee netw. op. required to reserve some capacity for "open channels" (community channels, NGOs, etc.)	Should local television channels wish to access DTT network, licensee is obliged to find an appropriate solution
Slovakia				mux/netw op must carry licensed channels		
Bosnia and Herzegovina	*yet to be decided*					
Israel	*yet to be decided*					
Latvia	*yet to be decided*					
Malta	*yet to be decided*					
Montenegro	*yet to be decided*					
Poland	*yet to be decided*			Composition of the mux will be decided by NRA		
Portugal	*yet to be decided*					
Republic of Macedonia	*yet to be decided*					
Romania	*yet to be decided*					
Slovenia	*yet to be decided*					

(1) Disqualification on holding more than 6 licences to provide multiplex services or from having a stake greater than 20% in more than 6 bodies holding such licences. There was also a disqualification one having a stake of more than 10% in 8 or more licences to provide multiplex services.

(2) Person who runs local newspapers with a combined local market share of 20% in the coverage area of a digital programme service may not hold a licence to provide that digital programme service. Digital programme services shall not be provided for 3 months after the award of a licence to a national or relevant newspaper unless a public interest test is met.

(3) No must carry obligations but "must offer" - e.g. network ops must offer capacity at FTND conditions to channels identified as "channels of particular value" by NRA.

Finland, Germany and Sweden, where the channels are individually selected by the government or the NRA, do not need to establish further specific measures to guarantee pluralism and diversity. The same for Lithuania and Slovakia in the B group countries.

With the exception of the Netherlands, where cable operators have been excluded from competing for capacity allocation, and Italy, where a third of the capacity has been reserved to local broadcasters, no other specific exclusion or relevant limitation has been introduced in most countries as far as the process of allocating the capacity is concerned.

With regard to measures introduced to influence or limit the freedom of the network operator to compose the multiplex, the situation is as follow:

1. must carry rules for PSBs and other terrestrial channels are imposed in the Netherlands and Austria, whereas such measures are not necessary in the UK, Spain or Italy or whenever terrestrial broadcasters are allocated their share of the digital capacity.
2. In Norway the multiplex operator will have to reserve some capacity to the so called "open channels" and should local channels require access to the platform, the network operator is forced to find an adequate solution.
3. In Italy specific measures are adopted to guarantee access to the platform for "independent channels" i.e. channels not owned by the broadcasters that will operate through DTT capacity. These measures are relevant as the capacity has not been allocated through a regular procedure, but has been more or less "purchased" by national broadcasters willing to operate on DTT network. Such measures are aimed at avoiding bottlenecks created by the vertical integration of the DTT network operators that have their own channels.

As far as the access of content providers to platform is concerned, two different regulatory approaches seem to emerge:
In a first group of countries the channels' line-up is the result of a selection made directly by regulator/government through public procedures that are very similar to those used in the analogue environment.
In a second group of countries the capacity is managed as a whole by a multiplex/network operator and some limitations or constraints (must carry, other) are imposed in order to preserve public interest objectives such as diversity and pluralism.

Obligations imposed to network operators

Table 5.4 gathers information on regulatory measures adopted to guarantee the access to the networks by content providers. Network providers may be required by regulation to offer fair, transparent and non discriminatory conditions. Network providers as well as platform operators may be required to publish a price list for the technical services offered to the content providers (also scrambling of the signal, EPG, etc). Moreover, when the network/platform operator is also a broadcaster, it could be required to keep separate accounting for its different activities.

Tab. 5.4 – Obligations imposed to network/platform operators

	Countries	Measures adopted Y/N	FTND access guaranteed to content providers	Public price list for services offered by network op.	Separate accounting for network/ multiplex ops.	Other
A	Finland	P	P		P	Network services offered at cost oriented price
A	Germany					
A	Sweden					
A	United Kingdom	P	P			
A	Netherlands	P	P			
A	Italy	P	P		P	
A	Spain			Not yet defined (under revision)		
A	Switzerland			Not yet defined		Measures to guarantee access are being considered
B	Austria	P	P*	Not yet defined (1)		*Digital capacity and additional services must be offered by the mux operators to the content providers under fair and non discriminatory conditions
B	Czech Republic			Not yet defined		
B	Denmark			Not yet defined		As only the allocation for mux one has been decided, such measure are not yet relevant
B	Ireland	NO				
B	Hungary			Not yet defined		
B	Lithuania	P				Not specified
B	Norway	P				Equal access of all content providers to the EPG
B	Slovakia	NO				
C	Bosnia and Herzegovina			Not yet defined		
C	Israel			Not yet defined		
C	Latvia			Not yet defined		
C	Malta			Not yet defined		
C	Montenegro			Not yet defined		
C	Poland			Not yet defined		
C	Portugal			Not yet defined		
C	Republic of Macedonia			Not yet defined		
C	Romania			Not yet defined		
C	Slovenia			Not yet defined		

(1) other measures for granting equal access to the DTT network have been established already in Austria such as:
a) all programs and services must be carried on the EPGs under fair and non-discriminatory conditions

b) the navigator must be configured in such a way to give all programs and additional services proportionally the same data rates
c) all programs and additional services must be presented with the same design, in order to be equally identifiable

Switch off regulation

Table 5.5 illustrates existing regulation on switch off. The first column specifies whether the switch off date (where it has been established) is set as such or is linked to different criteria as the coverage reached by the network. The second column indicates who is responsible for coordinating the switch off process and in the last column some information is given on the use of the capacity after the switch off.

Tab. 5.5 – Switch off policies and regulation

	Countries	ATO set by law or gov. Decision		Responsible for coordinating the ATO process			Comments	Use of spare capacity after ATO
		at specific date	linked to coverage	Gov	NRA	other		
A	Finland	*		P			*Presumably August 2007 - not yet officially set	not yet decided
A	Germany	P			P		All analogue frequencies turned off by 2010 Specific ATO date for each region decided by NRA and broadcasters	not yet decided
A	Sweden	P Febr 2008				P*	*A committee with the participation of all the parties involved	
A	United Kingdom	*	P**	P	P		*The policy is for ATO to occur in a window between 2006-2010. ** Criteria for ATO linked to affordability (cost for viewers) and accessability (coverage must be the same as analogue network)	not yet decided
A	Netherlands		P	P			Switch off linked to the coverage of the areas currently covered by anlogue terrestrial	Capacity reallocated for b.casting
A	Italy	P Dec 2006		*not defined yet*				Capacity reallocated for b.casting
A	Spain	P Dec 2011	*	P			*By 2011 the DTT network must have covered 95% of the population	Capacity reallocated for b.casting and
A	Switzerland			*Switch off strategy not yet defined*				
B	Austria		P*		P	P	*95% for PSB; 70% for commercial broadcasters	Capacity reallocated for b.casting
B	Czech Republic			*Switch off strategy not yet defined*				
B	Denmark			P				
B	Ireland						No date set for switchoff of analogue frequencies	Capacity may be reallocated for b.casting
B	Hungary			*Switch off strategy not yet defined*				
B	Lithuania							Capacity reallocated for b.casting
B	Norway		P*	P			*ATO will only take place when access to DTT will be satisfactory Switch off date may be set at 2008	Not yet defined
B	Slovakia	P 2015*	**	P			* Established by the National Policy on Electronic Communications **At least 80% of pop. must be covered before switch off (not defined by law)	Not yet defined
C	Bosnia and Herzegovina			Switch off strategy not yet defined				
C	Israel			Switch off strategy not yet defined				
C	Latvia			Switch off strategy not yet defined				
C	Malta			Switch off strategy not yet defined				
C	Montenegro			Switch off strategy not yet defined				
C	Poland			Switch off strategy not yet defined				
C	Portugal			Switch off strategy not yet defined				
C	Republic of Macedonia			Switch off strategy not yet defined				
C	Romania			Switch off strategy not yet defined				
C	Slovenia			Switch off strategy not yet defined				

Tab. 5.6 - Switch off dates

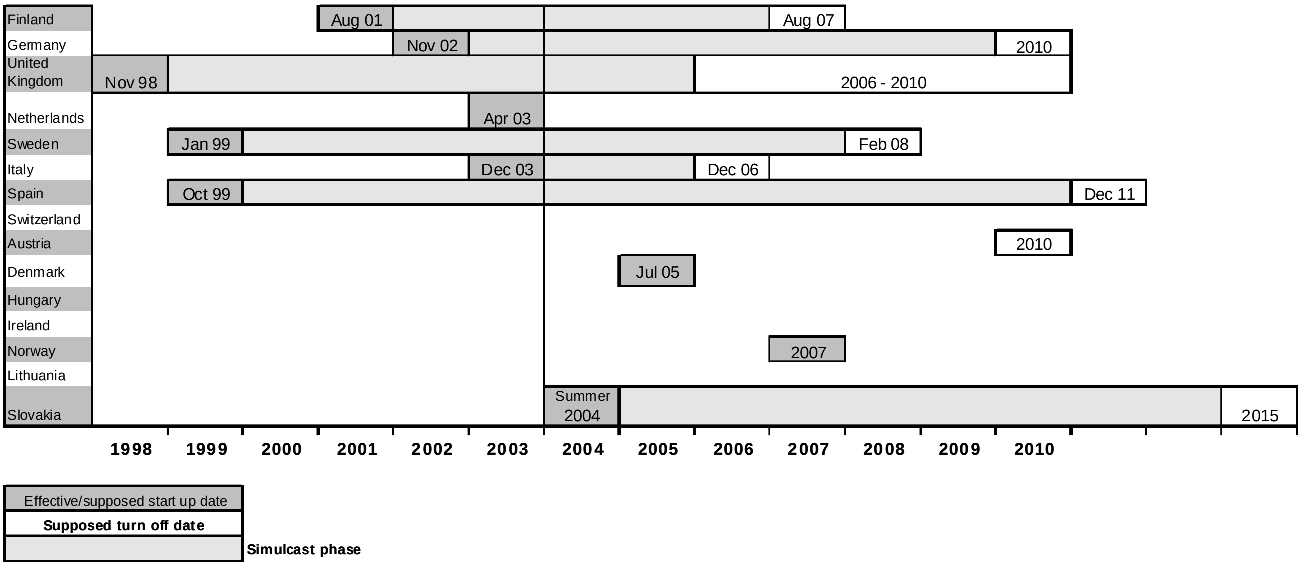


Table 5.6 reflects different approaches and strategies adopted by different countries as far as the switchover and the transition to "all digital" is concerned.

Some of the "early adopters" such as UK and Spain have adopted a very cautious approach with long simulcast period and, as in the UK case, switch-off dates not set by law, but to be assessed according to specific criteria. This might have been influenced by the very high penetration of terrestrial television in the country which will probably involve quite long transition periods.

Finland and Sweden, due to the peculiar geographic configuration of the country, to the high cost of simulcast and to the high penetration of alternative reception platforms (cable and satellite), have opted for shorter transition periods.

The situation is more peculiar in Sweden, due to the fact that the switch off will be done region by region following an "island" migration model. A similar pattern will probably be followed in Norway.

Italy, despite the very high relevance of terrestrial television, has set a very early switch off date in an attempt to force a quick migration to digital and free-up the overcrowded frequency spectrum.

Policy measures in favour of network and content providers for the development of DTT or other digital platforms

Table 5.7 gives information on policy measures introduced to support the development of DTT networks or the development of content.

Tab. 5.7 – Support measures for network operators and content providers

	Countries	Support measures in favour of network operator				Support for content providers		
		Direct financing of DTT network	Indirect financial incentives			Direct financing to content providers	Reduction of fee due for use of frequency	Regulatory measures
			Reduction of yearly fee	Raise of PSB annual viewers fee	Other			
A	Finland			P	P (4)		P (5)	
	Germany				P (1)			
	Sweden							
	United Kingdom		P (2)	P (3)				
	Netherlands							
	Italy							
	Spain				P (6)			P (7)
	Switzerland	not yet decided						
B	Austria	P (8)			P (9)	P	(8)	
	Czech Republic	Support policies not yet defined						
	Denmark				P (10)			
	Ireland	Support policies not yet defined						
	Hungary	Support policies not yet defined						
	Norway				P (11)			
	Slovakia		P (12)				P (12)	
C	Bosnia and Herzegovina	Support policies not yet defined						
	Israel	Support policies not yet defined						
	Latvia	Support policies not yet defined						
	Malta	Support policies not yet defined						
	Montenegro	Support policies not yet defined						
	Poland	Support policies not yet defined						
	Portugal	Support policies not yet defined						
	Republic of Macedonia	Support policies not yet defined						
	Romania	Support policies not yet defined						
	Slovenia	Support policies not yet defined						

(1) Some state regulatory authorities are allowed to financially encourage the development of DTT infrastructure in their respective states.
(2) Digital dividend - reduction in annual licence fee as digital TV viewers rise - not only for DTT.
(3) The RPI + 1.2% increase in the BBC viewers fee - not only for DTT.
(4) PSB allowed to sale asset in order to raise finance for developing DTT.
(5) no licence fee for digital channels.
(6) public subsidies for PSB - not specifically for DTT investment.
(7) creation of the DTT forum - working group of all parties involved in the transition.
(8) Digitization fund created to support DTT pilot project - support can be given during simulcast phase, not beyond.
(9) PSB allowed to sale asset as long as capability to supply universal service is not affected.
(10) Obbligation established for the PSB: it has to build the DTT network by July 2005.
(11) network operator is guaranteed payment from PSB (NRK & TV2) for network access.
(12) No fee for use of frequency.

Network operators and broadcasters involved in DTT in Germany, UK and Finland, three countries in the A1 group, have benefited of support measures aimed at creating additional financial resources for them. As far as UK is concerned, it has to be remarked that both the digital dividend for the commercial broadcasters and the raise of annual viewership fees for BBC were not intended solely for DTT but can be used to develop activities on all available digital platforms.

![epra logo]

Support measures for the diffusion of the receivers

Table 5.8 displays information on "demand-side" policy measures, i.e. measures adopted to facilitate the penetration of DTT receivers in the households. Two kinds of measures are taken into account:

1. subsidies or other indirect financial support provided for families to encourage the purchase of the receivers;
2. standardization policies that should support the diffusion of the receivers or the integrated television sets.

Tab. 5.8 – Support measures for the diffusion of the receivers

	Countries	Policies to support diffusion of the receivers			Receivers distributed by network / multiplex op.	Standardization policies to induce harmonization or quick technological substitution		
		Direct financing to families	Indirect financing			Specific middleware forced or recommended	Labelling of equipment	Mandate digital tuners into TV
			Tax exemption	Other				
A	Finland							
A	Germany							
A	Sweden					P (3)		
A	United Kingdom					P (1)	(2)	
A	Netherlands							
A	Italy	P (4)						
A	Spain					P		
A	Switzerland				not yet decided			
B	Austria			P (5)			---	
B	Czech Republic				Support policies not yet defined			
B	Denmark			---			---	
B	Ireland				Support policies not yet defined			
B	Hungary				Support policies not yet defined			
B	Norway			P (6)			---	
B	Slovakia				Support policies not yet defined (7)			
C	Bosnia and Herzegovina				Support policies not yet defined			
C	Israel				Support policies not yet defined			
C	Latvia				Support policies not yet defined			
C	Malta				Support policies not yet defined			
C	Montenegro				Support policies not yet defined			
C	Poland				Support policies not yet defined			
C	Portugal				Support policies not yet defined			
C	Republic of Macedonia				Support policies not yet defined			
C	Romania				Support policies not yet defined			
C	Slovenia				Support policies not yet defined			

(1) MHEG 4 was agreed by industry, government and regulator as the standard API.
(2) Labelling is being considered.
(3) Licensees sign an agreement for migration to MHP - not legally binding.
(4) 150€ per family for the purchase of interactive receiver.
(5) Early adopters of digital devices can be supported by the digitization fund (over funding companies that sell the devices manifestly below the market price).
(6) Receivers will be subsidised by network operator.
(7) "National policy on electronic communications" approved by gov - it defines strategy for DTT.

Only in few countries policy measures have been adopted to support the diffusion of receivers. Among them, only in Italy public subsidies have been introduced (€ 150 for every MHP interactive STB), whereas in all other countries policy measures to support the diffusion of the receivers are focused on the technical standardization.

6. DTT line-up and interactive services

Table 6.1 sums up all the information on DTT platform commercially launched. In the channels line-up column, the channels are listed in three groups:
DTT channels created and aired by the PSB are listed in the first column. No distinction is made between simulcast of analogue terrestrial channels, PSB channels previously aired on different platforms and brand new channels.

The second column lists the channels created by terrestrial commercial broadcasters, while the third column lists channels edited by other broadcasters that for the first time have access to the terrestrial network.

