



# **Outlook of the development of technologies and markets for the European Audio- visual sector up to 2010**



## **Appendix**



**June 2002**

## Appendix 1 : Country Profiles

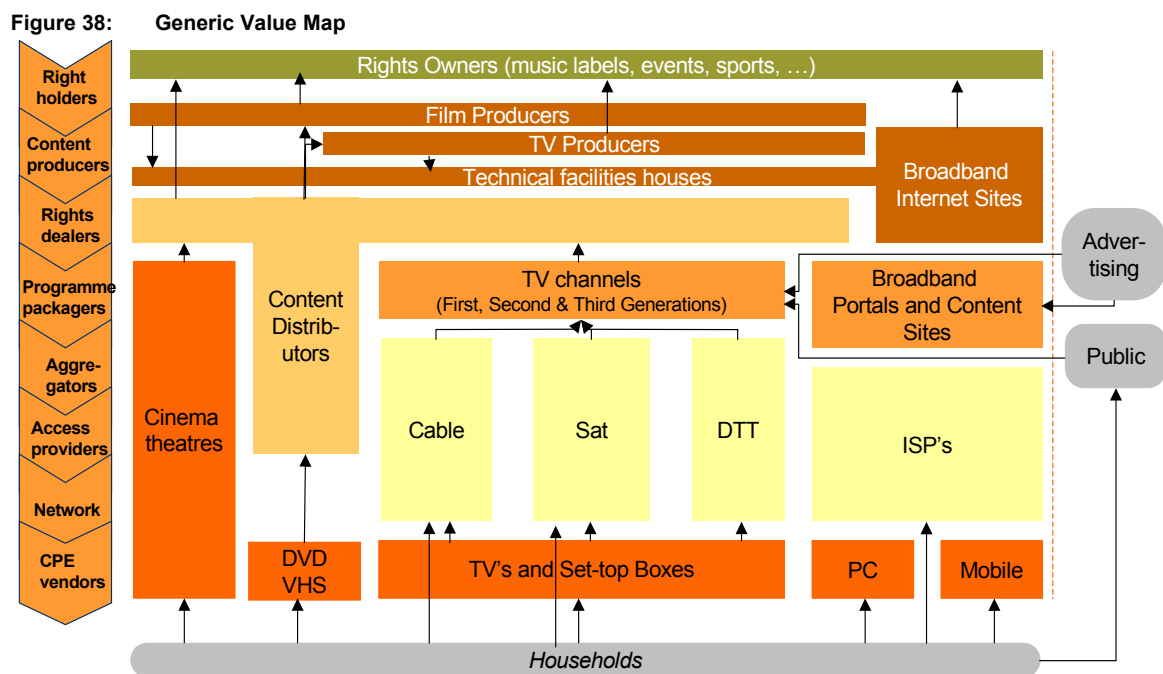
All information as of January 1<sup>st</sup>, 2002, except if  
mentioned otherwise

# Appendix 1: Country Profiles<sup>1</sup>

## 1.1 The Generic Value Map of the Audio-Visual Industry

A value map is a graphical representation of an industry that shows the positions and interactions between the various industry stakeholders. For the audiovisual industry, the two selected dimensions are the value chain on the vertical axis and the type of media (Cinema, TV, the Internet, Mobile) on the horizontal axis. The value map is best read from the bottom up, since many players in the “content production” part of the value chain are usually working for all delivery channels (e.g. same content producers for TV, theatrical release, home video and the Internet). The black arrows represent financial flows between different stakeholders.

The following figure illustrates a theoretical media value map with ‘typical’ positions for a number of key players in each of the 18 countries covered in this study.



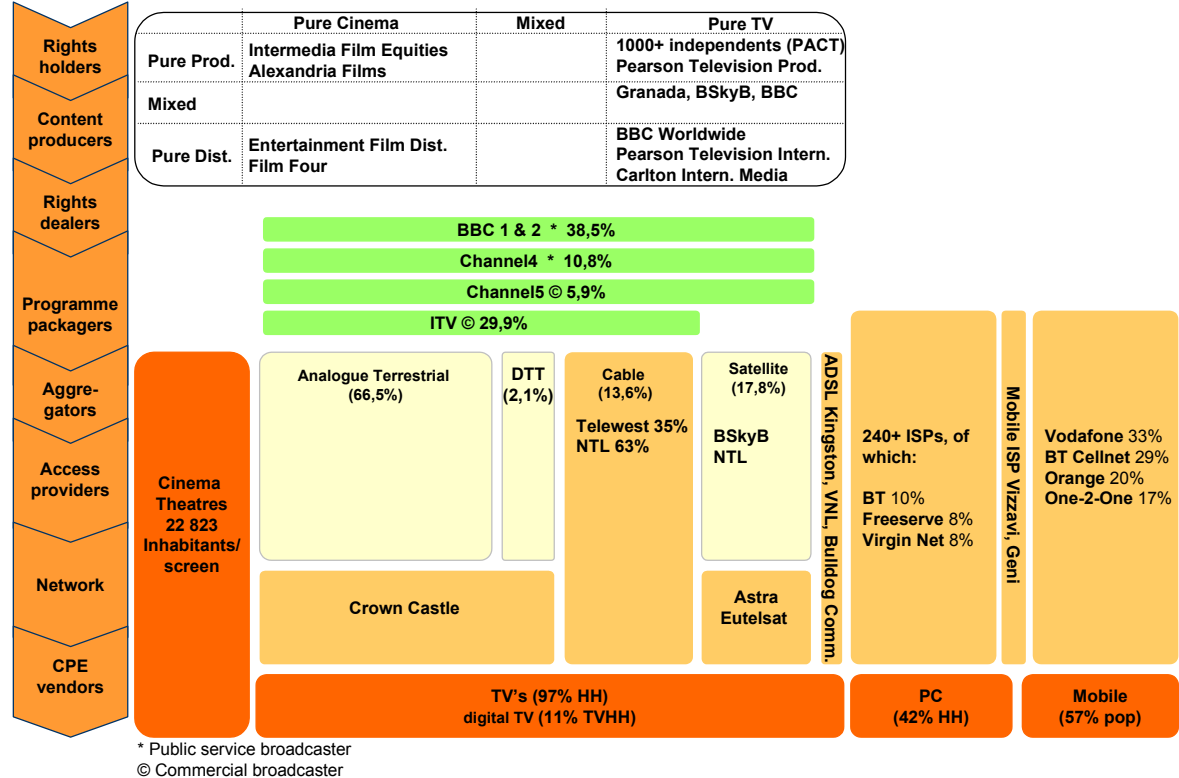
The key elements of the value map are summarised for each European country (18 member states of the EU and EEA). The report especially focuses on the structure and the competitiveness of each market as well as the differentiating factors of each country compared to the average European industry value chain and value map. The conclusions of this analysis will allow the reader to better grasp the results of the scenario models for every country, based on their specific characteristics.

<sup>1</sup> All figures used in this chapter are dated end of 2000, except if specifically mentioned. Main sources used were: IP, Television 2001; EAO, Statistical Yearbook 2001 + specific sources for each country.

## 1.2 The Large Markets

### 1.2.1 The United Kingdom

Figure 39: Current Value Map Of UK



#### 1.2.1.1 Innovative and Leading Market

The UK is one of the most innovative and leading television markets in Europe:

- There is an abundance of channels (10 domestic free-to-air channels, more than 60 Pay-TV channels, 3 digital packages);
- On-demand services such as VoD and PPV are widely available;
- Other services like e-mail, the Internet, gaming, t-commerce, etc. can be accessed using the television set.

The UK was also among one of the first countries to adopt pay-TV services. As all main digital distribution channels have been launched (DTT, Satellite, Cable and xDSL), the country's television sector has become very competitive.

Several factors have fostered the innovation within this market. Those factors include:

- The UK is a large country, with a large potential customers base and therefore has high potential revenues;
- The UK has a high per capita income, and therefore a potential high revenue per user;

- Historically, there were few channels on offer (less than 10 channels, only accessible through analogue terrestrial), thus there was a clear opportunity for expansion;
- The UK has a low sensitivity to pricing which results in high revenues per user for the service providers (e.g. Pay-TV channels).

#### 1.2.1.2 Distribution Platforms

A very competitive distribution environment characterises the UK market, as all access technologies have been rolled-out:

- The satellite market was the first to be developed by BskyB, which continues to offer a large bouquet of channels. The satellite market has the second largest number of subscribers after analogue terrestrial, but is number one in digital services. Total analogue and digital satellite penetration is approximately 17,8%. The main benefits of satellite TV are the large number of channels (SkyDigital, for example, offers more than 200 channels) and the premium content;
- The cable market is also becoming important, especially in urban areas. The cable market is in a consolidation phase, with only two players left: NTL, that acquired Cable & Wireless, and Telewest;
- Digital Terrestrial television is the third digital platform. It has been launched by iTV Digital<sup>3</sup> and offers basic digital services. Using a second TV set-top box, customers can now access the internet through a telephone line;
- ADSL, high-speed internet access using copper wire, is used in the UK to deliver broadcasting services. Several companies started trials and commercial activities using ADSL. Kingston Communications uses its telephone network to broadcast TV channels in the Kingston upon Hull area in the Northeast of the UK<sup>4</sup>. Yes TV uses ADSL to offer video-on-demand and digital television services. It has operations in the London area.

Digital transmission in the UK is developing quickly. There were 4,62 million subscribers (19% of TV households)<sup>5</sup> by the middle of 2000.

The UK market is also very competitive in other sectors, such as the mobile and ISP industries.

- In most European countries there are usually around 3 mobile players and the largest one has, on average, 50% of the market share, whereas in the UK, there are 4 operators and market share is more equally divided. Vodafone is the market leader with 33%, followed by BT Cellnet (29%), Orange (20%) and One-2-One (17%)<sup>6</sup>. In addition, some Mobile Network Virtual Operators have been deployed;
- The UK was the first country where free ISP's were launched. As a result, there are more than 200 ISPs, with no one operator controlling a significant part of the market (largest operator, BT, has 10% of the market).

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<sup>3</sup> Formerly known as OnDigital

<sup>4</sup> Ovum, Competitive carriers, 2001

<sup>5</sup> IDATE, Development of digital TV in the UK, 2000

<sup>6</sup> Total differs from 100% because of rounding.

### 1.2.1.3 Production Industry

The content production industry is characterised by two, apparently contradictory, trends:

- The UK industry is strongly fragmented with more than 1000 independent producers grouped in the PACT association;
- On the other hand, some of the largest European production companies are UK- based (e.g. Pearson, Granada, Independent Television News, etc.) and most US production and distribution companies have based their European activities in the UK.

The UK has 11 companies in the top 50 list of European cinema production companies, and 18 companies in the top 50 list of European TV production companies<sup>7</sup>. Granada Creative, for example, accounts for over 30% of the UK's highest rating programs and produces 6 000 hours of programs, feature films and TV movies annually<sup>8</sup>.

The UK is an important market for content production in Europe. It has some major advantages over the other countries. Thanks to the English language, its content is increasingly competitive with that of the US. The country also has an exportable culture.

### 1.2.1.4 Programme Packagers<sup>9</sup>

The historically low number of channels and the increasing need for premium content and choice have led to the creation of numerous channels, most of which are local and in English (e.g. Carlton, Sky, etc.). The public service broadcaster, BBC, is still one of the major broadcasters in the country with an audience share of almost 40%. The company has launched over 6 digital services in the last year on its own channels and through other service providers.

The revenue models of English broadcasters and pay-TV operators are quite different compared to the rest of Europe:

- Advertising accounts for about 49% of the revenues while subscriptions account for a remarkable 27%. Overall, channels get a large part of their resources out of subscription fees. Andersen expects subscription and usage based fees to become the major revenue source at term;
- State aid represents 24% of the broadcasters' revenues. They have a particular system for the funding: the National Lottery has to contribute to public service broadcasters funding (public service broadcasters have no advertising revenues).

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<sup>7</sup> EAO, Statistical Yearbook, 2001. German companies for which detailed accounts were not available have not been included.

<sup>8</sup> IDATE, Development of digital TV in the UK, 2000

<sup>9</sup> IP, Television 2000, IDATE, Development of digital TV in the UK, 2000

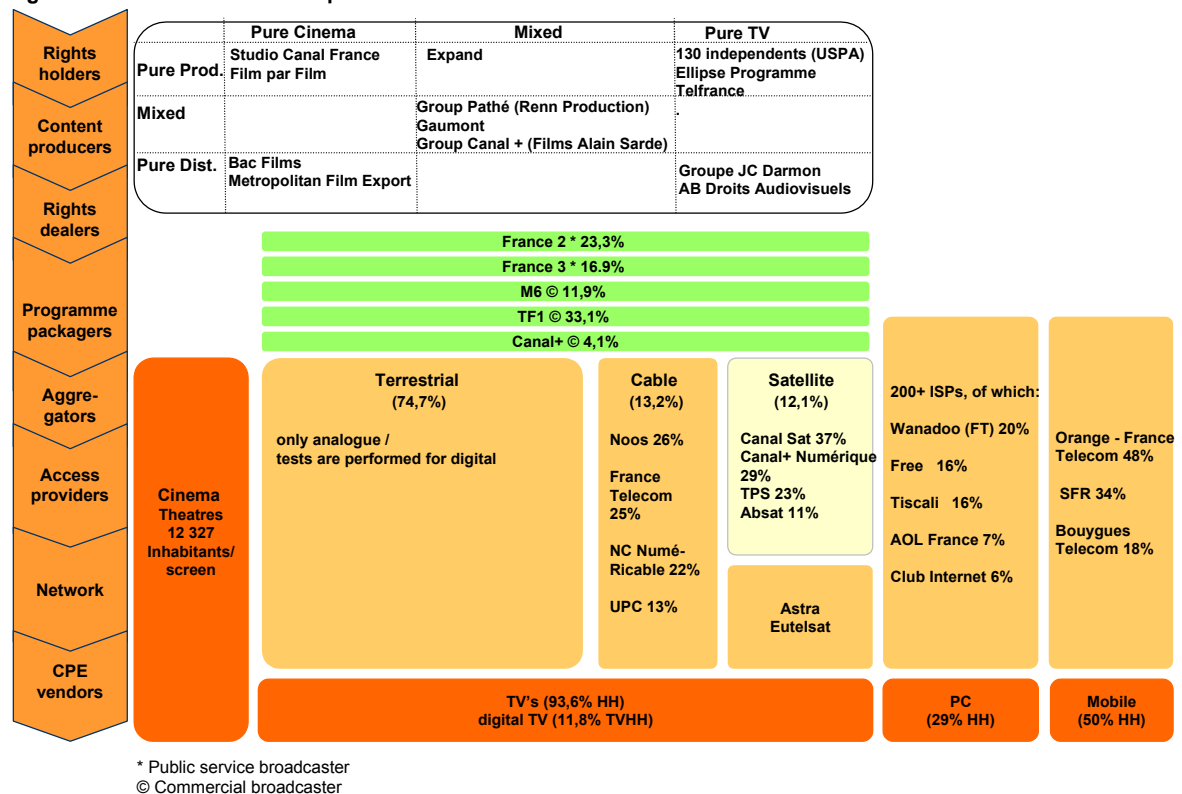
### 1.2.1.5 Conclusion

The main differentiators of the UK market can be summarised as follows:

- The UK has seen the development of a very large number of local channels since the development of pay-TV. However, the main generic channels remain very popular;
- All major distribution platforms have been deployed, leading to an increased customer choice;
- New services VoD, PPV and interactive services and business models have been developed;
- The UK has a large and exportable content production market.

### 1.2.2 France

Figure 40: Current Value Map Of France



#### 1.2.2.1 Fast Follower

The terrestrial penetration in France amounts to 74,7%, compared to 13,2% for cable and 12,1% for satellite. Although the analogue terrestrial penetration is quite high, the development of digital terrestrial services will probably be limited. There are a number of obstacles:

- It is expected that the technical penetration of DTT will be limited to 80%, which causes some concerns for the analogue switch-off;
- At least 50% of existing antennas need to be replaced;

- Specialist channels would have to change their capital structure. Specialist channels can be 100% owned by a single shareholder, however a single company cannot own more than 49% of a terrestrial channel. It is uncertain whether or not the current shareholders of specialist channels would accept this.

The French market has fewer distribution channels than the UK, thus customer choice is more limited in France than in the UK. However, France leads the UK in terms of interactive services. In view of its experiences with Minitel, the French market has developed more interactive services than the UK.

#### 1.2.2.2 Distribution Platforms

There was a restructuring in the cable industry when telecom operators were compelled to divest TV assets or split their telephone and cable businesses. Consequently, new players (e.g. UPC, NTL) have entered the market and filled the ensuing gap. The cable networks are mainly concentrated in the Paris and Lyon areas.

Digital satellite in France, distributed by 4 operators, is the most significant digital distribution channel (90% market share<sup>10</sup> of digital transmission):

- Canal Sat (subsidiary of the Canal+ Group) has 37% of the satellite market and 6.6 million subscribers in France (of which 1,7 million are digital);
- Canal Numérique (also subsidiary of the Canal+ Group) represents 29% of satellite subscribers;
- TPS (joint venture between TF1 (50%), M6 (25%) and Suez (25%)) has 23% of the French satellite market (in terms of numbers of subscribers);
- ABSat with 11% of the satellite market (in terms of number of subscribers).

France Telecom has a strong position in the mobile segment (48% market share through its subsidiary Orange), and is still leader on the ISP segment with its subsidiary Wanadoo.

#### 1.2.2.3 Programme Packagers

France is one of the countries that offers the largest number of local channels. About 75 channels are available to TV-households (9 public channels, 52 private channels and more than 20 Pay-TV channels). The public service broadcasters have an audience share of about 40%.

France has some of the strongest regulations relating to the audio-visual market:

- Quota's relate to both investments and broadcasting. For the latter, the French regulation is more stringent than the European Directive;
- Public and private broadcasters pay taxes on their revenues to fund the public aid programs;
- Pay-TV operators such as Canal+ commission and co-produce a large number of the local productions.

<sup>10</sup> IDATE, Development of digital TV in France (December 2000) , 1999 figure



The French advertising market is very developed and accounts for a large percentage of the broadcasters' revenues. Advertising represents 45%, while public funding amounts to 13% of broadcaster's revenues<sup>11</sup>. Public service broadcasters receive funds from advertising and public funds.

#### 1.2.2.4 Local Content Production

France has a large content production and distribution industry. There are more than 800 production companies in France<sup>12</sup>, among which there are several established players, like Pathé and Gaumont. Regulatory measures have shaped this strong but fragmented value chain segment. Broadcasters are obliged to invest a part of their turnover or advertising revenue in French content production.

France has the largest number of companies in the top 50 lists of European production companies (26 companies for cinema production and 18 companies for TV production)<sup>13</sup>.

#### 1.2.2.5 Conclusion

The main differentiators of the French market can be summarised as follows:

- The French audio-visual regulation is very developed;
- The French market is not very competitive when it regards to the distribution channels;
- Since the development of pay-TV, a large number of local channels have evolved in France. The main generic channels remain very popular;
- Given the past experiences with "Minitel" , French customers and companies (service and application providers) are well prepared for interactive services;
- France has a large but fragmented content production market.

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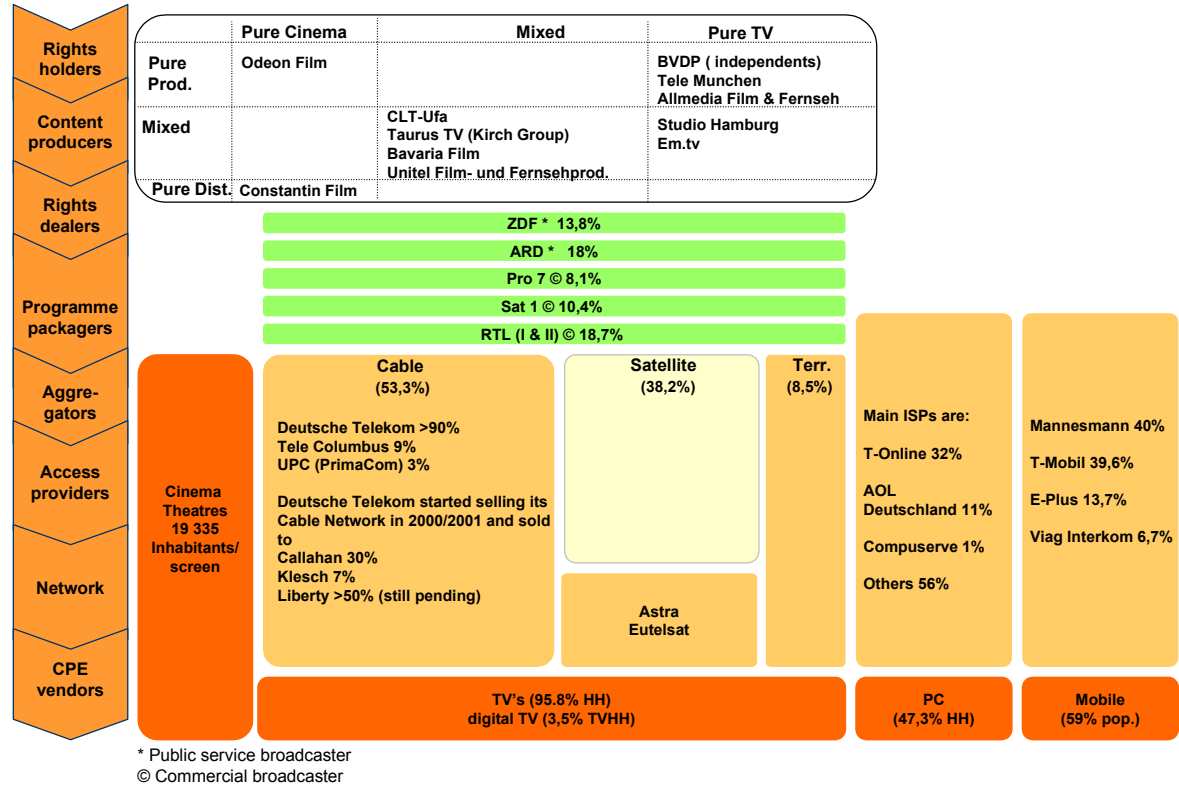
<sup>11</sup> Idate, The development of digital TV in France, 2000; EAO, Statistical Yearbook 2001. The remaining 42% cover subscriptions to the basic multi-channels package as well as subscriptions to Premium Pay-TV services and PPV.

<sup>12</sup> Eurostat, Les marchés de la production audiovisuelles en France et en Europe (March 2001), 1997 figure

<sup>13</sup> EAO, Statistical Yearbook 2001. German companies for which detailed accounts were not available have not been included.

## 1.2.3 Germany

Figure 41: Current Value Map Of Germany



### 1.2.3.1 Rich Analogue Offer

Germany represents the largest TV market in Europe with nearly 34 million TV households<sup>14</sup> and is also the largest cable TV and satellite market with about 18 and 13 million households respectively.

The German cable industry is highly fragmented and split between level 2/3 and level 4 operators. The level 2/3 operators have the cable head ends and most of the local loop infrastructure, while level 4 operators just control the final leg, but have the customer relationship. There are about 6 000 operators active in level 4, most of which have less than 10 000 subscribers. The top 5 operators cover about 50% of the cable-connected homes at level 4.

Deutsche Telekom had a dominant position on the market (50%). Due to the EU cable deregulation order<sup>15</sup> that forces the split up of the networks, the company had to sell off its level 3 network<sup>16</sup> ("Kabel Deutschland"). This break up of Deutsche Telekom's position provides a huge potential for further consolidation in this part of the value chain. New players like Callahan Associates, UPC (Liberty Media) and NTL are entering the market.

The subscription fee that consumers pay to the cable operator is quite low compared to other countries (e.g. 12 Euro in Germany versus 35 Euro in the UK)<sup>17</sup>. The high

<sup>14</sup> IDATE, Development of digital TV in Germany (December 2000), 1998 figure

<sup>15</sup> Order 99/64/EG

<sup>16</sup> The level 3(local) network is the backbone network or the network that provides the signal distribution to the front door

<sup>17</sup> Andersen Corporate Finance

quality of the existing analogue offer and the low penetration of premium services explain this difference.

### 1.2.3.2 Digital Developments

When comparing the digital service developments in Germany with those of France and the UK, the digital offer in Germany is not as developed.

The current rich analogue offer and the large number of free-to-air channels make it difficult to launch a digital offer, especially using the same business models as the UK or France (subsidisation of the set-top box). Andersen ascertains that the delay in development of digital TV offering is also due to the fact that industry players are waiting for a standard set-top box to emerge, in order to avoid the UK situation where 4 different systems (API or application programming interface) are used. These systems do not interface with one another and are not standardised. This has caused confusion among customers and has resulted in higher costs for the industry.

Currently, only Kirch has launched a Pay-TV offer using the proprietary d-Box. Although Kirch promised to standardise its d-Box (that will be MHP compatible), the market does not seem very respondent yet.

### 1.2.3.3 Programme Packagers<sup>18</sup>

The analogue offer in Germany is quite rich: there are a lot of channels at low cost. The number of local free-to-air channels offered to the German audiences is over 30. ARD and ZDF, the public service broadcasters, still take the lion's share of the audience (14,8% and 13,8% respectively).

Broadcasters derive 33% of their revenues out of public funding and 41% out of advertising.

### 1.2.3.4 Large Media Groups

Germany houses some big media giants like Bertelsmann and the Kirch Group. Together they control more than 90% of the German free-TV revenues<sup>19</sup>.

During 1999 and the beginning of 2000, the German pay-TV market underwent some major changes:

- A wave of alliances;
- A wave of co-operations (e.g. Kirch Group made a deal with Deutsche Telekom to market Premier World on its cable network and got BskyB to agree to invest in their platform<sup>20</sup>);
- Reorganisation of free-TV channels as program "families" ("RTL family" with RTL, RTL2, Super RTL, Vox and "Kirch family" with ProSieben, Sat1, Kabel1, N24, DSF);
- Important deals regarding content rights (e.g. Kirch renewing its license for premium content)<sup>21</sup>.

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<sup>18</sup> IP, Television 2000, 2000

<sup>19</sup> Financial Times, World Television 2000

<sup>20</sup> Screen Digest, European Program rights markets (April 2000)

<sup>21</sup> IDATE, Development of digital TV in Germany (December 2000)

T-Online (Deutsche Telekom) holds the majority of Internet subscriptions with 32% of the market share. Since 1998, when there were over 400 ISPs, there has been a consolidation in this segment<sup>22</sup>. A trend in the Internet segment is the creation of online platforms by TV companies, where the content of the site is linked to their TV programs (e.g. Big Brother and RTL2).

The mobile market is split between 4 operators, among which T-Mobil and Mannesmann (Vodafone) hold the largest shares (39,6% and 40% respectively).

#### 1.2.3.5 Production Industry

Germany has the largest audio-visual content production industry in Europe (both in value and hours). The first 3 companies in the list of top 100 European production and distribution companies<sup>23</sup> are all German. "Taurus tv", "Unitel Film- und Fernsehproduktionsgesellschaft" and "Ufa Film- und Fernseh" <sup>24</sup> together account for 35% of the global top 100 turnover (3 000 Million Euro<sup>25</sup>). It is interesting that the German companies in the list are mixed players: they are in distribution as well as production for both TV and cinema.

#### 1.2.3.6 Conclusion

The main differentiators of the German market can be summarised as follows:

- The largest content production industry in Europe;
- Very high cable and satellite penetration, limiting the attractiveness of other distribution channels;
- A large offering of free-to-air channels included in a basic package, limiting the attractiveness for pay-TV;
- Very low development of digital TV and interactive services;
- A strong content production industry, mainly focused on the local German market.

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<sup>22</sup> Ovum, Competitive carriers (November 2000), June 2000 figure

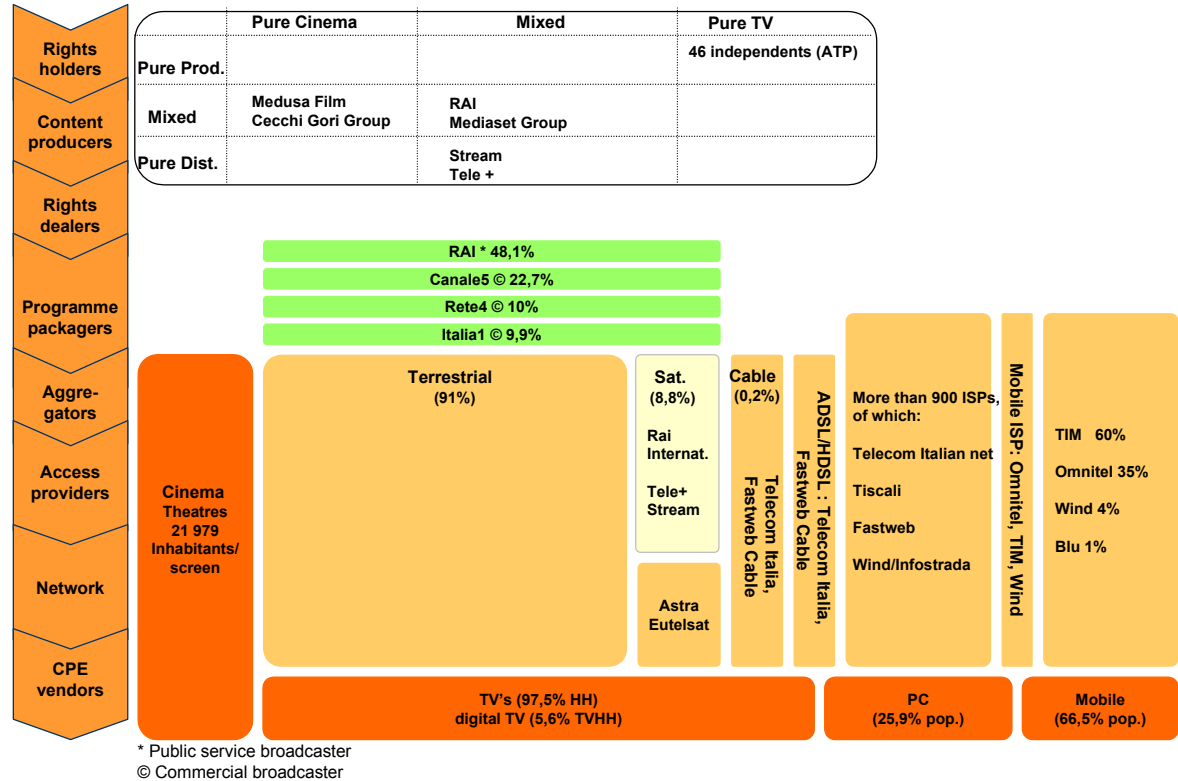
<sup>23</sup> EAO, Statistical Yearbook 2000. German companies for which detailed accounts were not available have not been included in the Statistical Yearbook 2001.

<sup>24</sup> Note that Ufa has merged with the Luxembourg company CLT and was at the time of the listing still counted as a German company (Bertelsmann)

<sup>25</sup> Figure can be underestimated since the exact turnover of Unitel Film is not available. The figure taken is the sum of nr.1, Taurus tv (1.8 billion €) and two times the turnover of nr.2 UFA (974 million €), since the turnover of Unitel should lie between that of nr.1 and nr.3)

## 1.2.4 Italy

Figure 42: Current Value Map Of Italy



### 1.2.4.1 Access and Distribution Industry

The Italian market lags behind the markets in other European countries. There is only limited satellite penetration (8,8%) and practically no cable (0,2% penetration). Analogue terrestrial is the primarily distribution mode with a penetration rate of 91%.

There are only a few players in the distribution sector. There are 2 satellite operators, Stream and Teletipiù, and 1 cable operator (Telecom Italia) which offer digital pay-TV services. Stream and Teletipiù are currently involved in merger talks in order to create one Italian platform.

Telecom Italia is active in several parts of the value chain:

- The company is the national cable operator (although only with 0,2% penetration);
- It has 60% of the mobile market;
- It has about 30% of the ISP market.

Although the PC penetration among Italian population is only 25,9% (compared to an average of more than 30% in Europe)<sup>27</sup>, the ISP offering is quite large with more than 900 players active in the market.

<sup>26</sup> Advanced Television, 10 August 2001

<sup>27</sup> Source: IP, Television 2000, 1999 figure

#### 1.2.4.2 Programme Packagers<sup>28</sup>

In Italy, the public service broadcaster, RAI, attracts the largest audience share with its channels (RAI 1, RAI 2, RAI 3) and captures almost half of the viewers, directly followed by Mediaset channels (Canale 5, Italia 1, Rete 4). The split between the broadcasters' revenues is as follows: 62% comes from advertising and 26% from public funding. It is clear that Italy is a commercially driven market.

#### 1.2.4.3 Production Industry

Italy has 11 companies listed in the top 50 lists of European production companies (5 for cinema production and 6 for TV production). Many of the established production companies are active in the cinema market (e.g. Filmauro, Medusa Film, Cecchi Gori). Some 46 independent producers of the APT association account for 75% of the production market. The Italian content production industry is reasonably strong but only a few productions are exported.

#### 1.2.4.4 Conclusion

The main differentiators of the Italian market can be summarised as follows:

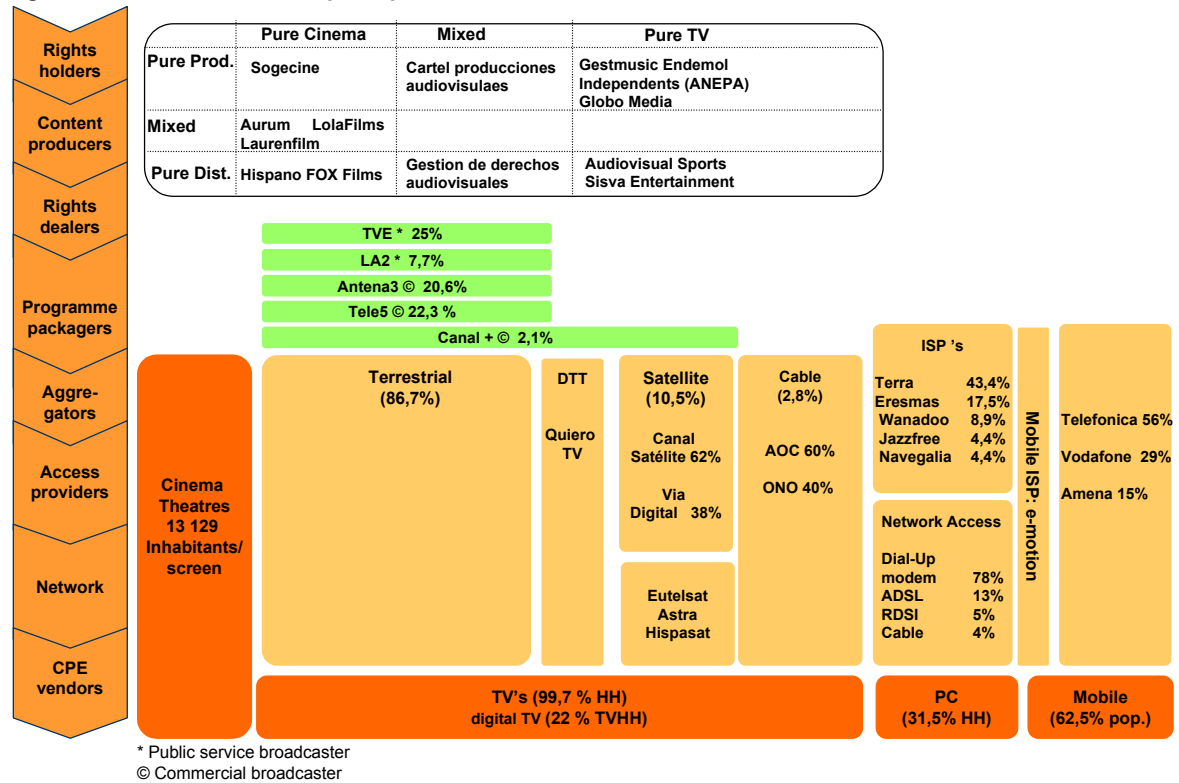
- Very low development of satellite and cable distribution channels;
- A large number of local and regional channels;
- Advertising funds constitutes the major portion of TV revenues;
- A strong but very localised content production market;
- A low internet penetration and no other interactive services.

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<sup>28</sup> Sources: IP, Television , 2000; Andersen analysis

## 1.2.5 Spain

Figure 43: Current Value Map Of Spain



### 1.2.5.1 Distribution Industry

Spain has one of the largest terrestrial penetrations in Europe (86,7%). Satellite penetration amounts to only 10,5%, while cable amounts to 2,8%. There are 760 local channels available in the country.

### 1.2.5.2 Programme Packagers<sup>29</sup>

The competition for audience share among the Spanish channels has become tighter and market share differences between the several networks has narrowed. While Tele5 has 22,3% of the audience, Antena3 follows closely with 20,6%. The public service broadcaster, TVE, has 25% of the market. Spain also has a large number of very small, regional channels.

Only 2% of the revenues of broadcasters come from public funds (but the public service broadcaster benefits from government-secured loans) while 69% of revenues come from advertising<sup>30</sup>. Like Italy, the Spanish market is very commercial.

<sup>29</sup> Sources: IP, Television, 2000

<sup>30</sup> Idate, Development of digital TV in Spain, 2000. 1999 figures. The remaining 29% cover subscriptions to the basic multi-channel packages as well as subscriptions to Premium Pay-TV.

### 1.2.5.3 Production Industry

Spain is an important market for content production. In 1999, the country ranked second in the number of hours of fiction broadcast (only 5<sup>th</sup> in terms of value due to low production costs)<sup>31</sup>. Spain has 22 companies among the top 50 lists of leading European production and distribution companies: 4 for cinema production, 5 for TV production, 10 for cinema distribution and 3 for TV distribution<sup>32</sup>.

Despite the low penetration of high bandwidth platforms, the Spanish content production industry is one of the top 5 production countries in Europe. The successful development of the Spanish content production industry is due to:

- The Spanish taste for local content;
- Low hourly production costs (price for broadcasters to acquire one hour of local content) compared to the European average. Spanish local content is very competitive compared to international content
- There is significant market potential in Central and South-America for Spanish content.

### 1.2.5.4 Concentration

Most network and access providers conduct activities in the different segments of the value chain. The most important companies include:

- *Telefonica* holds interests in companies that are positioned in the different parts of the value chain. The company has operations in terrestrial TV (Antena 3 and ONDA), digital satellite TV (Via Digital), cable business, content rights (Audiovisual Sports), internet and content production (Endemol);
- *Auna* is a full telecom holding that has stakes in Retevision (fixed telephony, data transmission and distribution and broadcasting of TV and radio), Amena (mobile telephony), Quiero TV (DTT), Eresmás (ISP and portal) and cable companies;
- *Prisa* manages Sogecable (Canal satellite digital) and a major radio group (SER).

The ISP segment in Spain is largely fragmented. There are some 1 000 players, but the 3 largest players account for about 70% of the market.

### 1.2.5.5 Conclusion

The main differentiators of the Spanish market can be summarised as follows:

- The limited penetration of satellite and cable;
- The large number of small, local channels;
- The maturity of the advertising market and the high relative importance of advertising in total revenues;
- The advanced stage of development of the Spanish content production industry, which is very much internally focussed.

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<sup>31</sup> EAO, Statistical Yearbook 2001.

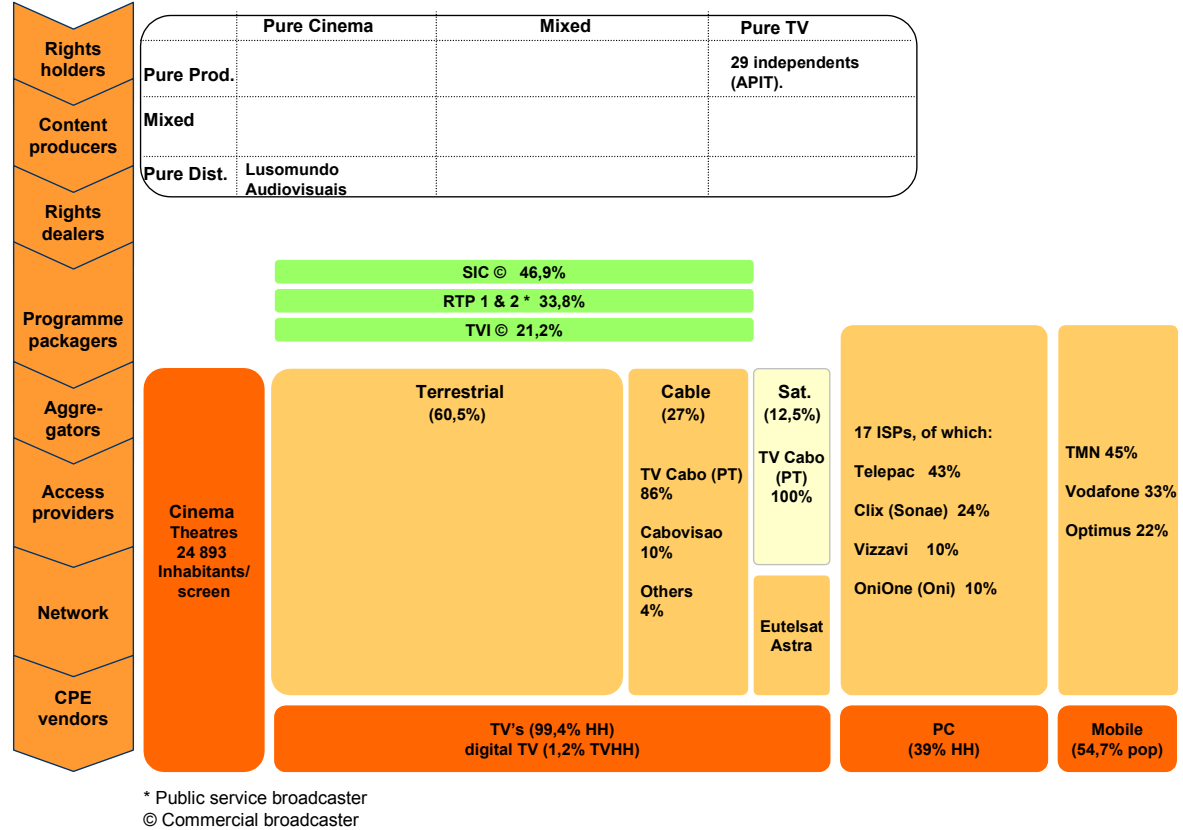
<sup>32</sup> EAO, Statistical Yearbook 2001. German companies for which detailed accounts were not available have not been included in the Statistical Yearbook 2001.



## 1.3 The Commercially Driven Markets

### 1.3.1 Portugal

Figure 44: Current Value Map Of Portugal



#### 1.3.1.1 Concentrated Distribution Industry

Portugal is mainly a terrestrial market (penetration of 60,5%, compared to 27% for cable and 12,5% for satellite)<sup>33</sup>.

P&T, the telecom incumbent, has a preferred position, as it controls a large part of the distribution including:

- The traditional telephony business;
- The cable business (directly to the home through TV Cabo and indirectly through its the backbone rented to other cable operators);
- The satellite business through TV Cabo.

In view of this concentration, P&T is not allowed to develop digital terrestrial television.

There has been an important change in the market since the introduction of a new law regulating the activity of cable operators' distribution network for public use. Cable operators are allowed to rent their infrastructure, produce their own programs and step into interactive services. Therefore, since 1997, they have been able to

<sup>33</sup> Source: IP, Television 2001, 2001.

launch their own channels. Before the regulation, cable operators could only distribute programs with no editorial control<sup>34</sup>.

The mobile market of the countries in the commercially driven model shows similarities: the market is divided among 3 operators, of which the largest one (TMN) has almost half of the market.

The Portuguese market only counts 17 licensed ISPs, with the 3 largest players controlling more than 70% of the market<sup>35</sup>.

#### 1.3.1.2 Programme Packagers<sup>36</sup>

There are only 4 national TV channels in Portugal, which is quite low, compared to the European average of 15 local channels. The audience share of SIC, the national private broadcaster, remains at a high level (46,9%). Public service channels almost have 34% of audience share.

Broadcasters in Portugal derive 54% of their revenues from advertising, while public funding amounts to around 21%<sup>37</sup>.

#### 1.3.1.3 Production Industry

On the content production side of the industry, there is one Portuguese company listed in the top 50 European cinema distribution companies, Lusomundo Audiovisuais<sup>38</sup>. Regarding the independent production segment of the industry, there is an association, APIT, which consists of 29 members and represents 90% of the production market. Content production is mostly domestic.

#### 1.3.1.4 Conclusion

The main differentiators of the Portuguese market can be summarised as follows:

- The cable and satellite penetration rates are close to European averages. Analogue terrestrial transmission remains the main distribution channel;
- The industry is very consolidated, with a limited number of players (for both production and distribution of content);
- The largest part of TV revenues comes from advertising.

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<sup>34</sup> Decree-Law Nr. 241/97

<sup>35</sup> Ovum, Competitive carriers (November 2000)

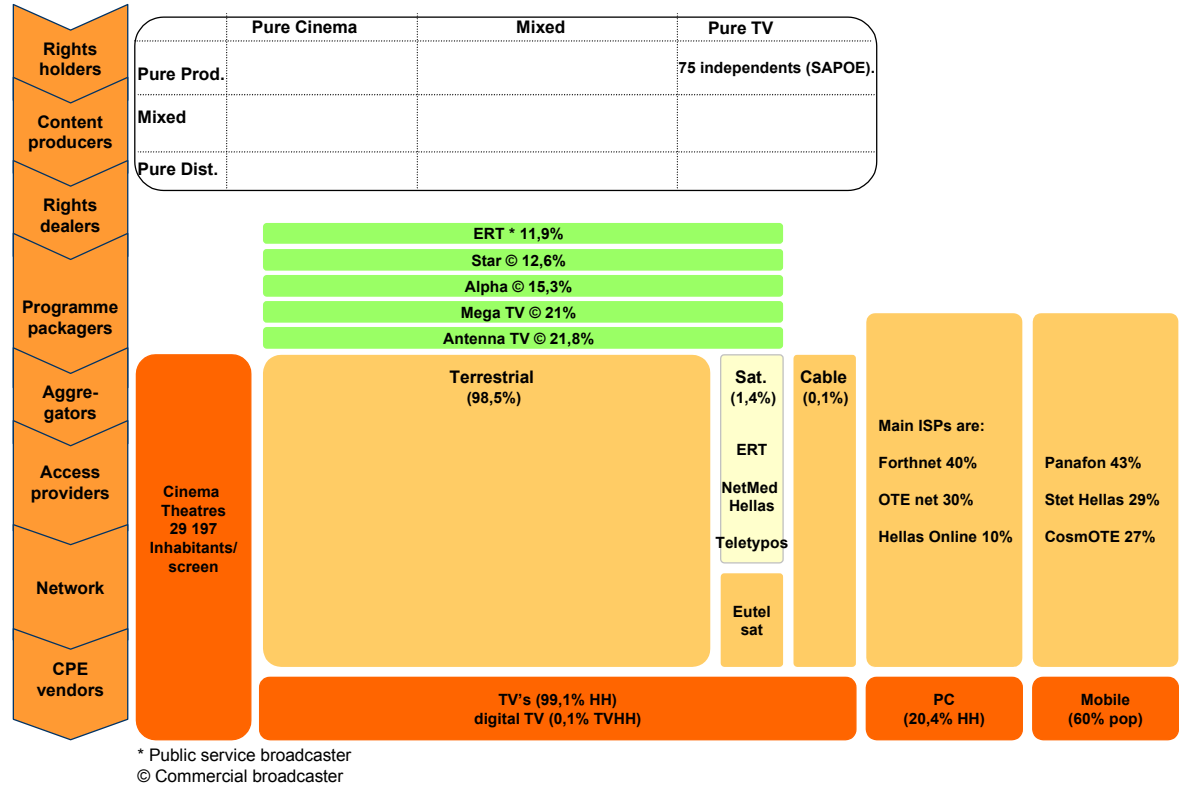
<sup>36</sup> IP, Television 2000, 2000.

<sup>37</sup> Idate, Development of digital TV in Spain, 2000. 1999 figures. The remaining 25% cover subscriptions to the basic multi-channel packages as well as subscriptions to Premium Pay-TV.

<sup>38</sup> EAO, Statistical Yearbook 2001. German companies for which detailed accounts were not available have not been included in the Statistical Yearbook 2001.

### 1.3.2 Greece

Figure 45: Current Value Map Of Greece



#### 1.3.2.1 Access

Greece has a very high terrestrial penetration rate (98,5%). Satellite penetration is 1,4%, while cable is only 0,1%. The cable network in Greece is not very developed since only the public broadcaster, ERT, and the national telecom operator, OTE, could develop cable until 1998 when this restriction was abolished. However, to date no private operator has applied for a license. It can be expected that Greece will not deploy cable networks in view of the large investments needed.

Given the geographical location of Greece, Andersen expects that digital satellite will be the prevailing reception mode. However, DTT could play a role in a niche segment since the Greek market is very local (currently already more than 170 regional analogue terrestrial channels).

Only a small number of key players have entered the ISP market due to the strong position that OTE retains. Forthnet is pushing for market share and counts for 40% of all connections. OTE net has 30% and Hellas online 10%.

OTE is also present on the mobile market but is not the market leader (3<sup>rd</sup> with 27% market share). Originally, they were not allowed to bid for a mobile license. Panafon (subsidiary of the Vodafone Group) is the leader with 43%, followed by Stet Hellas with 29%.

### 1.3.2.2 Programme Packagers

There was a major change in the television landscape in 1999, when the authorities decided to start regulating TV by providing a license to national, regional and local private stations. The private broadcasters have the largest audience share. Jointly, their channels have an audience share of more than 70%.

Greece is a commercially driven market: it derives 60% of its revenues from advertising and 26% from public funding. Pay-TV is not very developed yet. There are only 3 analogue channels and one digital package of 21 channels.

Since the deregulation of the market in 1990, the Greek market has been characterised by a high level of cross media ownership. Numerous Greek publishers moved into the TV business (e.g. Mega Channel is owned by Teletypos).

### 1.3.2.3 Cinema

Greece has a low penetration of theatres with about 29 197 inhabitants per screen, compared to 18 138 inhabitants per screen for the European average.

### 1.3.2.4 Conclusion

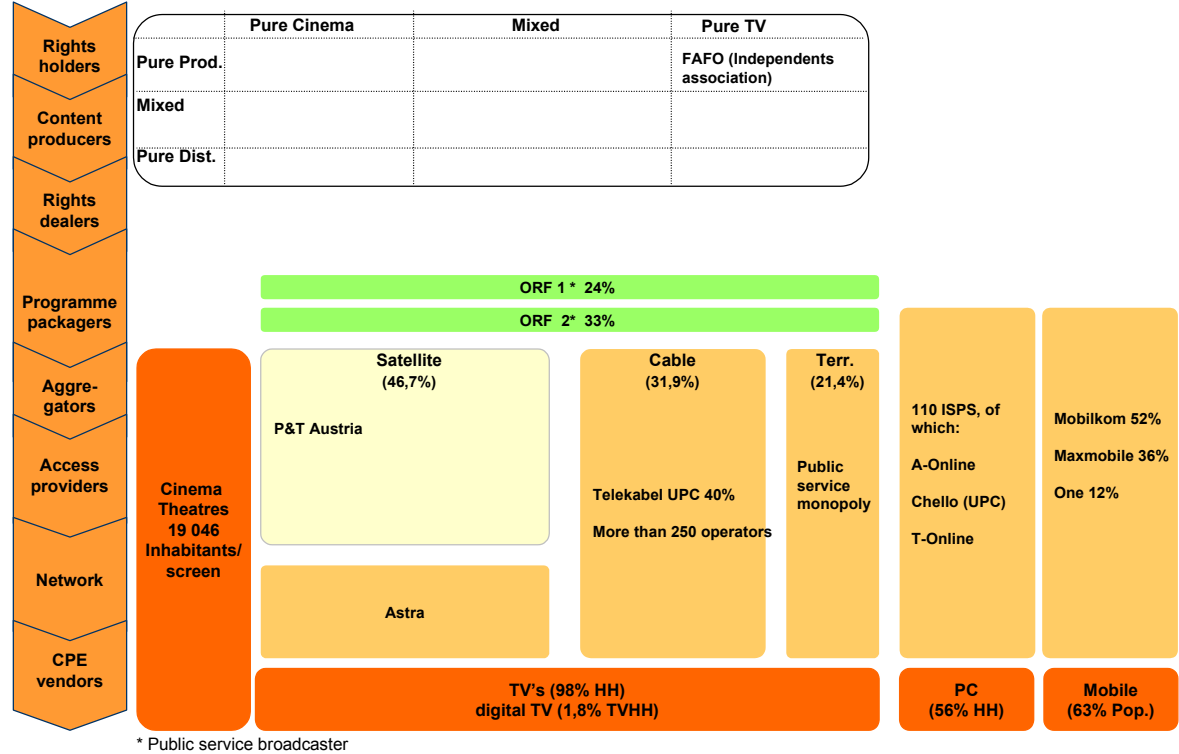
The main differentiators of the Greek market can be summarised as follows:

- Very small audio-visual market, which is in addition very regional and fragmented;
- Largest part of TV revenues comes from advertising;
- High level of cross-media ownership (horizontal consolidation).

## 1.4 The Monopolistic Markets

### 1.4.1 Austria

Figure 46: Current Value Map Of Austria



#### 1.4.1.1 Distribution Industry

The level of satellite penetration in Austria is one of the highest in Europe, reaching 46,7%, while terrestrial penetration amounts to 21,4%. The cable market has a penetration rate of 31,9%. There are more than 200 cable networks in which 100 players have more than 500 subscribers. The reason for the high number of players is that they tend to operate on a regional or local basis.

The country's topology is the main factor that could explain why the analogue terrestrial transmission remains a public service monopoly<sup>39</sup>. Even if the government decides to grant a license to a commercial player, the Austrian topology would only allow for three nation-wide programs while ORF claims to need the remaining frequency for the transition to digital. The Austrian government decided not to open the licensing process to private broadcasters as they believed that the advertising market would not support an expansion of the television market, due to the small size of the Austrian market. There are however 49 regional and local commercial channels already broadcast via cable and satellite in different parts of the country.

The development of digital transmission will probably be most successful in the satellite segment in view of the large penetration rate. The Austrian market follows the developments in Germany, since German channels largely spill over to the Austrian market. Premiere World, for example, the German pay-TV operator,

<sup>39</sup> Financial Times, World Television 2000

launched its pay-TV services concurrently in Germany and Austria and offers the same services in both markets.

#### 1.4.1.2 Foreign Content

The television offer is characterised by the presence of large German commercial (and public) channels competing for audience share with the Austrian channels ORF (1 and 2). ORF, Austria's public service channels hold a strong position on the market. Their audience share reach 57%. German channels like RTL, Sat1, Pro7, RTL2, ARD and ZDF account for 25,5% of the market.

The split of revenues for the Austrian broadcaster is quite equally distributed among the different sources: 37% comes from public funding while another 44% comes from advertising.

ORF and some major publishing companies have launched "AustriaNet", an internet portal with aggregated content of the involved players.

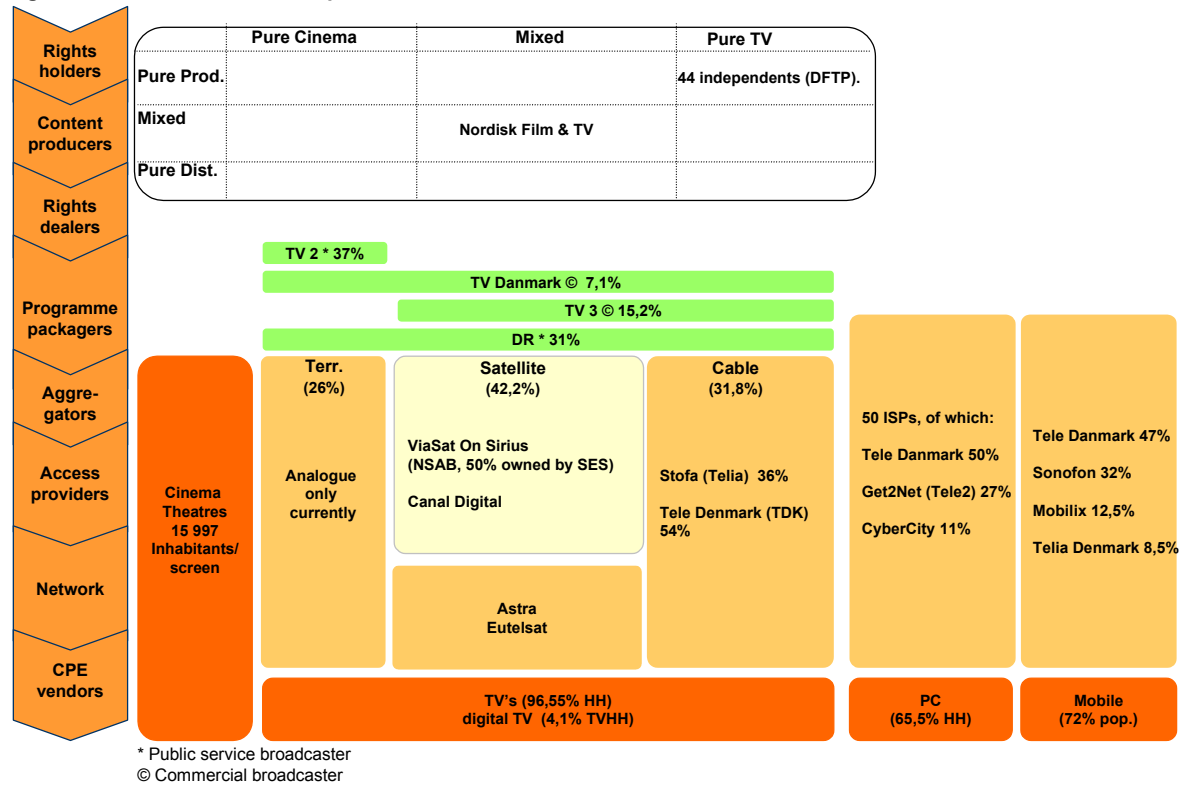
#### 1.4.1.3 Conclusion

The main differentiators of the Austrian market can be summarised as follows:

- A very high satellite and cable penetration;
- Only one national TV broadcaster (the public service broadcaster), but many local and regional commercial channels;
- Strong influence of foreign content (from Germany).

## 1.4.2 Denmark

Figure 47: Current Value Map Of Denmark



### 1.4.2.1 Distribution Industry

Of the three distribution modes, satellite has been best developed with a penetration rate of 42,2%, followed by cable (31,8%) and analogue terrestrial (26%). Overall, the transmission modes in the Nordic countries are evenly developed.

There are 2 large players active on the cable TV market: Stofa and Tele Danmark. Tele Danmark has launched interactive services “I-TV”, which offers a TV guide and e-mail. Another 670 000 households are receiving cable through smaller independent networks, owned by local authorities and organisations.

The development of digital terrestrial TV is subject to an important barrier, namely the lack of frequencies. The government created a policy in which the terrestrial frequencies were granted to local television.

A significant characteristic of the Danish market is its mature Internet market (more than 50% penetration). The country entered the Internet age relatively early, and is believed to be only six months behind the US<sup>40</sup>. There are about 50 ISPs with Tele Danmark as the leading company, holding a 50% market share.

<sup>40</sup> Ovum, Competitive carriers (February 2000), 1999 figures

#### 1.4.2.2 Programme Packagers<sup>41</sup>

The Danish national public service channels (DR1, DR2, TV2 and Zulu) capture the lion's share of the market with an audience share of more than 68%. The local channels' offer is quite low compared to the European average. Danish households can choose from 8 local channels where the average European has 15 channels to pick from.

Danish broadcasters derive on average 11% of their revenues out of public funding and more than 46% from advertising.

#### 1.4.2.3 Production Market

In terms of production and distribution companies, Nordisk Film & TV is the country's largest independent producer. In 1999, the company set up a subsidiary to produce children's films. Overall, the Danish content production industry is fairly small.

#### 1.4.2.4 Market Consolidation

There has been a shift in the pay-TV industry structure since large players increasingly view the Nordic countries as a single market. They generally offer identical services to all Scandinavian countries (Norway, Sweden, Denmark, Finland and Iceland). Network operators and content providers benefit from this approach as these players are now able to leverage their offering and hold a stronger position as opposed to the public broadcasters. The leverage cannot only be found in economies of scale that yields greater financial capacity to produce popular programs (e.g. "Robinson Expedition", produced by MTG), but also in their capability of purchasing rights of programmes that were formerly only accessible through public service channels (e.g. national soccer).

#### 1.4.2.5 Conclusion

The main differentiators of the Danish market can be summarised as follows:

- Equal spread of most common distribution platforms;
- Mature Internet market;
- Limited existing offering of local channels;
- Consolidation of the Nordic market for Pay-TV.

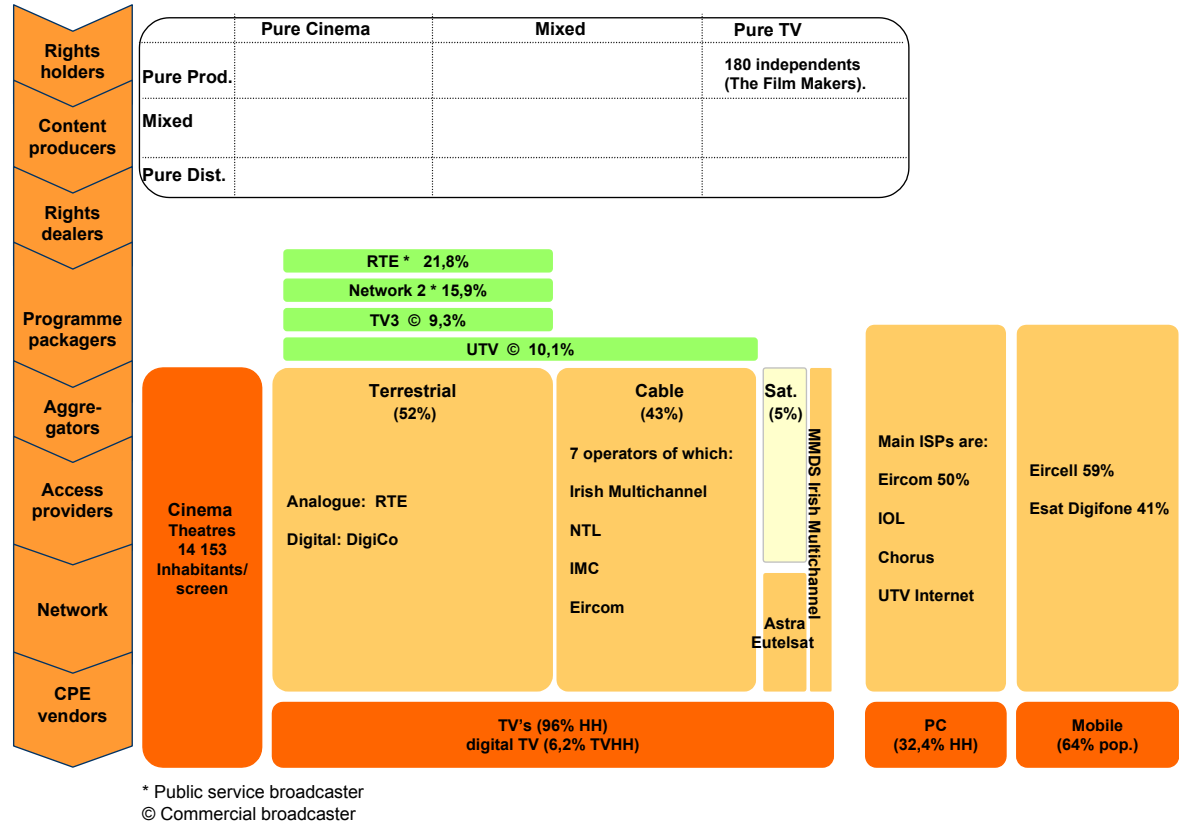
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<sup>41</sup> Source: IP, Television 2000.



### 1.4.3 Ireland

Figure 48: Current Value Map Of Ireland



#### 1.4.3.1 Distribution Industry

The Irish market is characterised by a penetration rate of 52% for the terrestrial network, 43% for cable and 5% for satellite. Other transmission modes, namely MMDS and ADSL are available in the country as well. NTL became the dominant player on the cable market since the take-over of Cablelink. Ireland is one of the most competitive countries when it comes to distribution channels (cfr. UK). RTE, the Irish public service broadcaster, has entered into negotiations for the deployment of DTT.

Digital TV in Ireland started with the spill over of digital satellite services provided by the UK based SkyDigital. Success has been limited because the satellite offer lacks local content and because set-top boxes are unsubsidised and costly in Ireland. The mobile market is concentrated, with only 2 operators active on the Irish market. Eircell holds 59% of the market while Esat Digifone has 41%.

The same holds true for the ISP market, where the largest player, Eircom, accounts for 50% of Internet subscribers. One remarkable new entrant, Unison, offers access to the Internet directly through the television set.

#### 1.4.3.2 Programme Packagers<sup>42</sup>

The broadcasters segment is very concentrated. RTE is the public service broadcaster and was the only player in the market until the arrival of TV3, an independent player, in 1998. Although RTE felt the impact of this new entrant on its audience share, the company continues to hold a very strong position in the television market. Its 2 channels, RTE 1 and Network 2, hold the majority of the market with 21,8% and 15,9% respectively.

In Ireland, 19% of broadcasters' revenues are derived from public funding and 40% is gathered through advertising<sup>43</sup>.

#### 1.4.3.3 Production Industry

More than 90% of the independent producers, some 180 companies, are in the Irish Film Makers association.

#### 1.4.3.4 Conclusion

The main differentiators of the Irish market can be summarised as follows:

- Very competitive TV distribution industry;
- Very concentrated programme packaging industry with only one commercial broadcaster;
- Audience shares are still very concentrated.

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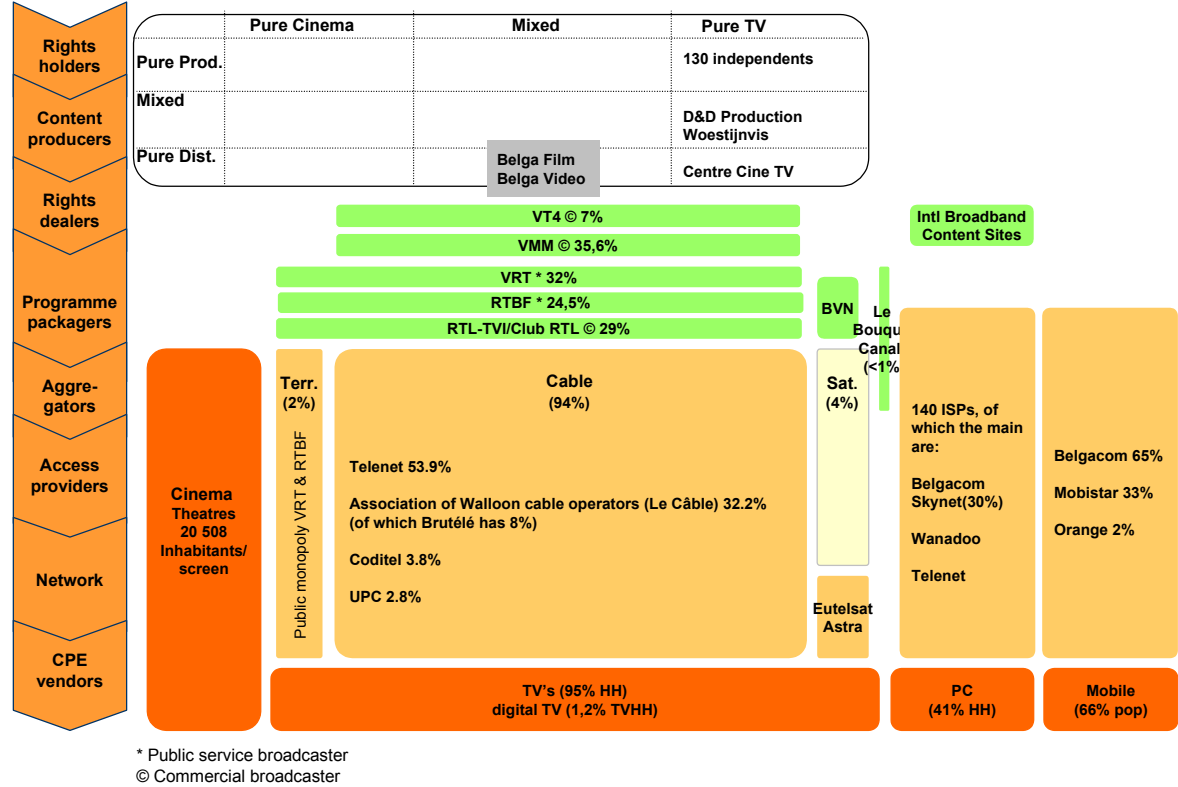
<sup>42</sup> IP, Television 2000, 2000.