The last block of columns records some information on the provision of interactive services and the technology adopted by the platform (middleware; return path).

Tab. 6.1 - DTT channels line-up and interactive services

Countries	Platform	Launch date	Total no. of channels carried	Channel lineup				FTA/ Pay	Cost		INTERACTIVITY			
				Channels produced by PSB	Ch. produced by terrestrial commercial b.casters	Channels produced by other broadcasters			Basic	Premium	Middle ware	Return path	Int. services	EPG
Germany	*Berlin DTT platform*	Aug. 2003	28	ARD ZDF MDR NDR RBB Berlin RBB Sudwest WDR ARTE Phoenix Kika ZDF ZDF Infokanal 3-sat	RTL RTL II Super RTL Vox Prosieben Sat1 Kabel1 N24 DSF 9 Live Fab Viva plus	BBC World Eurosport		FTA			---	NO	---	Only SI data
Finland	Digi-TV	Aug. 2001	14	TV1 TV2 YLE 24 YLE Teema FST News	MTV MTV3+ Channel4 Nelonen+ SubTV Sports Canal	Canal+ Canal+ Gold Canal+ Blue		PSB + commercial FTA Canal+ pay	n.a.		DVB MHP	YES	---	Info on program currently on air
Sweden	Boxer	1999	24	SVT1 SVT2 barnkanalen SVT24	TV4 TV4plus Med i TV TV4 Film	TV3 Kanal5 CNN Eurosport Discovery ch MTV ZTV Animal planet	VH1 E! Nickelodeon Noll Ettan Canal+ Canal+ gul Disney Ch. Canal+ bla	PAY (1)	€ 16,2	€ 23,9	Open TV	YES (not active though)	---	Info on program currently on air
United Kingdom	Freeview	1998	24	BBC1 BBC2 BBC3 BBC 4 CBBC Cbeebies BBC News24 BBC Parliament	channel 4 ITV1 ITV2 ITV News Five	FTn Sky Travel UKTV+ UK History Sky News Sky Sports News Community channel TV Travel Shop Top up TV	QVC TMF The Hits	FTA (Pay)			MHEG 4	NO	YES (Sports, music, games news)	Now/ next service provided
Netherlands	Digitenne	March 2003	24	Nederland 1 Nederland 2 Nederland 3	SBS6 Net5 Veronica RTL4 RTL5 Yorin	Nickelodeon TV Noord Discovery ch Animal planet National geographic Fox kids Eurosport MTV	Spice platinum (18+) Canal+ Rood Canal+ Rood Canal+ Blauw Canak+ 16/9 CNN BBC World TMF	PAY	€ 8,95 /month		---	NO	---	---
Italy		Dec 2003	20	RAI 1 RAI 2 RAI 3 RAI Sport RAI News 24 RAI Edu RAI Doc RAI Utile	Rete4 La7 MTV Canale 5 Italia 1 Sport Italia	Class financial net. BBC World Coming soon TV Video Dj TV Sole 24 TV La chaine Info		FTA			MHP	YES	Services provided by RAI on behalf of public administration	Weekly/ daily schedules; info on program currently on air
Spain		March 2000	7	TVE La 2	Antena 3 TV Telecinco Canal +	Veo TV Net TV	Other channels at regional level	FTA			MHP	YES	YES	YES
Switzerland	SP	Aug. 2003	6	*SF1* *SF2* *TSR1* *TSR2* TSI1 TSR2 TSI1				FTA			---	---	---	---

(1) Sweden: SVT1, SVT2, Barnknalen, SVT24, TV4, ZTV, TV3, TV8 are free-to-air

7. Role of NRA's in the digital transition

This section assesses the role of national regulatory authorities in the development of DTT according to a list of functions that are assumed as being relevant for the transition process:

- Governance and coordination of analogue switch off and policy measures,
- Policy making, hereunder policy measures, supporting activities, legislation drafting,
- Implementation of policy, hereunder frequency allocation, licensing procedures, regulation of access to platforms, election of network operators and influence on the composition of multiplexes, dispute resolution between channels and platforms.

The first two groups of indicators stress the level of involvement in all policy decisions that may have an impact on the development of DTT, while the third shows the different activities where NRAs are actually involved in implementing DTT policies.

In most countries, some certain activities involving NRAs have been dealt with together with the government, but have nonetheless been included in this analysis, as a certain degree of involvement is anyway in question. In the same way, the tables show also the activities of NRAs falling under the control of the government, such as the Swiss regulatory agency, as the qualification of independency is not relevant for this assessment. Consequently, in the cases of Denmark or Norway, where the NRAs receive instructions by the government but remain autonomous in their decision, all NRA activities have been considered relevant.

In some countries legislation and competencies have still to be defined and only a few data were available from the questionnaires: in these cases, concerning Hungary, Bosnia and Herzegovina, Latvia, Montenegro and Macedonia, all NRAs have been considered according to current legislation.

All countries have been classified according to the A-B-C grouping system adopted in this study, in order to ease the assessment of the existence of any relation between the role of NRAs and the development of DTT.

According to the check-list, it may be noted that a lot of highly qualifying activities are dealt with by NRAs in all countries. On the other hand, a combination of NRA and Government activity may be noticed in A and B countries, while a prominent role of the Government is quite evident in C-countries. The main policy making activity carried out by the NRAs seems to be supporting the legislator, followed, in the A Group, by the governance of analogue turn-off. As far as implementation of policy is concerned, the main activity is licensing procedure, followed by frequency allocation and composition of multiplexes.

Tab. 7.1 – Role of regulators

		Policy making				Implementation of policy						
	Countries	Governance and coordination of analogue switch off	Policy measures for development of DTT measures	Supporting legislator	Drafting of regulation	Frequency allocation	Licensing procedures	Regulation of access to platforms	Selection of network operators	Influencing composition of multiplexes	Dispute resolution between channels and platforms	
A	Finland			P	P	P	P				P	
A	Germany	P	P	P	P	P	P	P	P	P	P	
A	United Kingdom	P	P	P	P	P	P			P	P	
A	Netherlands	P	P	P			P			P		
A	Sweden	P				P	P					
A	Italy	P		P	P	P	P	P		P	P	
A	Spain			P				P			P	
A	Switzerland	P	P	P	P	P	P	P	P	P	P	
B	Austria	P	P	P	P	P	P	P		P	P	
B	Czech Republic		P	P	P	P						*
B	Denmark	P	P	P	P		P	P			P	
B	Hungary					P						*
B	Ireland		P	P		P	P					
B	Lithuania	P		P		P	P		P	P		
B	Norway	P		P		P						
B	Slovakia		P		P		P	P	P			
C	Bosnia and Herzegovina					P						*
C	Israel		P	P	P	P						*
C	Latvia											
C	Malta	P		P		P	P	P	P		P	
C	Montenegro			P		P						
C	Poland	P	P	P			P	P	P	P	P	*
C	Macedonia						P					**
C	Romania				P		P					
C	Slovenia			P	P	P						*

* Regulation in progress and competencies not yet defined.
** Broadcasting Act is still being amended, so answers are tentative.

Tab. 7.2 – Distribution of competencies between NRAs and Government

	Governance and coordination of analogue switch off	Policy making			Implementation of policy					
		Policy measures for development of DTT measures	Supporting legislator	Drafting of regulation	Frequency allocation	Licensing procedures	Regulation of access to platforms	Selection of network operators	Influencing composition of multiplexes	Dispute resolution between channels and platforms
Involvement of NRAS	Austria Denmark Germany Italy Lithuania Malta Norway Poland Sweden United Kingdom	Austria Denmark Germany Israel Netherlands Poland Spain United Kingdom	Austria Czech Republic Denmark Finland Germany Israel Italy Lithuania Malta Netherlands Norway Poland Spain United Kingdom Slovenia	Austria Denmark Germany Israel Italy Romania Slovakia United Kingdom	Bosnia Herzegovina Finland Germany Hungary Italy Malta Montenegro Norway Poland Sweden United Kingdom	Austria Czech Republic Denmark Germany Lithuania Malta Poland Romania Slovakia United Kingdom	Austria Denmark Germany Italy Malta Poland Slovakia Spain	Germany Lithuania Malta Poland	Austria Germany Italy Lithuania Netherlands Poland United Kingdom	Austria Denmark Finland Germany Italy Malta Poland Spain United Kingdom
Involvement of both NRAs and government	Netherlands	Czech Republic Slovakia		Czech Republic Finland Slovakia	Czech Republic Denmark Lithuania	Finland Ireland Israel Italy Netherlands Norway Sweden				
Involvement of government	Czech Republic Finland Switzerland Israel Romania Slovakia Spain	Finland Italy Malta Norway Romania Sweden Switzerland	Romania Switzerland	Norway Spain Switzerland	Austria Israel Macedonia Netherlands Romania Spain Switzerland	Spain Switzerland	Norway Romania Switzerland	Finland Lithuania Spain Sweden Switzerland	Romania Switzerland	Norway Romania Switzerland

Final remarks

At the end of our analysis we can summarize, as follows, the most significant results.

Although very different strategies have been adopted throughout EPRA countries as far as DTT launch and development is concerned, some common features can be highlighted:

1) There seems to be a positive correlation between the penetration of multi-channel, pay-TV and alternative digital platforms and DTT development.
2) In most countries a "leadership" role has been assigned to the PSBs in the roll-out of DTT either through the provision of one or more multiplex to manage independently and/or through the provision of specific financial resources. On the other hand, only in few cases commercial terrestrial broadcasters have been granted a prominent role in the digital switchover process.
3) In terms of business model, two main transition models emerge:
    a. a "free to air" model, where DTT is conceived as a technologically advanced version of the analogue TV offer, thus aiming at covering almost the entire population with an improved line-up and some additional services;
    b. a "pay-basic" model, where DTT is seen as alternative/complementary to TV offers provided by cable and satellite. This last model has been adopted in some countries also as a way to strengthen the " national" character of terrestrial broadcasting versus the increasing number of foreign channel on satellite/cable TV channels (Northern European countries, Netherlands)
4) As far as support policies are concerned a number of elements can be highlighted
    a. the analogue switch off date appears to be the strongest and most effective policy tool in the hands of governments. As it has been experienced in Germany, a very close and certain switch-off date may be extremely functional in a successful and rapid transition to whole digital. Although, as it is an extremely intrusive policy tool with heavy social implications, it is used with a lot of caution by most governments.
    b. very few countries have introduced "demand-side" support measures, through the subsidy of decoders as more often measures have been introduced to stimulate the creation of new channels and to generally support the broadcasters involved in the creation of digital networks and platforms.

5) In most countries NRAs have been involved in the switchover supporting governments and parliaments in drafting specific legislation. In some countries the NRAs have also been assigned the role of regulating and overviewing the entire switchover process.

6) In any case, the transition to DTT appears most successful in those countries where on one hand the law/regulation has guaranteed existing terrestrial broadcaster and specifically the PSB a leading role in the roll out of DTT and, on the other hand, existing broadcasters were ready and able to undertake the responsibility of the transition.
   The transition to DTT is facilitated in those country where switchoff dates have been realistically fixed, thus allowing the whole switchover process to be perceived as credible and sound.

7) Finally, it is worth to note that in the digital broadcasting scenario terrestrial broadcasters become in most countries "network operators", thus subject to the New European Regulatory Framework for electronic communication networks. Convergent NRAs may therefore be in a better position to manage this "double nature" of broadcasting that will be regulated on one hand a communication network and on the other for audiovisual contents carried.

epra
european platform
of regulatory authorities

Annexes

Annex 1 – List of participants

Questionnaire sent to	Answers received	DTTWG participation	Intermediate meeting (Rome, April 2nd, 2004)
Albania			
Andorra			
Austria	P	P	P
Belgium			
Bosnia and Herzegovina	P	P	
Bulgaria			
Cyprus			
Czech Republic	P		
Denmark	P	P	
Estonia			
Finland	P		
France *	P		
Germany	P	P	P
Greece			
Hungary	P	P	
Ireland	P	P	P
Israel	P	P	P
Italy	P	P	P
Latvia	P	P	P
Lithuania	P	P	P
Luxembourg *	P		
Malta	P	P	
Moldova			
Netherlands	P		
Norway	P	P	P
Poland	P	P	P
Portugal	P		
Republic of Macedonia	P	P	P
Romania	P		
Serbia and Montenegro **	P	P	
Slovak Republic	P	P	P
Slovenia	P	P	
Spain	P	P	P
Sweden	P		
Switzerland	P		
Turkey *	P		
Ukraine			
United Kingdom	P		P

* Data on France and Turkey not included in the report as questionnaires returned late (Turkey 28 April, France 18 May); info on Luxembourg also not included as data provided not complete and not in the format required.
** Questionnaire sent to both NRAs but only Montenegro has returned it.

Annex 2 – The Questionnaire

Country................../NRA................

A) Background information on television market (December 2003)

1		N. of national analogue terrestrial channels						
2		N. of local terrestrial channels						
3		N. of satellite channels						
	3a	N. of cable channels						
4		DTH platforms (name and ownership structure)						
	4a	n. of subscribers						
	4b	Price of basic DTH package and number of channels included						
	4c	N. of packages available						
	4d	Price of top premium package and n. of channels included						
	4e	Channels owned directly by DTH operator						
	4f	Price of PPV events	Movie		Adult movie		Football match	
5		Major cable operators[9] (name, ownership structure)						
	5a	Price of basic cable package and number of channels included						
	5b	n. of packages or combination of services available						
	5c	Price of top premium package and n. of channels or additional services included						
	5d	Channels owned directly by cable operator						
	5e	Price of VOD (if available)						
6		State of deployment of ADSL audiovisual services						

7	Television reception pattern and multichannel TV penetration (analogue and digital)[10]											
Total n. of TV households	Satellite				Cable				Terrestrial			
	Analogue		Digital		Analogue		Digital		Analogue		Digital	
	hh	%	hh	%	hh	%	hh	%	hh	%	hh	%

B) Role and obligations of the Public service broadcaster[11]

9 Specify if digital or analogue or in the course of upgrading

10 % values to be calculated as a percentage of total number of TV households

11 If there are more than one PSB, please fill section B separately for each public service broadcaster

8		n. of terrestrial channels of PSB					
9		Total annual revenues		2000	2001	2002	
			From public funding				
			From advertising				
			other				
10		digital channels (other than digital simulcast of terrestrial channels)[12]	satellite				
			cable				
			terrestrial				
11		Does the PSB get the frequencies to develop digital channels on DTT by law? For how many multiplex or how many channels?					
	11a	How many multiplexes does the PSB plan to develop, if any?					
	11b	How many channels does the PSB plan to develop on DTT, if any?					
12		Total investment forecast for DTT development	Up to 03	2004	2005	2006	
13		Has the PSB been granted specific financial resources to develop network or channels for DTT?					
	13a	Through what mechanism?	Rise of annual fee				
			Specific financing				
			By other means (specify)				
14		Has the PSB been given specific obligations by the law for developing DTT?					
	14a	Is a start up date for DTT of PSB established?					
	14b	Does the law establish a minimum coverage at specific dates for PSB digital terrestrial networks?					
	14c	Are there any special requirements on how the PSB has to use its digital capacity?[13]					
	14d	Other obligations for PSB in developing DTT?					

C) Role and obligations of analogue terrestrial commercial broadcaster

15		n. and name of commercial terrestrial channels		
	15a	Name of national terrestrial channels and ownership structure		
	15b	Total annual revenues (for each channel or broadcasting group)	From advertising	
			From subscription	
			Other	
16		digital channels (other than digital simulcast of terrestrial channels)[14]		
17		Does the terrestrial commercial		

[12] Specify on what platform they are included and whether they are free or pay

[13] e.g.: Does the PSB make the decision on which channel to broadcast on the digital terrestrial network? Can the PSB broadcast pay-channels? Is there any restriction to what the PBS can do with its capacity?

[14] Specify on what platform they are included and whether they are free or pay

		broadcaster get the frequencies to develop digital channels on DTT by law? For how many multiplex or how many channels?				
	17a	How many multiplexes does the terrestrial commercial broadcasters plan to develop, if any?				
	17b	How many channels does the terrestrial commercial broadcasters plan to develop on DTT, if any?				
18		Total investment forecast for DTT development by terrestrial commercial broadcaster	Up to 03	2004	2005	2006
19		Have the commercial broadcaster been granted specific financial resources by the government to develop network or channels for DTT.				
	19a	Through what mechanism				
20		Has the commercial broadcaster been given specific obligations by the law for developing DTT				
	20a	Is a start up date for DTT of commercial broadcaster established?				
	20b	Does the law establish a minimum coverage at specific dates for digital terrestrial networks?				
	20c	Are there any special requirements on how the commercial broadcasters have to use their digital capacity?[15]				
	20d	Other obligations for commercial broadcaster in developing DTT?				