<sup>43</sup> Idate, The development of digital TV in Ireland, 2000. 1999 figures. The remaining 39% cover the subscriptions to basic cable and Pay-TV channels.

## 1.5 The Mixed Model Markets

### 1.5.1 Belgium

Figure 49: Current Value Map of Belgium



#### 1.5.1.1 Distribution Market

Belgium is characterised by its high cable penetration rate of 94%. Satellite and terrestrial represent only 4% and 2% respectively. While the northern part of Belgium entered into a consolidation of the cable industry, cable in Brussels and the Walloon region is still very fragmented. The current high quality of the analogue cable offering has limited the development of digital services. Pay-TV initiatives have not been very successful. It is expected that digital platforms will need to create new business models that do not focus on traditional ideas like more channels and premium content.

On the mobile segment, the incumbent telecom operator, Belgacom, is the largest player having 65% of the market share. Two other players are prominent, Mobistar and KPN-Orange. On the ISP segment, where more than 100 companies offer Internet services, Belgacom has 30% of the market through its subsidiary Skynet.

#### 1.5.1.2 Programme Packagers

There is one public service broadcaster in the Flanders region and one in the Walloon region. Commercial TV in Flanders is dominated by a local player, VMM, which is owned by two significant players in the publishing industry. Commercial TV in the Walloon region is dominated by a subsidiary of the RTL-Group. Broadcasters derive 39% of revenues from public funding, while 50% come from advertising revenues.

#### 1.5.1.3 Production Market

The independent producers segment is very fragmented and consists of more than 100 players. The largest content production companies are situated in the northern part of the country (the Flemish region). The VOTP is comprised of 80 independent producers who represent 80% of the market.

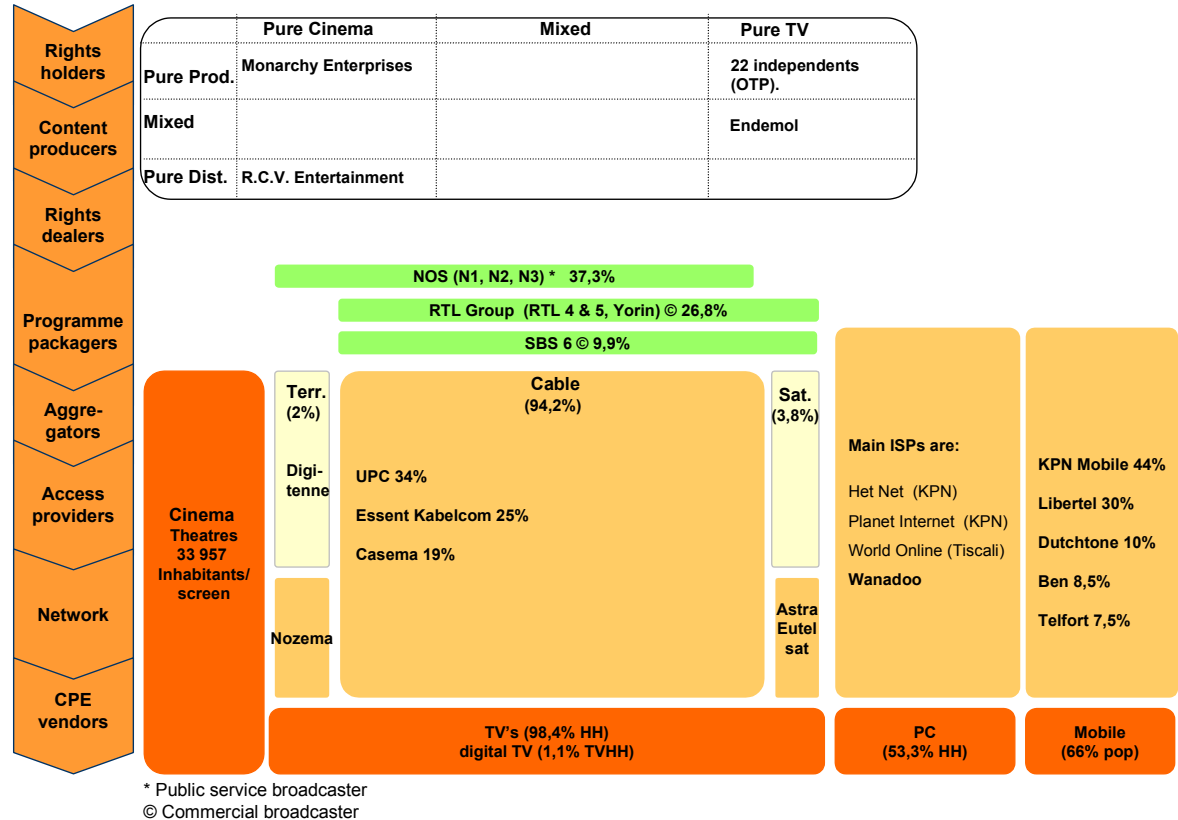
#### 1.5.1.4 Conclusion

The main differentiators of the Belgian market can be summarised as follows:

- Very high cable penetration, limiting the opportunities for other distribution mechanism;
- Highly developed content production industry in the Flanders region (commercial broadcaster is a local company), and limited development in the Walloon region (commercial broadcaster is part of a pan-European company);
- A very large offer of free-to-air channels, limiting the potential for pay-TV and premium content services.

## 1.5.2 The Netherlands

Figure 50: Current Value Map Of The Netherlands



### 1.5.2.1 Distribution Market

Like the Belgian market, the Dutch market has one of the highest cable penetration rates (94,2%). Satellite and terrestrial are far less developed (3,8% and 2% respectively). Cable operators have moved from providing network facilities to taking the lead in the development of interactive services and content (e.g. Mediakabel entered joint ventures with content producers and UPC launched the movie channel “Cinenova” with Buena Vista International). There is a trend towards vertical integration whereby cable operators are diversifying in order to become full-service providers.

Due to “Kabelnota 1” and “Kabelnota 2”<sup>44</sup>, the importance of service segmentation (ensures decoder spread) and cable access has been recognised. Therefore, three of the main market players (Casema, UPC and MediaKabel) have closed on some agreements to share content, services, infrastructure and/or technology in the roll out of digital services.

Several operators (Nozema, NOS, Vestra, Canal+, KPN Telecom and NOB) gathered into the “Digitenne” consortium that has been set up in order to develop DTT. This project is fully supported by the Dutch government who wants to stimulate a more competitive environment in the Dutch TV market.

<sup>44</sup> Source: [www.vecai.nl](http://www.vecai.nl) : Documents from the Tweede Kamer der Staten-Generaal, references 26602 (vergaderjaar 1998-1999) and 27088 (vergaderjaar 1999-2000).

The mobile market is quite special in the Netherlands, since it's the only European country where 5 operators are active. The market is split between KPN Mobile, which has 51% of the market, Libertel (33%) and three small players Telfort, Dutchtone and Ben representing 7%, 5% and 4% of the market respectively.

There are about 200 ISPs on the Dutch market, but KPN, UPC and AOL dominate the market.

#### 1.5.2.2 Programme Packagers

The Dutch market is characterised by the large number of free-to-air channels (international and local) on cable. The market is getting even more competitive as more thematic channels are brought to the market. Therefore, as viewers pay a rather small cable subscription fee for a rich analogue TV offering, the success of the digital offer is uncertain.

The broadcasters' revenue derives mainly from public funding, 52%, and advertising, 38%.

#### 1.5.2.3 Production Industry

Despite its small home market, Endemol, a programme formatsproducer renowned for its creativity, is based in the Netherlands. The company is ranked 1st among the top 50 TV production companies in Europe, achieving a turnover of almost 520 mio Euros in 2000 with more than 13 000 hours of TV produced<sup>46</sup>. The company has been acquired by the Spanish telecom operator Telefonica. The Netherlands also has an association of independent producers, the OTP, which has 22 members.

#### 1.5.2.4 Cinema

The Dutch market has a low number of cinema screens. There are 33.957 inhabitants per screen compared to the European average of 18.138.

#### 1.5.2.5 Conclusion

The main differentiators of the Dutch market can be summarised as follows:

- Very high cable penetration, limiting the opportunities for other distribution channels;
- Overall, small content production market. Despite this, Endemol has become the largest TV-production company in Europe;
- A very large offering of free-to-air channels, limiting the potential for pay-TV and premium content services.

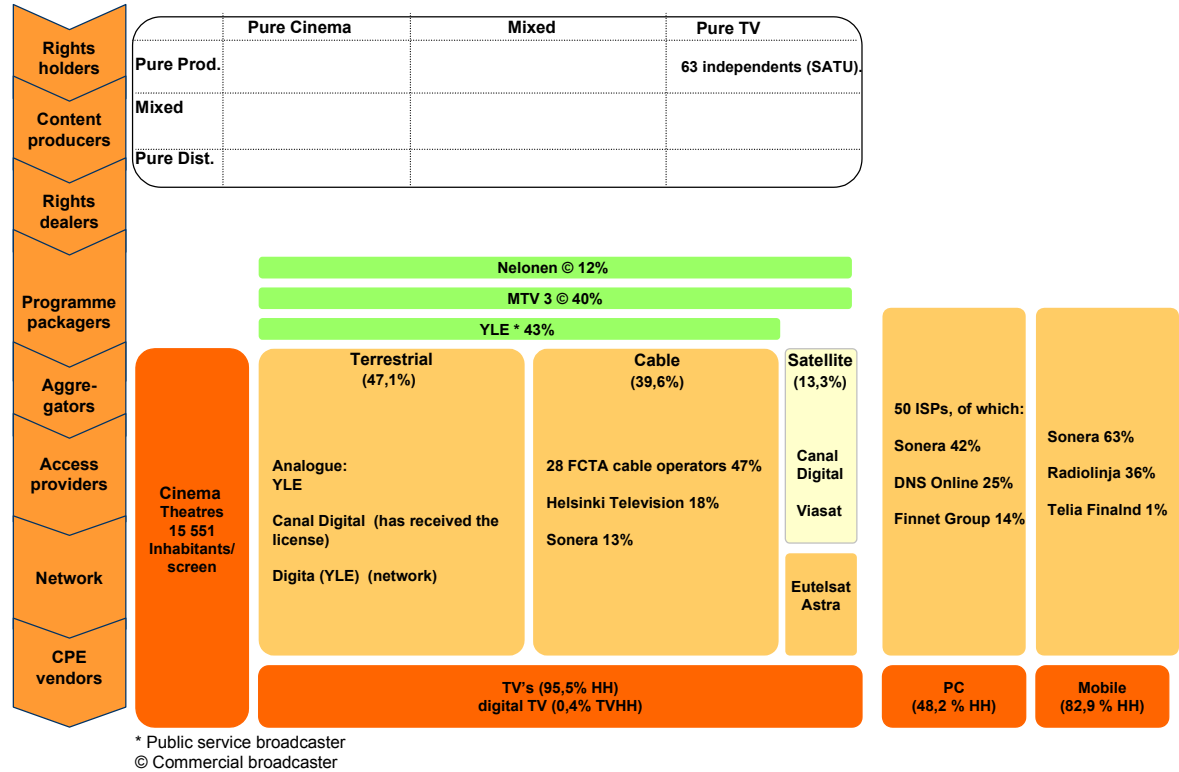
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<sup>45</sup> EAO, Statistical Yearbook 2001, 1999 figures .Note that German companies for which detailed accounts were not available have not been included in the ranking (e.g. Taurus tv GmbH/Kirch Media GmbH, who ranked first in 1998), Unitel, second in 1998, and UFA, third in 1998).

<sup>46</sup> Endemol web site

### 1.5.3 Finland

Figure 51: Current Value Map Of Finland



#### 1.5.3.1 Distribution Industry

Finland's terrestrial transmission mode is the most developed with a penetration rate of 47,1%, followed by cable with 39,6% and finally satellite with 13,3%. The Finish cable market consists of 200 network operators. The ten largest ones have 66% of the market.

Regarding the development of digital services, some barriers should be taken into account:

- A country specific barrier is that the further you go north from the equator, the more difficult satellite reception becomes;
- A second barrier is the low concentration of the population: only half of the people live in areas where developing cable is economically feasible;
- The fragmentation of the cable market leaves the small players with no economies of scale when upgrading their networks.

As in many other Nordic countries, it is expected that distribution channels will coexist as different technologies are most suited in different areas. This also explains why Nordic countries are very much oriented towards standardisation and interoperability.

The satellite is the only network on which digital services are available today. The development of the terrestrial network, however, will be an important factor in the provision of digital services. "Digita", the company responsible for the operation and integration of the network, is fully owned by YLE (public service broadcaster).

The mobile phone density in Finland is the highest of all European countries, with more than 82% penetration (in % of households equipped). Three operators share the market. Sonera leads with 63%, Radiolinja follows with 36% and finally there is a very small player, Telia Finland that has 1% of the market.

For Internet penetration, the country also ranks very high (56% of population). There are 50 ISPs of which Sonera is the largest one (42%).

#### 1.5.3.2 Programme Packagers

Local channels on the Finnish markets are limited to 6. The main audience share is equally divided between the public channels YLE (43%) and the private broadcaster MTV3 (40%).

49% of broadcasters' revenues come out of public funding while 37% is retrieved by means of advertising.

#### 1.5.3.3 Production Industry

Finland's independent producers association, SATU, is comprised of more than 60 companies.

#### 1.5.3.4 Conclusion

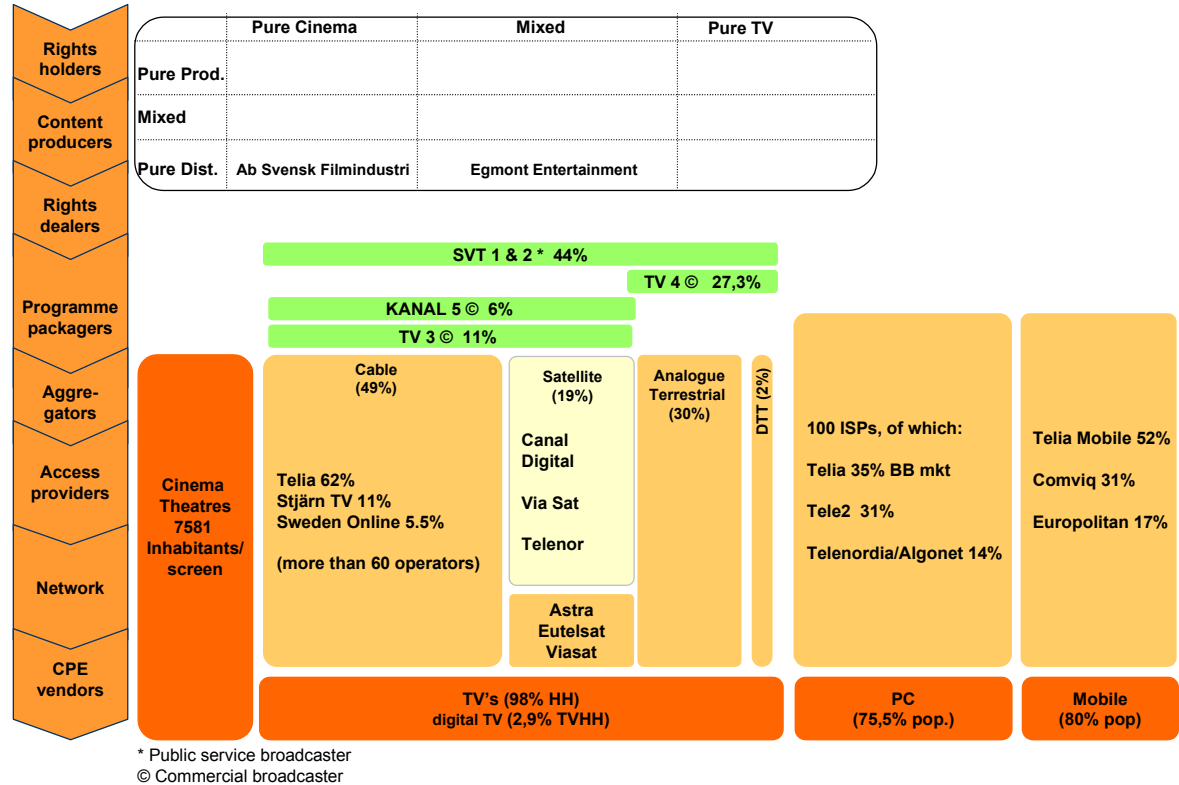
The main differentiators of the Finnish market can be summarised as follows:

- Limited offering of TV channels, with a strong focus of Finnish viewers for local content and channels;
- High penetration of Internet and Mobile phones, indicating potential for new, innovative services.



## 1.5.4 Sweden

Figure 52: Current Value Map Of Sweden



### 1.5.4.1 Distribution Industry

Sweden's transmission modes are all relatively developed. Cable penetration amounts to 49%, while terrestrial and satellite have penetration rates of 32% (of which 2% for DTT) and 19% respectively. In the cable market there are some 70 national and regional companies that provide cable-TV<sup>47</sup>.

The mobile segment of the market is very competitive. The country has one of the highest mobile penetration rates in Europe (80% of population), a typical feature of Scandinavian countries.

There are just over 100 ISPs, with Telia leading the market (35%). Two other major players hold 45% of the market: Tele 2 with 31% and Telenordia / Algonet with 14%. The remaining ISPs count for 20%. Sweden has a very high internet penetration rate (59,2% of population), thanks in part to a government initiative which gives a tax incentive to companies that provide employees with PC's for their homes.

<sup>47</sup> Ovum, Competitive carriers (October 2000)

#### 1.5.4.2 Programme Packagers<sup>48</sup>

The public service broadcaster, SVT, is a leading player on the market and captures 44% of the audience share with its two channels. Broadcasters get 32% of their revenues from public funding and 35% from advertising, the remaining 33% coming from subscriptions<sup>49</sup>. There are four digital packages providers, most of them having started to provide pay-per-view services.

Concerning advertising, Swedish regulation is quite stringent (e.g. no ad-spots during programmes). However, TV3, owned by Modern Times Group, is governed by British advertising regulations.

#### 1.5.4.3 Production Industry

Svensk Filmindustri represents Sweden in the top 50 cinema distribution companies. The company is active in cinema production and distribution and is ranked 24<sup>th</sup> among the leading distribution European companies, and turnover of 43 Mio Euro in 1999<sup>50</sup>.

#### 1.5.4.4 Conclusion

The main differentiators of the Swedish market can be summarised as follows:

- All major distribution platforms have been deployed, leading to an increased customer choice;
- Very high penetrations of mobile and internet services;
- Stringent advertising regulation.

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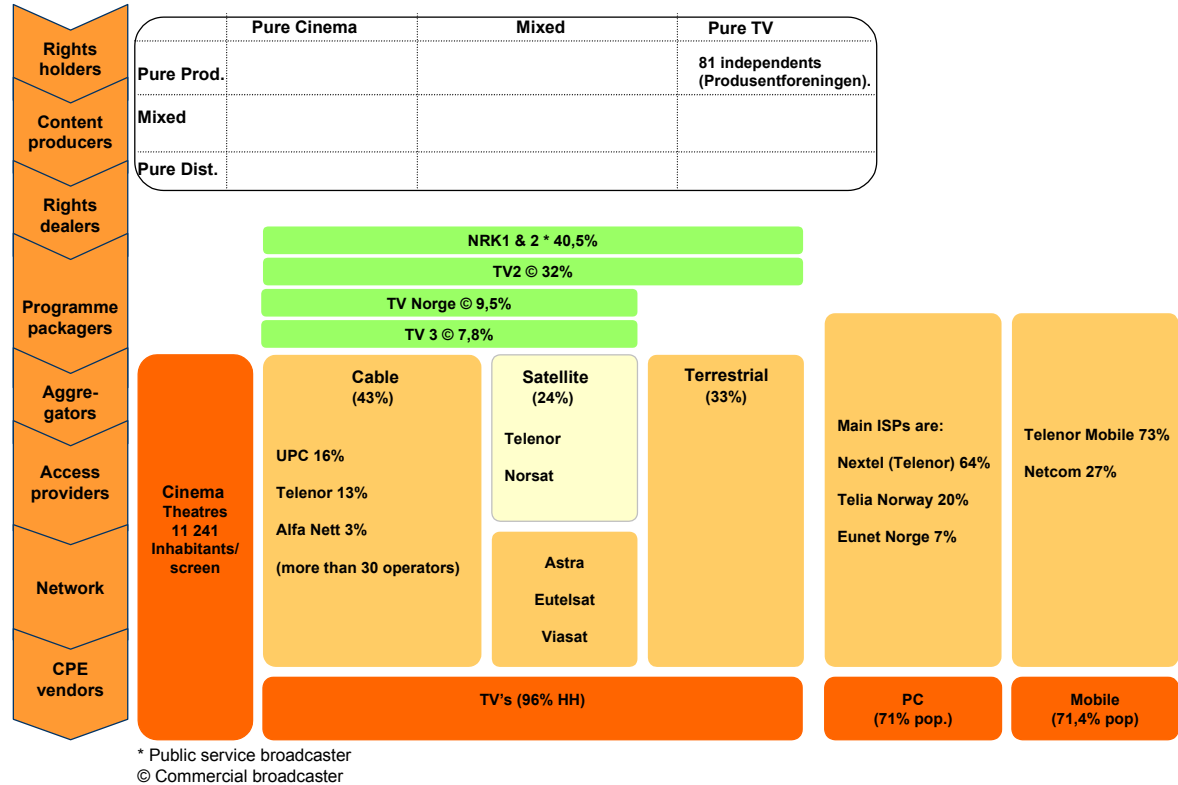
<sup>48</sup> Sources: EAO, Statistical Yearbook 2001; ZenithMedia, Television in Europe to 2010, 2001.

<sup>49</sup> Idate, The development of digital TV in Sweden 2000. 1999 figures.

<sup>50</sup> EAO, Statistical Yearbook 2001, 1999 figures. Note that German companies for which detailed accounts were not available have not been included in the ranking;

## 1.5.5 Norway

Figure 53: Current Value Map Of Norway



### 1.5.5.1 Distribution Industry<sup>51</sup>

Norway has a cable penetration rate of 43%, followed by terrestrial transmission (33%) and satellite (24%).

Scandinavian countries have some of the highest levels of mobile and Internet penetration, and Norway's penetration rates (71,4 and 59% of population respectively) are in line with the other countries. Telenor holds a strong position in the mobile market with a market share of more than 70%. In the ISP segment, Telenor (through its subsidiary Nextel) is also the dominant player holding more than 60% of the Internet connections.

### 1.5.5.2 Programme Packagers<sup>52</sup>

NRK, the public service broadcaster offering two channels – NRK1 and NRK2, has a strong position on the market. Its audience share amounts to 40,5%. Norway has more local channels available to its households than its neighbouring Scandinavian countries. While their neighbours have access to an average of 7 channels, Norwegian households can watch more than 20 local channels. However, it is worth mentioning that most of these channels are regional within Norway, so the average viewer does not have access to more than 4-6 channels. The main commercial free-to-air channel, TV2, has a high audience share (32%). Half of its programming is

<sup>51</sup> Source: IP, Television 2000, 2000.

<sup>52</sup> Sources: IP, Television 2000, 2000, ZenithMedia, Television in Europe to 2010, 2001.

produced locally. Other commercial channels include TVNorge and TV3 – the multi-country channel brand owned by Modern Times Group.

Broadcasters derive 51% of revenues from public funding and 33% from advertising.

### 1.5.5.3 Production Industry

The “Produsentforeningen” is the association of 81 independent producers who represent 95% of the market. SF Norge is a company planning to handle all the video distribution activities of TV series and feature films for NRK when the contracts between the US-based parties and NRK expire.

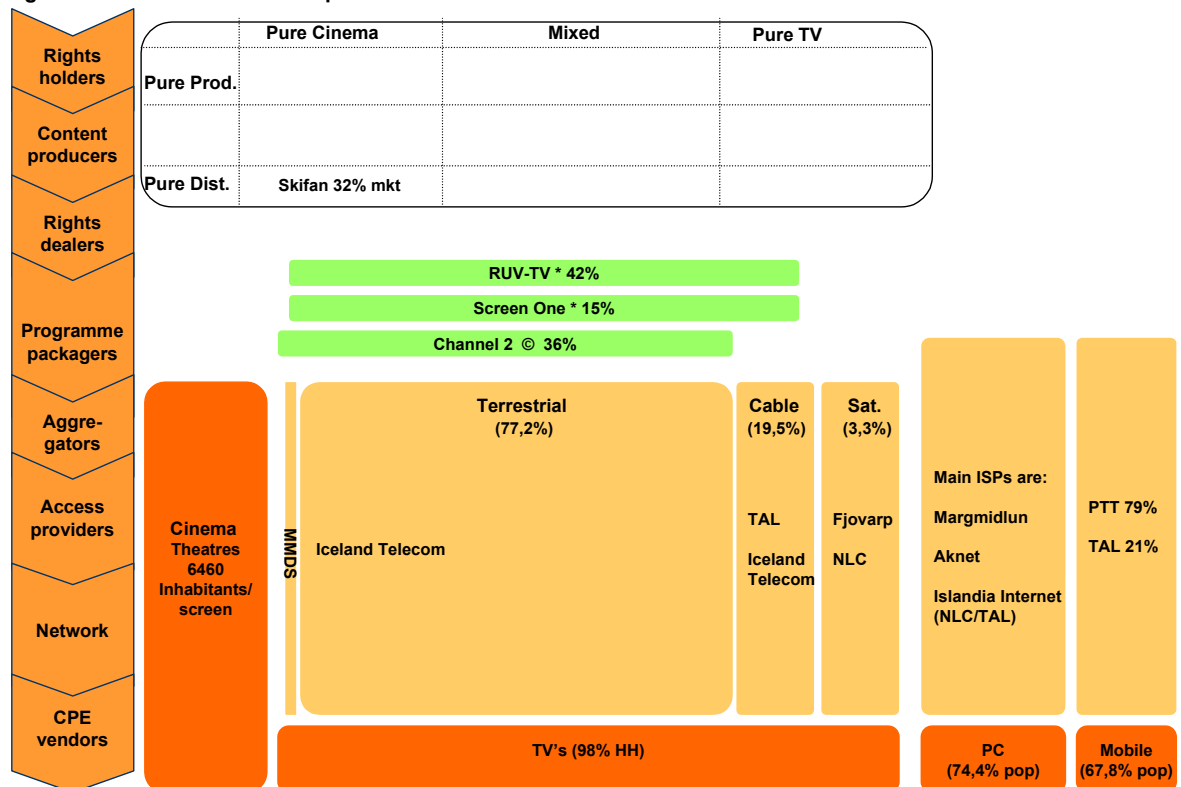
### 1.5.5.4 Conclusion

The main differentiators of the Norwegian market can be summarised as follows:

- High penetration of cable and satellite;
- Relatively high number of available channels, especially compared to other Nordic countries (but regional differences in availability);
- Relatively low TV viewing time (comparable to other Nordic countries);
- High mobile and Internet penetration.

## 1.5.6 Iceland

Figure 54: Current Value Map Of Iceland



\* Public service broadcaster  
© Commercial broadcaster

#### 1.5.6.1 Distribution Industry<sup>53</sup>

Iceland has a high terrestrial penetration rate of 77,2%, while cable penetration is only 19,5% and satellite is the least developed (3,3%).

#### 1.5.6.2 Programme Packagers

National TV is dominated by the public service broadcaster RUV TV (42%), the new commercial broadcaster Screen One (15%) and the analogue pay-TV Channel 2 (36%). Despite the small number of inhabitants, there is a large offering of small, domestic channels that are mainly broadcast on MMDS (microwaves). European satellite channels are also redistributed throughout the country via MMDS or cable.

Broadcasters in Iceland receive 41% of revenues from public funding while 35% is derived from advertising revenues. The remaining 24% derive from subscriptions.

#### 1.5.6.3 Conclusion

The main differentiators of the Icelandic market can be summarised as follows:

- High terrestrial penetration;
- Development of local broadcasting through MMDS.

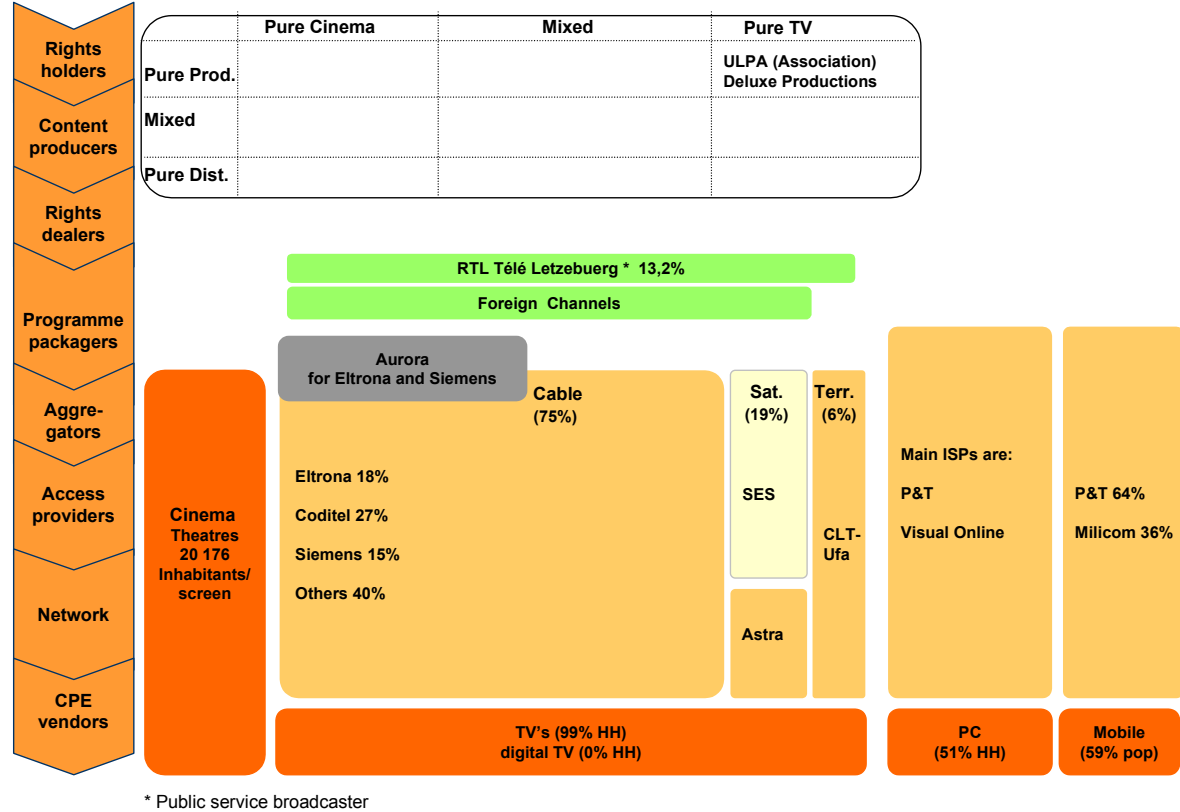
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<sup>53</sup> Source: IP, Television 2000, 2000.

## 1.6 The Importers

### 1.6.1 Luxembourg

Figure 55: Current Value Map Of Luxembourg



#### 1.6.1.1 Distribution Industry Dominated By Cable

The country's cable penetration is 75%<sup>54</sup>, while satellite amounts to 19% and terrestrial to 6%. Luxembourg, although a very small country, has over 150 local, independent cable networks and counts 4 major cable operators. There has been no fundamental change in the structure of Luxembourg's cable market, as oppose to the restructuring trends in other European countries.

The governmental decision in the late sixties to favour complete liberalisation, has created the cable TV industry. Since 1967, over 150 independent networks, with little or no standardised technical specifications, have arisen and are, until today, still owned by about as many different entities, but a concentration movement is in process.

This fragmentation does not favour the development of digital TV. However, the fragmentation has created the opportunity for a company to position itself as an access provider on top of cable networks (access providers are fairly common on satellite and DTT but are unusual on cable as cable companies are often vertically integrated).

<sup>54</sup> Several households have simultaneously cable access as well as a satellite dish

The mobile market is divided between two players: P&T, that has 64% of the market share and Millicom, that has 36%.

#### 1.6.1.2 Programme Packagers

National television in Luxembourg is very limited. The country counts only one national channel, the broadcaster RTL Télé Letzebuerg. Very small cable only broadcasters have been emerging only recently. On average, there are 30 channels from Germany, France and Belgium.

Luxembourg broadcaster derives 86% of revenues from advertising. There is no public funding for broadcasters. The other 14%<sup>55</sup> is derived from subscription and usage-based revenues.

#### 1.6.1.3 Large Players

Due to the pioneering attitude towards commercial and transborder broadcasting, some major players in the European market are based in Luxembourg. SES-Astra is the leading satellite system for DTH transmission of TV, radio and multimedia services around Europe. It carries more than 400 TV channels and 300 radio channels to over 80 million homes<sup>56</sup> and covers up to 80% of the European market.

RTL-Group is another well-known company based in Luxembourg. This leader in broadcasting activities in Europe owns over 20 television stations in nine European countries. Although RTL has established some of its channels in Luxembourg, other countries are the targets (e.g. RTL4 and RTL5 for Netherlands, RTL9 for France, RTL Plus and Astra Info 1 & 2 for Germany, etc.).

#### 1.6.1.4 Content Production

Due to an attractive incentive scheme, Luxembourg has succeeded in developing content production

#### 1.6.1.5 Conclusion

The main differentiators of the Luxembourg market can be summarised as follows:

- A very well developed cable market, but still extremely fragmented;
- Luxembourg is a typical importer market, with a very limited TV offering.
- A growing content production industry;
- Thanks to its pioneering attitude towards commercial and transborder broadcasting, Luxembourg hosts some of the major European audio-visual companies.

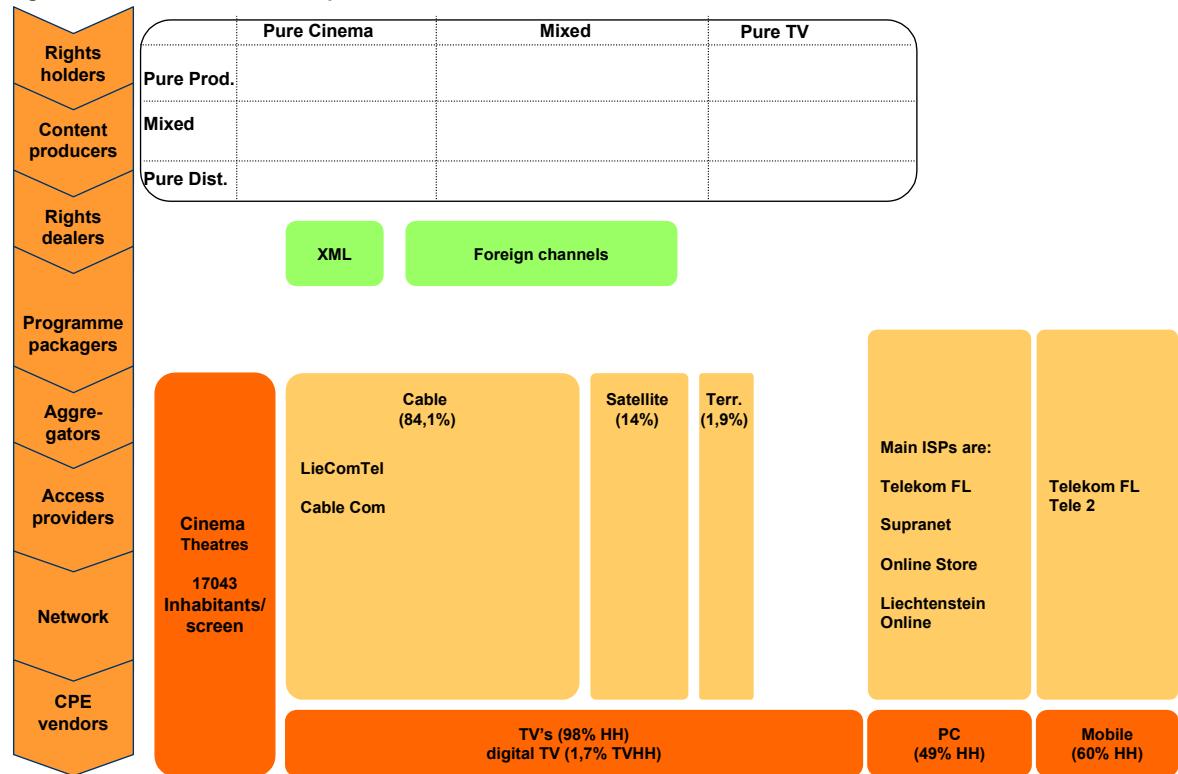
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<sup>55</sup> Idate, Development of Digital TV in Europe, 2000

<sup>56</sup> Source: Financial Times, World Television 2000

## 1.6.2 Liechtenstein

Figure 56: Current Value Map Of Liechtenstein



### 1.6.2.1 Distribution Industry

There is a high deployment of cable (84,1%), while satellite and terrestrial remain low (14% and 1,9% respectively).

The country has been divided into “districts” and each district has its own cable company. Since the market is very small, the supply is fragmented. There has been a move from cable operator LieComTel to buy up several local networks and regroup them under their name.

### 1.6.2.2 Programme Packagers

Liechtenstein generally shows the same characteristics that are typical in the “importers” model. It is a small market with only a very limited offering of national television. The only national channel, XML, broadcasts one program a week that they frequently rerun. XML is a private broadcaster that is self-financing, as there is neither advertising nor public funding in Liechtenstein<sup>57</sup>. There is also one national radio broadcaster, Radio L.

For its television offering, it depends largely on neighbouring countries. This is a characteristic that could also be found in the Luxembourg market. Surrounding

<sup>57</sup> Source: discussion with XML representant.



countries like Germany and Switzerland provide the country with their channels and are able to achieve larger audience shares.

#### 1.6.2.3 Conclusion

The main differentiators of the Liechtenstein market can be summarised as follows:

- Liechtenstein is a typical importer market, with a very limited TV offering;
- Local TV is supported by private funds. There are neither advertising nor public funds available.

Appendix 2  
Regulatory Framework

**Table 1: Convergence**

<b>Legal Instruments</b>	<b>Reference</b>	<b>Summary of Objectives</b>
Green Paper [COM (1997) 623] on the Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation. Towards an Information Society Approach, December 1997	<a href="http://europa.eu.int/ISPO/convergencecp/greenp.html">http://europa.eu.int/ISPO/convergencecp/greenp.html</a>	The Green Paper investigates the process of convergence in the communications sector and the impact on regulation of new technological developments in the field.
Results of the Public Consultation on the Convergence Green Paper: Communication [COM (1999) 108] to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions	<a href="http://europa.eu.int/ISPO/convergencecp/">http://europa.eu.int/ISPO/convergencecp/</a>	
Communication [COM (1999) 539 final] from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions Towards a new Framework for Electronic Communications Infrastructure and associated services: The 1999 Communications Review	<a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/review99/review99.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/review99/review99.htm</a>	The future regulatory framework should cover all communications infrastructure and associated services, whereas services carried over that infrastructure, e.g. broadcasting services, or Information Society services are outside its scope.
Communication [COM (2000) 239 final] from the Commission on the results of the public consultation on the 1999 Communications Review and Orientations for the new Regulatory Framework, 26.04.2000	<a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/review99/review99.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/review99/review99.htm</a>	Provides a summary of the results of the public consultation process on the regulatory issues arising from convergence.
Communication from the Commission to the European Parliament, the Council, the Economic	<a href="http://europa.eu.int/comm/avpolicy/legis/com_en.htm">http://europa.eu.int/comm/avpolicy/legis/com_en.htm</a>	The main Community objectives for regulation in the audio-visual sector in a digital age are to provide an environment that supports: <ul style="list-style-type: none"> <li>• Economic growth and employment opportunities in</li> </ul>

<p>and Social Committee and the Committee of the Regions: Principles and guidelines for the Community's audio-visual policy in the digital age, 14.12.1999. COM (1999) 657 final</p> <p>“Transparency Directive”          Directive 98/48/EC of the European Parliament and of the Council of 20 July 1998 amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations</p>	<p>OJ L 217, 05.08.1998  <a href="http://europa.eu.int/ISPO/legal/en/infosoc/infosoc.html">http://europa.eu.int/ISPO/legal/en/infosoc/infosoc.html</a>  <a href="http://europa.eu.int/ISPO/ecommerce/legal/Internet/standardisation.html">http://europa.eu.int/ISPO/ecommerce/legal/Internet/standardisation.html</a></p>	<p>the audio-visual industry;</p> <ul style="list-style-type: none"> <li>• The role of the audio-visual sector in the fields of education and society;</li> <li>• The role of the audio-visual sector in the democratic life of citizens.</li> </ul> <p>To achieve these goals regulation should be based upon:</p> <ul style="list-style-type: none"> <li>• Clearly defined policy objectives;</li> <li>• Enhanced legal certainty;</li> <li>• Consist of the minimum required to achieve policy objectives;</li> <li>• Be technologically neutral;</li> <li>• Enforced as close to the activities to be regulated as possible.</li> </ul> <p>The Directive aims to achieve the greatest level of transparency possible, in terms of national regulatory rules that apply to Information Society services.</p>
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**Table 2: Regulation of infrastructure**  
 New regulatory package for electronic communications infrastructure and associated services

<b>Policy Areas</b>	<b>Legal Instruments</b>	<b>Reference</b>	<b>Aims and Objectives</b>
<p>The New Regulatory Package</p>           <p>Authorisation of networks, services</p>	<p>Directive 97/13/EC of 10 April 1997 on a common framework for general authorisations and individual licences in the field of telecommunications services</p>           <p>Directive 2002/20/EC of the European Parliament and of the Council on the authorisation of electronic communications networks and services, (Authorisation Directive)</p>	<p>OJ L 117, 07.05.1997  <a href="http://europa.eu.int/ISPO/infosoc/telecom/policy/en/Main-en.htm">http://europa.eu.int/ISPO/infosoc/telecom/policy/en/Main-en.htm</a></p>           <p>OJ L 108, 24.04.2002  <a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p>	<p>The regulatory package consists of a number of complementary measures to ensure fair competition amongst operators, and guarantee fair access to all transmission networks.</p>           <p>Characterised by a balance between supporting the interests of market actors and certain public interest obligations that are required by regulation. Maximum competition with minimal regulation supported.</p>           <p>Stated key elements of the Directive:</p> <ul style="list-style-type: none"> <li>• To support new entrants by limiting obstacles to new market actors, except under circumstances that are required in order to ensure efficient use of radio frequencies;</li> <li>• Harmonisation of licensing conditions for networks;</li> <li>• The establishment of a 'one-stop shopping procedure' to facilitate parallel applications for licences in Member States.</li> </ul>

<p>Access, interconnection</p> <ul style="list-style-type: none"> <li>ONP Principle</li> <li>Leased lines</li> <li>Voice telephony</li> </ul>	<p>ONP Framework Directive Council Directive 90/387/EEC of 28 June 1990 on the establishment of the internal market for telecommunications services through the implementation of open network provision</p> <p>Amended by Directive 97/51/EC in 1997</p> <p>Council Directive 92/44/EEC of 5 June 1992 on the application of open network provision to leased lines</p> <p>Amended by Directive 97/51/EC</p> <p>Directive 95/62/EC of the European Parliament and of the Council of 13 December 1995 on the application of open network provision to voice telephony</p> <p>Replaced by Directive 98/10/EC of the European Parliament and of the Council of 26 February 1998 on the application of open network provision to voice telephony and on universal service for telecommunications in a competitive environment</p>	<p>OJ L 192, 24.07.1990 <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/90387eec.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/90387eec.html</a> <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/90387ecrev.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/90387ecrev.html</a></p> <p>OJ L 295, 29.10.1997 <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm</a></p> <p>OJ L 165, 19.06.1992 <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/9244eec.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/9244eec.html</a></p> <p>OJ L 295, 29.10.1997 <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm</a></p> <p>OJ L 321, 30.12.1995 <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/9562ec.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/9562ec.html</a></p> <p>OJ L 101, 01.04.1998 <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/en/dir98-10en.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/en/dir98-10en.htm</a></p>	<p>Harmonisation of the conditions for efficient access to, and use of, public telecommunications networks. To ensure throughout the European Union a minimum set of standards, supported with harmonised technical characteristics. To achieve this goal it aims to remove technical restrictions.</p> <p>Aims to ensure the availability of analogue and digital leased lines throughout the Community and establish a set of minimally harmonised technical requirements.</p> <p>To ensure that high quality telecommunication services are available throughout the European Union.</p>
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<ul style="list-style-type: none"> <li>• Packet-switched data services</li> </ul>	<p>Council Recommendation 92/382/EEC of 5 June 1992 on the harmonised provision of a minimum set of packet-switched data services (PSDS) in accordance with open network provision (ONP) principles</p>	<p>OJ L 200, 18.07.1992  <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/92382eec.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/92382eec.html</a></p>	<p>Provides for minimum harmonisation in technical areas of packet-switched data services.</p>
<ul style="list-style-type: none"> <li>• ISDN</li> </ul>	<p>Integrated services digital network Council Recommendation 92/383/EEC of 5 June 1992 on the provision of harmonised integrated services digital network (ISDN) access arrangements and a minimum set of ISDN offerings in accordance with open network provision principles</p>	<p>OJ L 200, 18.07.1992  <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/92383eec.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/92383eec.html</a></p>	<p>A minimum set of ISDN services and interoperability on a Community level.</p>
<ul style="list-style-type: none"> <li>• Interconnection</li> </ul>	<p>Directive 97/33/EC of the European Parliament and of the Council of 30 June 1997 on interconnection in telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provision</p>	<p>OJ L199, 26.07.1997  <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm</a></p>	<p>To ensure ‘any-to-any communication’ and provide certain guarantees for market actors to have access to interconnection where there is reasonable justification for such interconnection.</p>
	<p>Amended by Directive 98/61/EC</p>	<p>OJ L 268, 03.10.1998  <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm</a></p>	<p>The Directive establishes certain rules for the costing and financing of universal service provision.</p>
	<p>Directive 95/47/EC of the European Parliament and of the Council of 24 October 1995 on the use of standards for the transmission of television signals</p>	<p>OJ L 281, 23.11.1995  <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/dir95-47en.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/dir95-47en.html</a></p>	<p>Lays down a set of obligations placed on all operators of conditional access systems that they should provide access to the system under fair, reasonable and non-discriminatory terms.</p>
	<p>Directive 2002/19/EC of the European Parliament and of the Council on access to, and</p>	<p>OJ L 108, 24.04.2002  <a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p>	<p>The Directive aims to provide greater legal certainty for market players by establishing a set of clear criteria in</p>

	interconnection of, electronic communications networks and associated facilities. (Access Directive)		<p>terms of their rights and obligations in reference to access and interconnection.</p> <p>It imposes limitations on what access and interconnection obligations can be imposed on operators and under which circumstances.</p>
Universal service	<p>Council Resolution of 7 February 1994 on universal service principles in the telecommunications sector, 94/C 48/01</p> <p>Commission Statement concerning the Council Resolution on Universal Service in the telecommunications sector, 94/C 48/06</p> <p>Communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions: Universal Service for telecommunications in the perspective of a fully liberalised environment, COM (96) 73 of 14.03.1996</p> <p>Directive 2002/22/EC of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services. (Universal Service Directive)</p>	<p>OJ C 48, 16.02.1994 <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/94c4801.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/94c4801.html</a></p> <p>OJ C 48, 16.02.1994 <a href="http://europa.eu.int/ISPO/infosoc/legreg/docs/94c4806.html">http://europa.eu.int/ISPO/infosoc/legreg/docs/94c4806.html</a></p> <p><a href="http://europa.eu.int/ISPO/infosoc/legreg/9673.html">http://europa.eu.int/ISPO/infosoc/legreg/9673.html</a></p> <p>OJ L 108, 24.04.2002 <a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p>	<p>Defines the scope of universal service together with the methodology to be followed for costing of universal service (i.e. a "net cost" approach).</p> <p>Provides guidelines and a framework for certain aspects of universal service:</p> <ul style="list-style-type: none"> <li>• Calculating the costs of universal service;</li> <li>• Determining who contributes, and in what proportion, to any costs associated with universal service.</li> </ul> <p>Modernises existing measures on universal service so as to define the scope of this service. This includes determining the:</p> <ul style="list-style-type: none"> <li>• Rights of users and the compensatory measures for</li> </ul>



			<p>compensatory measures for providers of the service without distorting competition;</p> <ul style="list-style-type: none"> <li>• Underpinning efforts to ensure interoperability of digital television services.</li> </ul>
Data protection	<p>Directive 97/66/EC of the European Parliament and of the Council of 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector</p> <p><u>Proposal for a Directive</u> of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector COM (2000) 385</p>	<p>OJ L 24, 30.01.1998  <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/en/Main-en.htm</a></p> <p><a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p>	<p>Provisions for consumer protection and privacy and data protection.</p> <p>To ensure that data protection rules in the communications sector are technologically neutral and effective.</p>
Access to the local loop	Regulation EC 2887/2000 of the European Parliament and of the Council on Unbundled Access to the Local Loop	<p>OJ L 336, 30.12.2000  <a href="http://europa.eu.int/ISPO/infosoc/telecompolicy/review99/review99.htm">http://europa.eu.int/ISPO/infosoc/telecompolicy/review99/review99.htm</a></p>	Rules to provide for unbundling of the local loop in order to stimulate competition and provide wider access for providers to the local access market.
General policy objectives (application procedures, calculation of significant market power)	Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services. (Framework Directive)	<p>OJ L 108, 24.04.2002  <a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p>	The Directive lays down the duties of national regulatory authorities and establishes a set of procedures to ensure the harmonised application of the regulatory framework for delivery networks throughout the Community.
Must carry rules	Article 31 of the Directive 2002/22/EC of the	OJ L 108, 24.04.2002	Article 31 of the Universal Service

	<p>European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services. (Universal Service Directive)  Article 6 of the Directive 2002/19/EC of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and associated facilities. (Access Directive)</p> <p>Annex 1 of the Directive 2002/20/EC of the European Parliament and of the Council on the authorisation of electronic communications networks and services. (Authorisation Directive)</p>	<p><a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p> <p>OJ L 108, 24.04.2002  <a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p> <p>OJ L 108, 24.04.2002  <a href="http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm">http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm</a></p>	<p>Directive lays down the rules for Member States to set must carry obligations for operators to carry specified broadcast and radio services. Must carry must be supported with:</p> <ul style="list-style-type: none"> <li>• Clearly defined objectives;</li> <li>• May include proportionate remuneration for the carrier.</li> </ul>
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**Table 3: EU Competition Policy and Media Pluralism**

<b>Policy Areas</b>	<b>Legal Instruments</b>	<b>Reference</b>	<b>Aims and Objectives</b>
Mergers and Media ownership	Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings with amendments introduced by Council Regulation (EC) No 1310/97 of 30 June 1997	Published in OJ L 395, 30.12.1989; corrected version OJ L 257, 21.09.1990,  Published in OJ L 180, 09.07.1997, Corrigendum OJ L 40, 13.02.1998  <a href="http://europa.eu.int/comm/competition/mergers/legislation/regulation/">http://europa.eu.int/comm/competition/mergers/legislation/regulation/</a>	Objective to ensure that competition rules are respected (Arts 81 and 82).
State aid	EC Treaty (Articles 86, 87, 88, 89)  Communication on services of general interest in Europe, COM (2000) 580 final	<a href="http://europa.eu.int/eur-lex/en/treaties/index.html">http://europa.eu.int/eur-lex/en/treaties/index.html</a>  <a href="http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&amp;lg=en&amp;numdoc=52000DC0580">http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&amp;lg=en&amp;numdoc=52000DC0580</a>	The Treaty articles define the scope and criteria for the granting of State aid to undertakings.  Compatibility with these rules is based on three principles: <ul style="list-style-type: none"> <li>• Neutrality between public or private ownership of companies;</li> <li>• Member States' freedom to define services of general interest, subject to compliance with the State aid rules;</li> <li>• Proportionality requiring that restrictions of competition and limitations of the freedoms of the Single Market do not exceed what is necessary to guarantee effective fulfilment of the activities to which</li> </ul>

	<p>Communication from the Commission on the application of State aid rules to public service broadcasting</p> <p>“Transparency Directive” Commission Directive 80/723/EEC of 25 June 1980 on the transparency of financial relations between Member States and public undertakings amended by the Commission Directive 85/413/EEC of 24 July 1985 amended by the Commission Directive 93/84/EEC of 30 September 1993 amended by the Commission Directive 2000/52/EC of 26 July 2000</p>	<p>OJ C 320, 15.11.2001 <a href="http://europa.eu.int/comm/competition/state_aid/legislation/aid3.html#public_service_broadcasting">http://europa.eu.int/comm/competition/state_aid/legislation/aid3.html#public_service_broadcasting</a></p> <p><a href="http://europa.eu.int/comm/competition/state_aid/legislation/aid3.html#C">http://europa.eu.int/comm/competition/state_aid/legislation/aid3.html#C</a> OJ L 195, 29.07.1980</p> <p>OJ L 229, 28.08.1985</p> <p>OJ L 254, 12.10.1993</p> <p>OJ L 193, 29.07.2000</p>	<p>State aid is allocated.</p> <p>Clarifies the State aid rules in the context of the funding of public service broadcasters. Member States are free to define the extent of the public service and the way it is financed and organised. Four conditions should be respected:</p> <ul style="list-style-type: none"> <li>• The establishment of a clear and precise definition of the public service remit;</li> <li>• The formal entrustment of the public service mission to one or more undertakings by means of an official act of the State;</li> <li>• Proportionality;</li> <li>• To provide a clear separation of public and non public service activities undertaken by public service broadcasters, which includes separation of accounts.</li> </ul> <p>The Member States should ensure that the State aid granted to public service broadcasters is commensurate to the broadcaster’s expenditure in achieving the public service mission.</p>
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Table 4: Regulation of content - Content specific policies

Policy Areas	Legal Instruments	Reference	Aims and Objectives
Major events	TVWF Directive (Article 3a)	OJ L 298, 17/10/1989	Recognises certain events have

		<p>OJ L 202, 30/07/1997  <a href="http://www.europa.eu.int/comm/avpolicy/regul/twf/newint_en.htm">http://www.europa.eu.int/comm/avpolicy/regul/twf/newint_en.htm</a></p>	<p>national importance and should therefore be made available under certain conditions to the public.</p> <p>A number of Member States have been granted clearance from the European Commission for their lists and a number of other Member States are drawing up lists for submission.</p> <p>Most of the existing lists are composed of sports events, though some Member States have included music festivals. There are differences in the composition of the lists and the geographic coverage selected as a qualification.</p>
<p>Support mechanisms</p> <ul style="list-style-type: none"> <li>• MEDIA Programmes</li> </ul>	<p>MEDIA I programme (1990-1995)</p> <p>MEDIA II programme (1996-2000)</p> <p>MEDIA Plus programme (2001-2005)  Council Decision 2000/821/EC of 20 December 2000 on the implementation of a programme to encourage the development, distribution and promotion of European audio-visual works (MEDIA plus - Development, Distribution and</p>	<p><a href="http://www.europa.eu.int/comm/avpolicy/media/index_en.html">http://www.europa.eu.int/comm/avpolicy/media/index_en.html</a></p>	<p>Key focus on: distribution, promotion training and development of film production. The programme aims to:</p> <ul style="list-style-type: none"> <li>• Support the development, distribution and promotion of European audio-visual works;</li> <li>• Promote the linguistic and cultural diversity of Europe, enhancing the European audio-visual heritage;</li> <li>• Strengthening, networking and transnational co-operation between small and medium-sized companies.</li> </ul>

<ul style="list-style-type: none"> <li>• “i2i-Audio-visual” Programme</li> </ul>	<p><u>Promotion</u>) (2001-2005); Decision n°163/2001/EC of the European Parliament and of the Council of 19 January 2001 on the implementation of a training programme for professionals in the European audio-visual programme industry (<u>MEDIA TRAINING</u>) (2001-2005)</p> <p>Agreement of the European Commission, the European Investment Bank and the European Investment Fund in 2000 to create a programme to support Europe’s audio-visual industry in order to strengthen its financial base and speed up the rate at which it adapts to challenges of digital technology, 19.12.2000</p>	<p><a href="http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&amp;doc=IP/00/1489 0 RAPID&amp;lg=EN">http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&amp;doc=IP/00/1489 0 RAPID&amp;lg=EN</a></p>	<p>The training programme mainly concentrates on vocational training of professionals in the audio-visual sector. The focus is on management, new technologies and script writing.</p> <p>Provides for certain funding initiatives and financing of European production in order to encourage growth in the European audio-visual industry. Encourages links between the banking sector and the audio-visual industry.</p>
<p>Consumer protection</p>	<p>TVWF Directive (Chapter 4)</p>	<p>OJ L 298, 17/10/1989 OJ L 202, 30/07/1997 <a href="http://www.europa.eu.int/comm/avpolicy/regul/twf/newint_en.htm">http://www.europa.eu.int/comm/avpolicy/regul/twf/newint_en.htm</a></p>	<ul style="list-style-type: none"> <li>• Provide for measures to guarantee consumer protection in the areas of advertising and teleshopping.</li> </ul>
<p>Protection of minors</p>	<p>TVWF Directive Articles 22, 22a, 22b, and certain Articles of Chapter 4 of the TVWF Directive</p>	<p>OJ L 298, 17/10/1989 OJ L 202, 30/07/1997 <a href="http://www.europa.eu.int/comm/avpolicy/regul/twf/newint_en.htm">http://www.europa.eu.int/comm/avpolicy/regul/twf/newint_en.htm</a></p>	<p>These Articles provide for the protection of minors in a number of related fields. Measures include:</p> <ul style="list-style-type: none"> <li>• Provisions to ensure Member States prohibit content that may seriously impair the moral or physical well-being of minors;</li> <li>• Setting provisions for the labelling of content;</li> </ul>

	<p>Green Paper on the protection of minors and human dignity in audio-visual and information services, COM (96) 483 final</p> <p>Communication on illegal and harmful content on the Internet, COM (96) 487 final</p>	<p><a href="http://www.europa.eu.int/en/record/green/gp9610/protec.htm">http://www.europa.eu.int/en/record/green/gp9610/protec.htm</a></p> <p><a href="http://europa.eu.int/ISPO/legal/en/internet/communic.html">http://europa.eu.int/ISPO/legal/en/internet/communic.html</a></p>	<ul style="list-style-type: none"> <li>• Provide for certain measures to protect minors in respect of advertising and teleshopping;</li> <li>• Article 2a of the TVWF Directive allows Member States to retain certain measures to block broadcasts transmitted from another Member State, where the content broadcast is judged to present a serious threat of damaging the moral, physical or mental well-being of minors. A specific procedure is laid down for the Member States to follow in such cases.</li> </ul> <p>The Green paper opened a wide-ranging debate on the problems associated with the protection of minors and human dignity in audio-visual and information services, covering a wide range of mediums (television, proprietary on-line services, services on the Internet).</p> <p>The Communication recommends co-operation between Member States to effectively deal with illegal content on the Internet. It supports the use of filtering devices and rating systems and national awareness initiatives for parents and teachers. It also</p>
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	<p>Communication on the follow-up to the Green Paper on the Protection of Minors and Human Dignity in Audio-visual and Information Services, Proposal for a Recommendation, COM (97) 570</p> <p>Council Recommendation on the development of the competitiveness of the European audio-visual and information services industry by promoting national frameworks aimed at achieving a comparable and effective level of protection of minors and human dignity</p> <p>Decision no 276/1999/EC of the European Parliament and of the Council of 25 January 1999 adopting a Multiannual Community Action Plan on promoting safer use of the Internet by combating illegal and harmful content on global networks</p>	<p><a href="http://www.europa.eu.int/comm/avpolicy/regul/new_srv/comlv-en.htm">http://www.europa.eu.int/comm/avpolicy/regul/new_srv/comlv-en.htm</a></p> <p>OJ L 270 of 07.10.1998 <a href="http://www.europa.eu.int/comm/avpolicy/regul/new_srv/recom-intro_en.htm">http://www.europa.eu.int/comm/avpolicy/regul/new_srv/recom-intro_en.htm</a></p> <p>OJ L 33, 6 February 1999 <a href="http://www.europa.eu.int/information_society/programmes/iap/programmes/decision/index_en.htm">http://www.europa.eu.int/information_society/programmes/iap/programmes/decision/index_en.htm</a></p>	<p>parents and teachers. It also recommends promoting self-regulation as a means to achieve safe use of the Internet.</p> <p>Guidelines for the development of national self-regulation regarding the protection of minors and human dignity. Self-regulation is based on three key elements:</p> <ul style="list-style-type: none"> <li>• The involvement of all the interested parties in the production of codes of conduct;</li> <li>• The implementation of codes of conduct by the industry;</li> <li>• An evaluation of measures taken.</li> </ul> <p>Identifies action lines within which concrete measures are needed in stated areas:</p> <ul style="list-style-type: none"> <li>• Creating a safe environment through hot-lines, industry self-regulation and codes of conduct;</li> </ul>
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	<p>Communication of the Commission on the Study on Parental Control of Television Broadcasting COM (99) 371 final</p>	<p><a href="http://europa.eu.int/comm/avpolicy/legis/key_doc/parental_control/comparent_en.pdf">http://europa.eu.int/comm/avpolicy/legis/key_doc/parental_control/comparent_en.pdf</a></p>	<ul style="list-style-type: none"> <li>• Developing filtering and rating systems;</li> <li>• Encouraging awareness actions.</li> </ul> <p>Main conclusions of the study:</p> <ul style="list-style-type: none"> <li>• Technical measures alone cannot completely substitute for broadcaster responsibility;</li> <li>• The need for common descriptive criteria for the description of audio-visual content;</li> <li>• A possible need for minimum harmonisation of rating systems used in the different media.</li> </ul>
Copyright	<p>Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programmes</p> <p>Council Directive 92/100/EEC of 19 November 1992 on rental right and lending right and on certain rights related to copyright in the field of intellectual property</p> <p>Council Directive 93/83/EEC of 27 September 1993 on the co-ordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission</p>	<p>OJ L 122, 17/05/1991 <a href="http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm">http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm</a></p> <p>OJ L 346, 27/11/1992 <a href="http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm">http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm</a></p> <p>OJ L 248, 06/10/1993 <a href="http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm">http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm</a></p>	<p>Harmonisation of the legal systems on protection of authors' rights is seen to be vital, due to their legal, cultural, economic and social implications for the Community. Significant differences in the area of the protection of authors' rights among the Member States may act as obstacles for the development of the common market. This might lead to distortions to competition, and with regard to the information society, segmentation of potential new markets and further segmentation of existing ones. National differences and uncertainties in protection may thus hinder economies of scale for new copyright protected products and</p>

	<p>Council Directive 93/98/EEC of 29 October 1993 harmonising the term of protection of copyright and certain related rights</p> <p>Council Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases</p> <p>Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society</p>	<p>OJ L 290, 24/11/1993  <a href="http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm">http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm</a></p> <p>OJ L 77, 27/03/1996  <a href="http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm">http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm</a></p> <p>OJ L 167, 22/06/2001  <a href="http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm">http://europa.eu.int/comm/internal_market/en/intprop/docs/index.htm</a></p>	<p>services (multimedia products, on-line services) and create legal uncertainty.</p>
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Appendix 3  
Examples of some large media groups

All information as of January 1<sup>st</sup>, 2002

## Appendix 3: Examples of some large media groups (as of January 1<sup>st</sup>, 2002)

In this appendix the structure of some of the key worldwide media groups are presented.

**Table 5: Breakdown of turnover by activities (in %)<sup>58</sup>**

Company	Turnover 2000 (Mio USD)	Films & Programmes (%)	Broadcasting & Cable Programming (%)	Music (%)	Publishing (%)	Internet & Multimedia (%)	Cable & Telecom (%)	Others (%)
Sony	62 637	7,1%	-	7,8%	-	8,4%	-	76,7%
AOL Time Warner	37 561	21,6%	18,1%	11%	12,4%	20,8%	16,1%	-
Vivendi Universal	26 440	(1)	36,1%	27,2%	14,8%	0,2%	21,7%	-
Walt Disney	25 402	23,6%	37,9%	(2)	10,3%	1,4%	-	26,8%
Viacom	22 355	34,5%	53,9%	-	2,7%	-	-	8,9%
Bertelsmann	17 578	(1)	10,1%	28,9%(3)	48%	(4)	-	13%
News Corporation	13 434	27,2%	34,9%	(4)	34,2%	(4)	-	3,7%
Lagardère Media	7 829	(1)	8,9%	-	45,4%	(1)	-	45,7%
Kirch Gruppe	3 078	2%	65,5%	-	-	0,7%	-	31,8%
Telefonica	26 352	(1)	2,3%	-	(5)	2,2%	90%	5,5%

(1) Included in "Broadcasting & Cable Programming"

(2) Included in "Films & Programmes"

(3) Including Video activities

(4) Included in "Others"

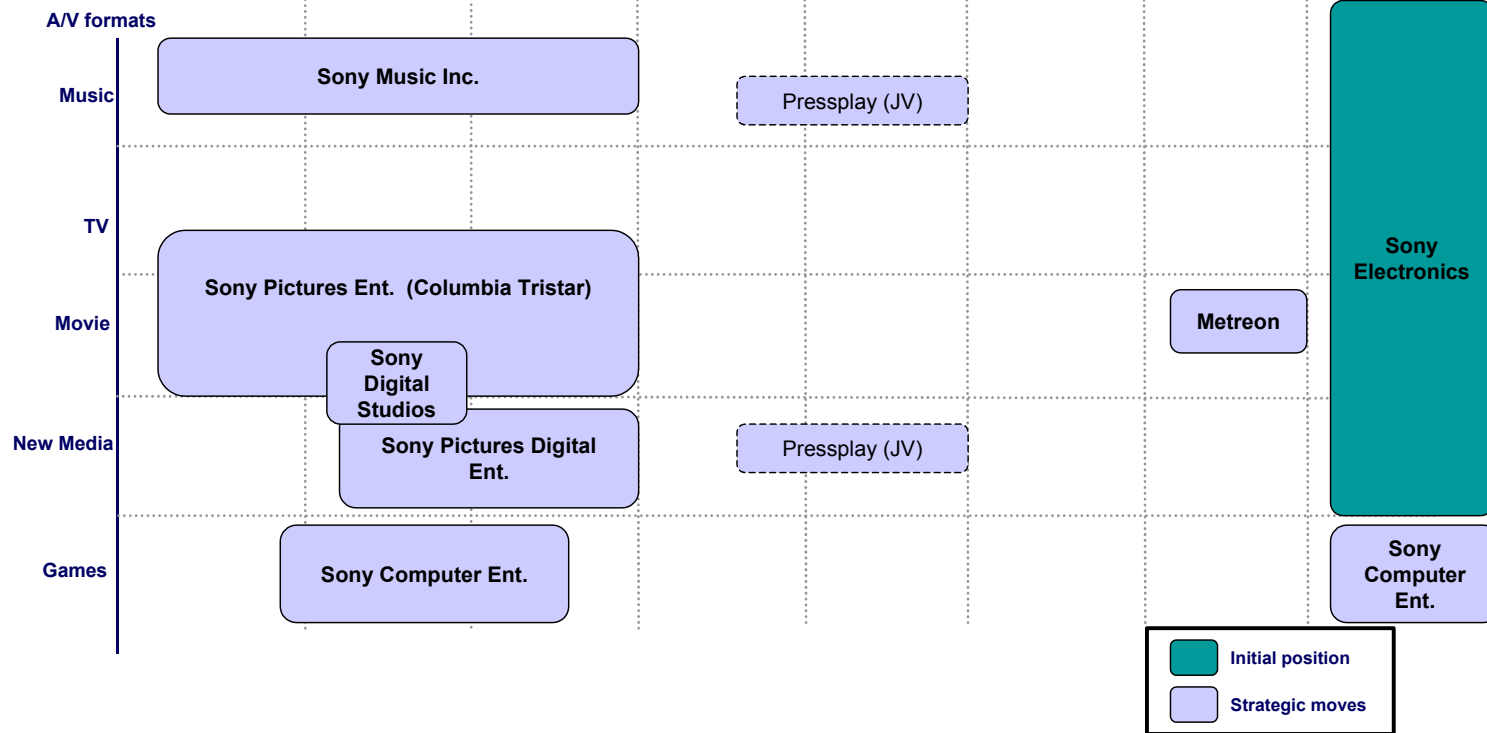
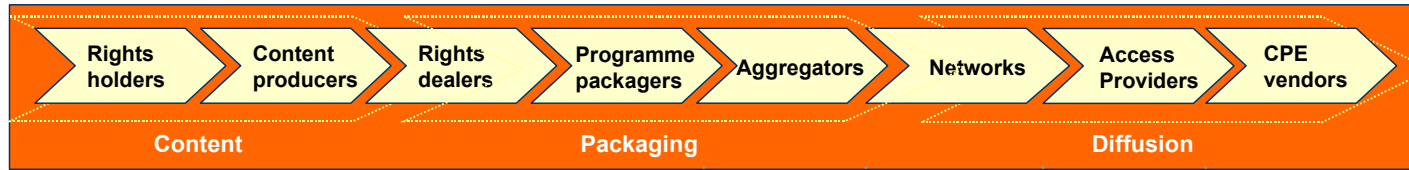
(5) Included in "Internet & Multimedia"

Hereunder, the structure of these key media groups<sup>59</sup> is described along the value chain as defined in chapter 3.