D) Regulation of DTT start-up

Frequency planning and licensing procedures				
21		Have a frequency planning procedure been implemented to allocate capacity for DTT?		
	21a	Who is in charge for the frequency planning?	NRA	
			Ministry of Communications	
			Other (specify)	
	21b	How many frequencies have been allocated for the start-up of DTT, if any?		

[15] e.g.: Does the broadcaster makes the decision on which channel to broadcast on the digital terrestrial network? Can the commercial broadcaster broadcast pay-channels? Is there any restriction to what the broadcaster can do with its capacity?

	21c	How many of those have been reserved to the PSB?		
22	Has the digital capacity been allocated...		by multiplex[16]	
			by single channel	
			Other (specify)	
23	**If the digital terrestrial capacity has been/will be allocated by multiplex:**			
	23a	Through which procedure the licenses have been /will be awarded?	beauty contest	
			tender	
			Other (specify)	
	23b	If the licenses have been/will be awarded through a beauty contest, on which criteria was it based?		
	23c	Who is/will be in charge for the licensing procedure?	The government	
			The NRA	
			Other (specify)	
	23d	Have the procedure for the licensing been set by...	The law	
			The government	
			The NRA	
			Other (specify	
	23e	What kind of antitrust measures have been laid down for regulating the multiplex allocation process?	None	
			Exclusion of specific subject from becoming network operators (specify)	
			Cross ownership limitations (specify)	
			Threshold to the n. of multiplexes that can be awarded to each network operator	
			Other (specify)	
	23f	Has the network operator any limitation in the composition of the multiplex?[17]		
	23g	Are there specific must-carry obligations for network operators		
	23h	Can the NRA influence in any way the composition of the multiplex (if so under which circumstances and with which criteria?)		
	23i	Is the network operator free to establish his business model (pay-free)?		
	23l	Are measures foreseen to guarantee non discriminatory access of content providers to DTT networks?	Obligation for network provider to give access to content providers on non discriminatory, transparent, equal basis	
			public price list	

[16] If the answer is yes go to question 17

[17] e.g.: capacity reserved for channels of a specific nature (news/children); capacity reserved for independent channels (not owned by the network operators),

			Separate accounting obligation for the activity of network provider and service provider	
			Other	
24	Is there a minimum coverage (population/territory) that the network operator must guarantee at specific dates?			
25	**Is there an authorization procedure for content providers that will be carried on the DTT network?**			
	25a	Who is in charge for the authorization/licensing procedure?	The government	
			The NRA	
			Other (specify)	
	25b	Is there any limitation to the number of channels that can be awarded to the same subject?		
	25c	Are there any rules to guarantee access to the DTT platform of authorized channels?		
26	**If the digital terrestrial capacity has been/will be allocated by channels:**			
	26a	Through which procedure have the licenses/authorization for each channel been awarded?	beauty contest	
			Tender	
			Other (specify)	
	26b	Who is in charge for the licensing procedure?	The government	
			The NRA	
			Other (specify)	
	26c	Once the channels have been selected and licensed who is in charge for composing/managing the multiplex? If a "multiplex operator" is foreseen what are its functions?		
	26d	What is the role and functions of the network operator?		
	26e	Who is responsible for the selection of the network operator?	Government	
			NRA	
			The licensed channels	
	26f	Is there any limitation to the number of channels that can be awarded to the same subject?		
27	Are pay channels going to be carried on the DTT platform?			
	27a	How and from whom is the conditional access operator been selected?		

Switch over process

28	Is a switch off of analogue frequency set by the law?		
	28a	At specific date	
	28b	linked to the effective coverage/ penetration of DTT? (specify)	

29	Who will be responsible for coordinating the switch off of analogue system	NRA	
		Ministry of Communication	
		Other (specify)	
		Not applicable	
30	How will the spare capacity be used after the switch off of analogue frequencies?		

E) Policy measures adopted by the governments or NRA to support the development of DTT

31	Have specific policy measure been designed/ implemented to support the development of DTT infrastructure?			
	31a	Direct financing of DTT networks (specify under which conditions and amount of financing)		
	31b	Indirect financial incentives to PSB or other network operators	Reduction of yearly fee due by operator for the use of the frequency	
			Allowing PSB to raise annual fee due by viewers in order to raise financial resources for DTT	
			Allowing PSB to sale asset in order to raise financial resources for DTT	
			Other	
32	Have specific policy measure been designed/ implemented to support content providers to develop specific channels for DTT?			
	32a	Direct financing of broadcasters to develop channels for DTT (specify type of measure and conditions)		
	32b	Indirect financing	Reduction of yearly fee due by operator for the use of the frequency	
			Other (specify)	
	32c	Regulatory measures to encourage the development of channels for DTT		
33	Have specific policy measure been designed/implemented to support the diffusion of digital receivers?			
	33a	Direct financing to viewers for the purchase of a receiver (specify: total/partial)		
	33b	Indirect financing for the purchase of a receiver	Tax exemption	
			other	
	33c	Receivers to be distributed for free by network operators or channel (specify)		

	33d	Guarantee harmonization of receivers (in case of open market)	Standardization	
			Labeling of equipment[18]	
			specific middleware forced or recommended by the Government/NRA	
	33e	Mandate digital tuners into TV sets	Other	
	33f	other		
34	Have different policy measure been designed/implemented to support the development and penetration of DTT?			

F) State of the market for DTT services

35	Have DTT channels been launched and when			
	35a	If not, when are they due to launch		
36	Name of the platform, ownership structure.			
37	Channels carried (specify if free to air or pay), please describe briefly content of each channel (e.g. entertainment; sports; children)			
	37a	If the platform is pay, price of package (specify installation and set up cost, lease of box, price of basic/premium, price of pay-per-view)		
	37b	Which channels on DTT are owned directly by network operator, if any?		
38	Are the set-top boxes on sale or are they provided by the platform?			
	38a	If on sale, please specify the price range for models available.		
39	Does the set-top box provides a return path?			
	39a	If so, please specify through what network	Telephone line	
			ADSL line	
			Radio channel[19]	
			other	
	39b	Return path service provider[20]		
	39c	Is there more than one return path service provider?		
	39d	How has the return path service provider been selected by the platform?		
	39e	What is the return path usage rate? (percentage of DTT viewers that use regularly or occasionally interactive services which require the return path)		
40	Are interactive services provided by the platform. If so, what kind of services?			
	40a	Which interactive service use the return path		
	40b	Is there a separate billing for		

[18] Receiving equipment in line with standards required and able to receive DTT signals are labeled accordingly in order to help consumer awareness.
[19] Please specify radio band and channel capacity.
[20] Please, specify type of provider: TV operator, telecom operator, internet provider, etc.

		interactive service provided through return path	
41	What EPG services are provided (e.g. weekly programs guide, information on program currently on air, etc.)		
42	Which digital platform (middleware) is provided by the operator (DVB-MHP, MHEG-5, OpenTV...)."		
43	N. of households that have adopted DTT (dec. 2003)		

G) Role of regulators in the switchover process

Please briefly resume role and functions of the NRA in your country in each specific function:

Supporting the legislator	
Drafting of regulation	
Licensing procedures	
Regulating access of channels to the platforms	
Controversy resolution between channels and platform or other subjects involved in DTT	
Designing policy measures for the development of DTT	
Governance and coordination of the switchover process	

Annex 3 – The Working group timetable

Creation of the working group	15 November
Mailing of first draft of questionnaire to the members of the WG	30 November
Mailing of final version of questionnaire to EPRA members	20 December
EPRA members return the questionnaire to the secretariat	15 February
First handling of data by the Secretariat: building of comparison tables and summary of data collected Data are send to member of the WG for comments and further treatment.	end of March
Meeting of WG in Rome: discussion on results of the research and analysis	3rd week of April
Drafting of final report which is sent to all EPRA members	end of May

Annex 4 – Questionnaires returned beyond deadline or in different format

Annex 4.1 - Luxembourg

DIGITAL SWITCH OVER PLANS IN LUXEMBOURG

Situation in Luxembourg

A majority of Luxembourg households receive their TV programmes via cable (> 90 %). While most programmes are analogue, some digital programmes are already offered. One of the major cable operators intends to offer new digital programmes in the near future.

In addition, digital programmes can already be received via satellite.

Luxembourg has taken the decision not to develop a strategic plan for the digital switchover with specific target dates, but favours a market driven approach instead.

For the time being Luxembourg has put into service one digital transmitter (channel 41) in Luxembourg City and surroundings in order to carry out some tests. Two other transmitters will soon be put into service to carry out a study in relation with an SFN network.

One of the analogue channels (channel 7) will be put out of service in the very near future: this channel will be coordinated to offer digital services with regional coverage.

Luxembourg believes that coverage spill-over in both directions remains very important in the digital world, in order to allow cross-border broadcasting which is not guaranteed according to current agreements. An EU action on this matter could be envisaged.

Due to convergence, DVB-T can play a role in Luxembourg, offering supplementary services in combination with mobile networks as well as portable and mobile reception of TV programmes.

It has to be noted that Luxembourg is preparing a consultation with the market players in the near future,

Annex 4.2 - Turkey

Country : TURKEY
NRA : Radio and Television Supreme Council
A) Background information on television market (March 2004)

1		N. of national analogue terrestrial channels	***25 channels***
2		N. of local terrestrial channels	237 channels
3		N. of satellite channels	***64 channels***
	3a	N. of cable channels	***68 channels***
4		DTH platforms (name and ownership structure)	***DİGİTURK ; company with multiple partners*** ***STARDİGİTAL; company with multiple partners***
	4a	n. of subscribers	
	4b	Price of basic DTH package and number of channels included	
	4c	N. of packages available	**DIGITURK : 66 channels STARDİGİTAL : 10 channels**
	4d	Price of top premium package and n. of channels included	
	4e	Channels owned directly by DTH operator	None
	4f	Price of PPV events	Movie Adult movie Football match
5		Major cable operators[21] (name, ownership structure)	***Turkish Telekom A.Ş.***
	5a	Price of basic cable package and number of channels included	**Establishment : 47.000.000.- TL + 7.000.000.-TL (per month) ; 45 channels**
	5b	n. of packages or combination of services available	
	5c	Price of top premium package and n. of channels or additional services included	
	5d	Channels owned directly by cable operator	
	5e	Price of VOD (if available)	

[21] Specify if digital or analogue or in the course of upgrading

6	State of deployment of ADSL audiovisual services	***Pilot broadcasting is carried.***

7	Television reception pattern and multichannel TV penetration (analogue and digital)[22]											
Total n. of TV households	Satellite *Analog+digital ≈3.000.000.-*				Cable ***Analog :1.027.969*** ***Digital : None***				Terrestrial ***Analog ≈12.000.000*** ***Digital : None***			
	Analogue		Digital		Analogue		Digital		Analogue		Digital	
	hh	%	hh	%	hh	%	hh	%	hh	%	hh	%

B) Role and obligations of the Public service broadcaster[23]

8	n. of terrestrial channels of PSB	5 TRT channels				
9	Total annual revenues		2000	2001	2002	
		From public funding				
		From advertising	**16.135.927. 487.000 TL**	**16.319.054. 945.000 TL**	**28.365.234. 226.000 TL**	
		other				
10	digital channels (other than digital simulcast of terrestrial channels)[24]	satellite cable	None **None**			
		terrestrial	**None**			
11	Does the PSB get the frequencies to develop digital channels on DTT by law? For how many multiplex or how many channels?	***1 multiplex***				
	11a How many multiplexes does the PSB plan to develop, if any?	***1***				
	11b How many channels does the PSB plan to develop on DTT, if any?	***4***				
12	Total investment forecast for DTT development	Up to 03	2004	2005	2006	
		----	***365.000 Euro***	***Not planned yet***	***Not planned yet***	
13	Has the PSB been granted specific financial resources to develop network or channels for DTT?	**No**				
	13a Through what mechanism?	Rise of annual fee				
		Specific financing				

[22] % values to be calculated as a percentage of total number of TV households
[23] If there are more than one PSB, please fill section B separately for each public service broadcaster
[24] Specify on what platform they are included and whether they are free or pay

			By other means (specify)	
14	Has the PSB been given specific obligations by the law for developing DTT?		***Initiator role to start pilot broadcasts.***	
	14a	Is a start up date for DTT of PSB established?	***Beginning from 2003 pilot broadcasts have started in Ankara.***	
	14b	Does the law establish a minimum coverage at specific dates for PSB digital terrestrial networks?	**No**	
	14c	Are there any special requirements on how the PSB has to use its digital capacity?[25]		
	14d	Other obligations for PSB in developing DTT?	***To be initiator and guide at digital broadcasting.***	

C) Role and obligations of analogue terrestrial commercial broadcaster

15	n. and name of commercial terrestrial channels		**257**	
	15a	Name of national terrestrial channels and ownership structure	***FLASH TV, YENİ TV, NTV, SHOW TV, CINE-5, KANAL D, CNN TURK, CNBC-E, BRT, TGRT, KANAL 6, MELTEM TV, TV-8, KANAL1, STV, ATV, STAR, KRAL, KANAL 7, TV-5;*** ***Ownership structure ≈ multiple ownership***	
	15b	Total annual revenues (for each channel or broadcasting group)	From advertising	
			From subscription	
			Other	
16	digital channels (other than digital simulcast of terrestrial channels)[26]		***There is no digital terrestrial broadcasting.***	
17	Does the terrestrial commercial broadcaster get the frequencies to develop digital channels on DTT by law? For how many multiplex or how many channels?		***No.***	
	17a	How many multiplexes does the terrestrial commercial broadcasters plan to develop, if any?		
	17b	How many channels does the terrestrial commercial broadcasters plan to develop on DTT, if any?		

[25] e.g.: Does the PSB make the decision on which channel to broadcast on the digital terrestrial network? Can the PSB broadcast pay-channels? Is there any restriction to what the PBS can do with its capacity?
[26] Specify on what platform they are included and whether they are free or pay

18	Total investment forecast for DTT development by terrestrial commercial broadcaster		Up to 03	2004	2005	2006
19	Have the commercial broadcaster been granted specific financial resources by the government to develop network or channels for DTT.		**No.**			
	19a	Through what mechanism	**No.**			
20	Has the commercial broadcaster been given specific obligations by the law for developing DTT					
	20a	Is a start up date for DTT of commercial broadcaster established?				
	20b	Does the law establish a minimum coverage at specific dates for digital terrestrial networks?				
	20c	Are there any special requirements on how the commercial broadcasters have to use their digital capacity?[27]				
	20d	Other obligations for commercial broadcaster in developing DTT?				

D) Regulation of DTT start-up

Frequency planning and licensing procedures				
21	Have a frequency planning procedure been implemented to allocate capacity for DTT?		**Yes**	
	21a	Who is in charge for the frequency planning?	NRA	**Telecommunications Council**
			Ministry of Communications	
			Other (specify)	
	21b	How many frequencies have been allocated for the start-up of DTT, if any?	**5**	
	21c	How many of those have been reserved to the PSB?	**1**	
22	Has the digital capacity been allocated...		by multiplex[28]	**4**
			by single channel	
			Other (specify)	
23	If the digital terrestrial capacity has been/will be allocated by multiplex:			

[27] e.g.: Does the broadcaster makes the decision on which channel to broadcast on the digital terrestrial network? Can the commercial broadcaster broadcast pay-channels? Is there any restriction to what the broadcaster can do with its capacity?
[28] If the answer is yes go to question 17

	23a	Through which procedure the licenses have been /will be awarded?	beauty contest tender	 **x**
			Other (specify)	
	23b	If the licenses have been/will be awarded through a beauty contest, on which criteria was it based?		
	23c	Who is/will be in charge for the licensing procedure?	The government	
			The NRA	***Radio and Television Supreme Council***
			Other (specify)	
	23d	Have the procedure for the licensing been set by...	The law	
			The government	
			The NRA Other (specify	***Radio and Television Supreme Council***
	23e	What kind of antitrust measures have been laid down for regulating the multiplex allocation process?	None	
			Exclusion of specific subject from becoming network operators (specify)	
			Cross ownership limitations (specify)	
			Threshold to the n. of multiplexes that can be awarded to each network operator	
			Other (specify)	***There is no regulation yet.***
	23f	Has the network operator any limitation in the composition of the multiplex?[29]		
	23g	Are there specific must-carry obligations for network operators		
	23h	Can the NRA influence in any way the composition of the multiplex (if so under which circumstances and with which criteria?)		
	23i	Is the network operator free to establish his business model (pay-free)?		