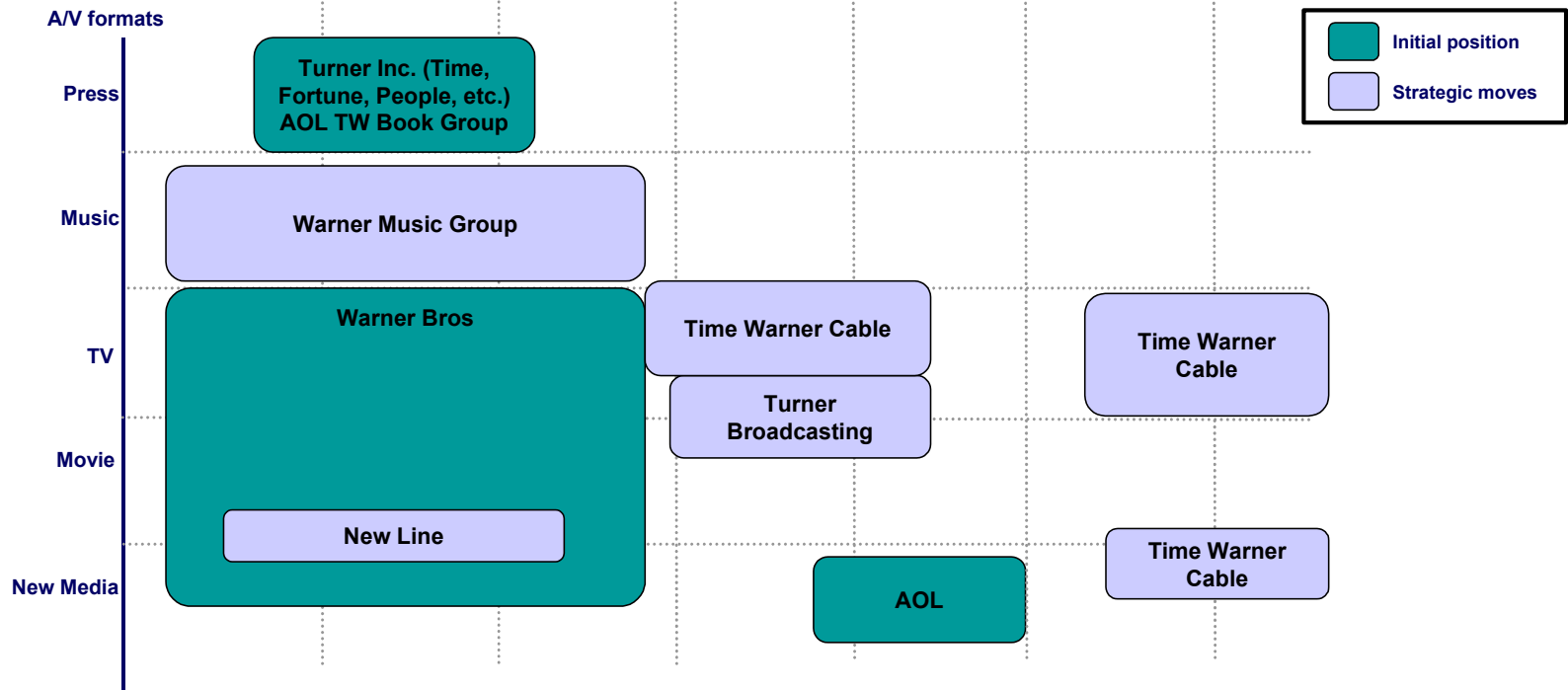
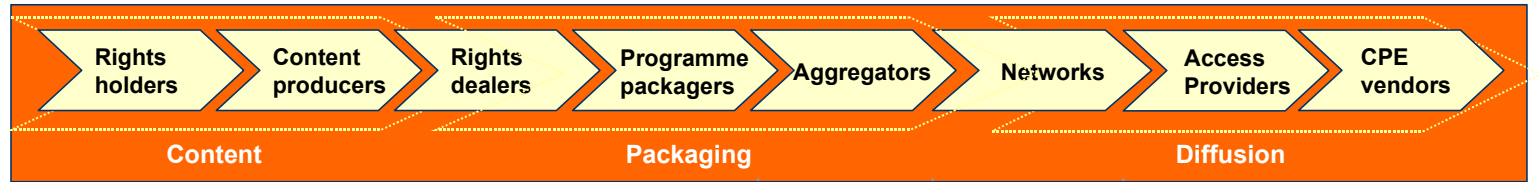
<sup>58</sup> EAO, Statistical Yearbook, 2001; Companies annual reports for Kirch and Telefonica (2000).

<sup>59</sup> Source: companies annual reports, 2000.

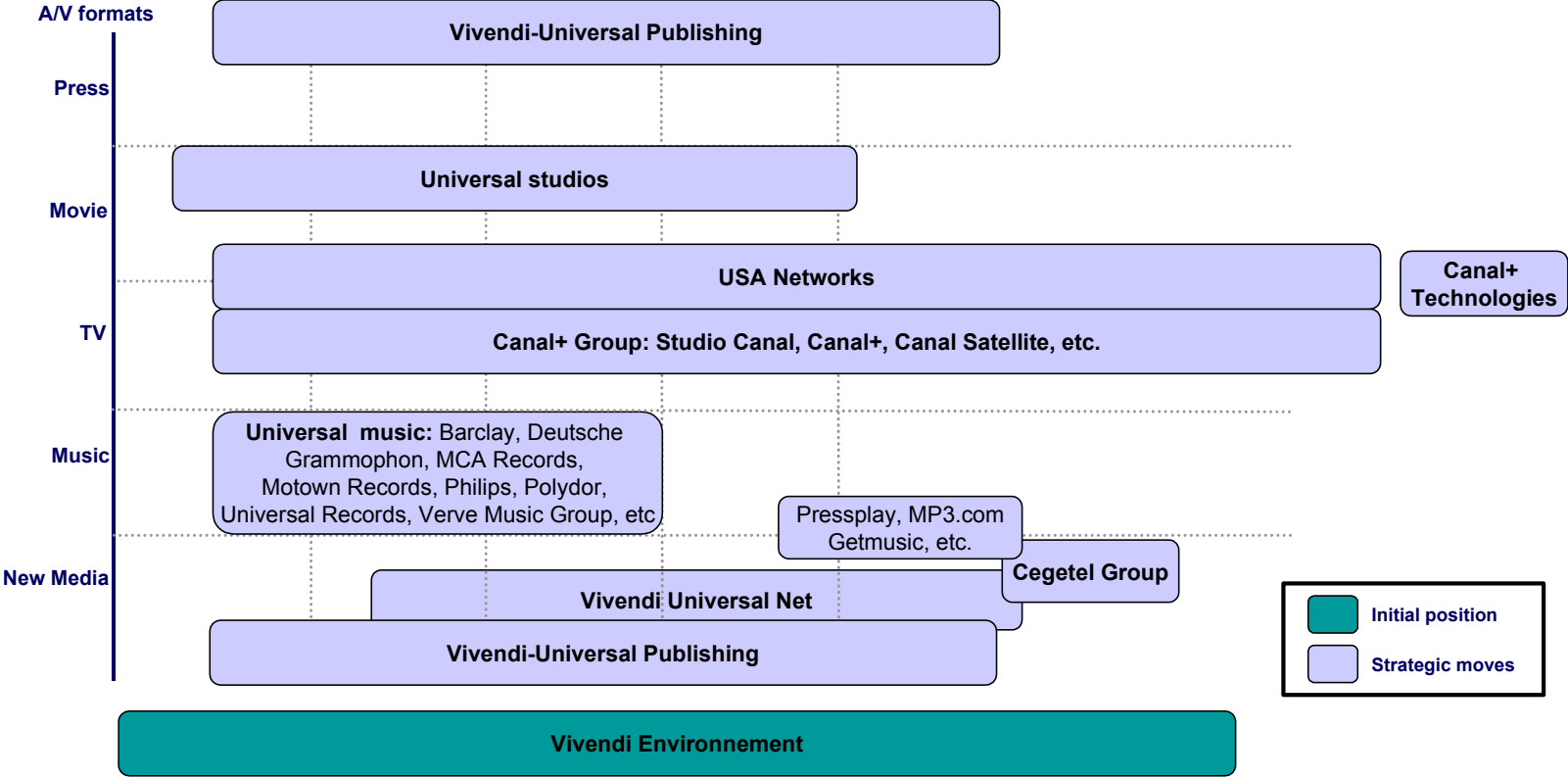
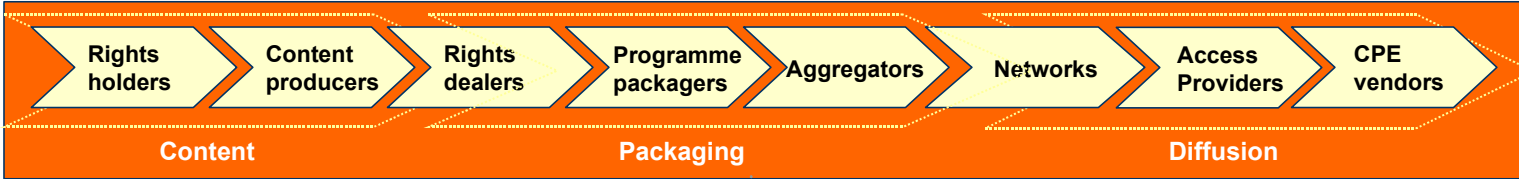
# Sony (Japan)



# AOL Time Warner (USA)

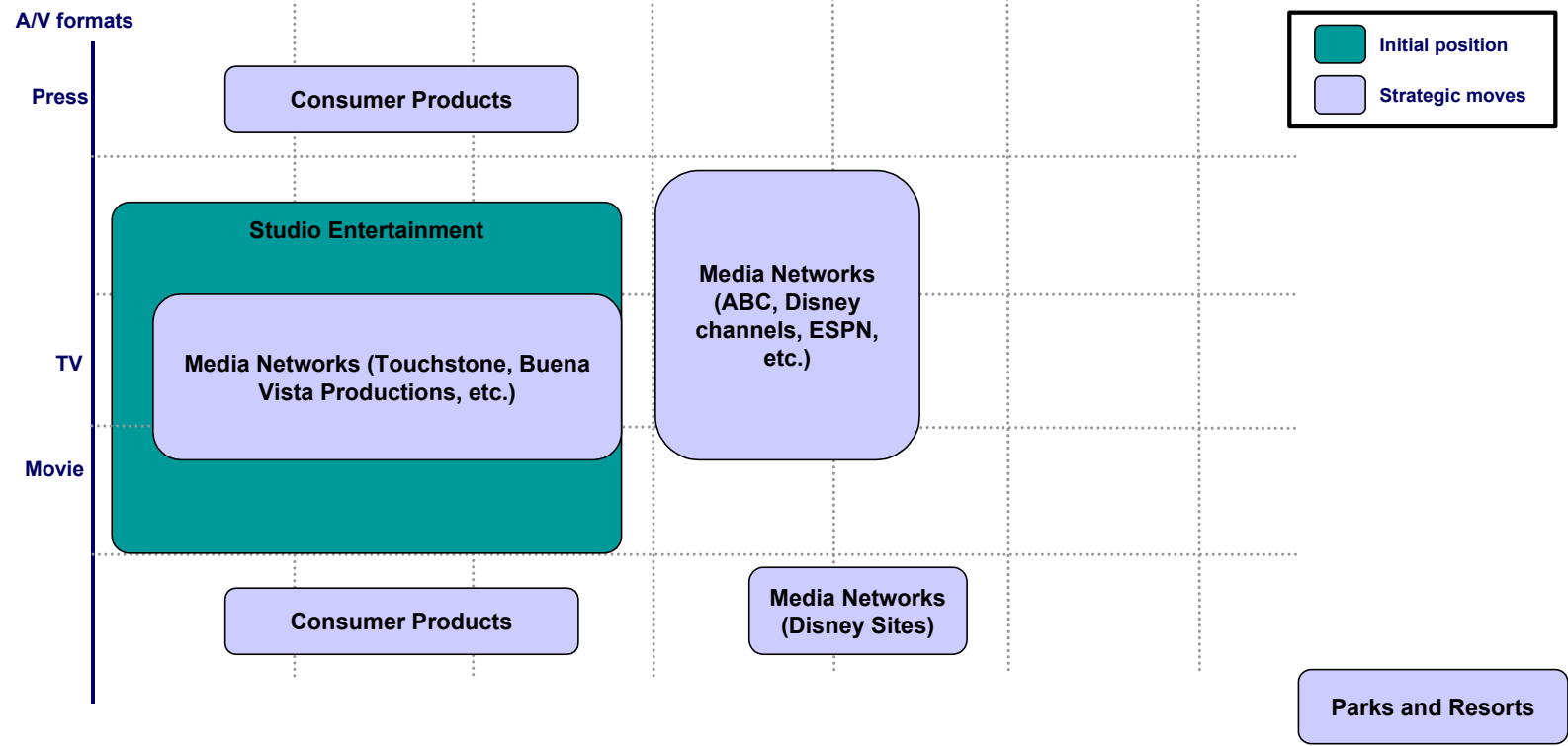
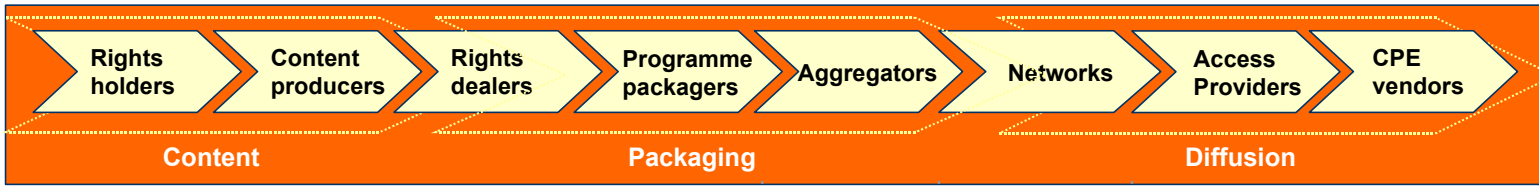


# Vivendi Universal (France)



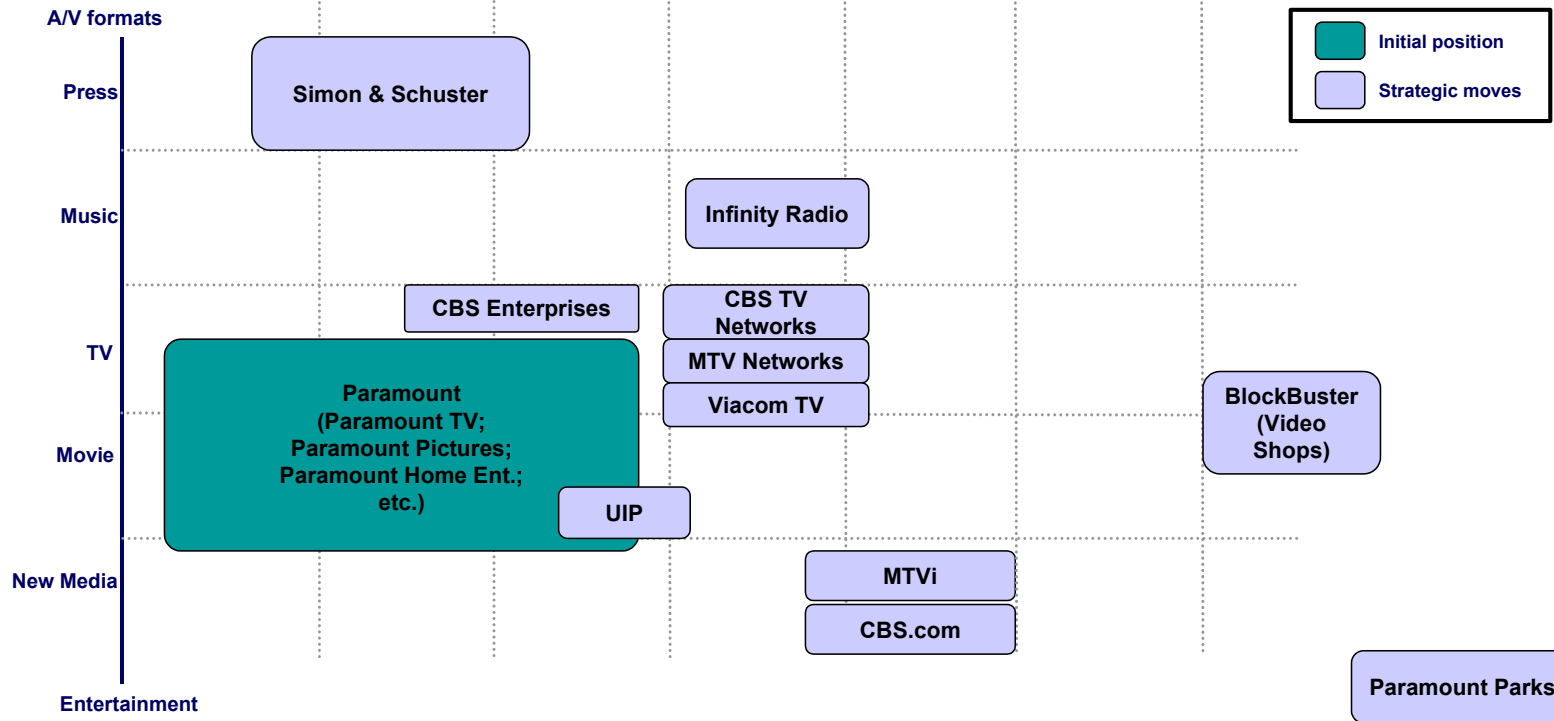
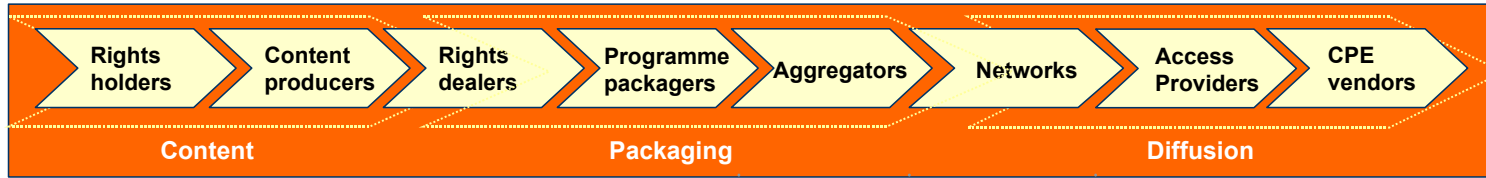
- Initial position
- Strategic moves

**Disney (USA)**

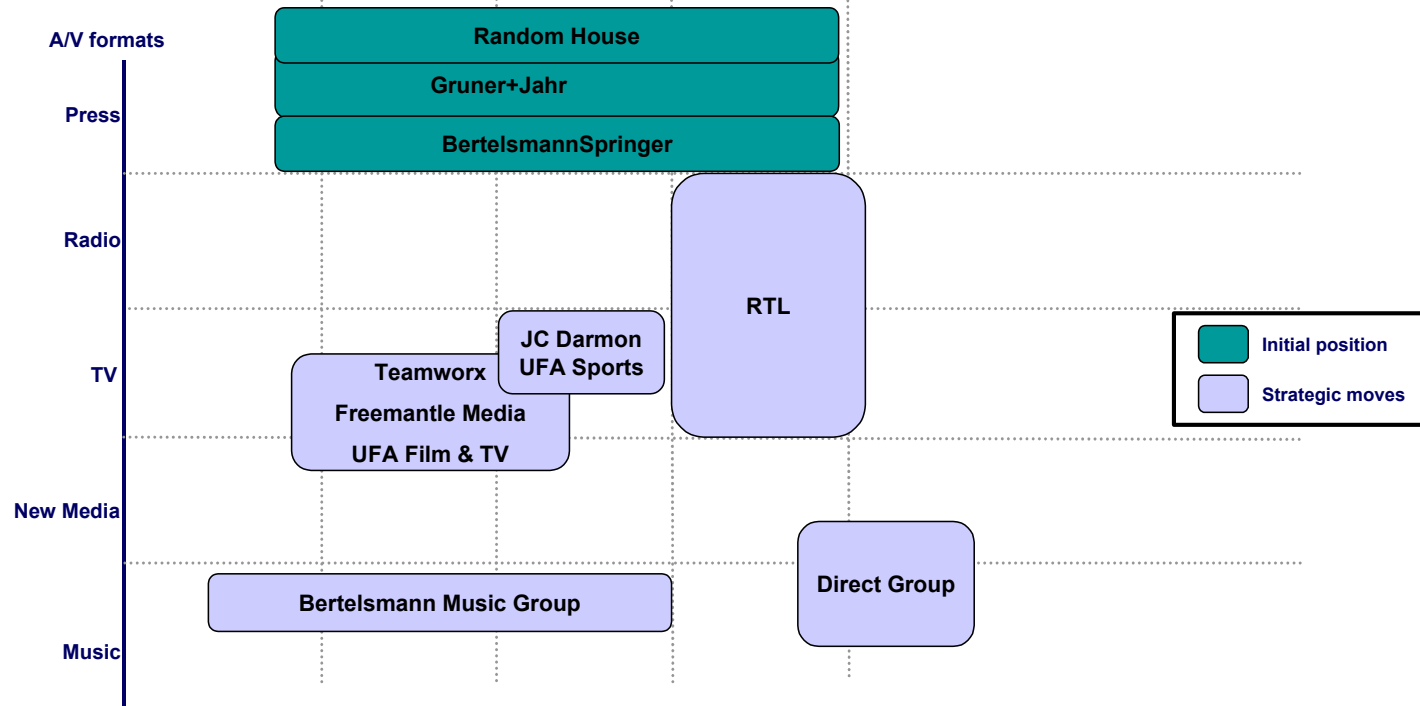
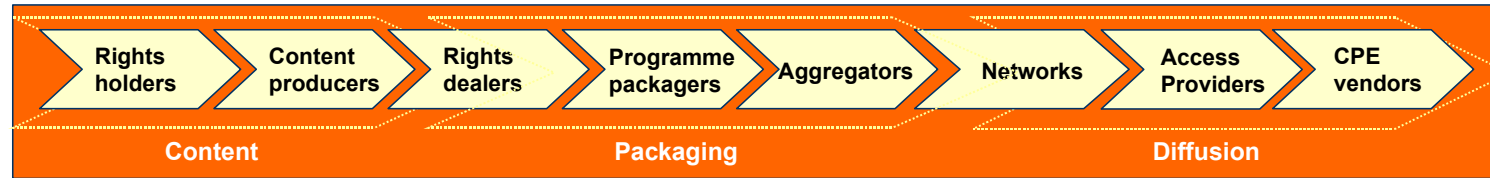




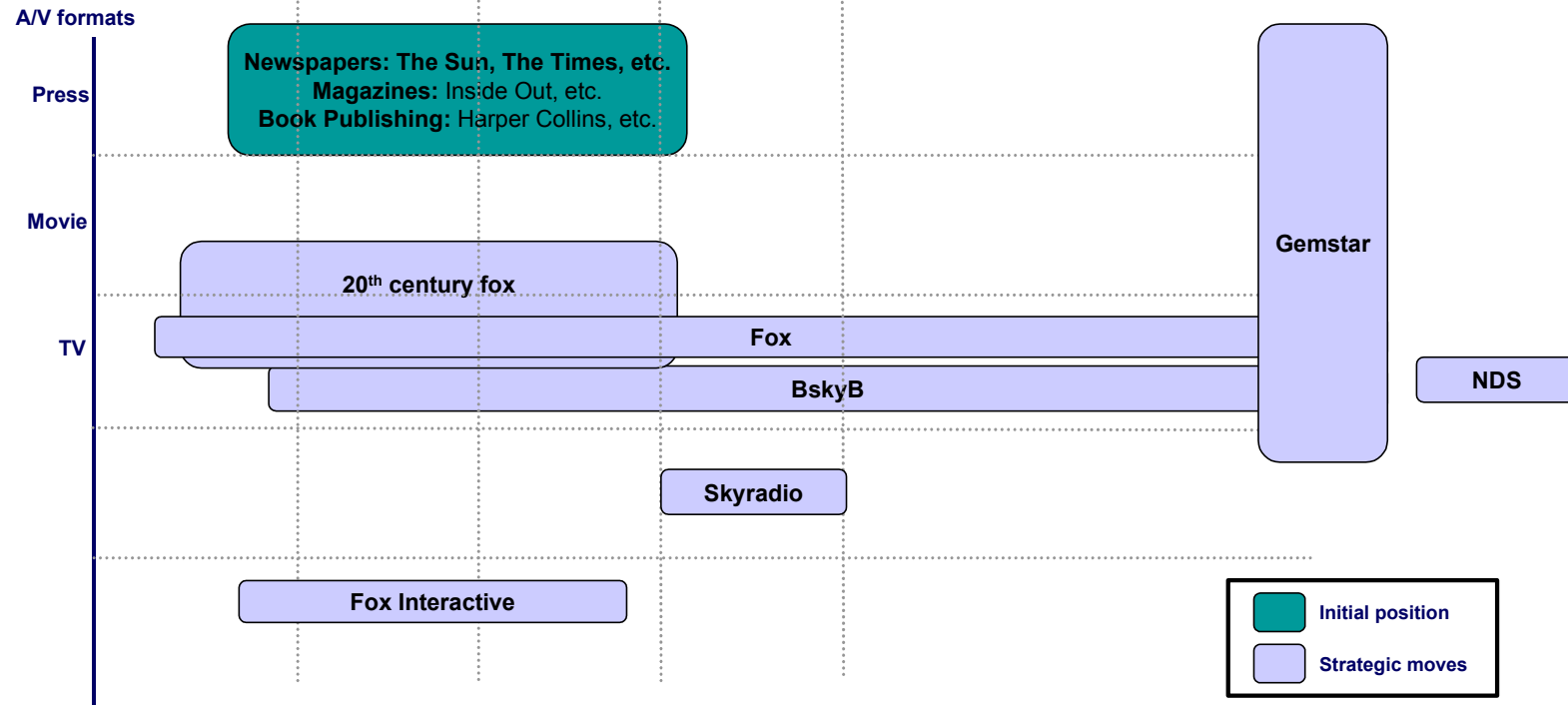
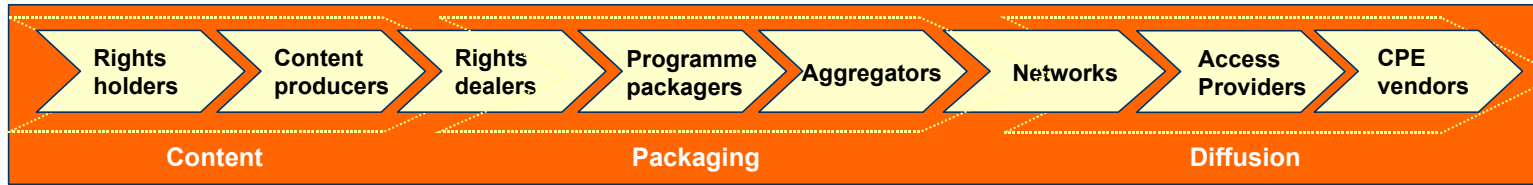
# Viacom (USA)



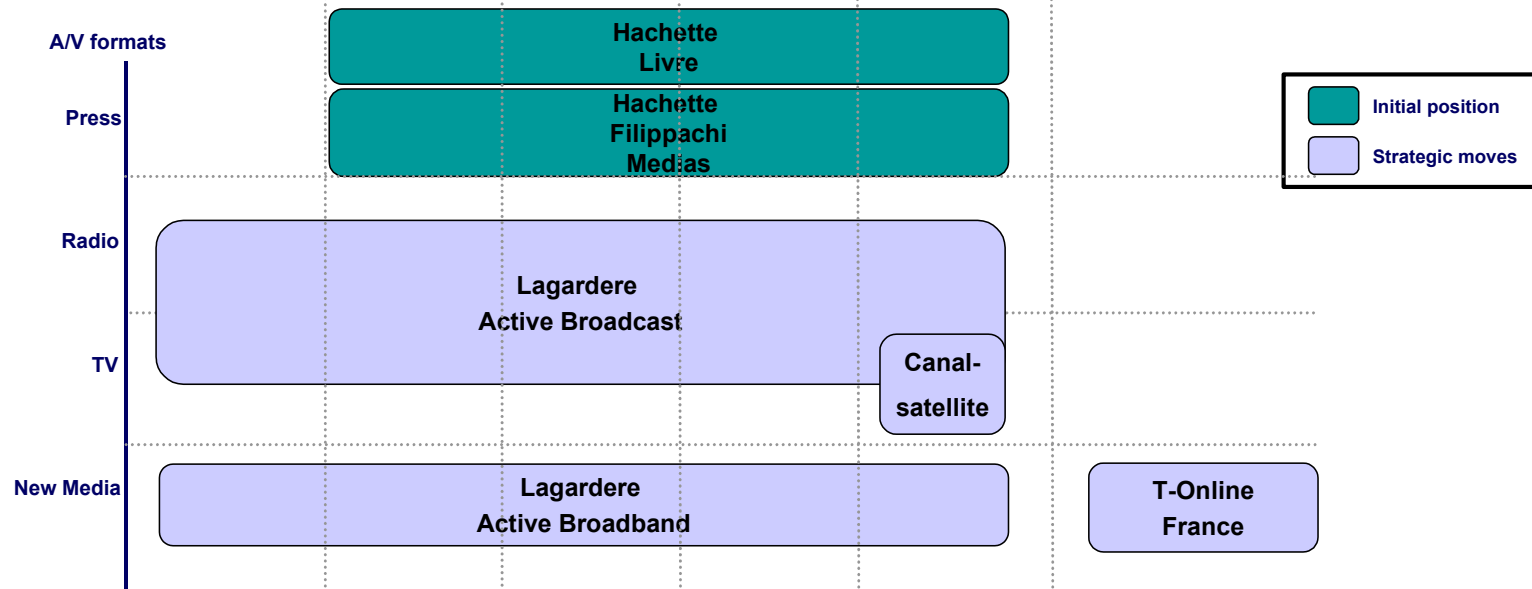
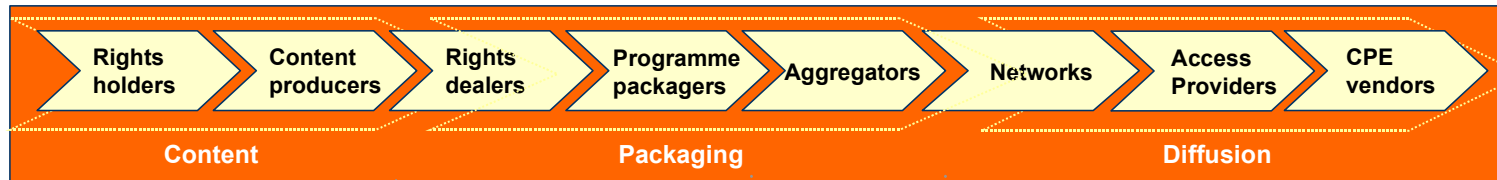
# Bertelsmann (Germany)



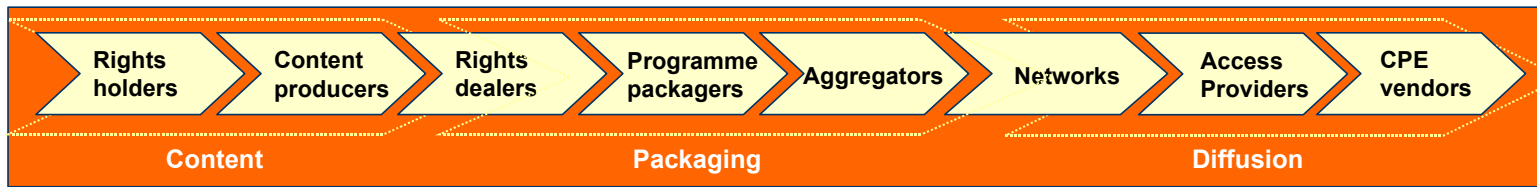
# News Corporation (US)



## Lagardère Groupe (France)



# Kirch Holding (Germany)



A/V formats

Press

Movie

TV

Music

Axel Springer Verlag

Constantin Film

• Taurus Produktion  
• Roxy Film

• Taurus Lizenz  
• Beta Film  
• Epsilon Mediagroup  
• ISPR  
• TaurusSport

Premiere World

Prosieben Sat1. Media

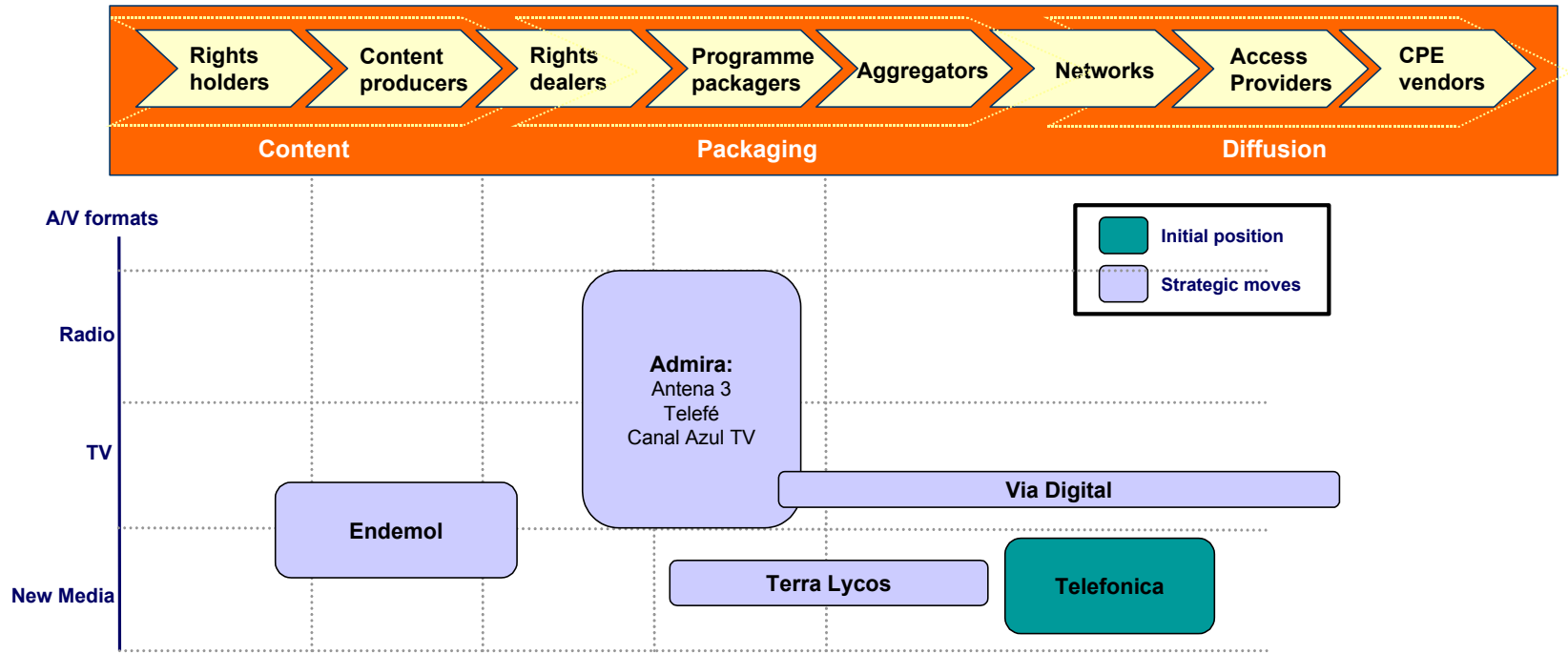
Beta-Research

Kirch New Media

Unitel  
Filmkunst-Musikverlag



## Telefonica (Spain)



Appendix 4  
Summary Report of the Delphi Study

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## Executive Summary

This report provides an overview of the conclusions of the Delphi study that was conducted by Andersen between June and October 2001.

This report forms an integrated part of the study on the “Television without frontiers” Directive, *“Outlook of development of the market of European audio-visual content and of the regulatory framework concerning production and distribution of this content”*.

The Delphi study was conducted to get a better understanding of the expectations of representatives of industry stakeholders.

Therefore, industry experts in the EEA have been asked to complete a questionnaire in order to gather quantitative information. In a second phase of the Delphi study, in-depth face-to-face interviews were performed with these experts to get a qualitative view on some of the key issues.

### Industry Viewpoint on the Regulatory Framework

The promotion of cultural diversity (42% of respondents) and the increase in the volume of content produced (35% of respondents) are the objectives of **content regulation** mentioned by the interviewees. All industry players assess the regulation as being somewhat effective, except the content producers. 60% find that the content regulation is not at all effective at increasing the volume of content produced.

To increase competition (44% of respondents) and to promote cultural diversity (36% of respondents) are **access regulations**' main objectives, cited by the interviewees. Most interviewees (78%) assess the regulation as being somewhat effective.

The **“must carry” regulation** should be adapted, according to the industry players, by applying it to analogue as well as digital channels, by basing channel eligibility on objective criteria, by applying it to all infrastructures, and by introducing financial compensation for the carriers.

Increasing competition (32% of respondents) is the most important objective of **ownership regulation** according to the experts interviewed. The majority of the regulatory bodies and associations, content producers and programme packagers find the regulation effective, while 67% of access providers find it not effective at all.

**Support mechanisms** increase the volume of content produced (50% of respondents) and support the financial strength of the industry (45% of respondents). According to the regulatory bodies and associations and access providers these mechanisms are effective. Programme packagers and content producers are of the opposite opinion.

### Trends in the Audio-visual Sector

Industry players indicate that following **trends** have influenced their business during the **period 1995 – 2000**: the Internet (67% of respondents) as a new distribution channel, pay

TV (64% of respondents) and satellite TV (58% of respondents) by increasing the choice and demand for content.

Digitisation (75% of respondents), broadband (73% of respondents) and interactivity (73% of respondents) are **future trends** that industry players expect to have an impact on their businesses.

**Digitisation** will decrease the costs and investments for content producers, while access providers and packagers expect an increase. For all players, the digital evolution will increase their revenues (58% of respondents) and their capacity to innovate (86% of respondents).

The content producers already started digitising their processes. Programme packagers also started, but players foresee 2015 as the date by which the largest part of their business will be digitised. The digitisation of the delivery infrastructure will be spread over a longer period (2000 – 2009).

The government can best facilitate the transition to digital broadcasting by setting a deadline (24% of respondents) or adapting the “must carry” regulation (24% of respondents).

54% of the interviewees expect that consumers’ **time viewing TV** will remain unchanged, while the time spent on all media is expected to increase (88% of respondents).

The **interactive services** that will become the success stories of the next decade are, according to the industry, games (87% of respondents), email (67% of respondents) and information services (57% of respondents).

## Content Producers & Rights Owners

Industry players expect following changes to occur in the area of **intellectual property rights**:

- 62% believes that the rights will increasingly be in the hands of content producers;
- 64% are of the opinion that TV rights will increasingly be sold for one single broadcast ;
- 62% say that IP rights will increasingly be split according to geography ;
- 63% are of the opinion that IP rights will increasingly be split according to distribution channel.

The increasing market power of content rights holders leads, according to 69% of respondents, to **higher content prices**, especially for sports.

**Piracy** issues are expected to arise with video over the Internet (39% of respondents) and the DVD (38% of respondents). Hard sanctions (25% of respondents), an anti-piracy law and the protection of content rights owners (19% of respondents) are seen as regulatory measures that could help fight piracy.

Industry players indicate that there is a positive relationship between the number of TV channels and the **demand for content** (89% of respondents). However, a doubling of the number of TV channels implies less than a doubling of the demand for content (90% of respondents).

Consumers in each market show a strong **preference for local audio-visual content** (71% of respondents) because it’s close to their local culture and for language reasons.

The limited **market share of European content** on its own market is due to the existence of a scattered European distribution market (60% of respondents) and the price of European content which is not competitive (48% of respondents). The European style of audio-visual content (79% of respondents) and the distribution structure (37% of respondents) are quoted as the main reasons for European content to have a limited market share in the US. In order to improve the limited market share, industry players indicate that the **government** could play a role by funding a strong distribution structure (44% of respondents). All countries mainly **export** to and **import** from countries closely related to their own country, be it in terms of language, culture or geographical proximity.

Industry players select a country for **co-productions** based on creativity and the ability to receive financing, in the forms of grants or public funding.

The government can best **stimulate local content production** by means of tax breaks (53% of respondents) and production grants (40% of respondents).

Overall, the industry expects traditional **players to take the largest share of the production market** in 2010 in niche TV content (62% of respondents), interactive TV content (66% of respondents) and Internet content (56% of respondents). It is only in the mobile content production that new entrants are expected to take half of the market.

#### Programme Packagers

Industry experts expect the **number of generalist channels** in the EU to grow by 6% yearly for the next five to ten years, while **thematic channels** are expected to grow by 22% per year.

The average **pay TV viewing share** is expected to reach 26% in the EU in 2010. A growth of 6% per year.

#### Content Distribution

It will not be the existing operators implementing open **standards** for pay TV and interactive services according to 45% of the interviewees, but new operators. 67% of the respondents are in favour of some form of encouragement from the government of the DVB-mhp standard.

**Digital cinema** is expected to be the norm in the EU by 2010 (64% of respondents) and will reduce movie distribution costs (71% of respondents), will allow simultaneous world-wide release of movies (70% of respondents) and will allow flexibility in movie theatre programming (69% of respondents).

The impact of **the introduction of DVD** recorders will be piracy of audio-visual works (44% of respondents) and it will push the VHS format out of the market, according to 93% of the respondents.

**VOD** will impact the demand for TV services (55% of respondents) and will decrease the sales of videos and DVDs (73% of respondents).

**Broadband** is expected to increase costs (92% of respondents), investments (80% of respondents) and the industry players' capacity to innovate (86% of respondents). While content producers and access providers see broadband as a means to increase their revenues, packagers are of the opinion that the effect on their revenues will be neutral. On average, the industry expects a broadband penetration of 40% in the EU by 2010. The main broadband delivery infrastructure will be cable and ADSL (26% of respondents).

The **distribution channels** that are expected to increase the demand for specific formats of content are the Internet (94% of respondents), interactive TV (94% of respondents), mobile phones (69% of respondents) and game consoles (78% of respondents).

### Market Structure and Business Models

The "channel-based" windows are going to shift towards "**transaction-based**" windows (61% of respondents).

32% of the industry players indicate that the access providers are the players who will gain **control over the set-top box**.

The industry expects the following evolution in the **market structure** of the different industry segments:


- Content producers (35% of respondents) and programme packagers (32% of respondents) expect vertical integration ;
- Access providers (28% of respondents) and Internet players (33% and 25% of respondents respectively) see horizontal integration and horizontal expansion as the main evolutions for their segment ;
- The production industry will concentrate around programme packagers and dependent producers (47% of respondents) ;
- The carriers' industry will further consolidate due to the huge investments in upgrading the network infrastructure for digital broadcasting (96% of respondents).

## Introduction

The Delphi study was launched in order to get gain insight to the audio-visual industry in Europe. Therefore, several of the major and significant players in the audio-visual world were interviewed and asked to provide their opinion on the future of the industry and in particular the effectiveness of the “Television without Frontiers Directive”.

In Table 1 an overview can be found of the companies that have been interviewed per “market model” <sup>60</sup> and per country.

**Table 1: List of interviewed industry players per market model**



	Content		Packaging	Diffusion			<i>Total</i>
Large markets	3	2	10	1	4	0	20
Mixed model	3	4	7	4	6	1	25
Monopolistic model	0	1	2	0	0	0	3
Importers	0	0	0	0	1	0	1
<i>Total</i>	6	7	19	5	11	1	49

The data received from the questionnaires was processed in a quantitative as well as a qualitative way.

First, the quantitative analysis provides insight to the opinion of the industry as a whole. Second, as countries may differ in the evolution and development of certain issues, their view on the topics highlighted in the questionnaire may differ. For this reason, the results have been analysed by country as well.

A third analysis consists of reviewing the results of the different industry players, since they might have other dynamics driving their business.

In addition to the quantitative analysis, which was based on the answers of the questionnaires, there was also a qualitative part, based on the face-to-face interviews. This part will largely served as qualitative input to explain and enrich the output of the quantitative results.

Note that not all players are prepared to let us quote their remarks in this report, so in many cases only the type of player or the country of origin is mentioned when quoting a remark.

<sup>60</sup> Cfr. Country segmentation that has been used in the report

## 1. Industry Viewpoint on the Regulatory Framework

In the first part of the questionnaire, the goal is to see how the different countries and players feel about the current regulatory framework. The major questions asked were which regulation impacts them most, what is their understanding of the objectives of the regulation and its effectiveness.

Further detailed analysis gives an insight to the impact of regulation on the industry players' businesses to date. Where relevant, quotes are inserted that were collected during the interviews, especially on the interviewees' stance on measures that could improve the promotion and development of the audio-visual industry in the future.

### 1.1 Objectives and Effectiveness of regulation

As can be seen from Table 2, the promotion of cultural diversity is most often cited as the main objective of all types of regulation, followed by increasing the level of competition.

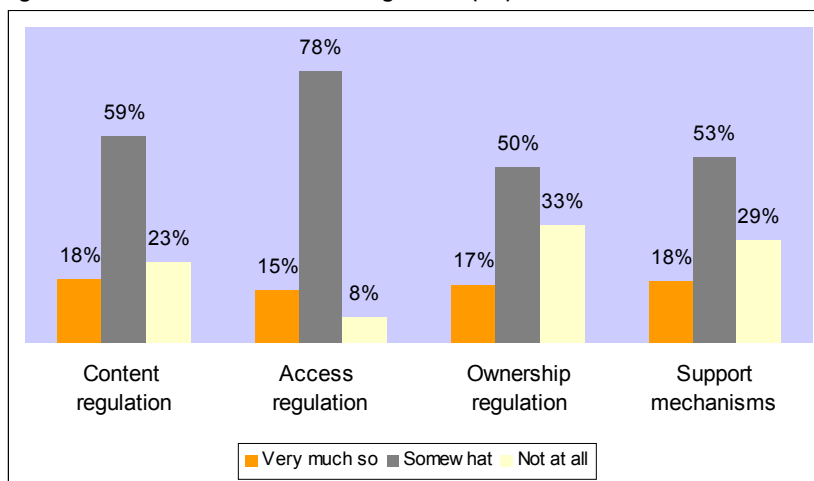
According to the industry players, the current regulation, does not have the objective of stimulating the import or export of audio-visual content (except for the support mechanisms).

**Table 2: Responses on the objectives of the regulation<sup>61</sup> (Q1)<sup>62</sup>**

	Content	Access	Ownership	Support mechanisms
Increase the volume of content produced	35%	16%	5%	50%
Restrict the import of content from non-EU countries	13%	0%	5%	10%
Support the financial strength of the industry	19%	4%	21%	45%
Stimulate export of content	6%	0%	5%	30%
Increase competition	23%	44%	32%	20%
Promote cultural diversity	42%	36%	11%	35%
Other	46%	24%	21%	10%

The interviewees were asked if they thought the regulatory measures were effective. As can be seen from Figure 1, for all types of regulatory measures, the majority of the interviewees finds that the regulation is somewhat effective.

**Figure 1: Effectiveness of regulation (Q1)<sup>63</sup>**



<sup>61</sup> Interviewees were allowed to give multiple answers to the question on the objectives of regulation

<sup>62</sup> Sample: n content = 31, n access = 25, n ownership = 19, n support mechanisms = 20

<sup>63</sup> Sample: n content regulation = 22, n access regulation = 20, n ownership regulation = 12, n support mechanisms = 17



## 1.2 Content Regulation

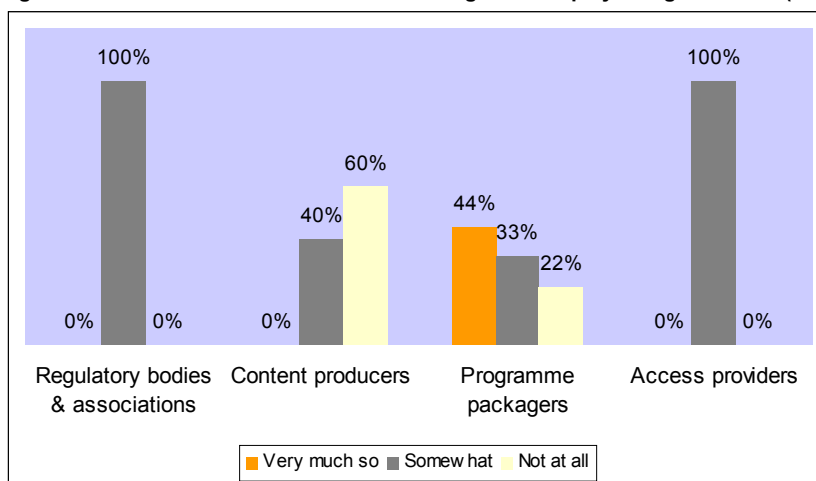
Content regulation, and more specifically the quota system, impacts the programme packagers, since they have to reserve a proportion of their transmission time for European works. Programme packagers also have to comply with the quota for independent productions: 10% of their transmission time or 10% of their programming budget has to be reserved for independent productions. This means that, indirectly, the quota system has an impact on the content production industry.

### 1.2.1 Objectives and Effectiveness of Content Regulation

The programme packagers said they believe that the main objective of the content regulation is the promotion of cultural diversity, while content producers believe increasing the volume of content produced is its main objective.

This can be an explanation why the point of view of these two industry players differs regarding the effectiveness of the regulation, as can be seen from Figure 2 below.

Figure 2: Effectiveness of content regulation – player segmentation (Q1)<sup>64</sup>



Programme packagers evaluate the regulation as being very effective in increasing cultural diversity. Their remarks regarding the quota system are the following:

- It impacts the national production industry, but it does not stimulate pan-European, non-national content ;
- The system should be adapted by including pan-European, non-national content.

On the other hand, 60% of the content producers believe that the regulation is not effective at increasing the volume of content produced. The following remarks are made:

- Programme packagers produce content in-house, which limits the stimulation of the independent production industry ;
- The most important driver for increasing local content production is demand, not the quota system ; (Granada, Sony Pictures, Sky)
- It should be up to the programme packagers and viewers to decide what programmes and content is brought on television ; (Granada, Sony Pictures, Sky)
- The quota for independent productions should be increased to at least 25%, in order to promote the European audio-visual industry. (Endemol)

<sup>64</sup> Sample n regulatory = 3, n producers = 5, n programme packagers = 9, n access providers = 5

There is a clear contradiction between the view of the content producers and the view of the programme packagers. Content producers find the content regulation not at all effective, while the majority of the programme packagers find the regulation effective.

### **1.2.2 Listed Events**

The “listed events” consists of a list of programmes, chosen by each country individually, that should be freely accessible for the public at large.

Most lists consist mainly of sports events, which might have an impact on the pay TV operators who pay high prices for the rights.

- In the Netherlands, 90% of the list contains sports events, which distorts the open market. (Canal+ )

### **1.2.3 Advertising**

The increase in channels impacts the advertising budgets and therefore industry players have to look for alternative ways of funding their business. Several arguments are made for a more liberal advertising regime:

- Consumers are accustomed to advertising and are in a position to distinguish between promotional content and non-promotional content<sup>65</sup>. (Endemol)
- A further restriction of advertising could lead to a reduction of programming budgets and consequently result in cheaper content, or could even result in an increase in the purchase of US content. (Endemol)
- The European Commission should set out broad, high-level, core principles, allowing the national regulators to set specific advertising rules, in order to comply with national differences. (ITC, Channel 4)

## **1.3 Access Regulation**

The regulation falling under this category concerns access to the different distribution networks, Conditional Access Systems and Open Network Provision. Specific questions concerning the “must carry” regulation will also be addressed in this part of the study<sup>66</sup>. The industry players that are most affected by this type of regulation are the access providers.

### **1.3.1 Objectives and Effectiveness of Access Regulation**

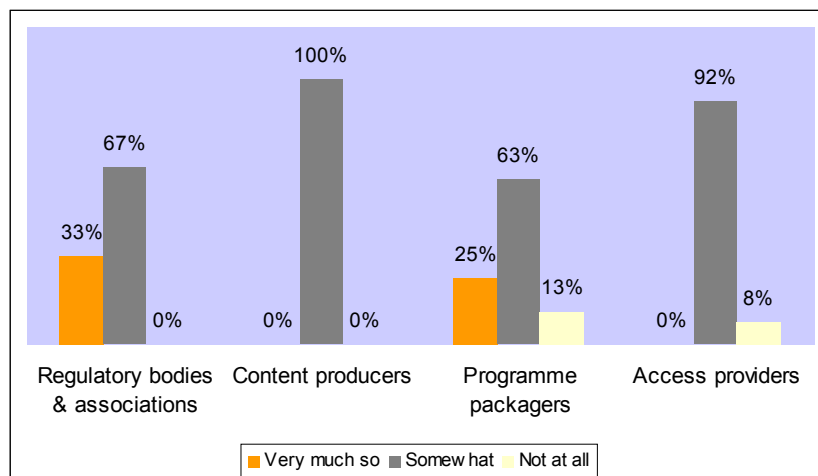
The objectives of access regulation that respondents quote most are increasing competition (44%) and promotion of cultural diversity (36%).

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<sup>65</sup> Refer to “An initial position paper from Endemol Entertainment 2001”

<sup>66</sup> We refer to question 32 of the questionnaire regarding the “must carry” regulation

Figure 3: Effectiveness of access regulation – player segmentation (Q1)<sup>67</sup>



Overall, the effectiveness of this type of regulation is considered to be somewhat to very much effective. 92% of the access providers that were interviewed finds that the regulatory measures are somewhat effective.

### 1.3.2 Conditional Access Systems

A Conditional Access System is a technology that limits programme viewing to subscribing audiences, blocking any other access to the programme data.

Remarks that are made by infrastructure operators:

- Fair, reasonable and non-discriminatory access to Conditional Access Systems is vital for public service programme packagers. (ITV)
- Access to proprietary software should be ensured to public service programme packagers, in order to be able to deliver universal access for viewers to certain services when switching to digital. (ITV)

### 1.3.3 Open Network Provision

Open Network Provision concerns the harmonisation of conditions for efficient access to and use of public telecommunications networks, and where applicable, publicly available telecommunications services.

The ONP, to date, applies to leased lines, packet-switched data services, integrated services digital network and voice telephony, but should be adapted to the audio-visual industry in so far as a distribution provider has a dominant position on the market.

The remarks made by industry players are mostly obtained from The Netherlands where, as to date, the cable platform must terminate competitor traffic through their network (if the network is not fully utilised). Related to this issue is the question of who pays who in this kind of situation and on which basis.

- The cable parties in The Netherlands for example, should pay the programme packagers for the transport of content since they are the ones receiving money from consumers. (Canal+)

<sup>67</sup> Sample: n regulatory = 3, n producers = 5, n programme packagers = 8, n access providers = 6

- Public programme packagers from other countries that have to pay to be on the Dutch cable, might decide not to do so and thus limit the access of the public to diverse content. (Canal+)

### 1.3.4 “Must carry”

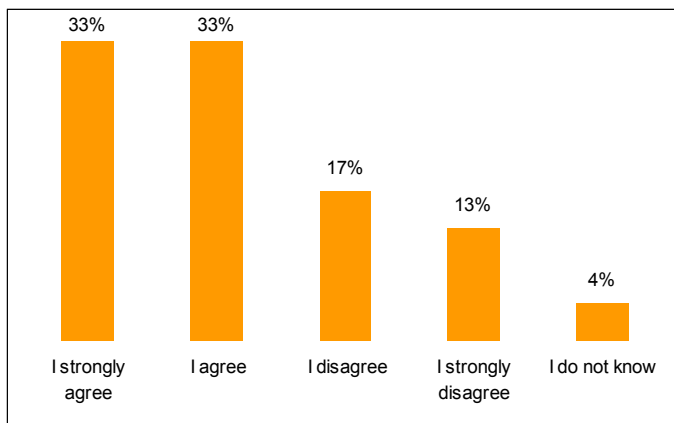
The “must carry” regulation was defined as the legal obligation for the owner or operator of a distribution infrastructure (be it cable, satellite or terrestrial) to provide selected broadcast channels over its network (TV or radio) to its customers.

The regulation is a key part of the broadcasting industry and with the advent of the switch to digital transmission, there might be a change needed in the current regulation. Several questions were asked to assess which changes might be needed in order to have an efficient “must carry” regulation for the future.

#### 1.3.4.1 Analogue and Digital Channels

A primary question was whether industry players find it necessary to apply the regulation to both the digital and analogue channels.

Figure 4: Must carry regulation – both analogue and digital version of the same channels will fall under the “must carry” (Q32a)<sup>68</sup>



66% of the interviewees (strongly) agree to apply the “must carry” to the analogue channels as well as the digital ones and several arguments were provided:

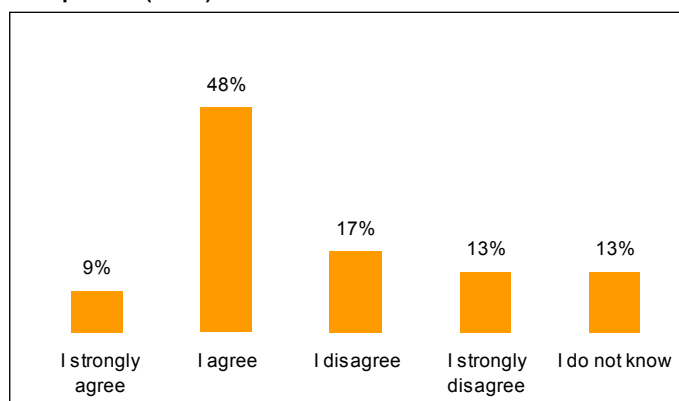
- It is a necessity in order to safeguard the public service mission. *ARD* (Germany)
- The “must carry” should be formulated to be independent of technology. (Canal +)

#### 1.3.4.2 Financial Compensation

Another element of the “must carry” regulation is the question of whether carriers should receive a compensation for the services they provide.

<sup>68</sup> Sample: n regulatory = 3, n producers = 3, n programme packagers = 9, n access providers = 7, n Internet players = 2

**Figure 5: Must carry regulation – carriers will receive a fair financial compensation for the service they provide (Q32b)<sup>69</sup>**



It is obvious that the industry players have different points of view regarding this issue. The 57% of interviewees in favour of financial compensation represents the opinion of the access providers, while (public) programme packagers are the group that are mostly in disagreement with granting compensation (30%).

Cable operators cite the following arguments in favour of compensation:

- The “must carry” is a form of expropriation, taking away part of the carrier’s capacity. (ECCA)
- Other infrastructures, which are in direct competition with the cable, do not fall under this regulation. This distorts the competition in a way. (ECCA)
- The “must carry” status should be limited to a certain number of channels. (ECCA)
- The financial compensation for distributors should be based on the costs that the players had when investing in for example antennas or for the transmission and transport of the channel. (ECCA)
- Carriers should not only be compensated for the cost of capacity and transmission, but also for the opportunity cost i.e. the benefit that could be derived from being able to provide another channel instead. (NTL)

The viewpoint of the programme packagers is different: most of the public service programme packagers are against a financial compensation. Programme packagers cite following reasons:

- Channels with “must carry” status add commercial value for the operator since they increase its attractiveness and thus already derive financial benefits. (France Télévision, ARD)
- Financial compensation is possible, but it should not apply to the public service programme packagers. (ORF, Austria)
- Only a limited number of channels should receive the “must carry” status, like the public services programme packager and some generalist commercial channels. Others, who aim at specific audience groups, should get a “may carry” status. (VRT)
- Fair financial compensation is made more difficult in the UK due to the increase in the number of publicly funded channels. Therefore, ITC believes that it is fair to expect that programme packagers allocate up to 5% of their available bandwidth to carrying such channels.

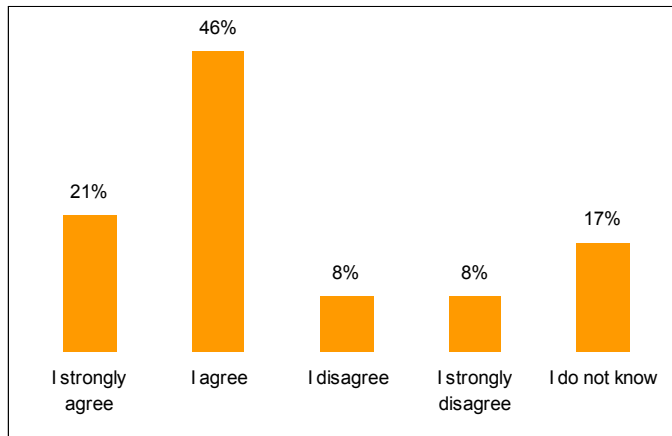
<sup>69</sup> Sample: n regulatory = 2, n producers = 3, n programme packagers = 9, n access providers = 7, n Internet players = 2

### 1.3.4.3 Criteria to receive “Must carry” status

Another comment that was made by many industry players was that channels today receive the “must carry” status quite easily.

Therefore, 67% of respondents are convinced that objective criteria is needed in order to attribute “must carry” status to a channel.

**Figure 6:** Must carry regulation – TV channel eligibility to “must carry” will be based on purely objective criteria (Q32c)<sup>70</sup>



Programme packagers’ opinion is that:

- The “must carry” status should only apply to the channels of public service programme packagers or channels that have a specific goal, including the general interest. (VRT, NTL, UPC, BBC)

Access providers:

- *UPC* argues that “must carry” status today applies to a large undifferentiated offer resulting in a limitation of the operator’s ability to pick its own package.
- The unclear criteria led to a situation where certain pay TV channels have been granted the “must carry” status on networks of competing platform providers. (*UPC*)
- It creates unfair competition for those operators who have to include their competitor’s services in their TV packages by undermining the carrier’s negotiating power with the “must carry” provider. (*UPC*)

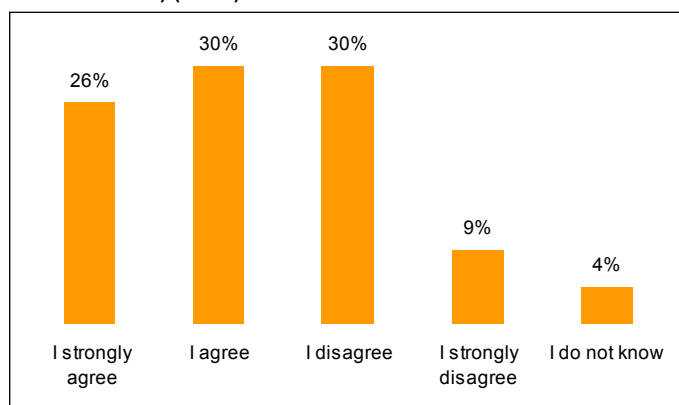
Only a small percentage (16% or 8% who strongly agree plus 8% who agree) of the respondents are in disfavour. (*De Persgroep*)

### 1.3.4.4 Distribution Infrastructures

Today, the “must carry” regulation particularly applies to the cable infrastructures. Andersen asked respondents if they think the regulation should be enlarged to all infrastructures. 56% of the answers were positive, while 39% of the interviewees were contra.

<sup>70</sup> Sample: n regulatory = 3, n producers = 3, n programme packagers = 9, n access providers = 7, n Internet players = 2

Figure 7: Must carry regulation – the “must carry” will apply to all available infrastructures (cable, satellite, terrestrial) (Q32d)<sup>71</sup>



The *Independent Television Commission* and some other players are strongly in favour since they believe that certain content should be accessible universally, irrespective of their transmission mode. (France Télévision, Independent Television Commission)

A remarkable aspect is the fact that the answers from the “Mixed model” markets (Belgium, The Netherlands and Sweden) were in opposition to the general trend. 61% of respondents in these countries disagree with this statement. One explanation for their answers might be the fact all three are countries in which cable prevails as a platform. Due to the high penetration of homes passed by cable they might find it unnecessary to apply the “must carry” regulation to other transmission modes.

### 1.3.5 Standardization

Some players indicate that there is a role for the European Commission to play in guiding the European countries towards digital television:

- Imposing technical standards for decoders. (Nozema)
- Setting a final date for switching off to digital. (Nozema)
- Enforcing the DVB-mhp standard in order to provide fair competition. (Philips)

### 1.4 Ownership Regulation

Ownership regulation consists of rules regarding cross media ownership, cross sector ownership, foreign ownership restrictions, restrictions on ownership of content produced, control of rights, etc.

There is at least consensus among the different industry players about the objectives and effectiveness of the ownership regulation. The size and willingness of industry players to get involved in merger and acquisition activities explains their different views, even within one particular industry segment.

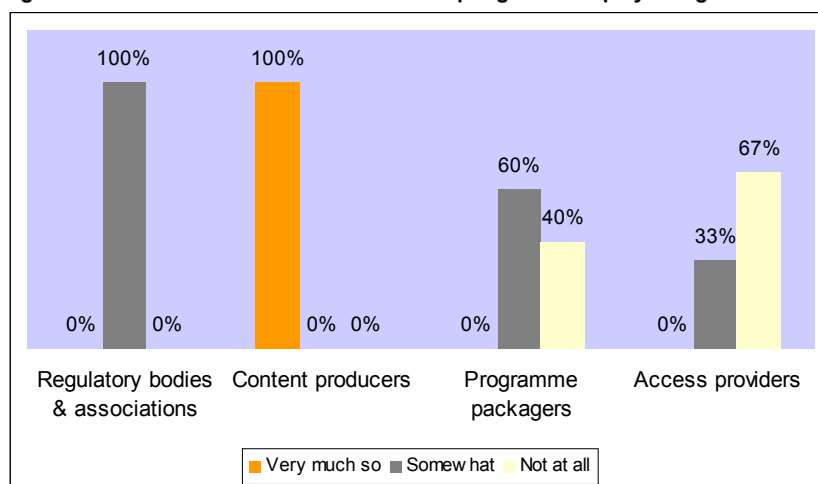
Overall, the industry indicates increasing competition (32%) and supporting the financial strength of the industry (21%) as the main objectives of the ownership regulation. Content producers, on the other hand, quote increasing the volume of the content produced (33% of answers), restricting the import of content from non-EU countries (33%) and

<sup>71</sup> Sample: n regulatory = 3, n producers = 2, n programme packagers = 9, n access providers = 7, n Internet players = 2

supporting the financial strength of the industry (33%) as most important objectives. They find the regulation very much effective (100%), which can be explained by the fact that the ownership regulation protects them from being taken over by other media players.

- The restriction on programme packagers to own content producers has a positive impact on the content production industry in the UK. (PACT)
- The current regulation protects us from being taken over by large non-European media groups and helped us survive. (Granada)
- The regulation might turn against us when consolidation in the local and European market has come to an end and players want to expand globally. (Granada)

Figure 8: Effectiveness of ownership regulation – player segmentation (Q1)<sup>72</sup>



Access providers, however, find in 67% of the cases that the regulation is not effective. One of the reasons is that they are directly impacted by the regulation in their search for taking over and merging with other players in the value chain.