[29] e.g.: capacity reserved for channels of a specific nature (news/children); capacity reserved for independent channels (not owned by the network operators),

	23l	Are measures foreseen to guarantee non discriminatory access of content providers to DTT networks?	Obligation for network provider to give access to content providers on non discriminatory, transparent, equal basis	
			public price list	
			separate accounting obligation for the activity of network provider and service provider	
			other	
24	Is there a minimum coverage (population/territory) that the network operator must guarantee at specific dates?			
25	Is there an authorization procedure for content providers that will be carried on the DTT network?		**No.**	
	25a	Who is in charge for the authorization/licensing procedure?	The government	
			The NRA	***Radio and Television Supreme Council***
			Other (specify)	
	25b	Is there any limitation to the number of channels that can be awarded to the same subject?	**Yes, existing law.**	
	25c	Are there any rules to guarantee access to the DTT platform of authorized channels?		
26	If the digital terrestrial capacity has been/will be allocated by channels:			
	26a	Through which procedure have the licenses/authorization for each channel been awarded?	beauty contest	
			Tender	**x**
			Other (specify)	
	26b	Who is in charge for the licensing procedure?	The government	
			The NRA	***Radio and Television Supreme Council***
			Other (specify)	
	26c	Once the channels have been selected and licensed who is in charge for composing/managing the multiplex? If a "multiplex operator" is foreseen what are its functions?	**Will be regulated by regulation.**	
	26d	What is the role and functions of the network operator?		
	26e	Who is responsible for the selection of the network operator?	Government	

			NRA	***Radio and Television Supreme Council***
			The licensed channels	
	26f	Is there any limitation to the number of channels that can be awarded to the same subject?	***Yes, existing law.***	
27	Are pay channels going to be carried on the DTT platform?			
	27a	How and from whom is the conditional access operator been selected?		

Switch over process

28	Is a switch off of analogue frequency set by the law?		**No**	
	28a 28b	At specific date linked to the effective coverage/ penetration of DTT? (specify)		
29	Who will be responsible for coordinating the switch off of analogue system		NRA	***Radio and Television Supreme Council***
			Ministry of Communication	
			Other (specify)	
			Not applicable	
30	How will the spare capacity be used after the switch off of analogue frequencies?			

E) Policy measures adopted by the governments or NRA to support the development of DTT

31	Have specific policy measure been designed/implemented to support the development of DTT infrastructure?		***Designed but not yet adopted by the Government.***	
	31a	Direct financing of DTT networks (specify under which conditions and amount of financing)		
	31b	Indirect financial incentives to PSB or other network operators	Reduction of yearly fee due by operator for the use of the frequency	
			Allowing PSB to raise annual fee due by viewers in order to raise financial resources for DTT	
			Allowing PSB to sale asset in order to raise financial resources for DTT	
			Other	
32	Have specific policy measure been designed/implemented to support content providers to develop specific channels for DTT?		**No**	

	32a	Direct financing of broadcasters to develop channels for DTT (specify type of measure and conditions)		
	32b	Indirect financing	Reduction of yearly fee due by operator for the use of the frequency	
			Other (specify)	
	32c	Regulatory measures to encourage the development of channels for DTT		
33	Have specific policy measure been designed/implemented to support the diffusion of digital receivers?			
	33a	Direct financing to viewers for the purchase of a receiver (specify: total/partial)		
	33b	Indirect financing for the purchase of a receiver	Tax exemption	
			other	
	33c	Receivers to be distributed for free by network operators or channel (specify)		
	33d	Guarantee harmonization of receivers (in case of open market)	Standardization	
			Labeling of equipment[30]	
			specific middleware forced or recommended by the Government/NRA	
			Other	
	33e	Mandate digital tuners into TV sets		
	33f	other		
34	Have different policy measure been designed/implemented to support the development and penetration of DTT?			

F) State of the market for DTT services

35	Have DTT channels been launched and when		Not established yet
	35a	If not, when are they due to launch	
36	Name of the platform, ownership structure.		
37	Channels carried (specify if free to air or pay), please describe briefly content of each channel (e.g. entertainment; sports; children)		
	37a	If the platform is pay, price of package (specify installation and set up cost, lease of box, price of basic/premium, price of pay-per-view)	

[30] Receiving equipment in line with standards required and able to receive DTT signals are labeled accordingly in order to help consumer awareness.

	37b	Which channels on DTT are owned directly by network operator, if any?		
38	Are the set-top boxes on sale or are they provided by the platform?			
	38a	If on sale, please specify the price range for models available.		
39	Does the set-top box provides a return path?			
	39a	If so, please specify through what network	Telephone line	
			ADSL line	
			Radio channel[31]	
			other	
	39b	Return path service provider[32]		
	39c	Is there more than one return path service provider?		
	39d	How has the return path service provider been selected by the platform?		
	39e	What is the return path usage rate? *(percentage of DTT viewers that use regularly or occasionally interactive services which require the return path)*		
40	Are interactive services provided by the platform. If so, what kind of services?			
	40a	Which interactive service use the return path		
	40b	Is there a separate billing for interactive service provided through return path		
41	What EPG services are provided (e.g. weekly programs guide, information on program currently on air, etc.)			
42	Which digital platform (middleware) is provided by the operator (DVB-MHP, MHEG-5, OpenTV...)."			
43	N. of households that have adopted DTT (dec. 2003)			

G) Role of regulators in the switchover process

Please briefly resume role and functions of the NRA in your country in each specific function:

Supporting the legislator	Yes
Drafting of regulation	***Yes***
Licensing procedures	***Yes***
Regulating access of channels to the platforms	***Yes***
Controversy resolution	***Yes***

[31] Please specify radio band and channel capacity.
[32] Please, specify type of provider: TV operator, telecom operator, internet provider, etc

between channels and platform or other subjects involved in DTT Designing policy measures for the development of DTT	***Yes***
Governance and coordination of the switchover process	***Yes***

Annex 4.3 - France

CONSEIL SUPÉRIEUR DE L'AUDIOVISUEL

Direction des études et de la prospective
Direction juridique
Direction des opérateurs audiovisuels
18 mai 2004

RÉPONSES AU QUESTIONNAIRE TNT de l'EPRA

A) Faits marquants sur le marché de la télévision (Décembre 2003)

1. Nombre de chaînes nationales analogiques

7 chaînes : TF1, France 2, France 3, Canal+ (payante), Arte/France 5 (canal partagé), M6.

2. Nombre de chaînes locales analogiques

On dénombre 10 télévisions locales hertziennes terrestre en métropole dont cinq qui couvrent des agglomérations urbaines et cinq qui desservent une ou plusieurs villes moyennes et des zones rurales.

3. Nombre de chaînes diffusées par satellite

Au 31 décembre 2003, 123 services de télévision français et étrangers étaient titulaires d'une convention, dont :
100 diffusés en France métropolitaine,
5 diffusés uniquement dans les DOM,
6 diffusés en Europe,
6 services de télévision temporaires.

Au 31 décembre 2003, le nombre de services de télévision bénéficiant du régime déclaratif était de 76.

3a. Nombre de chaînes diffusées par câble : Idem

4. Plate-forme de distribution par satellite (nom et actionnariat)
Il existe trois plates-formes satellitaires en France :
– CanalSatellite : capital détenu par Groupe Canal Plus (66 %) et Lagardère Active (34 %) ;
– Télévision Par Satellite (TPS) : capital détenu par TF1 (66 %) et Métropole Télévision (34 %) ;
– AB Sat : capital détenu à 100 % par Groupe AB.

4a. Nombre abonnés

Au 31 décembre 2003, CanalSatellite comptait 2 217 000 abonnés, TPS 1 239 000 abonnés et AB Sat 4 000 abonnés.

4b. Prix bouquet « basic » et nombre de chaînes incluses : cf schémas joints

4c. Nombre de bouquets disponibles : cf schémas joints (chaque cadre noir sur le schéma de chacune des deux plates-formes représente un bouquet de chaînes, les chaînes en option sont mentionnées séparément)

4d. Prix bouquet premium et nombre de chaînes incluses : cf schémas joints (chaque cadre noir sur le schéma de chacune des deux plates-formes représente un bouquet de chaînes, les chaînes en option sont mentionnées séparément)

4e. Chaînes directement de propriété de la plate-forme : cf schémas joints (couleur bleu pour les chaînes contrôlées par TPS ou ses actionnaires ; couleur jaune pour les chaînes contrôlées par CanalSatellite ou ses actionnaires ; la couleur verte est celle des chaînes du groupe AB qui n'a pas de plate-forme de distribution)

4f. Prix des évènements de paiement à la séance

Cinéma : 5,30 € sur Kiosque (CanalSatellite) ; 4,80 € sur Multivision (TPS)

Cinéma pour Adulte : 5,95 € sur Kiosque (CanalSatellite) ; 5,60 € sur Multivision (TPS)

Le Foot : 7,60 € sur Kiosque (CanalSatellite) ; 8,00 € sur Multivision (TPS) = dans les deux cas, pour cette somme le client peut visionner jusqu'à 6 matches dans la même soirée.

5. Plate-forme de distribution par principaux câblo-opérateurs[33] (nom et actionnariat)

Noos : réseaux câblés détenus par Médiaréseaux, holding détenu à 80 % par UnitedGlobalCom et 20 % par Suez (vente e Noos par Suez à UGC annoncée le 15 mars 2004)
UPC France : capital détenu à 100 % par Médiaréseaux
France Télécom Câble : capaital détenu à 100 % par France Télécom
NC Numéricâble : capital détenu à 100 % par Groupe Canal Plus

5a. Prix bouquet « basic » et nombre de chaînes incluses : cf schémas joints (chaque cadre noir sur le schéma de chacune des plates-formes représente un bouquet de chaînes, les chaînes en option sont mentionnées séparément)

5b. Nombre de bouquets ou combinaison des services disponibles: cf schémas joints (chaque cadre noir sur le schéma de chacune des plates-formes représente un bouquet de chaînes, les chaînes en option sont mentionnées séparément)

5c. Prix bouquet « premium » et nombre de chaînes ou services disponibles: cf schémas joints

[33] Précisez si numériques ou analogiques ou en migration

5d. Chaînes directement de propriété de la plate-forme: cf schémas joints

5e. Prix de la Vidéo à la demande (VOD) (si disponible) : la VOD n'est disponible sur aucun réseau câblé français

6. Etat du développement des services audiovisuels diffusés par ADSL

Au 21 avril 2003, les services audiovisuels suivants étaient disponibles par ligne téléphonique ADSL :
– Free ADSL : 31 chaînes gratuites et des chaînes payantes vendues à l'unité (pour un mois minimum) disponibles avec le modem Freebox sur les lignes dégroupées par Iliad-Free : *cf. schéma joint décrivant l'offre*
– TPS L, disponible à Lyon et à Paris : bouquet de 21 chaînes : *cf. schéma joint décrivant l'offre*
– CanalSatDSL : disponible à Marseille : *cf. schéma joint décrivant l'offre*

France Télécom (MaLigne TV) et Free proposent une offre de VOD par ADSL.

7	Modalité de réception télévisuelle et taux de pénétration Tv multi-chaînes (analogique et numérique)[34]											
n. total des Foyers TV	Satellite				Câble				Hertzien			
	Analogique		Numérique		Analogique		Numérique		Analogique		Numérique	
	Foyer sTV	%	Foyers TV	%	Foyers TV	%	Foyers TV	%	Foyers TV	%	Foyers TV	%
	0		3 456	100%	1 537	63	884	37				

B) Rôle et obligations du Service Public (SP)[35]

8. Nombre de chaînes hertziennes du SP

4 chaînes hertziennes terrestres en métropole : France 2, France 3, France 5 (canal hertzien partagé avec Arte), Arte (canal hertzien partagé avec France 5)

Nota : Arte, « chaîne culturelle européenne » éditée par le groupement d'intérêt économique européen Arte, qui émet en France par voie hertzienne terrestre de 19 heures à 6 heures, est née d'un traité franco-allemand signé le 2 octobre 1990.

Réseau France Outre-mer n'émet en hertzien terrestre que dans les territoires français d'outre-mer.

9. Chiffre d'affaires (CA) annuels (en milliers d'euros)

[34] % de foyers TV.
[35] S'il y a plus chaînes de SP, remplissez s.v.p. la section pour chaque SP.

France 2	2000	2001	2002
Financement public	519 348	582 118	596 313
Publicité (et parrainage)	403 517	350 529	378 152
Autres (ventes et prestations de services)	13 675	40 746	45 300
Total chiffre d'affaires	**936 540**	**973 393**	**1 019 765**

France 3	2000	2001	2002
Financement public	628 395	723 226	741 899
Publicité (et parrainage)	264 910	250 959	268 637
Autres	79 472	62 148	59 909
Total chiffre d'affaires	**972 777**	**1 036 333**	**1 070 445**

France 5	2000	2001	2002
Financement public	112 019	117 900	126 200
Publicité (et parrainage)	9 086	16 000	19 600
Autres	1 342	1 700	2 800
Total chiffre d'affaires	**122 447**	**135 700**	**148 700**

Arte France	2000	2001	2002
Financement public	163 000	178 200	183 600
Publicité (et parrainage)	0	0	0
Autres	5 100	5 200	5 800
Total chiffre d'affaires	**168 100**	**183 400**	**189 400**

Réseau France Outre-mer	2000	2001	2002
Financement public	195 465	195 465	199 145
Publicité (et parrainage)	16 693	17 188	15 793
Autres	3 989	4 718	4 930
Total chiffre d'affaires	**208 169**	**217 371**	**219 868**

10. Chaînes numériques (autres que les chaînes hertziennes en simulcast)[36]

2 chaîne supplémentaire de service public (en cours d'incorporation dans la sphère du service public) : Festival, La Chaîne parlementaire

Nota : France 5 et Arte seront diffusées en hertzien terrestre numérique 24 heures sur 24.

Nota : La Chaîne parlementaire est éditée par deux sociétés de programme : La Chaîne parlementaire–Assemblée nationale et La Chaîne parlementaire –Sénat, et est composée de deux services : « La Chaîne parlementaire–Assemblée nationale », « Public Sénat ».

Festival *(en millions d'euros)*	2000	2001	2002

[36] Précisez sur quelles plate-formes et si elles sont gratuites ou payantes.

Financement public	0	0	0
Publicité	0,7	1,2	1,2
Abonnements	6,3	7,3	4,5
Autres	0	0	0
Total chiffre d'affaires	**7**	**8,5**	**5,7**

Le CSA ne dispose pas des comptes des deux sociétés de programme éditant **La Chaîne parlementaire**. Leur budget est abondé en totalité par des subventions de leur assemblée parlementaire. En 2003, il s'élevait à 6,8 millions d'euros pour La Chaîne parlementaire–Assemblée nationale et à 7,775 millions d'euros pour La Chaîne parlementaire–Sénat.

11. La loi prévoit-elle que des fréquences soient assignées au SP afin de développer les chaînes en numérique terrestre? Combien de multiplexes prévoit-on ou combien de chaînes?

11a. Combien de multiplexes seront développés par le SP?

11b. Combien de chaînes seront développées par le SP en numérique terrestre?

La loi ne réserve pas une fréquence hertzienne terrestre numérique au service public ; elle réserve un canal pour les trois chaînes de service public France 2, France 3 et France 5 ainsi qu'à Arte et La Chaîne parlementaire et accorde trois canaux supplémentaires à France Télévision (seul un canal supplémentaire a été préempté finalement).

Le CSA a regroupé toutes les 6 chaînes du secteur public sur le même multiplex (n° 1) : France 2, France 3, France 5, Festival, Arte, La Chaîne parlementaire.

Seul le multiplex R1 sera utilisé par le service public.

12. Investissement total prévu pour le développement de la Télévision Numérique Terrestre (TNT) en M€ :

Réaménagement des fréquences	64 *(1)*
Diffusion	Non disponible
Création de chaînes (2)	424
Distribution (3)	3 000
Communication	Non disponible

(1) budget du Gouvernement
(2) y.c. chaînes existantes ayant changé de modèle économique (i.e. diffusion en clair) à l'occasion de la TNT
(3) d'après une étude commandée par le CSA

13. Le SP bénéficie-t-il de financements spécifiques pour développer les réseaux ou les chaînes pour la TNT ?

Aucune subvention n'a été accordé à France Télévision pour développer son activité numérique terrestre. Des investissements ont été rendus nécessaires pour assurer la diffusion en mode numérique et transformer Festival en filiale à 100 % de France Télévision et modifier sa grille de programmes pour la TNT.