Programme packagers find that increasing the competition (50%) and ensuring media pluralism (50%) are the top goals. Their assessment of the effectiveness is quite different: while 60% finds it somewhat effective, 40% indicates that the regulation is not at all effective. The following arguments have been brought up:

- Cross media regulations ensure independence of information across the different media (TV, press, etc.) (VRT)
- An objective might be to minimise concentration in the media. (De Persgroep)

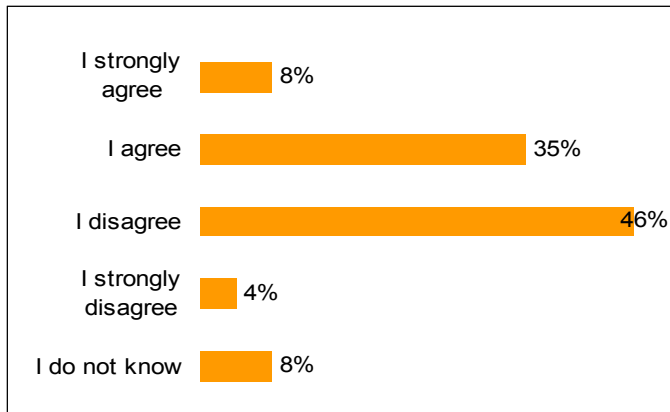
Another issue that has been investigated is the impact of the ownership regulation on the long-term viability of the industry. The division of opinions between the programme packagers and content producers is also evident here.

According to the content producers, ownership regulation implies the survival of a less competitive local industry and hence has a negative impact on the long-term viability of the industry. The programme packagers, on the other hand, disagree with this statement.

<sup>72</sup> Sample: n regulatory = 2, n producers = 2, n programme packagers = 5, n access providers = 3, n Internet players = 0



**Figure 9: Ownership regulation and its impact on the long term viability of the industry (Q69)<sup>73</sup>**



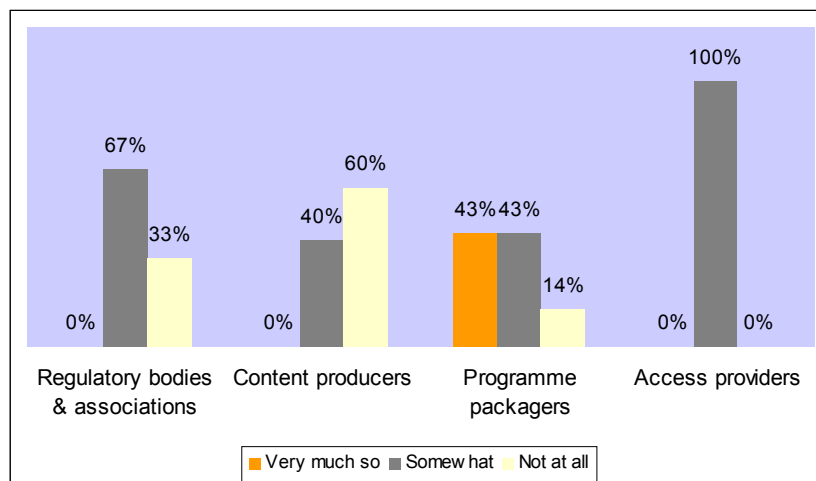
### **1.5 Support Mechanisms**

These mechanisms consist of funding, grants, employment-related advantages, tax breaks, etc. and in most cases apply to content producers and programme packagers.

For the content producers, some European mechanisms like Media Plus, Eurimages, the “i2i” programme, etc. have been put in place, while in most countries additional systems have been set up to stimulate and support the local production industry. The public service programme packagers receive public funding in order to ensure access to certain quality content for the public at large.

The objectives of the support mechanisms as quoted by all respondents are increasing the volume of content produced (50%) and supporting the financial strength of the industry (45%).

**Figure 10: Effectiveness of support mechanisms – player segmentation (Q1)<sup>74</sup>**



**The ongoing debate regarding the support mechanisms is to whom the support should be attributed in order to stimulate best the audio-visual content production.**

<sup>73</sup> Sample: n regulatory = 3, n producers = 5, n programme packagers = 9, n access providers = 5, n Internet players = 4

<sup>74</sup> Sample: n regulatory = 3, n producers = 5, n programme packagers = 7, n access providers = 2, n Internet players = 0

**Programme packagers find that promoting cultural diversity (71%) is the main objective of support mechanisms and is generally received as being very much effective (43%) because:**

- Programme packagers need to fill their channels with local content, following the imposed content quota, and this impacts the production industry in a positive way.
- Part of the programmes broadcast should be reserved for independent productions, so programme packagers commission programmes from the production industry and in this way ensure that the local production industry survives.

Content producers cite the increase in content production as the most important objective (57%), but state that these mechanisms are not at all effective (60%). They are more in favour of a system that attributes the support mechanism directly to the producers:

- It strengthens their negotiating power with the programme packagers.
- It increases their financial health and independence. (VOTP)

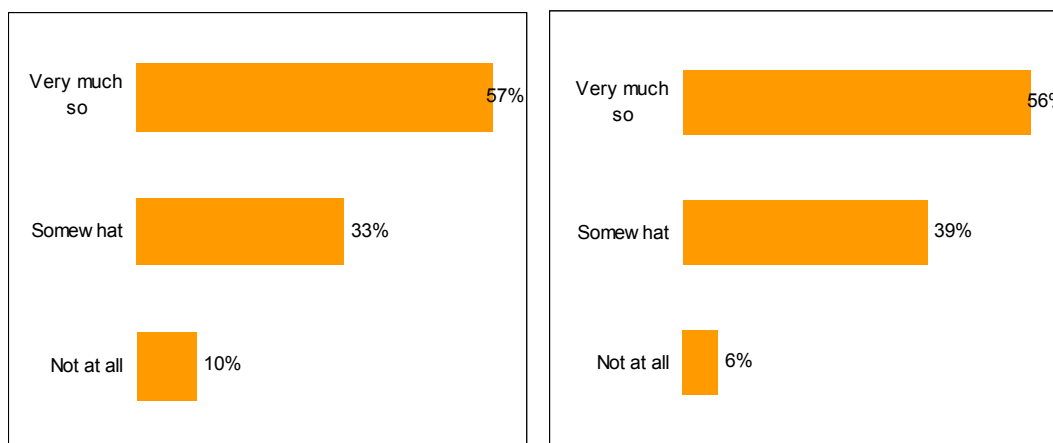
## **1.6 Public Funding**

The public funding mentioned in this part of the questionnaire refers to the funds allocated by the national governments to national public service programme packagers. These mechanisms have been put in place in order to achieve certain objectives. Industry players were asked if they find that the different objectives are achieved.

A first set of objectives is the promotion of local culture and cultural diversity. Overall, the industry players are of the opinion that these objectives are very well met.

**Figure 11: Objectives of public funding**

**Figure 12: Promote local culture and cultural diversity (Q20)<sup>75</sup>**

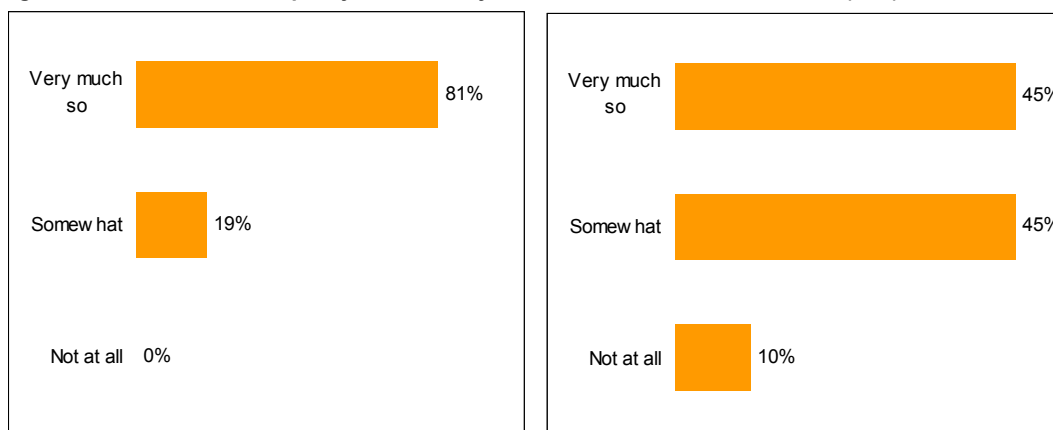


A second objective of the public funding is to increase the quality and diversity of content. 81% of respondents believe that this objective is reached. There are more discrepancies among the industry players regarding the objective of defending minorities: 50% of content producers and access providers and 100% of regulatory bodies and associations believe it is somewhat met, while 88% of programme packagers believe it is very much met.

<sup>75</sup> Sample "promote local culture": n regulatory = 5, n producers = 4, n programme packagers = 4, n access providers = 5, n Internet players = 0; Sample "promote cultural diversity": n regulatory = 6, n producers = 6, n programme packagers = 6, n access providers = 6, n Internet players = 6

Figure 13: Objectives of public funding

Figure 14: Increase quality and diversity of content and defends minorities (Q20)<sup>76</sup>



On an industry player level, the programme packagers were much more optimistic than the content producers. 63% of the programme packagers finds that public funding manages to promote cultural diversity, while only content producers finds that the objective is very much (50%) to somewhat (50%) met.

## 1.7 Copyright

Intellectual property rights is a topic that many players quoted during the interviews and they believe that following issues should be addressed:

- *Endemol*<sup>77</sup> argues that the control of content is essential for independent producers since they are wholly dependent on the use of their content. Therefore they should be able to:
  - o Reclaim copyright where a programme packager is unfairly warehousing a programme;
  - o Freely choose their preferred distributor;
  - o Price and assign all rights separately;
  - o Reclaim unused footage after a specified time;
  - o Protect format rights;
  - o Negotiate freely and fairly at all times.
- It should be possible to find a better balance between the benefits for the rights owner and the benefits for the rights user. (NOS)
- At the time, it is often necessary to pay separately for rights in order to use them in the different media, but this is not logical since the audience reached is not changing. (NOS)
- Regulation is necessary to protect the intellectual ownership, but the introduction of a very restrictive regulation could be interpreted in a different way in each country. (Philips)

<sup>76</sup> Sample: "increase quality" : n regulatory = 5, n producers = 6, n programme packagers = 8, n access providers = 2, n Internet players = 0; sample "defend minorities" : n regulatory = 4, n producers = 6, n programme packagers = 8, n access providers = 2, n Internet players = 0

<sup>77</sup> Refer to "An initial position paper from Endemol Entertainment 2001"

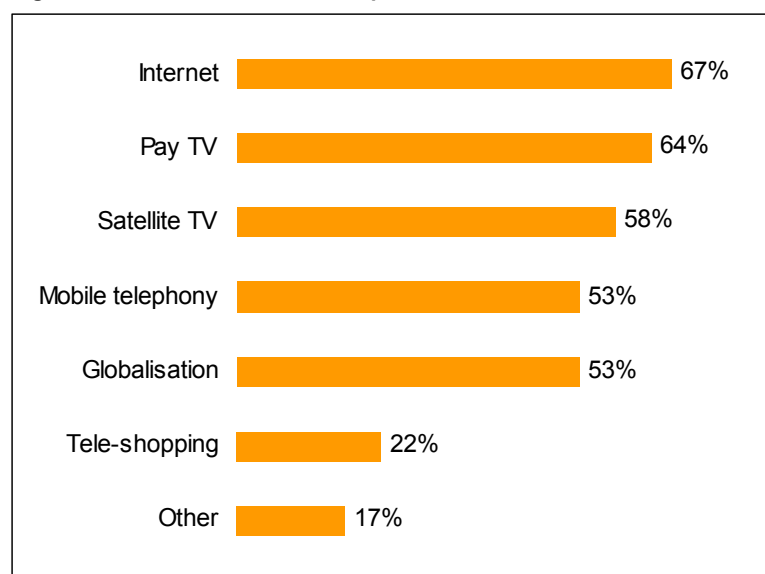
## 2. Trends in the Audio-visual Sector

The second part of the questionnaire focuses on the trends in the audio-visual sector and its impacts on the industry. Major trends that we will discuss here are digitisation, consumer behaviour and new service offerings.

### 2.1 Trends over the period 1995 - 2000

According to the interviewees, the Internet (66%), pay TV (63%) and satellite TV (60%) are the main trends that have influenced the audio-visual industry the past five years. The UK and France mentioned the EPG, digital TV and cable TV as major trends, while for most other countries these trends are only now emerging.

**Figure 15:** Trends over the period 2000 - 2005 that have influenced the audio-visual sector (Q2)<sup>78</sup>



Since the trends that influence the industry players might differ according to the nature of their business, a summary Table with the trends quoted per industry player is given below.

**Table 3:** Trends over the period 2000 – 2005 that have influenced the audio-visual sector – per industry player (Q2)<sup>79</sup>

	Regulatory bodies & associations	Content producers	Programme packagers	Access providers	Internet players
Pay TV	60%	40%	77%	78%	0%
Tele-shopping	20%	40%	23%	11%	0%
Satellite TV	80%	60%	54%	67%	50%
Internet	60%	80%	54%	78%	100%
Mobile telephony	20%	0%	38%	56%	50%
Globalisation	100%	60%	46%	33%	50%
Other	20%	40%	8%	22%	0%

<sup>78</sup> Sample : see sample of table 3

<sup>79</sup> Sample: n regulatory = 5, n producers = 5, n programme packagers = 13, n access providers = 9, n Internet players = 4

Programme packagers and access providers, for example, cite pay TV as the most important past trend with 77% and 78% of answers respectively, while the Internet was mentioned as the top trend by content producers (80%) and Internet players (100%). Regulatory bodies and associations see globalisation (100%) as the past trend that impacted the industry the most.

### **2.1.1 Pay TV**

According to the content producers, the arrival of pay TV increased the choice and demand for content. (Pinewood-Shepperton studios) This increased demand will be filled with US content, according to the Independent Television Commission. Others see pay TV as the platform for high quality content. (Veronica, ITV)

A second impact is the increased competition, since niche players come to the market and compete for the same audience. (Granada, UPC Sweden, ITV, Channel 4) This will influence the type of content that is shown on free TV since content rights prices have increased. (ORF, ARD)

### **2.1.2 Satellite TV**

Satellite TV is introduced as a new distribution channel and has increased the demand for content. The main selling point is multi-channel access which increases the choice for viewers as well as offering access to international channels. (Pinewood -Shepperton studios, ITC, ARD, OTP, SpeedY Tomato) This opinion was shared among the different industry players across all countries.

Since new players entered the market in some countries, this created an increased competition. (ORF, Ericsson, Nordisk Film)

### **2.1.3 The Internet**

The Internet is said to have a big impact on television since it erodes the viewing time. (Granada, VRT) But on the other hand, it provides a new way to connect to consumers and offer new services. With the advent of streaming content, the business has changed. (France Télécom, PACT, ITV)

Since it can be seen as a new distribution channel, this implies that the existing revenues coming out of advertising will partly flow to this new channel. (VOTP)

A possible negative impact of the Internet is the issue of rights. Regulation should take into account the emergence of new rights, the possibility to freely access global content and possible problems of piracy. (Channel 4, Ericsson)

### **2.1.4 Globalisation**

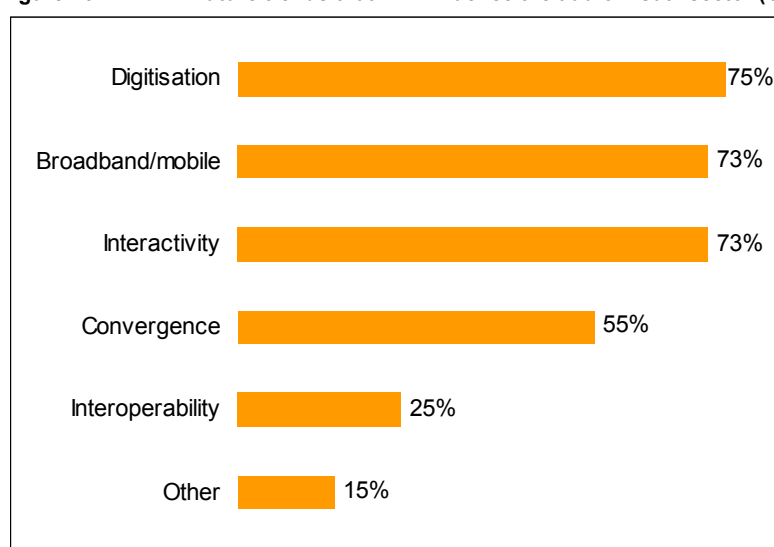
While some interviewees have indicated that content is becoming more global and that the production in one country for broadcast or exhibition in others is now commonplace, (Granada), others believe in globalisation, but not on a product level. According to VT4, content producers will continue to produce local content.

## 2.2 Future trends

The future trends that players expect to have an influence on their business are shown in Figure 11 below. As can be seen, digitisation (74%) and interactivity (74%) will be the key trends for the future, closely followed by broadband (72%).

In the category “other”, programme packagers indicate the EPG, PVR and standardisation as trends for the future (representing 7,5% each).

Figure 16: Future trends that will influence the audio-visual sector (Q3)<sup>80</sup>



As can be concluded from Table 4 below, interactivity and convergence are the top answers from regulatory bodies and associations, Internet players and content producers, while the programme packagers and access providers see digitisation and broadband as being the trends for the future.

Table 4: Future trends that will influence the audio-visual sector – per industry player (Q3)<sup>81</sup>

	Regulatory bodies & associations	Content producers	Programme packagers	Access providers	Internet players
Digitisation	60%	80%	73%	82%	75%
Broadband / mobile	40%	60%	73%	82%	100%
Interoperability	40%	0%	27%	18%	50%
Interactivity	80%	80%	80%	45%	100%
Convergence	80%	80%	53%	18%	100%
Other	0%	0%	33%	9%	0%

<sup>80</sup> Sample: see sample table 4

<sup>81</sup> Sample : n regulatory = 5, n producers = 5, n programme packagers = 15, n access providers = 11, n Internet players = 4

### **2.2.1 Digitisation**

Digitisation is one of the trends recognised by the majority of the interviewees as playing a major role in the audio-visual industry for the future.

Content producers expect the production techniques to change with the advent of digitisation (PACT) and according to *Endemol*, the production process itself will be done more efficiently. Some players are of the meaning that there will be a new market for audio-visual content (ARD) and see possibilities to reformat existing content. (*Independent Television Commission*)

There will also be an impact on the viewers as an increased choice for content and new services will be available. (ITC, PACT) On the other hand, consumers will be able to copy digitised content more easily, which is according to *Endemol* a threat for the production industry.

On the business level, increased investments will lead to decreased costs and this will result in scale advantages. (France Télécom, PACT, NTL, Granada) But the take off of digital will also raise questions on issues like the IP rights and copyright. (Granada, ITC)

### **2.2.2 Broadband / Mobile Broadband**

Broadband will have a big impact on the future developments in the industry. 72% of respondents identify broadband as having a major impact.

In the first place there will be a creation of new interactive services, which are device independent, in the opinion of some programme packagers and an Internet player. (France Télécom, ARD, SpeedY Tomato)

On the level of the value chain of the industry players, some traditional roles of the players will change. (Channel 4) One content producer quoted the opportunity for producers to merge with web designers in order to deliver background information and other content for TV and the Internet. (OTP) Others feel that the content providers themselves will have to become more adept at repurposing content for multi-media use. (ITC)

Programme packagers remark that everybody can start broadcasting content and this might impact the quality of content. (Veronica)

### **2.2.3 Interoperability**

The impact of interoperability is indicated as being rather small (26%).

Content producers believe it would promote competition and bring down consumer switching costs. (PACT)

Other players are convinced of the consumer benefits, since it will enable them to opt for the best service. In order for interoperability to happen, there is a necessity for all players to adopt an open standard, which in turn will create economies of scale. (NTL, ITV, ARD)

Interoperability might create a market for consumer equipment manufacturers when consumers are massively investing in set-top boxes. (RRTV)

#### **2.2.4 Interactivity**

Interactivity is mentioned by 74% of all interviewees as being an important development for the future.

Firstly, the interactivity will have a huge influence on consumers and their viewing experience. Consumers will be empowered, able to manipulate and interact with the content and be actively involved. This will change the way viewers use their TV. (Granada, ITV, UPC Sweden)

New types of content and services will be created, allowing for interactivity such as gaming, videos, MP3 and gambling. Several players are convinced of the powerful tool good content creates when combined with interactive technology. (NTL, ITC, RRTV, ARD, Nordisk Film)

Young viewers tend to use online services rather than watching TV, so these new services will bring more competition, according to a programme packager, since new players will enter this market. (ORF)

According to the *VOTP*, game shows will gain importance since they are easy to package and the content can be used internationally. The production of games is rather cheap and there is no real barrier to export it.

Another impact of interactivity will be felt on the business models of industry players. For programme packagers and advertisers, there are opportunities as well as threats. (Granada) New forms of advertising and programme formats will be brought to the market, changing the way advertising is done today. (ITV, OTP) For programme packagers, there is the opportunity to insert a new revenue stream by letting people vote through telephone calls or SMS messages during programmes. (OTP, VT4)

#### **2.2.5 Consolidation**

Consolidation is a future trend that is mentioned by a few players, including *Endemol*, who believes that the lines between the different media types may disappear.

#### **2.2.6 Convergence**

56% of the respondents indicate convergence will be a major trend for the future and will allow viewers to see audio-visual content over different devices. (UPC Sweden)

One of the concerns of interviewees is the free-to-air status. As content (like e.g. video-on-demand) will become available over Internet-enabled devices, this might remove the free-to-air broadcast monopoly status. (Granada) Also, the various models of delivery are subject to different regulatory structures, creating conflict and inconsistencies in their future development. (ITV, RRTV)



A positive effect of the convergence, shared by several Swedish players, is that the same content will be provided on different platforms. This may lead to increased usability and in turn drive popularity. (SpeedY Tomato, Tele2)

Content producers, like *Endemol*, believe that convergence among the different media platforms is a phenomenon that will change electronic communications and provide opportunities for the production industry. However, they believe that viewers will not use the Internet by means of the television, because TV is a passive medium whereas the Internet is a more active medium.

### 2.2.7 Digital TV

The use of spectrum for digital TV has increased the number of channels and thus increased the choice for consumers. This implies that the audience will be fragmented. According to an industry player, located in the UK, this threatens the margins of programme packagers. (Granada)

### 2.2.8 PVR

The Personal Video Recorder will impact viewing habits and advertising revenues. However, the uptake of the device is still low given its high price. (ITV)

## 2.3 The Transition to a Digital Future

Digitisation is a trend that has an impact on all industry players across the value chain. Therefore, a focus was placed in this part of the assessment of the impact and further development of this trend, as well as on the regulatory measures that could be taken in order to support the transition to digital.

### 2.3.1 Long-term Impact on Costs and Revenues

As can be seen from Table 5 below, the overall results show that there is an upward trend on the cost side as well as on the revenue side of the industry players' business.

**Table 5: Impact of digitisation – per industry player (Q4)**<sup>82</sup>

	Regulatory bodies & associations	Content producers	Programme packagers	Access providers	Internet players
Costs	-	↓	↑	↑	-
Investment	0	↓	↑	↑↑	↑
Revenues	0	↑↑	↑	↑	↑
Capacity to innovate	-	↑	↑	↑↑	↑

<sup>82</sup> Sample costs: n regulatory = 3, n producers = 6, n programme packagers = 12, n access providers = 7, n Internet players = 3; Sample investments and revenues: n regulatory = 3, n producers = 5, n programme packagers = 11, n access providers = 7, n Internet players = 3; Sample capacity to innovate: n regulatory = 3, n producers = 5, n programme packagers = 10, n access providers = 7, n Internet players = 3

While 34% of the interviewees indicate that their costs would decrease, 40% finds that their investments would increase. For VT4, the digitisation process will lead to larger capacity, more reliability, and higher profitability.

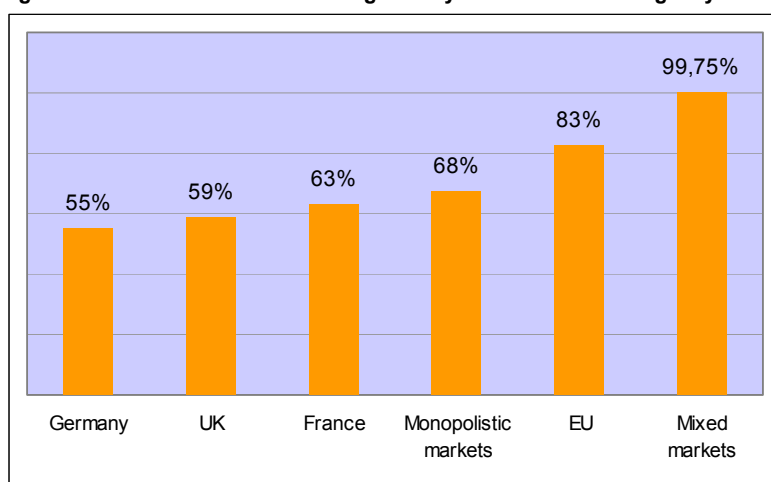
On the revenue side, 57% of interviewees indicate that the transition to digital would imply an increase in their revenues, while the largest impact of digitisation will be on the companies' capacity to innovate. In 41% of the cases, respondents believe it will strongly increase.

### 2.3.2 Digital Activities

In order to get a better view on the impact of digitisation in the long term, we have asked respondents how much of the broadcasting activities will be done digitally by 2010.

As can be seen from Figure 17 below, the European average is around 83%. The results of the large markets are lower than the European average, ranging from 55% to 68%.

Figure 17: % of broadcasting activity that will be done digitally in 2010 – per country group (Q5)<sup>83</sup>

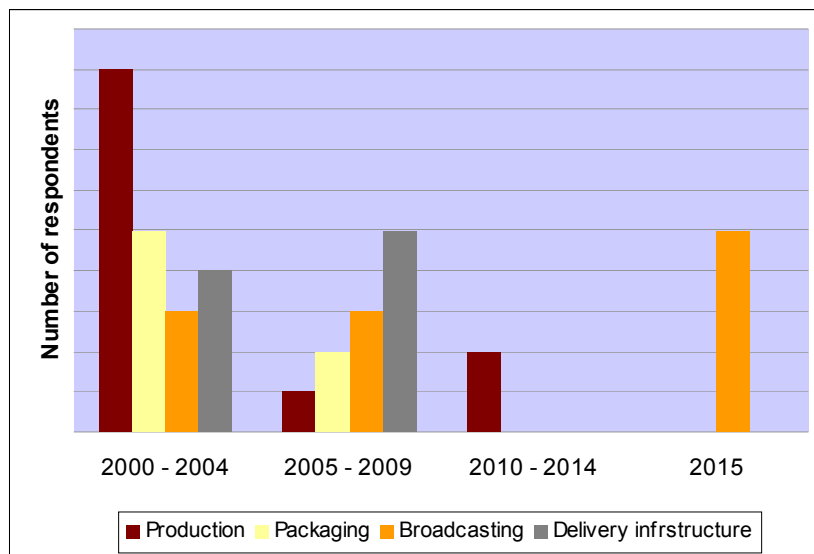


Companies were also asked when they plan to completely digitally operate the different activities. The results can be found in Figure 18.

Content producers are the first that will digitise their activities over the period 2000 – 2004. Programme packagers are already in the digitisation process, but the players foresee 2015 as the date by which the largest part will be digitised. It is expected that the digitisation of the delivery infrastructure will be spread over a longer period of time (2000 – 2009).

<sup>83</sup> Sample: n Germany = 1, n UK = 4, n France = 3, n Monopolistic markets = 2, n EU = 10, n Mixed markets = 5

Figure 18: Period in which the audio-visual activities will become digital<sup>84</sup> (Q6)<sup>85</sup>



### 2.3.3 Investment in Digitisation of Processes

As indicated in Table 5, interviewees expect their investments in digital processes to increase substantially. They were asked how much, as a percentage of their turnover, they plan to invest in the digitisation.

On average, the interviewees say that around 7.75%<sup>86</sup> of their yearly turnover is invested in the following processes:

- Content production (20% of the respondents) ;
- Content delivery (20%) ;
- Storage (13%) ;
- Packaging and broadcasting (13%).

### 2.3.4 Regulatory Measures

In response to the question regarding what the regulator could do to facilitate the transition to digital broadcasting, setting a deadline (24%) and adapting the “must carry” regulation (24%) are cited as the most appropriate measures.

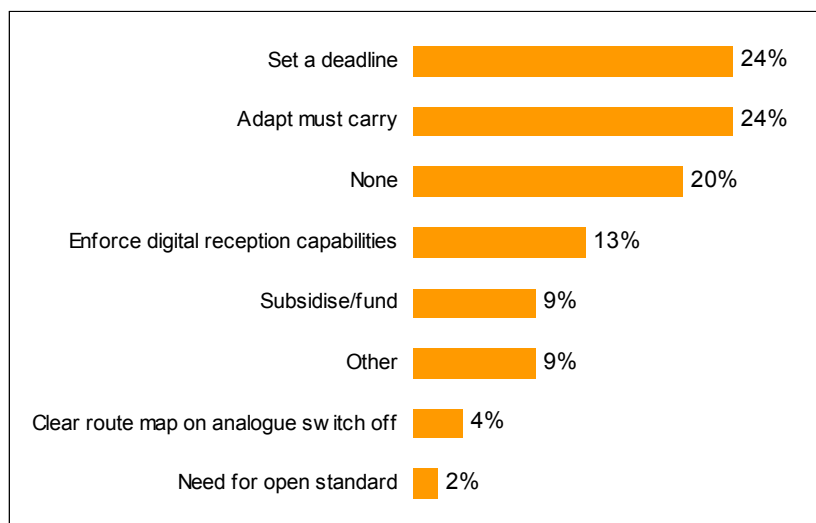
In a digital environment, interviewees (among who *ECCA*) state that the “must carry” is of less relevance since there is a multiplicity of transmission platforms.

<sup>84</sup> Please note that the majority of responses to question 6 was obtained by programme packagers

<sup>85</sup> Sample production: n regulatory = 1, n producers = 3, n programme packagers = 6, n access providers = 0, n Internet players = 1; Sample packaging: n regulatory = 0, n producers = 1, n programme packagers = 4, n access providers = 0, n Internet players = 1; Sample broadcasting: n regulatory = 1, n producers = 1, n programme packagers = 7, n access providers = 1, n Internet players = 0; Sample delivery infrastructure: n regulatory = 1, n producers = 1, n programme packagers = 3, n access providers = 4, n Internet players = 1;

<sup>86</sup> Refer to Q7 of the questionnaire; Sample: n regulatory = 0, n producers = 2, n programme packagers = 5, n access providers = 1, n Internet players = 0

**Figure 19: Regulatory measures facilitating the transition to digital broadcasting (Q8)<sup>87</sup>**



The UK and the Mixed model markets (Belgium, the Netherlands and Sweden) are the ones that indicated that no measure is needed to facilitate the transition, with 29% and 32% of the answers respectively.

Industry players have suggested that different actions may better facilitate activities. Programme packagers think that setting a deadline is the best measure in 23% of the cases, while access providers find adapting the “must carry” regulation the best way to facilitate the transition to digital broadcasting (31%). 50% of the Internet players finds that no regulatory measure is needed.

According to programme packagers and some other players, a major condition in the development of digital services is the uptake of the set-top box. They believe that the government could play a role here, forcing manufacturers to include a digital set-top box in the television sets or by enforcing a standard. (France Télévision, ITV, Jamby, Nozema)

## **2.4 Consumer Behaviour and New Service Offerings**

### **2.4.1 Consumer Behaviour**

Several new developments in the audio-visual industry, such as the introduction of interactive services, will have an impact on the consumption patterns.

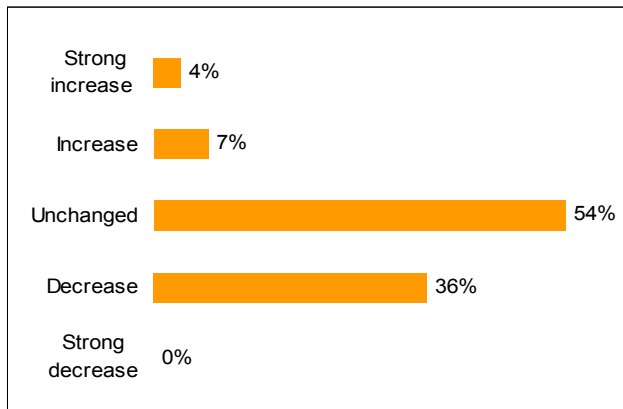
A trend that has already been identified is that consumers change the amount of time spent on entertainment, resulting in the substitution of some media for others. This part of the questionnaire assesses the view of industry players and their expectations for the future on this matter.

Figure 20 shows the expected evolution of the time that consumers will spend on watching TV (passive viewing). While 54% of interviewees believe that it will remain unchanged (being the regulatory bodies and associations, the programme packagers and the access

<sup>87</sup> Sample: n regulatory = 2, n producers = 3, n programme packagers = 10, n access providers = 7, n Internet players = 3

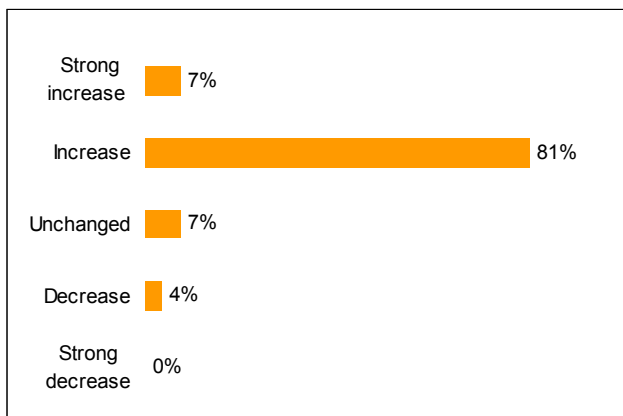
providers), 36% are of the opinion that TV viewing time will decrease (being the content producers and Internet players).

**Figure 20: Evolution of time spent on watching TV (Q36a)**<sup>88</sup>



Although the opinion on the evolution of TV viewing time differs, the industry players share the same view on the evolution of the time spent on all audio-visual media: 81% believe that it will increase.

**Figure 21: Evolution of time spent on all audio-visual media (Q36b)**<sup>89</sup>

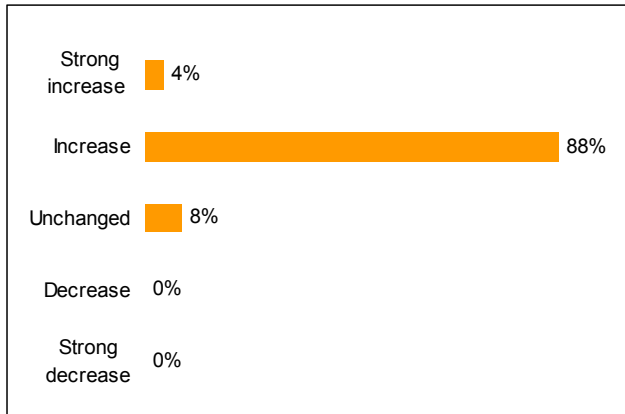


Overall, 88% assesses that the time consumers spend on all media will increase.