Aucun financement spécifique pour la TNT n'est prévu.

13a. Avec quel mécanisme ?

Augmentation de la redevance TV : Non
Financement spécifique : Aucun
Autrement (précisez) : Seul l'autofinancement est prévu.

14. La loi prévoit-elle des obligations spécifiques pour le développement de la TNT par le SP?

Le secteur public bénéficie d'un droit de priorité sur l'usage de la ressource radioélectrique, ce secteur n'est donc pas concerné, contrairement aux autres services de télévision, par les appels aux candidatures lancés par le CSA.

En effet, en application du II de l'article 26 de la loi du 30 septembre 1986 modifiée relative à la liberté de communication, le CSA accorde aux sociétés nationales de programmes (art. 44 de la loi susvisée) le droit d'usage de la ressource radioélectrique nécessaire à l'accomplissement de leurs missions de service public. Ce même droit de priorité à l'accès à la ressource s'applique aussi à la chaîne parlementaire (article 45-2 de la loi susvisée), ainsi qu'à la chaîne culturelle européenne issue du Traité signé le 2 octobre 1990.

14a. La loi prévoit-elle une date pour le début pour la TNT?

La loi du 1er août 2000 impose dans son article 53, au Conseil, de publier *« au plus tard un an après la promulgation de la présente loi un première liste de fréquences disponibles pour les services de télévision à vocation nationale et à vocation locale diffusés par voie hertzienne terrestre ».*

Le Conseil avait donc l'obligation de lancer un appel aux candidatures pour ne pas entraver l'exercice de la liberté de communication audiovisuelle.

Le CSA a respecté ce calendrier législatif le 24 juillet 2001 en lançant un l'appel aux candidatures pour les services nationaux en TNT. Cette décision a été publiée au Journal officiel du 4 août 2001.

14b. La loi prévoit-elle une couverture minimale à une date spécifique pour les réseaux terrestres?

La loi en tant que telle ne prévoit aucune couverture minimale à une date spécifique. En revanche, l'article 30-1 de la loi du 30 septembre 1986 modifiée dispose qu'est considéré comme un service de télévision à vocation nationale un service dont la zone géographique équivaut à l'ensemble du territoire métropolitain.

Par ailleurs, l'article 2 des autorisations délivrées aux opérateurs privés nationaux sélectionnés pour diffuser en numérique terrestre dispose qu'une décision prise par le CSA fixera un calendrier de déploiement fréquences par fréquences des six réseaux de diffusion numérique terrestre.

14c. Le SP a-t-il des obligations spécifiques pour l'utilisation de sa bande de radiodiffusion?[37]

Le secteur public bénéficie d'un droit de priorité sur l'usage de la ressource radioélectrique, ce secteur n'est donc pas concerné, contrairement aux autres services de télévision, par les appels aux candidatures lancés par le CSA. Le périmètre du secteur public est imposé par le gouvernement.

Avant le lancement d'appel aux candidatures du 24 juillet 2001, le Gouvernement avait préempté trois canaux. Or, alors que le gouvernement avait arrêté le périmètre de la télévision publique en TNT en attribuant une dotation d'un milliard de francs pour ce secteur afin de financer trois nouvelles chaînes : une chaîne « info », une chaîne « région » et une chaîne vouée aux rediffusions des grandes émissions de France 2, France 3, Arte, la Cinquième. Le gouvernement est ensuite revenu sur sa décision.

Ainsi, par courrier daté du 17 décembre 2003, le Gouvernement a informé le CSA, d'une part, qu'il souhaitait voir regroupé sur un même multiplex l'ensemble des chaînes du service public et, d'autre part, que sur les trois canaux préemptés, un seul canal était conservé par le Gouvernement.

14d. Existe-t-il d'autres obligations pour le SP en matière de développement de la TNT?

Non.

C) Rôle et obligations des opérateurs privés en analogique

15. Nombre et nom des chaînes privées

3 chaînes hertziennes terrestres analogiques : Télévision française 1 (TF1), Canal Plus, M6

15a. Nom des chaînes et actionnariat

Télévision française 1 SA (TF1) **au 31 décembre 2003**	Parts du capital	**Parts des droits de vote**
Bouygues (actionnaires agissant de concert)	41,1 %	41,4 %
Société générale (actionnaires agissant de concert)	1,4 %	1,4 %
Salariés	3,6 %	3,6 %
Autocontrôle et autodétention	0,6 %	0
Public	53,3 %	53,6 %

[37] Par exemple le SP peut-il décider quelles chaînes seront diffusées par voie numérique terrestre? Le SP peut-il diffuser les chaînes payantes? Est-ce qu'il y a des limitations?

Canal Plus SA **au 31 décembre 2003**	Parts du capital	**Parts des droits de vote**
Vivendi Universal (Groupe Canal Plus et accessoirement 2 autres filiales)	47,76 %	47,76 %
K Capital Partners	7,28 %	7,28 %
Goldman Sachs	6,97 %	6,97 %
Crédit Suisse First Boston	6,89 %	6,89 %
Centaurus Alpha Master Fund	3,76 %	3,76 %
Deutsche Bank AG	1,86 %	1,86 %
Caisse des Dépôts et Consignations	1,11 %	1,11 %
Morgan Stanley	0,85 %	0,85 %
Autocontrôle	0,46 %	0,46 %
Public	23,06 %	23,06 %

Métropole Télévision SA (M6) **au 28 avril 2004**	Parts du capital	Parts des droits de vote
RTL Group (plafonnement des droits de vote)	48,39 %	34 %
Suez	5,00 %	5 %
Autocontrôle	0,91 %	0
Public	45,70 %	45,70 %

15b. Chiffre d'affaires (CA) (pour chaque chaîne ou groupe d'opérateurs TV)

TF1 *(en millions d'euros)*	**2000**	**2001**	**2002**
Abonnements	0	0	0
Publicité (et parrainage)	1 484,0	1 414,3	1 424,2
Autres (ventes et prestations de services)	7,8	17,3	11
Total chiffre d'affaires	**1 491,8**	**1 431,6**	**1 435,2**

M6 *(en millions d'euros)*	**2000**	**2001**	**2002**
Abonnements	0	0	0
Publicité (et parrainage)	544,7	557,4	566,7
Autres (ventes et prestations de services)	9,6	11,5	14,1
Total chiffre d'affaires	**554,3**	**568,9**	**580,7**

Canal Plus *(en millions d'euros)*	**2000**	**2001**	**2002**
Abonnements	1 410	1 437	1 438
Publicité (et parrainage)	101	72	73
Autres (ventes et prestations de services)	78	62	71
Total chiffre d'affaires	**1 589**	**1 571**	**1 582**

16. Chaînes numériques (autres que les chaînes hertziennes en simulcast)[38]

AB1 : chaîne payante du groupe AB *(chaîne disponible sur CanalSatellite et le câble)*
Canal J : chaîne payante du groupe Lagardère *(chaîne disponible sur CanalSatellite et le câble)*

[38] Précisez sur quelle plate-forme et si elles sont gratuites ou payantes

Ciné Cinéma Premier : chaîne payante des groupes Canal Plus et Lagardère *(chaîne disponible sur CanalSatellite et le câble)*
Comédie ! : chaîne payante du groupe Pathé *(chaîne disponible sur CanalSatellite et le câble)*
Cuisine.TV : chaîne payante du groupe Pathé *(chaîne disponible sur CanalSatellite et le câble)*
Direct 8 : chaîne gartuite du groupe Bolloré *(chaîne créée pour la TNT)*
Eurosport France : chaîne payante du groupe TF1 *(chaîne disponible sur CanalSatellite, TPS et le câble)*
iMCM : chaîne gratuite du groupe Lagardère *(chaîne créée pour la TNT)*
I-télé : chaîne payante du groupe Canal Plus *(chaîne disponible sur CanalSatellite, TPS et le câble)*
La Chaîne Info (LCI) : chaîne payante du groupe TF1 *(chaîne disponible sur CanalSatellite, TPS et le câble)*
M6 Music : chaîne gratuite du groupe Métropole Télévision *(chaîne disponible sur TPS et le câble)*
Match TV : chaîne payante du groupe Lagardère *(chaîne disponible sur CanalSatellite et le câble)*
NRJ TV : chaîne gratuite du groupe NRJ *(chaîne créée pour la TNT)*
NT1 : chaîne gratuite du groupe AB *(chaîne créée pour la TNT)*
Paris Première : chaîne payante du groupe Métropole Télévision *(chaîne disponible sur CanalSatellite et le câble)*
Planète : chaîne payante des groupes Canal Plus et Largardère *(chaîne disponible sur CanalSatellite et le câble)*
Sport+ : chaîne payante du groupe Canal Plus *(chaîne disponible sur CanalSatellite et le câble)*
TF6 : chaîne payante de TF1 et Métropole Télévision *(chaîne disponible sur CanalSatellite et le câble)*
TMC : chaîne payante du groupe Pathé *(chaîne disponible sur CanalSatellite et le câble et en hertzien terrestre dans le sud de la France)*
TPS Star : chaîne payante du groupe TPS *(chaîne disponible sur CanalSatellite et le câble)*

17. La loi prévoit-elle que des fréquences soient assignées au aux opérateurs privés afin de développer les chaînes en numérique terrestre ? Combien de multiplexes ou combien de chaînes?

La loi prévoit d'assigner un canal hertzien numérique aux chaînes du secteur public suivantes : France 2, France 3, France 5, Arte, La Chaîne parlementaire.

La loi accorde trois canaux supplémentaires à France Télévision ; seul un canal a été préempté (pour Festival, en cours d'intégration dans le périmètre du service public).

La loi prévoit d'accorder un canal hertzien numérique aux chaînes hertziennes analogiques privées qui seraient candidates à la l'édition de leur service par voie hertzienne terrestre en mode numérique. TF1, Canal+ et M6 se sont portées candidates et ont bénéficié de droit d'un canal en TNT.

La loi a enfin accordé à ces trois chaînes hertziennes analogiques, si elles sont elles-mêmes candidates, le bénéfice d'un canal supplémentaire pour une chaîne filiale de la société qui les édite. LCI a ainsi été autorisée pour TF1 et M6 Music pour M6. Canal+ n'a pas présenté de candidatures de chaînes filiales de Canal+ SA.

17. Combien de multiplexes seront développés par les opérateurs privés?

Cinq multiplex sur six seront développés en tout ou partie par des chaînes du secteur privé.

17b. Combien de chaînes seront développés par les opérateurs privés en numérique terrestre ?

23 chaînes privées sont autorisées en TNT :
– 3 chaînes hertziennes autorisées en simulcast de leur signal hertzien analogique (TF1, Canal+, M6)
– 20 chaînes nouvelles sur le support hertzien terrestre, occupant 19 canaux de la TNT (Cuisine.TV et Comédie ! partagent le même canal)

18. Investissement total prévu pour le développement de la TNT

Jusqu'à 2003	2004	2005	2006
0	30 M€ (réaménagement analogique) + investissements pour la diffusion numérique (non connus)	Non connu	Non connu

19. La loi a-t-elle donné de ressources financières pour le développement des réseaux et des chaînes en TNT de la part des opérateurs privés?

Oui, par des avances de trésorerie de l'Etat pour les réaménagements des réémetteurs analogiques rendus nécessaires par la planification du spectre numérique.

Le coût des réaménagements analogiques sera supporté par les futurs éditeurs des chaînes de la TNT.

19a. Avec quel mécanisme ?

Le décret n° 2003-620 du 4 juillet 2003 (Journal officiel du 6 juillet) a défini les modalités de la répartition et du financement des dépenses du réaménagement analogique. Un Fonds de réaménagement du spectre, géré par l'Agence nationale des fréquences, établissement public de l'Etat, a été constitué à partir de dotations budgétaires de l'Etat. Les chaînes analogiques ont constitué un groupement d'intérêt économique pour coordonner entre elles les travaux de réaménagement nécessités par les décisions de migration de fréquences analogiques décidées par le CSA, et bénéficier d'un préfinancement par le Fonds sur présentation des factures des opérateurs techniques choisis. L'Agence nationale des fréquences approuve préalablement les devis de ces opérateurs techniques.

Les éditeurs de la TNT rembourseront progressivement les dépenses engagées par le Fonds à compter de l'année suivant la date de démarrage de la TNT décidée par le Conseil supérieur de l'audiovisuel.

20. La loi prévoit-elle des obligations spécifiques en charge des opérateurs privés pour le déploiement de la TNT ?

Conformément à l'article 30-1 les services de télévision à caractère privé doivent se porter candidat à un appel aux candidatures lancé par le CSA et être sélectionner avant de pouvoir être autorisés à diffuser par voie hertzienne terrestre en mode numérique. Le CSA sélectionne ces services dans les conditions et selon les critères fixés par l'article 30-1 de la loi du 30 septembre 1986 modifiée. Ensuite, ces services concluent une convention avec le Conseil laquelle fixe les engagements et les obligations pour chaque service considéré.

Il est à souligner que les services de télévision autorisés avant l'entrée en vigueur de la loi du 1er août 2000 bénéficient d'un droit de reprise intégrale et simultanée, sur le numérique.

L'article 30-1 III de ladite loi prévoit les modalités d'attribution de ces canaux aux chaînes privées. Ainsi, celles-ci seront attribuées après le lancement d'appels aux candidatures, par zone géographique (national/local), par catégorie de services (en analogique le CSA a défini les catégories de services entre services nationaux/locaux et services gratuits (en clair) / payants (cryptés)). Il est à souligner que le législateur impose au CSA de favoriser les services gratuits dans la mesure de leur viabilité économique et financière notamment au regard de la ressource publicitaire.

Les modalités de la procédure d'instruction des dossiers se feront en examinant deux séries de critères : des critères de qualification que chaque candidat devra respecter pour être admis à participer à la phase de sélection et ensuite des critères de sélection.

Les critères de qualification peuvent être définis comme des critères objectifs. Par exemple : la remise du dossier de candidature avant la date limite de dépôt des dossiers, l'engagement à respecter les conditions d'attribution des fréquences, le respect du dispositif anticoncentration.

Les critères de sélection sont quant à eux prévus à l'article 30-1: *« Le Conseil accorde les autres autorisations d'usage de la ressource radioélectrique en appréciant l'intérêt de chaque projet pour le public au regard des impératifs prioritaires et des critères mentionnés aux articles 29 et 30, ainsi que les engagements du candidats en matière de couverture du territoire, de production et de diffusion d'œuvres audiovisuelles et cinématographiques françaises et européennes. Il tient également compte de la cohérence des propositions formulées par les candidats en matière de regroupement technique et commercial avec d'autres services et en matière de choix des distributeurs de services, ainsi que de la nécessité d'offrir des services répondant aux attentes d'un large public et de nature à encourager un développement rapide de la télévision numérique de terre ».*

20a. La loi prévoit-elle une date pour le démarrage de la TNT ?

Non, la loi en tant que telle ne fixe pas de date de démarrage. Il appartient au CSA de fixer unilatéralement cette date.

Ainsi, l'article 2 des autorisations délivrées par le CSA aux opérateurs privés nationaux dispose : *« La durée d'autorisation est de dix ans à compter de la date de début des émissions qui sera fixée par le Conseil supérieur de l'audiovisuel au moins six mois à l'avance. Si dans le délai d'un mois à partir de* *cette date, la société n'a pas débuté l'exploitation effective du service, le Conseil supérieur de l'audiovisuel pourra déclarer l'autorisation caduque. »*

20b. La loi prévoit-elle une couverture minimale à une date spécifique pour les réseaux terrestres ?

Non, la loi ne prévoit pas une couverture minimale à une date spécifique.

Là encore, le CSA a indiqué au deuxième alinéa de l'article 2 de l'autorisation des éditeurs de services qu'il fixera le calendrier de déploiement des réseaux numériques fréquences par fréquences par une décision ultérieure.

20c. Les opérateurs privés ont-ils des obligations spécifiques pour l'utilisation de leur bande de radiodiffusion ?[39]

L'article 30-1, paragraphe III, de ladite loi prévoit les modalités d'attribution de ces canaux aux chaînes privées. Ainsi, celles-ci seront attribuées après le lancement d'appels aux candidatures, par zone géographique (national/local), par catégorie de services (en analogique le CSA a défini les catégories de services entre services nationaux/locaux et services gratuits (en clair) / payants (cryptés)). Il est à souligner que le législateur impose au CSA de favoriser les services gratuits dans la mesure de leur viabilité économique et financière notamment au regard de la ressource publicitaire.

La délivrance des autorisations pour éditer un service de télévision par voie hertzienne numérique est encadrée par le respect d'un certain nombre de dispositions anticoncentration monomédia et multimédia. Même si ce dispositif n'est pas un critère de sélection, son étude est cependant nécessaire au stade de l'instruction des dossiers afin de prendre connaissance des éventuelles candidatures qui poseraient problèmes au regard des questions de concurrence et des contraintes légales qui résultent de ce dispositif.

Notamment le troisième alinéa de l'article 41 de la loi du 30 septembre 1986 modifiée dispose qu'une même personne peut être titulaire, directement ou indirectement, d'un nombre maximal de cinq autorisations relatives chacune à un service ou programme national de télévision diffusé par voie hertzienne terrestre en mode numérique[40] lorsque ces services ou programmes sont édités par des sociétés distinctes ou lorsqu'ils sont autorisés dans des conditions prévues au deuxième [simulcast] ou au dernier alinéa [multidiffusion] du III de l'article 30-1.

20d. Existent-ils d'autres obligations pour les opérateurs privés en matière de développement de la TNT?

Non

---

[39] Par exemple les opérateurs privés peuvent-ils décider quelles chaînes seront diffusées par voie numérique terrestre? Les opérateurs privés peuvent-ils diffuser les chaînes payantes? Est-ce qu'il y a des limitations? Les opérateurs privés peuvent-ils décider quelles chaînes seront diffusées par voie numérique terrestre? Les opérateurs privés peuvent-ils diffuser chaînes payantes? Est-ce qu'il y a des limitations pour l'utilisation de la bande de radiodiffusion de la part des opérateurs prives?
[40] Que ce service soit à temps complet ou à temps partagé

D) Réglementation du démarrage de la TNT

21. Une procédure de planification des fréquences a–t-elle été mise en place pour l'attribution de la bande de radiodiffusion nécessaire pour la TNT?

Aucune procédure spécifique (législative ou réglementaire) n'a été mise en place.

21a. Qui est chargé de la planification des fréquences?

ARN : Le Conseil supérieur de l'audiovisuel (direction technique)
Ministère de la Communication : Non
Autre : Non

21b. Combien de fréquences ont été/seront réservées pour le départ de la TNT?

6 fréquences par site de diffusion et 7 sur Paris.

21c. Combien des fréquences ont été/seront réservées pour le SP?

La loi a attribué un canal à La Chaîne parlementaire, un canal entier à Arte, 3 canaux pour France 2, France 3 et France 5 si France Télévision en faisait la demande et le Gouvernement a préempté un canal supplémentaire pour France Télévision conformément à la loi (qui lui permettait d'en préempter trois).

Le CSA a décidé de regrouper ces six services sur un même multiplex.

22. Est-ce que la bande de radiodiffusion a été réservée...

Par multiplex[41] : la ressource radioélectrique est attribuée à la fois aux chaînes de télévision et aux opérateurs de multiplex.
Par chaîne : la ressource radioélectrique est attribuée à la fois aux chaînes de télévision et aux opérateurs de multiplex.
Autre : Non

23. Si la bande de radiodiffusion numérique a été/sera réservée par multiplex:

23a. Avec quelle procédure les autorisations ont été/seront délivrées?

Enchères : **Non**
Appel d'offre : **Oui**

[41] Si la réponse est affirmative, passer à la question 17

23b. Si les autorisations ont été/seront délivrées par l'enchère, quel est le critère utilisé?

Sans objet

23c. Qui est/sera chargé de la procédure d'autorisation?

Le Gouvernement : **Non**
ARN : **le Conseil supérieur de l'audiovisuel**

23d. La procédure pour l'autorisation a été définie par

La loi : **loi du 1er août 2000 modifiant la loi du 30 septembre 1986 relative à la liberté de communication**
Le Gouvernement : **Non**
ARN : **modalités pratiques de mise en œuvre de la loi du 1er août 2000 arrêtées par le Conseil supérieur de l'audiovisuel**

23e. Quelles mesures « antitrust » ont été prises pour la réglementation du processus d'attribution des multiplex?

Aucune : **Non, la loi en cours d'adoption finale devant le Parlement a supprimé le régime anticoncentration plurimédia applicable aux distributeurs commerciaux et, par voie d'assimilation légale, aux opérateurs de multiplex**

Interdiction pour certains acteurs de devenir opérateurs de réseaux : **Oui, interdiction aux chaînes de télévision d'être multiplexeurs**

Limitations aux participation croisées (précisez) : **Non**

Limitation au nombre de multiplex possédés par chaque opérateur de réseau : **Non**

Autre : **Non**

23f. L'opérateur de multiplex a-t-il des limitations dans la composition du multiplex?[42]

Oui, la composition des multiplex est décidée par le Conseil supérieur de l'audiovisuel.

[42] Par exemple la bande de radiodiffusion réservée à une chaîne de nature spécifique (information/enfants); bande de radiodiffusion réservée a des chaînes indépendantes (pas de propriété de l'opérateur de multiplex),

23g. Des obligations «must-carry» spécifiques sont-elles prévues pour les opérateurs de réseau ?

Non, les obligations de must-carry s'appliquent aux réseaux câblés.

23h. L'ARN peut-elle influencer la composition/articulation du multiplex (si oui, a quelles conditions et avec quels critères?)

La composition des multiplex est fixée par le Conseil supérieur de l'audiovisuel.

23i. L'opérateur de multiplex est-il libre d'établir son propre model du business (payant – gratuit)?

Non, les autorisations sont délivrées aux chaînes de télévision par le CSA. Les autorisations fixent le caractère payant ou gratuit du service conformément au projet figurant dans le dossier de candidature.

Les chaînes de service public de la TNT sont impérativement des services gratuits en vertu de la loi du 1er août 2000.

23l. Des mesures de non discrimination sont-elles prévues pour l'accès aux réseaux de la TNT par les éditeurs ?

Oui. Le CSA est chargé de régler les différends portant sur des questions de discrimination.

Obligation pour les opérateurs de multiplex de donner l'accès aux éditeurs sur les principes de non discrimination, transparence, égalité : **Oui**
Publication des prix : **Non**
Obligation de séparation comptable entre l'activité de l'opérateur de multiplex et de fournisseur de service : **obligation de constitution d'une personne morale distincte chargée des opérations de multiplexage**

24. Est-ce qu'il y a une couverture minimale (population/territoire) que les opérateurs de multiplex doivent garantir à des dates spécifiques?

Oui, les chaînes de télévision et les opérateurs de multiplex ont l'obligation d'émettre à partir des sites autorisés par le CSA (sans possibilité d'effectuer une sélection de ces sites) et aux dates fixées par le CSA, sans possibilité d'interruption du service.

Les autorisations délivrées aux chaînes de télévision prévoient que le CSA peut retirer l'autorisation si la chaîne n'a pas commencé à diffuser son service dans le mois qui suit cette date de lancement.

25. Est-ce qu'il y a une procédure d'autorisation pour les éditeurs qui produisent des contenus qui seront diffusés dans le cadre de la télévision numérique terrestre?

Oui. Pour pouvoir diffuser par voie hertzienne numérique, les éditeurs de services de télévision du secteur privé doivent répondre à un appel aux candidatures lancé par le CSA. Les modalités d'attribution de ces canaux aux chaînes privées sont fixées à l'article 30-1 III de la loi du 30 septembre 1986 modifiée. Ainsi, ces autorisations seront attribuées après le lancement d'appels aux candidatures, par zone géographique (national/local), par catégorie de services (en analogique le CSA a défini les catégories de services entre services nationaux/locaux et services gratuits (en clair) / payants (cryptés)), le législateur imposant au CSA de favoriser les services gratuits dans la mesure de leur viabilité économique et financière notamment au regard de la ressource publicitaire. Par ailleurs ces services doivent répondre au mieux aux critères de sélection légaux suivants :

Une capacité de répondre aux attentes d'un large public et de nature à encourager un développement rapide de la télévision numérique de terre ;
la nécessité d'assurer une véritable concurrence et la diversité des opérateurs ;
la sauvegarde du pluralisme des courants d'expression socio-culturels ;
l'expérience acquise par les candidats ;
les engagements en matière de production et de diffusion d'œuvres audiovisuelles et cinématographiques ;
les engagements relatifs à la couverture du territoire ;
la cohérence des propositions en matière de regroupement et de choix de distributeurs de services ;
Le financement et les perspectives d'exploitation du service.

25a. Qui est en charge de la procédure d'autorisation / licences?

Le Gouvernement : Non
ARN : Oui
Autre : Non

25b**.** Est-ce qu'il y a des limitations sur le nombre des chaînes qui peuvent être délivrées aux même sujet?

Le troisième alinéa de l'article 41 de la loi du 30 septembre 1986 modifiée dispose qu'une même personne peut être titulaire, directement ou indirectement, d'un nombre maximal de cinq autorisations relatives chacune à un service ou programme national de télévision diffusé par voie hertzienne terrestre en mode numérique[43] lorsque ces services ou programmes sont édités par des sociétés distinctes ou lorsqu'ils sont autorisés dans des conditions prévues au deuxième [simulcast] ou au dernier alinéa [multidiffusion] du III de l'article 30-1.

[43] Que ce service soit à temps complet ou à temps partagé

25c. Est-ce qu'il y a des dispositions pour garantir l'accès des chaînes autorisées à la plate-forme?

Non

26. Si la capacité numérique a été / sera délivrée par chaîne :

26a. Avec quelle procédure les autorisations/licences seront délivrée pour chaque chaîne?

Enchère : Non
Appel d'offre : Oui
Autre : Non

26b. Qui est chargé de la procédure d'autorisation?

Le Gouvernement : Non
ARN : Oui
Autre : Non

26c. Une fois que les chaînes ont été sélectionnées et autorisées qui est en charge de la composition / gestion du multiplex? Si un opérateur de multiplex est prévu, quels sont ses fonctions ?

Aux termes du II de l'article 30-2 de la loi du 30 septembre 1986, *« Le Conseil supérieur de l'audiovisuel autorise toute société proposée au titre du I et lui assigne la ressource radioélectrique correspondante. Cette société est regardée comme un distributeur de services au sens de l'article 2-1. En cas de refus d'autorisation par le Conseil, les éditeurs de services titulaires d'un droit d'usage d'une même ressource radioélectrique disposent d'un nouveau délai de deux mois pour proposer conjointement un nouveau distributeur de services».*

Les autorisations délivrées en application du présent article comportent les éléments permettant d'assurer les conditions équitables, raisonnables et non discriminatoires de l'utilisation de la ressource radioélectrique par les éditeurs de services autorisés en application de l'article 30-1. Elles comportent également les éléments mentionnés à l'article 25 ».

Le Conseil supérieur de l'audiovisuel serait donc tenu aux termes du deuxième alinéa de l'article III de l'article 30-2 de la loi précitée de refuser la délivrance d'une autorisation si d'une part la personne morale proposée n'était pas constituée sous forme de société et/ou si d'autre part, ne pouvaient être garanties les conditions équitables, raisonnables et non discriminatoires de l'utilisation de la ressource radioélectrique par les éditeurs de services autorisés.

26d. Quels sont le rôle et la fonction de l'opérateur de multiplex?

L'opérateur de multiplex est chargé d'assurer les opérations techniques nécessaires à la transmission et à la diffusion auprès du public des programmes des chaînes de télévision titulaires d'un droit d'usage de la ressource radioélectrique pour l'exploitation d'un service de télévision à caractère national diffusé par voie hertzienne en mode numérique, détenues directement ou indirectement par ses associés.

26e. Qui est en charge de la sélection de l'opérateur de multiplex?

Le Gouvernement : non
ARN : non
Les chaînes autorisées : oui

26f. Est-ce qu'il y a des limitations au nombre des chaînes qui peuvent être détenues par le même acteur?

Le troisième alinéa de l'article 41 de la loi du 30 septembre 1986 modifiée dispose qu'une même personne peut être titulaire, directement ou indirectement, d'un nombre maximal de cinq autorisations relatives chacune à un service ou programme national de télévision diffusé par voie hertzienne terrestre en mode numérique44 lorsque ces services ou programmes sont édités par des sociétés distinctes ou lorsqu'ils sont autorisés dans des conditions prévues au deuxième [simulcast] ou au dernier alinéa [multidiffusion] du III de l'article 30-1.

27. Les chaînes payantes seront-elles distribuées par la plate-forme TNT?

Il appartient aux chaînes payantes de conclure un accord de commercialisation avec un distributeur ayant déposé une déclaration en tant que distributeur de la TNT au CSA.

27a. Comment a été choisi le fournisseur de l'accès conditionnel?

Il appartient au distributeur de choisir son fournisseur d'accès conditionnel.

Le CSA contrôle le système d'accès choisi. A défaut d'accord d'interopérabilité entre les systèmes choisis pour la TNT, le CSA définit les conditions techniques de l'accès conditionnel.

Arrêt de la diffusion analogique

28. La loi prévoit-elle une date pour l'arrêt de la diffusion analogique?

Actuellement, la loi du 30 septembre 1986 modifiée ne prévoit pas une date pour l'arrêt de la diffusion analogique.

L'article 46 de la loi du 1er août 2000 dispose qu'*« à l'issue d'un délai de trois ans après l'entrée en vigueur de la présente loi, un bilan du passage à la diffusion hertzienne terrestre numérique sera*

[44] Que ce service soit à temps complet ou à temps partagé

transmis par le gouvernement au Parlement. Ce bilan présentera notamment « le délai dans lequel devra être fixé l'arrêt de la diffusion hertzienne terrestre en mode analogique des services de télévision ».

En revanche, l'article 96 ter du projet de loi « communications électroniques » prévoit : *« que la diffusion des services de télévision par voie hertzienne terrestre en mode analogique prendra fin cinq ans après le début effectif des émissions en mode numérique, sous réserve de l'examen par le Conseil supérieur de l'audiovisuel de l'état de la couverture du territoire par ce mode de diffusion, de la pertinence des choix technologiques et de l'information appropriée du public. »*

28a. A quelle date?

Sans objet

28b. En fonction de l'effective couverture/pénétration de la TNT? (précisez)

On rappellera ce que l'on a mentionné en réponse à la question 28 : l'article 96 ter du projet de loi « communications électroniques » prévoit : *« que la diffusion des services de télévision par voie hertzienne terrestre en mode analogique prendra fin cinq ans après le début effectif des émissions en mode numérique, sous réserve de l'examen par le Conseil supérieur de l'audiovisuel de l'état de la couverture du territoire par ce mode de diffusion, de la pertinence des choix technologiques et de l'information appropriée du public. »*

29. Qui sera chargé de la coordination de l'arrêt de la diffusion analogique ?

ARN : Le Conseil supérieur de l'audiovisuel sera chargé de coordonner l'arrêt de la diffusion analogique en respectant les modalités fixées à l'article 96 *ter* du projet de loi « communications électroniques » qui sera adopté définitivement avant l'été 2004.

Ministère de la Communication : non

Autres : non

Pas applicable : non

30. Comment seront utilisées les fréquences analogiques?

Ces fréquences analogiques pourront permettre notamment au CSA d'autoriser des télévisions locales dans certaines zones géographiques.

E) Mesures Politiques adoptées par les gouvernements or les ARN au soutien du développement de la TNT

31. Des mesures politiques spécifiques sont-elles en cours d'élaboration ou sont déjà en vigueur pour le soutien au déploiement de l'infrastructure de la TNT?

La principale mesure spécifique a été décrite plus haut en question 19a ; elle porte sur le financement du réaménagement des fréquences analogiques, qui constitue un préalable important au déploiement des fréquences numériques. Le Fonds de réaménagement du spectre est géré par l'Agence nationale des fréquences, établissement public de l'Etat.

Par ailleurs, le CSA a créé un groupe de travail, le Comité d'Experts Techniques de la TNT, qui, par des réunions régulières, a constitué une instance de concertation et d'information sur l'avancement des travaux de planification des fréquences numériques, tache qui incombe au CSA. Le CET est ouvert à tous les professionnels concernés par le lancement de la TNT.

31a. Financement direct des réseaux de la TNT (précisez a quelles conditions et le montant financier)

Aucun

31b. Facilitations financières indirectes au SP ou autres opérateurs de multiplex

– Réduction d'impôt pour l'opérateur de multiplex pour l'utilisation de la ressource radioélectrique : Non
– Possibilité pour le SP d'augmenter la redevance annuelle : Non
– Possibilité de vendre des biens pour obtenir les ressources financières nécessaires pour la TNT : Non
–Autre : Non, mais l'autonomie de gestion de France Télévisions lui a permis de vendre sa participation dans la plate-forme satellitaire TPS en 2002 et dans la chaîne Histoire en 2004.

32. Des mesures politiques spécifiques sont-elles en cours d'élaboration ou sont déjà en vigueur pour le soutien aux éditeurs pour le développement de chaînes spécifiques pour la TNT?

Non

32a. Financement direct des opérateurs audiovisuels pour le développement des chaînes pour la TNT (précisez typologie de la mesure et conditions)

Aucun

32b. Financement indirect

– Réduction d'impôt pour l'opérateur pour l'utilisation de la ressource radioélectrique : Non
– Autre : Non

32c. Mesures réglementaires pour encourager le développement des chaînes pour la TNT :

Possibilité pour le CSA d'accorder une montée en charge des obligations de production audiovisuelle et cinématographique et des quotas de diffusion audiovisuelle (mesure réglementaire ouvertes à toutes les chaînes autorisées en TNT).

Le CSA a en outre choisi de délivrer systématiquement des autorisations pour la durée maximale prévue par la loi, à savoir 10 ans.

33. Des mesures politiques spécifiques sont-elles en cours d'élaboration ou sont déjà en vigueur pour le soutien de la diffusion des décodeurs numériques?

Sans objet, étant donné la chute des prix des décodeurs premiers prix.

33a. Financement direct aux consommateurs pour l'achat des décodeurs (précisez: total/partial) : Non

33b. Financement indirect pour l'achat des décodeurs

Exemption d'impôt : Non
Autres : Non

33c. Distribution gratuite de décodeurs par les opérateurs de multiplex ou les chaînes (précisez) : Non

33d. Garantir l'harmonisation des décodeurs (en cas de marché ouvert)

Standardisation : Non
Etiquette d'équipement[45] : Non
Autres : L'article 30-3 de la loi du 30 septembre 1986 relative à la liberté de communication prévoit :
« *Dans un délai de deux mois à compter de la délivrance des autorisations prévues à l'article 30-2, les éditeurs de services de télévision faisant appel à une rémunération de la part des usagers et bénéficiant d'une autorisation d'usage de la ressource radioélectrique conformément à l'article 30-1 doivent avoir conclu, dans des conditions équitables, raisonnables et non discriminatoires, les accords nécessaires pour que tout terminal de réception numérique, dont le système d'accès conditionnel et le moteur d'interactivité sont exploités par les distributeurs de services bénéficiant d'une autorisation prévue à l'article 30-2, puissent recevoir leurs programmes et les services qui y sont associés.*
« *A défaut, le Conseil supérieur de l'audiovisuel définit les conditions techniques et commerciales nécessaires à la conclusion de ces accords dans les conditions prévues à l'article 30-5.* »
Au 18 mai 2004, le CSA n'a pas eu à mettre en application le dispositif prévu au 2ème alinéa.

---

[45] Equipement de réception en ligne avec les standards requis et capable de recevoir les signaux de la TNT. Equipements avec les étiquettes afin d'aider la conscience des consommateurs.

33e. Obligation des syntonisateurs numériques dans le téléviseur : Non

33f. Autres : Non

34. D'autres mesures politiques ont-elles été mises au point ou sont déjà en vigueur pour le soutien du déploiement et de la pénétration de la TNT?

Le Premier ministre a confié à un fonctionnaire de l'Etat, M. Michel Boyon puis M. Daniel Boudet, la mission de coordonner le lancement de la TNT en France. M. Daniel Boudet réunit au moins une fois par mois l'ensemble des acteurs de la TNT pour discuter des problèmes en suspens (choix technologiques, date de lancement, distribution commerciale des services payants, déploiement des sites de diffusion, réaménagement du spectre analogique,…). Il s'agit d'une instance d'échange d'informations et de concertation ; elle n'a aucun pouvoir de décision.

La mission de M. Daniel Boudet inclut également la coordination de la campagne de communication pour le lancement de la TNT (information des professionnels, promotion auprès du public).

F) Etat du marché pour les services de la TNT

35. Des chaînes en numérique terrestre ont-elles déjà été lancées et quand

Il n'y a pas, à ce jour, en France de diffusion de services de télévision en TNT.

35a. Si non, quand prévoit-on leur lancement ?

Le lancement est prévu entre le 1er décembre 2004 et le 31 mars 2005. La date précise de démarrage sera définie par le CSA dans les prochaines semaines.

36. Nom de la plate-forme et actionnariat.

La désignation du (ou des) distributeur (s) n'a pas encore été effectuée par les éditeurs de services.

37. Chaînes distribuées (précisez si gratuites ou payantes). Décrivez s'il vous plaît en bref le contenu de chaque chaîne (ex. cinéma, sports; enfants, divertissement)

a) Chaînes gratuites :
Publiques : France 2, France 3, France 5, Arte, La Chaîne Parlementaire et Festival (cahier des charges en cours de rédaction pour Festival).
Privées :
généraliste :TF1, M6, NT1, TMC ;
minigénéraliste : Direct 8, NRJ TV ;

musical : iMCM, M6 Music.
TF1, M6, France 2, France 3 ainsi que France5 et Arte sont des services déjà diffusés en hertzien analogique (en temps partagé pour France 5 et Arte).
3 services (Direct 8, NRJ TV et NT1) seront créés à l'occasion du lancement de la TNT.

b) Chaînes payantes :
mini-généraliste :Match TV, Paris Première ;
jeunesse : Canal J ;
15/35 ans : AB1 ;
information : i-Télé, LCI ;
sport : Eurosport France, Sport+ ;
cinéma : Ciné Cinéma Premier ;
cinéma et sport : Canal+, TPS Star ;
fiction : TF6 ;
documentaire : Planète ;
humour : Comédie ! ;
art de vivre : Cuisine.TV.
Canal+ est un service déjà diffusé par voie hertzienne terrestre en mode analogique.
Comédie! et Cuisine. TV seront diffusés sur un même canal, en temps partagé.

37a. Si la plate-forme est payante, précisez le prix du bouquet (précisez le coût d'installation et location du décodeur, prix du basic/premium, prix du payement à la séance)

A ce jour, les éditeurs de chaînes payantes n'ont pas encore désigné les distributeurs avec lesquels les accords de commercialisation doivent être conclus en vue de la distribution des services par voie hertzienne terrestre en mode numérique.

37b. Quelles chaînes sur la TNT sont directement de propriété de l'opérateur de multiplex, (s'il y en a)?

Selon les dispositions de la loi du 30 septembre 1986 modifiée (article 30-2), les opérateurs de multiplex doivent être constitués sous forme de sociétés, distinctes des éditeurs. Les éditeurs présents sur un même multiplex désignent leur opérateur de multiplex afin qu'il soit autorisé par le CSA.

Dans les faits, les opérateurs de multiplex sont des filiales des éditeurs de services et, dans ces conditions, n'exploitent aucun service de télévision.

G) Rôle des régulateurs dans le processus d'arrêt de la diffusion analogique

(Résumez s'il vous plaît le rôle et fonctions des ARN dans votre pays dans chaque fonction spécifique)

Soutien au législateur	Sans objet
Régulation	L'article 96 *ter* du projet de loi « communications électroniques » prévoit : *« que la diffusion des services de télévision par voie hertzienne terrestre en*

	mode analogique prendra fin cinq ans après le début effectif des émissions en mode numérique, sous réserve de l'examen par le Conseil supérieur de l'audiovisuel *de l'état de la couverture du territoire par ce mode de diffusion, de la pertinence des choix technologiques et de l'information appropriée du public. »*
Procédures d'autorisation	Ce sont celles définies pour les autorisations actuelles. Il n'existe pas de cadre législatif particulier pour l'extinction du signal analogique.
Régulation d'accès des chaînes à la plate-forme	idem
Résolution des conflits entre les chaînes et la plate-forme ou d'autres sujets impliqués dans la TNT	idem
Elaboration des mesures politique pour le déploiement de la TNT	idem
Gestion et coordination du processus d'arrêt de l'analogique	Le Conseil supérieur de l'audiovisuel sera chargé de coordonner l'arrêt de la diffusion analogique en respectant les modalités fixées à l'article 96 *ter* du projet de loi « communications électroniques » qui sera adopté définitivement avant l'été 2004.

Graphique n° 1 OFFRE DE FREE sur ADSL au 6 avril 2004

BASIQUE : 29,99 € *

Arte	Demain	AB1	Bloomberg TV
France 2	Euronews	AB Moteurs	CNBC
France 3	Game One	RFM TV	MTV
France 3 IDF	KTO	RTL 9	Fashion TV
France 5	Liberty TV. com	Zik	2M Maroc
LCP-AN	TFJ		RTM Maroc
Public Sénat	Motors TV		Canal Algérie
RFO Sat	Mezzo		ESC
TV5	Gourmet		Al Jazeera
			TV7 Tunisia

En option :
Beur TV : 0,49 €
BBC World : 0,25 €
Equidia : 0,49 €
Euronews (autre langue que le français) : 0,49 €
Fashion Men : 0,99 €
Festival : 0,99 €
histoire : 0,49 €
L'Equipe TV : 0,49 €
Mangas : 1,99 €
MTV 2 ou MTV Base ou MTV Hits : 0,49 €
Paris Première : 0,49 €
Sailing Channel : 0,99 €
Télé Melody : 2,99 €
Trace TV : 0,49 €
VH1 ou VH1 Classic : 0,49 €
XXL : 4,99 €

Pack Ciné Box Max : 12,99 €

Pack Ciné Box Action : 9,99 €
Action
XXL

Ciné FX

Pack Ciné Box : 5,99 €
Ciné Box
Ciné Comic
Ciné Polar

Pack AB : 5,99 €
Animaux
Chasse et pêche
Encyclopédia
Escales
Mangas
Musique Classique
Toute l'histoire

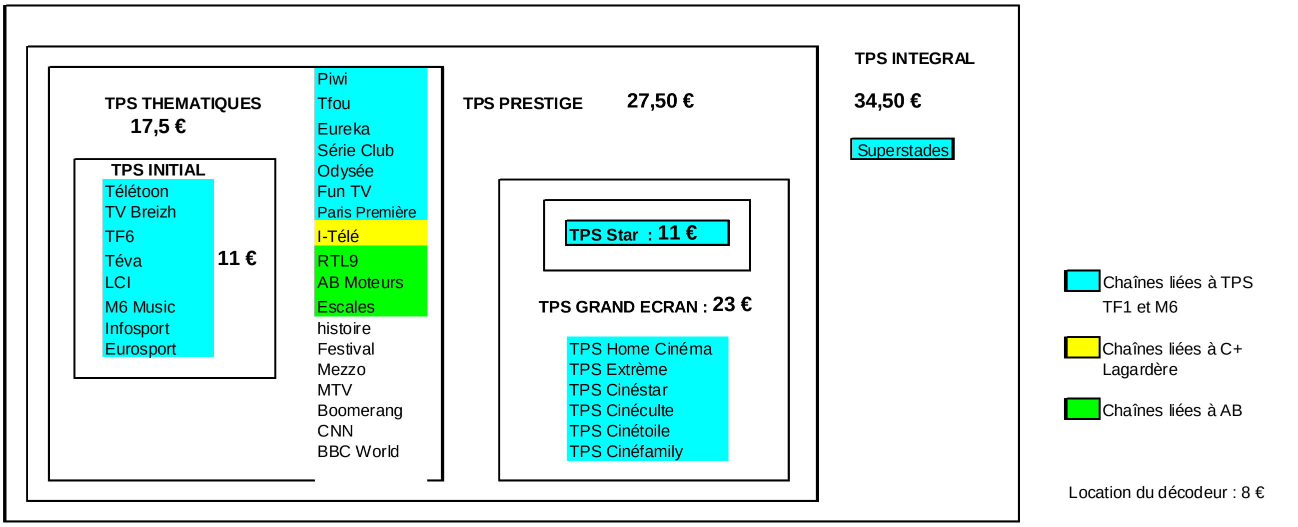
Pack MTV Premium : 1,95 €
MTV 2
MTV Base
MTV Hits
VH1
VH1 Classic

En option :
Toutes les chaînes cinéma d'AB peuvent être vendues à l'unité au prix de 5,99 € à l'exception de XXL** qui est vendue à 4,99 € .

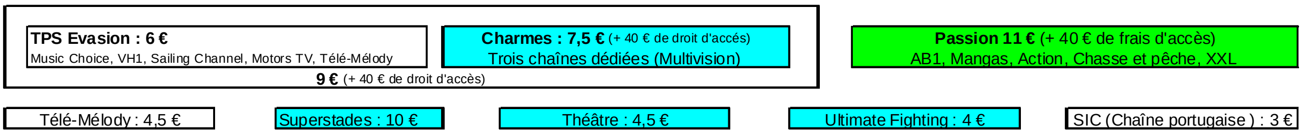
Chaînes liées à TPS, TF1, M6
Chaînes liées à AB
Chaînes liées à C+, Lagardère

* **Cette offre à 29,99€, comprend également un accès illimité à Internet haut débit (1024 Kbit/s), ainsi que 10 heures de téléphone gratuites vers la France et des appels gratuits entre abonnés Free.**
** Free, d'après leur déclaration, avait lors du lancement de leur offre en décembre sur Paris, suspendu la diffusion de XXL, dans l'attente que cette dernière lui adresse un signal comportant un double verrouillage. D'après nos informations, l'abonnement à XXL est actuellement disponible.

Graphique n° 1 TPS: OFFRE NUMERIQUES AU 15/01/04



OPTIONS (accessibles uniquement quand l'abonné a souscrit à une des formule ci-dessus) :



TPS propose également des abonnements à des services qui proposent des jeux intéractifs comme Playin TV (5,5 €) et Playin'Star (8 € avec Playin'TV).

En sus, quelle que soit la formule d'abonnement : chaînes hertziennes en clair, TV5, RFO Sat, Multivision, Euronews, Equidia, Public Sénat, LCP-AN, Club Téléachat, 70 chaînes étrangères, radios.

Graphique n° 2 TPSL: Offre au 23 mars 2004

TPSL PRESTIGE
21 €

Piwi	LCI	TPS Star	I-Télé	AB Moteurs
Tfou	TV Breizh	TPS Home Cinéma	histoire	Escales
Eureka	TF6	TPS Extrème	Festival	RTL9
Télétoon	Téva	TPS Cinéstar	Euronews	Boomerang
Télétoon +1	Paris Première	TPS Cinéculte	Mezzo	MTV
Série Club	Infosport	TPS Cinétoile	KTO	CNN
Odysée	Eurosport	TPS Cinéfamily	Beur TV	BBC World
Fun TV	M6 Boutique la chaîne		TFJ	ESPN Classic Sport
M6 Music			TLM	Liberty Tv.com

Chaînes liées à TPS, TF1 et M6

Chaînes liées à C+ et Lagardère

Chaînes liées à AB

Abonnement à Ma ligne TV (France Télécom) : 16 €

En Option :

Passion 11 € (+ 40 € de frais d'accès)
AB1, Mangas, Action, Chasse et pêche, XXL

Evasion 6 € (9 € avec Charmes)
VH1, Sailing Channel, Motors TV, Télé Melody, Charmes*

* Bientôt disponible

Télé-realité : 14 € par chaînes
Les colocataires et / ou La ferme Célébrité

Pour tous abonné à Ma Ligne TV (16 €) : accès au service de Vidéo à la demande édité par France Télécom.
Pour tous abonné à TPSL :TF1, F2, F3, F5,M6, Arte, TV5, RFO Sat , Public Sénat, LCP-AN, BBC World, BBC Prime, CNBC Europe, RTL Télévision, Rai Uno, EurosportNews, Al Jazeera, Algérian TV, 2M Maroc,

Graphique n° 3 NC NUMERICABLE: OFFRES NUMERIQUES AU 15/01/04

L'INTEGRALE : 60 € ou 68 € (respectivement pour les abonnés à NC Thématiques et à NC Découverte)

NC DECOUVERTE 13,90 €

iTélé	Eurosport
La Chaîne Météo	Equipe TV
CinéInfo	TMC
MCM	RTL9
Fashion TV	AB1
Game One	KTO
MTV	Equidia

NC THEMATIQUES 21,90 €

Sport +	Planète	Série Club	Gourmet TV
Canal J	Planète Future	TF6	Comédie
Tiji	Planète Thalassa	LCI	Cuisine TV
Canal Jimmy	MCM 2	M6 Music	Voyage
Match TV	Demain	Paris Première	
MCM 2			

OPTIONS (accessibles uniquement quand l'abonné a souscrit à une des formules ci-dessus)

Les chaînes Prestige :

- 6 chaînes de CinéCinéma : 9 €
- 4 chaînes de TPS Cinéma : 11 € (TPS Cinéstar, Home Cinéma, Cinéculte et Cinétoile)
- 4 chaînes Disney : 5,50 €
- Seasons : 5 €
- Canal+, Vert, Bleu, Jaune : 27,29 €

Les chaînes passions :

3 chaînes en + : 6,90 €
6 chaînes en + : 10,90 €
9 chaînes en + : 13,90 €
12 chaînes en + 16,90 €

Canal + (4 canaux) : 27,29 €

A choisir parmi les chaînes suivantes : Planète, Planète Thalassa, Planète Future, Voyage, Odysée, National Geographic, Escales, Chasse et Pêche, Animaux, Toute l'histoire, RFM TV, Musique Classique, AB Moteurs, Fit, XXL, Mezzo, MCM2, Canal J, Tiji, Fox Kids, Cartoon Network, Sport +, M6 Music, histoire, Fun TV, TCM, LCI, Match TV, TF6, TV Breitz, Cuisine TV, Gourmet TV, Canal Jimmy, Paris Première, Série Club, Téva, Festival, Comédie et 13ème Rue.

En sus, quelle que soit la formule d'abonnement : TF1, F2, F3, F5, M6, Arte, TV5, Kiosque, Euronews, LCP-AN, Public Sénat, RFO Sat, La chaîne Météo, Club Téléachat, Bloombeerg, Canal Algérie, TV7, RTPI, Rai Uno, DW, CNN, BBC World, ESC1, Al Jazeera, TVEI, Sky News, + 45 radios.

Chaînes liées à C+/Lagardère

Chaînes liées à TPS/TF1/M6

Chaînes liées à AB

Location du décodeur : 8 €

Graphique n° 3 CANALSATDSL: OFFRE AU 17 MAI 2004

CANALSATDSL GRAND SPECTACLE

27,90 € (20 € pendant un an)

CANALSATDSL FAMILLE **23, 90 €**
(20 € pendant un an)

4 chaînes Disney
National Geographic Channel

CANALSATDSL CINEMA **25,90 €**
(20 € pendant un an)

6 chaînes de CinéCinéma
TCM

CANALSATDSL THEMATIQUES **17,99 €** (11 € pendant un an)

Sport +	Canal J	Eurosport	AB1
Match TV	Tiji	Téva	RTL9
Jimmy	Planète	Paris Première	KTO
13ème Rue	Planète Thalassa	Voyage	Game One
I-Télé	Planète Future	TMC	Beur TV
La chaîne météo	Ma Planète	Comédie	MTV
Demain	histoire	Cuisine TV	Fox Kids
MCM	Mezzo	Extrème Sport Channel	
MCM Pop	Equidia	Cartoon Network	
MCM Top	Motors TV	ESPN Classic Sport	

OPTIONS (accessibles uniquement quand l'abonné a souscrit à une des formules ci-dessus, sauf pour Canal+)

Découverte DSL : 12 €
Toute l'histoire, Animaux, Escales, Action, XXL

OMTV : 5,30 €

Foot + : 14,48 €

Canal+ (4 canaux) : 28,80 € ou 27,29€

Chaînes liées à C+, Lagardère

Chaînes liées à TPS, TF1, M6

Chaînes liées à AB

Abonnement à Ma ligne TV (France Télécom) : 16 €
(8 € de location de décodeur + 8 € d'accésà la ligne ADSL)

Pour tous abonné à Ma Ligne TV (16 €) : accès au service de vidéo à la demande édité par France Télécom
Pour tous abonné à une formule d'abonnement de CanalSatDSL : F2, F3, F5, Arte, TV5, Public Sénat, LCP-AN, 2M Maroc, BBC World, TVE, RTP, CNBC Europe

CANALSATELLITE GRAND SPECTACLE

27,90 €

CANALSATELLITE FAMILLE **23, 90 €**

4 chaînes Disney
National Geographic Channel

CANALSATELLITE CINEMA **25,90 €**

6 chaînes de CinéCinéma
TCM

CANALSATELLITE THEMATIQUES **17,99 €**

Sport +	Planète	TV Breizh	AB1
Match TV	Planète Thala	LCI	RTL9
Jimmy	Planète Futur	Eurosport	RFM TV
13ème Rue	Ma Planète	Téva	AB Moteurs
CinéInfo	NBA +	Paris Première	KTO
I-Télé	Festival	ESPN Classic Sport	Game One
La chaîne météo	histoire	Voyage	Beur TV
Demain	L'équipe TV	TMC	MTV
MCM	Equidia	Comédie	Fox Kids
MCM2	Trace	Cuisine TV	Gourmet
Canal J	Motors TV	Extrème Sport Channel	OMTV
Tiji	Fashion TV	Cartoon Network	

OPTIONS (accessibles uniquement quand l'abonné a souscrit à une des formules ci-dessus)

Canal + (4 canaux) : 28,80 €

Découverte Evasions : 7,40 €
Toute l'histoire, Animaux, Escales, Encyclopédia

Découverte Sensations : 10 €
Mangas, Action, XXL

12 €

Mezzo : 4,50 €

Cinébox (chaînes AB) : 7 €
Cinébox, CinéPolar, CinéFX, CinéComic

Coté Musiques : 7,40 €
MTV2, MTV Hits, MTV Base, Mezzo,
VH1, Télé Melody

Seasons : 6,30 €

Télé Melody : 4,50 €

Playin' TV : 6,30 €

Location du décodeur : 8 €

Chaînes liées à C+, Lagardère

Chaînes liées à TPS, TF1, M6

Chaînes liées à AB

En sus, quelle que soit la formule d'abonnement : F2, F3, F5, Arte, TV5, RFO Sat, Euronews, Public Sénat, LCP-AN, Kiosque, Club Téléachat, Liberty TV, CNN, Bloomberg TV, Al Jazeera, 2M Maroc, BBC World, CNBC Europe, Deutche Welle + radios

Graphique n° 4 NOOS: OFFRES NUMERIQUES AU 15/01/04

BOUQUET PREMIUM : 31 € (20 € + 11 €)

TPS Cinéma (7 chaînes)	histoire
Télétoon	Mezzo
Eureka	Météo Express
Téva	ESPN Classic Sport
Série Club	MTV
Fun TV	
Odyssée	

NOOS PASS : 11 €

Comédie	Fashion TV
Paris Première	KTO
FT6	TFJ
TV Breitz	CinéInfo
M6 Music	I-télé
Infosport	Escales
Equidia	

BOUQUET SELECT : 31 € (20 € + 11 €)

6 chaînes de CinéCinéma	Seasons
Sport +	Canal J
iTélé	Tiji
Planète	MCM
Planète Thalassa	La chaîne Météo
Planète Future	
Jimmy	
Match TV	
13ème Rue	

Canal + (4 canaux) : 27,29 €

Chaînes liées à C+/Lagardère

Chaînes liées à TPS/TF1/M6

Chaînes liées à AB

Location du décodeur : 8 €

FORFAITS A LA CARTE

- 25 étoiles : 4 €
- 75 étoiles : 12 €
- 110 étoiles : 16 €
- 150 étoiles : 20 €
- 190 étoiles : 24 €
- 225 étoiles : 27 €
- 300 étoiles : 34 €
- Infinity : 63 €

Chaînes proposées :

1 étoile : AFP Infos, Météo Express, AB Moteurs, AB1.
2 étoiles : La chaîne Météo, RFM TV.
5 étoiles : Animaux, Toute l'histoire, Mangas, RTL9, Musique Classique, Bloomberg TV, Voyage, Télétoon, Game One, L'Equipe TV, Festival, histoire, Série Club, Téva, TMC, 13ème Rue, Fun TV, MCM, Mezzo, MTV, MTV Base, MTV 2, Odyssée, VH1
10 étoiles : Action, Chasse et pêche, Planète, Ma Planète, LCI, Canal J, Tiji, Eureka, Fox Kids, Cuisine TV, BBC Prime ESPN, Sport +, Jimmy, Match TV, Bloomberg TV, Cartoon Network
15 étoiles : National Geographic Channel, Planète+Thalassa+Future, Encyclopédia, Gourmet TV, SIC, Eurosport, Extrême Sport Channel.
25 étoiles : TCM, CNBC Europe, Berbère TV.
35 étoiles : Seasons.
40 étoiles : Disney Channel
45 étoiles : XXL
70 étoiles : Disney Channel max (4 chaînes).
75 étoiles : CanalCinéma (6 chaînes de CinéCinéma)
95 étoiles : TPS Cinéma (TPS Home Cinéma, Cinéstar, Cinéculte, Cinétoile)
110 étoiles : TPS Premium (7 chaînes), Cinebox Xtrème (6 chaînes).

Graphique n° 4 NOOS : OFFRES NUMERIQUES AU 16/03/04

DECOUVERTE : 11 €

Club téléachat	Demain
Fun TV	I-TV
Euronews	Ma Planète
Infosport	CinéCinéma Info
M6 Music	Beur TV
Paris Première	Boumerang
Téva	Comédie
TF6	Cuisine TV
TV Breizh	Equidia
AB1	Game One
Escales	Gourmet TV
RFM TV	KTO
RTL9	Equipe TV
MTV	Motors TV
	TFJ

MAGIC : 21 €

Eureka	13ème Rue	Cartoon Network
Eurosport	Canal J	ESPN Classic Sport
LCI	Jimmy	Extrème Sport
Odyssée	La chaîne météo	Festival
Série Club	Match TV	Fox Kids
Télétoon	MCM	histoire
AB Moteurs	MCM Top	Météo Express
Action	MCM Pop	Mezzo
Animaux	NBA +	MTV 2
Chasse et Pêche	Planète	MTV Base
Encyclopédia	Planète Future	National Geographic Channel
Mangas	Planète Thalassa	TMC
Musique Classic	Sport +	Télé Mélody
Toute l'histoire	Tiji	Trace TV
2M	BBC Prime	VH1
AFP Info	BBC World	Voyage

INFINITY : 60 €

TPS Star	CinéBox
TPS CinéStar	CinéFX
TPS home Cinéma	
TPS Cinéfamily	Berbère TV
TPS Cinextrème	Disney Channel
TPS Cinéculte	Disney Channel +1
TPS Cinétoile	Playhouse Disney
	Toon Disney
CinéCinéma Premier	Playin TV Mini
CinéCinéma Succés	Playin TV
CinéCinéma Emotion	Seasons
CinéCinéma Frisson	TCM
CinéCinéma Auteur	
CinéCinéma Classic	

Options (accessible uniquement quant l'abonné à souscrit à une des formules ci-dessus) :

Cinéma :
TCM : 3 €
CinéBox (4 chaînes) : 5 €
Canal Cinéma (6 chaînes) : 10 €
TPS Cinéma (7 chaînes) : 15 €
Ciné + (Canal Cinéma + TPS Cinéma) : 20 €
Ciné Max (toutes les chaînes cinéma) : 25 €

Chaînes à la carte :	
Eurosport : 2 €	Tout Disney (4 chaînes) : 5 €
LCI : 2 €	Seasons : 5 €
Playin TV : 5 €	Canal + (4 chaînes) : 27,29 €
Playin TV mini : 2 €	National Geographic : 3 €
Berbère TV : 4 €	XXL : 9 €

Chaînes liées à Canal+, Lagardère

Chaînes liées à TPS, TF1, M6

Chaînes liées à AB

Location du décodeur : 8 €

En sus du forfait Decouverte : TF1, F2, F3, F5, M6, Arte, Canal+ (en clair), TV5, Multivision, LCP-AN, Public Sénat, RFO Sat, Fashion TV, CNN, BBC World, Demain, Club Téléachat, Bloomberg, Canal Algérie, CCTV, 2 M Maroc, TVEI, TVP Polonia, TV7, RTPI, SIC, Rai Uno, ZDF, ESC1, CNBC,+ 33 radios.

Graphique n° 5 FRANCE TELECOM CABLE: OFFRES NUMERIQUES AU 15/01/04

FORFAIT DECOUVERTE : 7 €	FORFAIT PLAISIR : 17 €
CinéCinéma Info	Paris Première
Infosport	Canal J
LCI	Série Club
Odyssée	Téva
TF6	Eurosport
RTL9	National Geographic Channel
	+ 2 chaînes à choisir

FORFAITS MODULO CINE

- **TPS CINEMA : 14 €** (7 chaînes)
- **CINECINEMA : 12,50** (6 chaînes)
- **CINEBOX : 7 €** CinéBox, CinéComic, CinéFX, CinéPolar
- **TCM : 3 €**

TOUT MODULO CINE : 33 €

MODULO CARTE

- 3 chaînes : 11 €
- 6 chaînes : 15 €
- 9 chaînes : 18 €
- 12 chaînes : 19 €
- Toutes les chaînes : 40 €

DUO
Modulo Ciné + Modulo Carte = réduction de 5 €

TOUT MODULO CINE + TOUTES LES CHAÎNES DE MODULO CARTE : 63 €

Chaînes proposées :

13ème Rue	Eurosport	AB Moteurs
Canal J	Fun TV	AB1
iTélé	Infosport	Action
Canal Jimmy	LCI	Animaux
Planète	M6 Music	Chasse et Pêche
Ma Planète	Odyssée	Encyclopédia
Sport +	Série Club	Escales
Comédie	Télétoon	Mangas
Cuisine TV	Téva	Musique Classique
TMC	TF6	RFM TV
Voyage	TV Breizh	RTL9
Festival	Eureka !	Toute l'histoire
histoire	Paris Première	Cartoon Network
Equipe TV	Mezzo	Boomerang
ESPN	Fox Kids	Télé Melody
		Motors TV

OPTIONS (accessibles uniquement quand l'abonné a souscrit à une des formules ci-dessus) :

Superstades : 14 €	XXL : 6 €
Cartoon Network + TCM : 6,50 €	Music Choice : 2,5 €
Disney Channel : 6 €	Seasons : 6 €

- Chaînes liées à C+, Lagardère
- Chaînes liées à TF1, M6, TPS
- Chaînes liées à AB

Location décodeur : 6,5 €
+ abonnement ligne : 6 €

En sus, quelle que soit la formule d'abonnement : TF1, F2, F3, F5, Arte, M6, TV5, RFO Sat, LCP-AN, Public SénatCNN, Euronews, MTV, Demain, Bloomberg TV, KTO, Equidia, Club Téléachat, Game One, TFJ, Beur TV, Liberty TV.com, RFO Sat, LCP, Public Sénat, Multivision et + de 20 radios nationales.

Graphique n° 5 FRANCE TELECOM CABLE: OFFRES NUMERIQUES AU 15/01/04

TOUT MODULO CINE + TOUTES LES CHAÎNES DE MODULO CARTE : 63 €

TOUT MODULO CINE : 33 €

MODULO CINE

- **TPS CINEMA : 14 €** (7 chaînes)
- **CINECINEMA : 12,50** (6 chaînes)
- **TCM : 3 €**

MODULO CARTE

- 3 chaînes : 11 €
- 6 chaînes : 15 €
- 9 chaînes : 18 €
- 12 chaînes : 19 €
- Toutes les chaînes : 40 €

DUO

Modulo Ciné + Modulo Carte = réduction de 5 €

Chaînes proposées :

13ème Rue	Eurosport	AB Moteurs
Canal J	Fun TV	AB1
iTélé	Infosport	Action
Canal Jimmy	LCI	Animaux
Planète	M6 Music	Chasse et Pêche
Ma Planète	Odyssée	Encyclopédia
Sport +	Série Club	Escales
Comédie	Télétoon	Mangas
Cuisine TV	Téva	Musique Classique
TMC	TF6	RFM TV
Voyage	TV Breizh	RTL9
Festival	Eureka !	Toute l'histoire
histoire	Paris Première	Cartoon Network
Equipe TV	Mezzo	Boomerang
ESPN	Fox Kids	Télé Melody
		Motors TV

OPTIONS (accessibles uniquement quand l'abonné a souscrit à une des formules ci-dessus)

Superstades : 14 €	XXL : 6 €	Disney Channel : 6 €
Cartoon Network + TCM : 6,50 €	Music Choice : 2,5 €	Seasons : 6 €

Chaînes liées à C+ / Lagardère

Chaînes liées à TPS/TF1/M6

Location décodeur : 6,50 €

En sus, quelle que soit la formule d'abonnement : TF1, F2, F3, F5, Arte, M6, TV5, CNN, Euronews, MTV, Demain, Bloomberg TV, KTO, Equidia, Club Téléachat, Game One, TFJ, Beur TV, Liberty TV.com, RFO Sat, LCP, Public Sénat, Multivision et + de 20 radios nationales.