<sup>88</sup> Sample: n regulatory = 4, n producers = 6, n programme packagers = 8, n access providers = 6, n Internet players = 4

<sup>89</sup> Sample: n regulatory = 3, n producers = 6, n programme packagers = 8, n access providers = 6, n Internet players = 4

**Figure 22: Evolution of time spent on all media (Q36c)**<sup>90</sup>

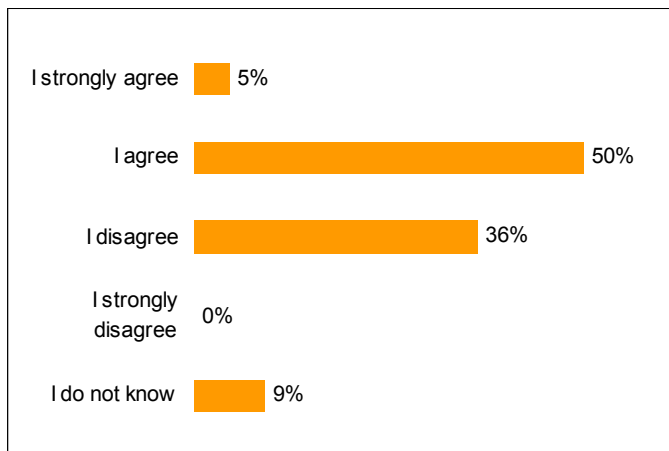


The improvement in the quality of home display and sound systems will drive an increase in TV consumption, as can be seen from Figure 23.

The industry players who do not stand behind this statement are the regulatory bodies and associations (67%) and half of the content producers. They argue that:

- It will be content and additional services that will drive an increase in TV consumption.
- As the number of outlets will increase as well, they will be able to pay lower content prices. (Endemol)

**Figure 23: Impact on TV consumption due to the evolution in quality of home display and sound systems (Q39)**<sup>91</sup>



<sup>90</sup> Sample: n regulatory = 2, n producers = 6, n programme packagers = 7, n access providers = 7, n Internet players = 3

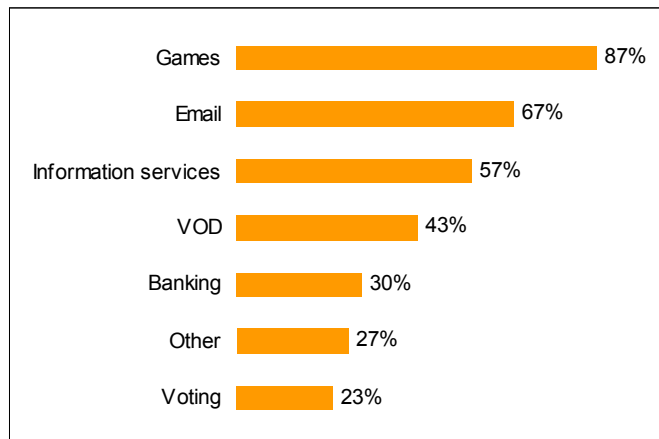
<sup>91</sup> Sample: n regulatory = 3, n producers = 6, n programme packagers = 8, n access providers = 4, n Internet players = 0

## 2.4.2 New Service Offerings

### 2.4.2.1 Successful Interactive Services for the future

Another important trend for the audio-visual industry is the introduction of interactive services. In Figure 24, the interactive services that will become a success in the future, according to the opinion of the industry players, are shown. Please note that interviewees were allowed to give multiple answers.

Figure 24: Successful interactive services for the future (Q40)<sup>92</sup>



The industry is of the opinion that games (87%), email (67%) and information services (57%) are the most important interactive services for the future. In the category “other”, some industry players have indicated home shopping, interactive versions of popular entertainment, mobile personalised services and music and audio demand as possible interactive services for the future.

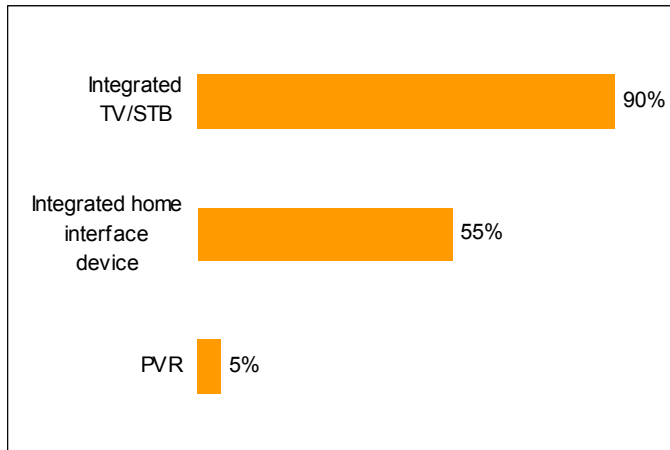
When comparing the results per industry player and per market model, some differences occurred. In the large markets, VOD is seen as an important service for the future: the UK, France and Germany all rank it second on their list. Differing from the industry average, the content producers rank the services as follows: games, VOD and banking services.

### 2.4.2.2 New Devices

The industry experts were asked which devices are to be brought on the market in the future. Integrated TV with set-top box is seen as the most important device since it is key to promoting digital TV take-up.

<sup>92</sup> Sample: n regulatory = 2, n producers = 3, n programme packagers = 10, n access providers = 8, n Internet players = 4

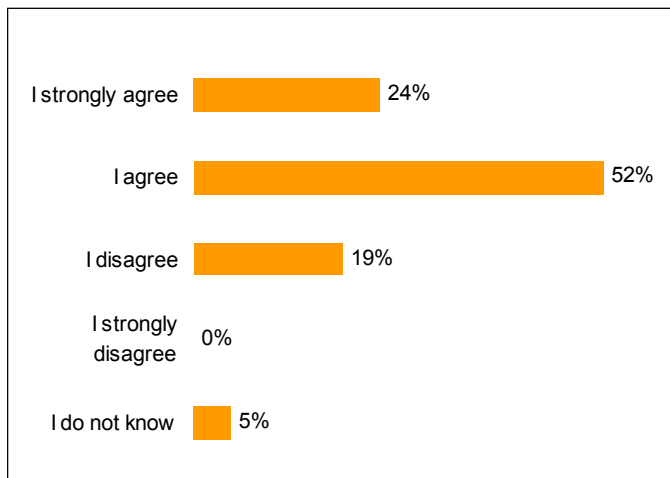
**Figure 25: New devices that will be brought to the market (Q41)<sup>93</sup>**



### 2.4.2.3 Impact of EPG and PVR

Interviewees were asked if they agreed with the following statement: “The EPG and PVR will considerably change the viewing behaviour of viewers towards a planned and “delayed” viewing of programmes, making programme packagers’ programme windows less important”.

**Figure 26: Impact of EPG and PVR on the viewing behaviour and programme packagers’ programme windows (Q42)<sup>94</sup>**



The majority of the respondents agrees with this statement (76%), but 19% disagrees, especially the content producers. They argue that a lot of people prefer to watch the programmes that are broadcast live. (OTP)

<sup>93</sup> Sample: n regulatory = 4, n producers = 3, n programme packagers = 7, n access providers = 4, n Internet players = 2

<sup>94</sup> Sample: n regulatory = 4, n producers = 3, n programme packagers = 8, n access providers = 5, n Internet players = 1



### **3. Content Producers & Rights Owners**

In the third part of the questionnaire a focus is placed on content production and rights owners.

Content producers have been defined as the ones responsible for the production of content, and their activities include: creation of ideas, organisation of the production and the delivery of any facilities as a whole or any separate part.

The main objectives of exploring content production were as follows:

- To gain insight to the driving and limiting factors behind the demand and trade in content;
- To understand the regulatory measures that could be helpful to stimulate the production industry;
- To analyse from whom industry players buy their content today and in 2010;
- To gain insight to the main revenue streams and cost drivers today and their evolution by 2010;
- To explore the opportunities for new media.

The focus in the part on rights ownership is placed on the possible changes in certain aspects of intellectual property rights due the new developments in the industry.

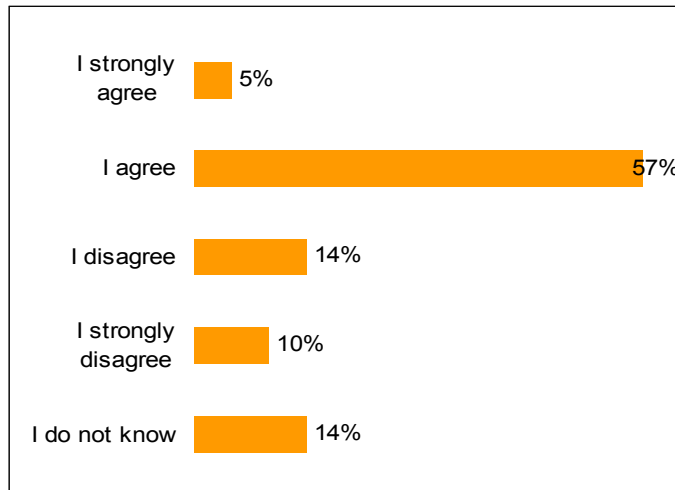
#### **3.1 Rights Ownership**

With the advent of new content distribution channels, there is a possible shift in who holds the rights and on which basis they will be sold. Industry experts have been asked to provide their opinion and insight on these issues.

##### **3.1.1 Owners of IP Rights**

Today, rights are often in the hands of the programme packagers, given the fact that they commission the content. In the future, 62% of the respondents believe that the rights will be increasingly in the hands of the content producers.

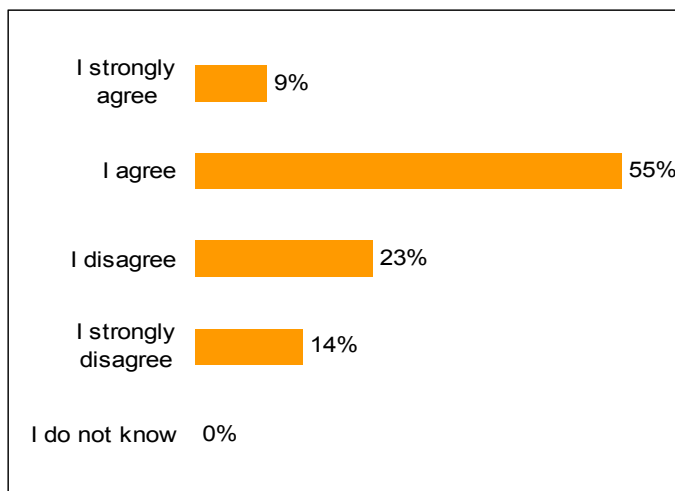
Figure 27: Will IP rights be in the hands of the producers? (Q53a)<sup>95</sup>



### 3.1.2 Distribution of Rights

A second shift in the rights ownership that is confirmed by 64% of the industry players is the evolution towards selling the IP rights for one single broadcast.

Figure 28: Will TV rights be sold for a single broadcast? (Q53b)<sup>96</sup>



One can expect that the introduction of new channels to distribute content will have an impact on the IP rights. 62% of the respondents are of the opinion that more rights will be split according to geography, while 63% expects that the rights will also be split according to the distribution channel, especially a split in television and Internet rights.

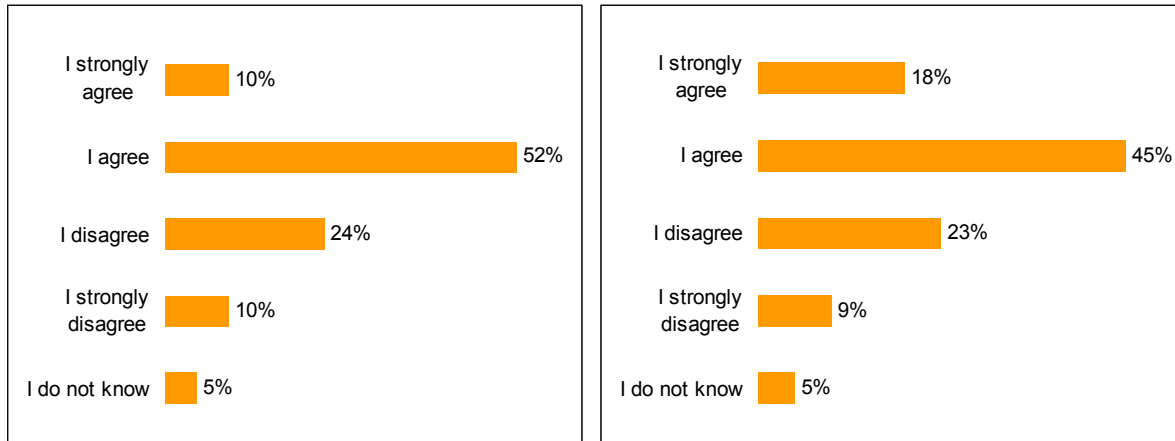
One industry player indicated that rights holders would be able to maximise their revenues by selling the rights for different distribution channels and geographies. (France Télévision)

<sup>95</sup> Sample: n regulatory = 2, n producers = 6, n programme packagers = 9, n access providers = 4, n Internet players = 0

<sup>96</sup> Sample: n regulatory = 3, n producers = 6, n programme packagers = 10, n access providers = 3, n Internet players = 0

Interviewees who do not share this opinion argue that the industry is moving away from the concept of “geography”. (NTL)

**Figure 29:** Will IP rights be split according to geography? (Q53c)  
**Figure 30:** ....and distribution channel? (Q53c)<sup>97</sup>

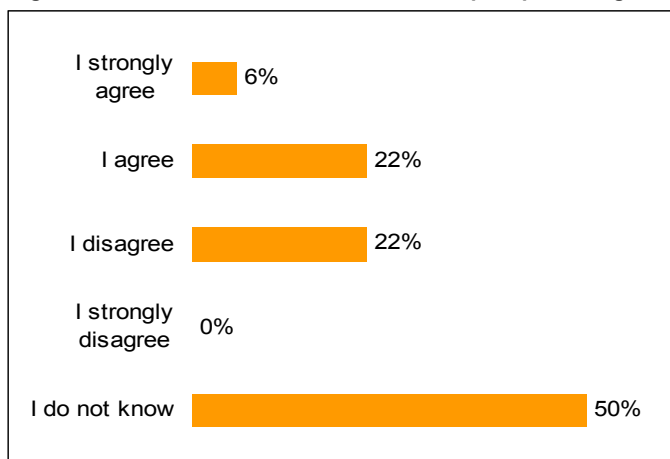


### 3.1.3 Impact on Co-productions

In light of the split of rights between the different distribution channels, interviewees were asked if this could have an impact on the co-productions of movie distributors. The opinions differ on this matter: 28% of interviewees agree, while 22% do not agree.

Some of the industry players who do not agree with this statement argue that television and cinema are two completely different players and that the split wouldn't have any effect on the co-productions. (VOTP)

**Figure 31:** Will movie distributors stop co-producing if the rights for cinema and TV are split? (Q53e)<sup>98</sup>



<sup>97</sup> Sample Q53c: n regulatory = 3, n producers = 6, n programme packagers = 8, n access providers = 3, n Internet players = 1; Sample Q53d: n regulatory = 3, n producers = 6, n programme packagers = 9, n access providers = 3, n Internet players = 1

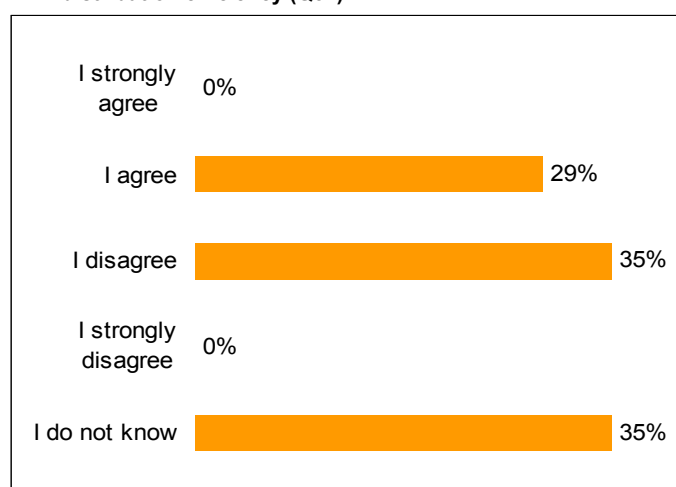
<sup>98</sup> Sample: n regulatory = 3, n producers = 4, n programme packagers = 9, n access providers = 2, n Internet players = 0

The rights issues could also have an intra-EU impact on co-productions. Interviewees were asked if the rights management and distribution efficiency could lead to more co-productions with non-EU countries. The majority of respondents disagree (35%).

Industry players indicate that co-producing with European players:

- Is a complex matter since everyone involved in the co-production gets part of the rights; (VT4)
- Is sometimes difficult since the regulation regarding the transfer of rights is not clear; (VT4)
- Will continue due to the existence of regulatory measures in this domain; (M6)
- Is not only a question of rights management and distribution efficiency, but also a matter of language and cultural similarities. (ITV)

**Figure 32: Will co-productions between European countries occur less for reasons of rights management and distribution efficiency (Q54)<sup>99</sup>**



The statement that programme packagers back away from co-productions to invest more in the pre-purchase of a single broadcast, returned a diversity of opinions.

The majority of (public) programme packagers indicate that the statement is true and argue that:

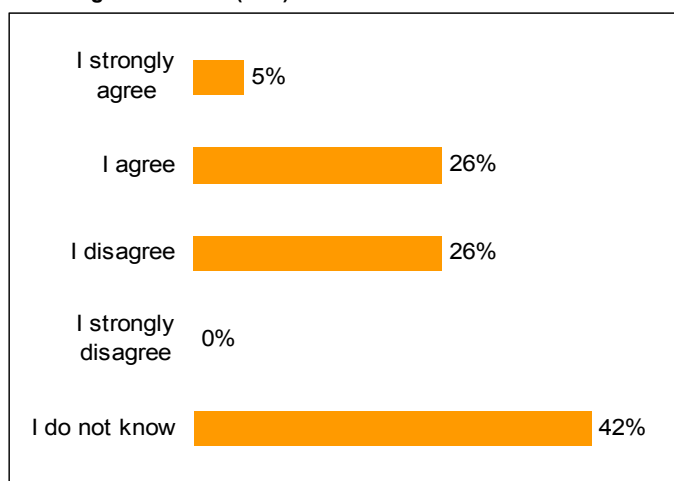
- For national productions, the existing regulation in this domain plays a role. (M6)
- They will indeed move towards pre-purchasing of broadcasts, but then multiple ones. (Granada)

Those who do not agree argue that:

- The statement doesn't hold for international productions, due to the existence of certain regulation. (M6)
- Programme packagers increasingly want to acquire more copyrights, so they will continue to co-produce. (Endemol)

<sup>99</sup> Sample: n regulatory = 3, n producers = 4, n programme packagers = 8, n access providers = 2, n Internet players = 0

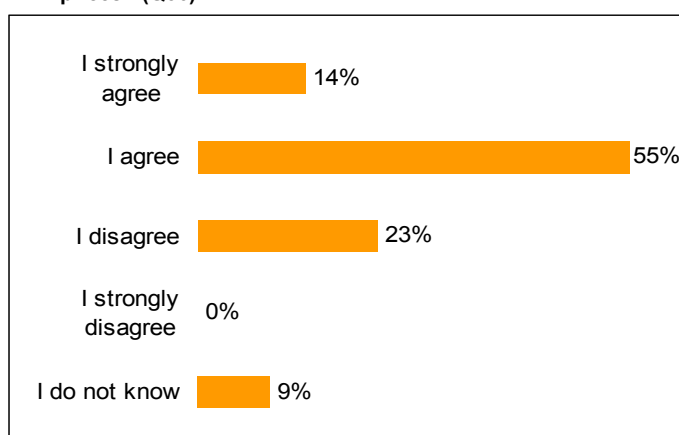
**Figure 33: Will programme packagers back away from co-productions and invest in “pre-purchasing” of a single broadcast (Q55)**<sup>100</sup>



### 3.1.4 Impact on Content Prices

The rights owners’ market is relatively consolidated and their increasing market power leads to higher content prices, according to 69% of the interviewees. Several players indicate that the price of sports rights in particular have increased. (VOTP, CSA, ITV)

**Figure 34: Will the increasing market power of international content rights owners lead to higher content prices? (Q56)**<sup>101</sup>



### 3.1.5 Piracy Issues

Audio-visual piracy impacts the revenues of the audio-visual industry and concerns many players. There are many different domains in which piracy occurs: illegal copying of DVDs, breaking the codes on smart cards for pay TV (distributed through the Internet), etc.

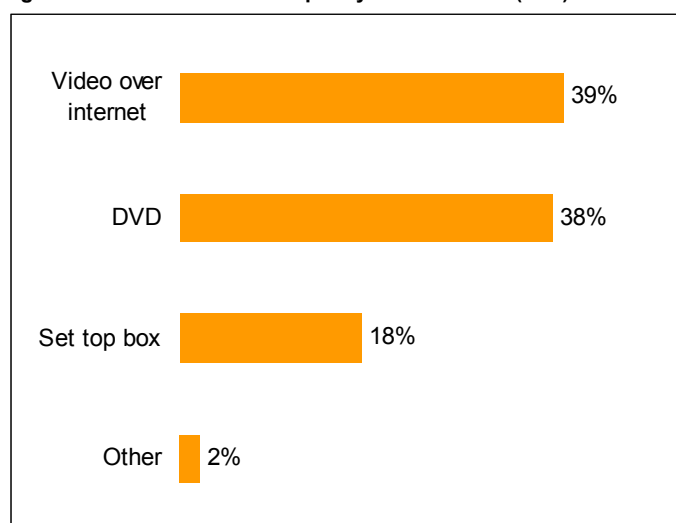
Interviewees were asked where they expect the main issues will arise in the future. Video over the Internet and the DVD are the two main domains where the industry expects piracy.

<sup>100</sup> Sample: n regulatory = 3, n producers = 5, n programme packagers = 8, n access providers = 3, n Internet players = 0

<sup>101</sup> Sample: n regulatory = 1, n producers = 6, n programme packagers = 8, n access providers = 4, n Internet players = 1

The smart cards of set-top boxes, used to gain access to pay TV, are an easy target for pirates. (ITV)

**Figure 35: Where will piracy issues arise? (Q57)**<sup>102</sup>



Several techniques have been developed in order to fight piracy such as Digital Rights Management, digital watermarking, conditional access systems, etc.

Regulatory measures that could help in fighting piracy are summarised in Table 6 below. Hard sanctions are the measure most quoted by industry players.

Content producers and Internet players see an anti-piracy law as an effective means, while programme packagers and access providers quoted the protection of rights owners.

**Table 6: Type of regulatory measures in fighting piracy – per industry player (Q58)**<sup>103</sup>

	Content producers	Programme packagers	Access providers	Internet players
Anti piracy law	x			x
Hard sanctions	x	x	x	
Protect content right owners		x	x	
Stimulate DRM		x		
Adopt single technical standard		x		

<sup>102</sup> Sample: n regulatory = 2, n producers = 5, n programme packagers = 8, n access providers = 4, n Internet players = 4

<sup>103</sup> Sample: n regulatory = 0, n producers = 2, n programme packagers = 6, n access providers = 3, n Internet players = 2

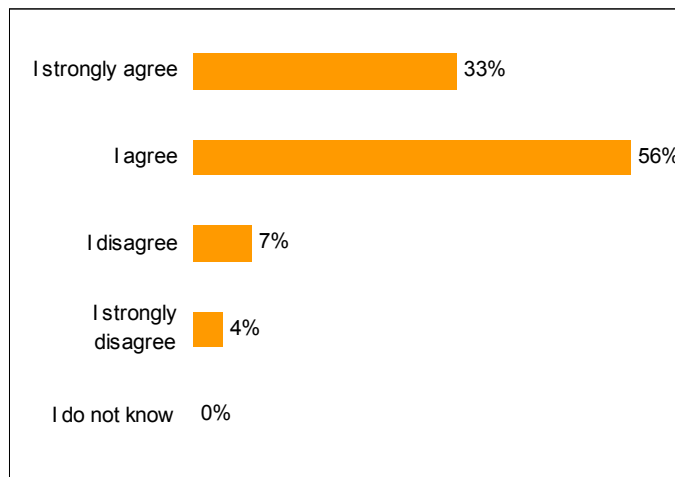
## **3.2 Content Production**

### **3.2.1 Trade in Audio-visual Content**

#### 3.2.1.1 Demand Side

The hypothesis that a relationship exists between the number of channels and the demand for audio-visual content, was tested in this part.

**Figure 36: Relationship between TV channels and demand for content (Q15a)<sup>104</sup>**

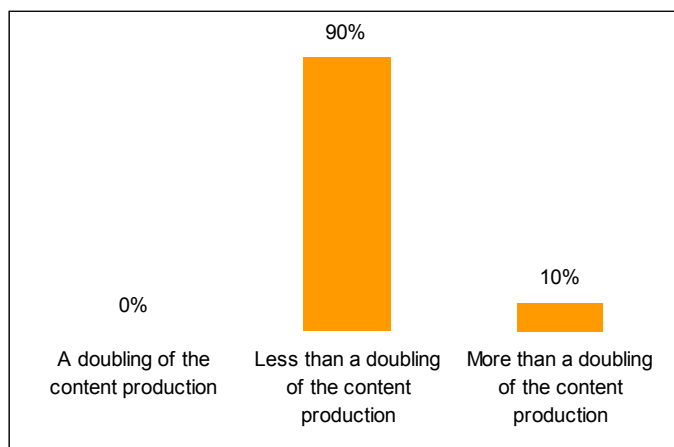


The large majority (89%: 31% strongly agrees plus 58% agrees) of the respondents confirm the existence of such a relationship and indicate that a doubling of the number of TV channels implies less than a doubling in the content production.

This means that the new channels brought to the market will buy content from outside the EU or re-use existing content to fill their schedule.  
(PACT)

<sup>104</sup> Sample: n regulatory = 5, n producers = 6, n programme packagers = 9, n access providers = 4, n Internet players = 2

**Figure 37: Relationship between TV channels and demand for content (Q15b)<sup>105</sup>**



Another aspect of major importance is the preference of consumers for local content. Table 7 indicates that a strong preference for locally produced audio-visual content exists in all countries interviewed.

**Table 7: Consumers' preference for local content – market model segmentation (Q19a)<sup>106</sup>**

	<i>n</i>	Very much so	Somewhat	Not at all
UK	6	67%	33%	0%
France	2	100%	0%	0%
Germany	2	100%	0%	0%
Monopolistic markets	2	50%	50%	0%
Mixed model markets	12	67%	25%	8%

Cultural proximity (related culture, habits and preferences) and language are the main reasons why people prefer local content.

**Table 8: Reasons for consumers' preference for local content – market model segmentation (Q19b)<sup>107</sup>**

	<i>n</i>	Language	Cultural proximity	Globalisation and low public service value added
UK	3	33%	100%	0%
Germany	2	0%	100%	0%
Mixed model markets	6	33%	67%	17%

### 3.2.1.2 Trade Balance

At present there is a trade deficit of content between the EU and the US.

<sup>105</sup> Sample: n UK = 6, n France = 2, n Germany = 2, n Monopolistic markets = 2, n Mixed markets = 12

<sup>106</sup> Sample: n regulatory = 5, n producers = 6, n programme packagers = 10, n access providers = 3, n Internet players = 0

<sup>107</sup> Sample: n UK = 3, n France = 0, n Germany = 2, n Monopolistic markets = 0, n Mixed markets = 6



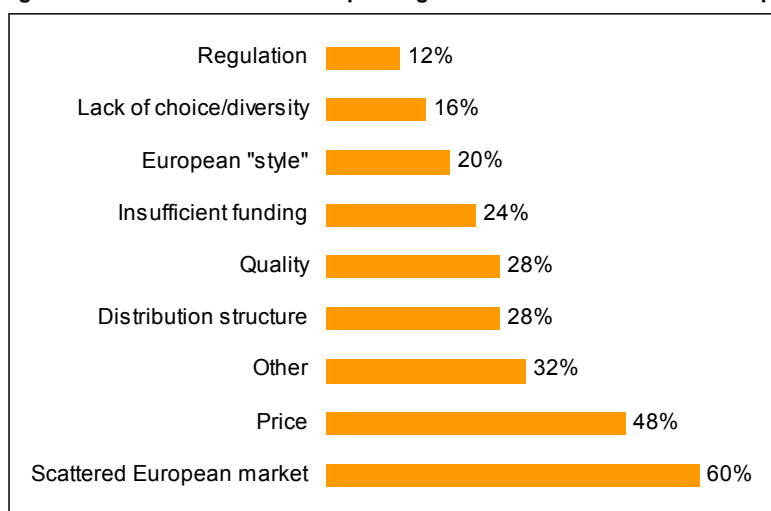
## Reasons for Limited European Market Share

The respondents were asked: “What are, according to them, the main reasons explaining the lack of competitiveness of European content on its own market and on the US market?”.

There is a clear consensus among the industry: European content is not popular in the EU because the European market is scattered (60% of respondents) and the price of European content is not competitive (48% of respondents).

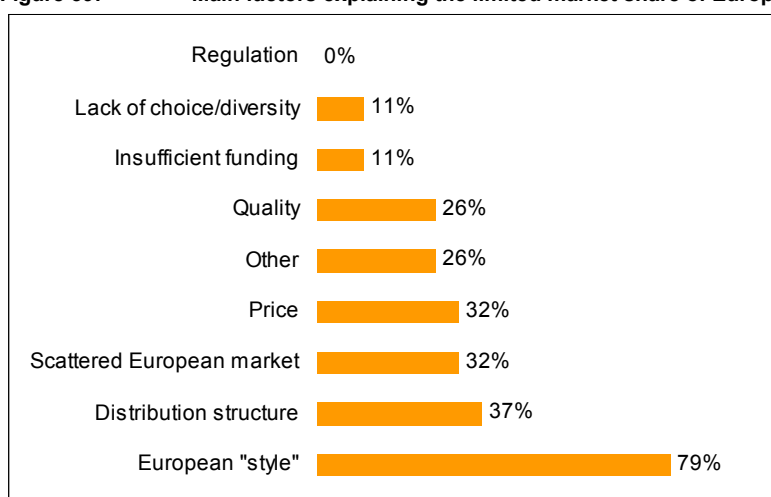
Two programme packagers indicate that the US is able to cover the large majority of their costs in their own country, which makes it possible for the US to have competitive prices. (VT4, ITC)

**Figure 38: Main factors explaining the limited market share of European content on its own market (Q16a)**<sup>108</sup>



On the other hand, Europe has a limited market share in the US because of the “European” style of content (79% of respondents) and the distribution structure (37% of respondents).

**Figure 39: Main factors explaining the limited market share of European content on the US market (Q16a)**<sup>109</sup>



<sup>108</sup> Sample: n regulatory = 5, n producers = 6, n programme packagers = 10, n access providers = 3, n Internet players = 0

<sup>109</sup> Sample: n regulatory = 4, n producers = 5, n programme packagers = 8, n access providers = 2, n Internet players = 0

## Export & Import of Audio-visual Content<sup>110</sup>

A second aspect of the trade is the export and import of audio-visual content between European and non-European countries.

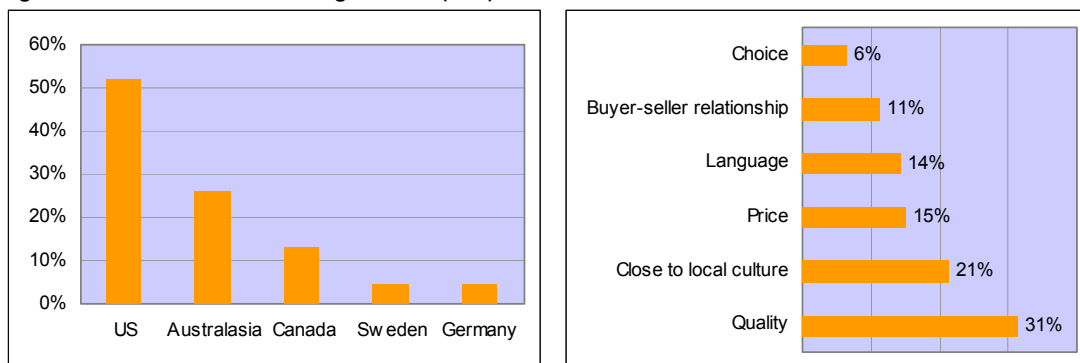
Interviewees were asked to mention the main countries to which they exported local content and the main countries from which they import content as well as the main factors as to why they choose these countries in particular.

As is clear from the Figures below, all countries mainly export to and import from countries closely related to their own country, be it in terms of language, culture or geographical proximity. The UK, Germany and Belgium also attach importance to the quality and price of the audio-visual content.

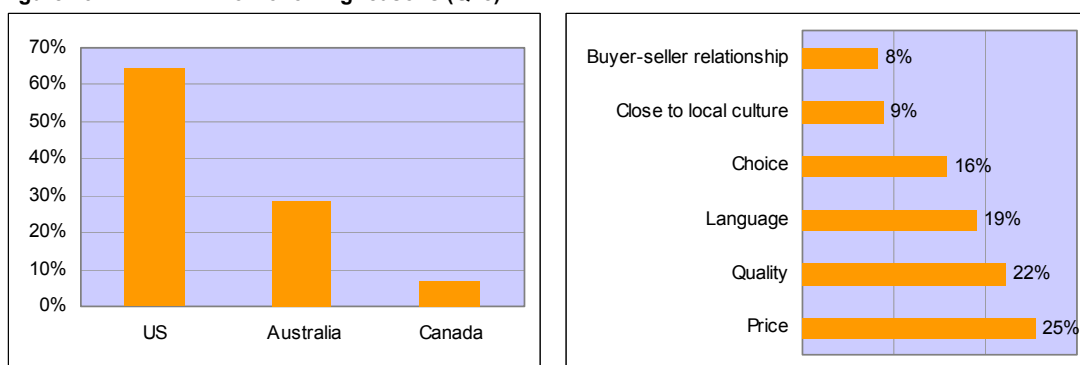
An existing buyer-seller relationship (e.g. a subsidiary of the company in another country) is one reason players choose to import content from a specific country.

### Large Markets

**Figure 40:** The UK exports audio-visual content to  
**Figure 41:** ... for following reasons (Q17)

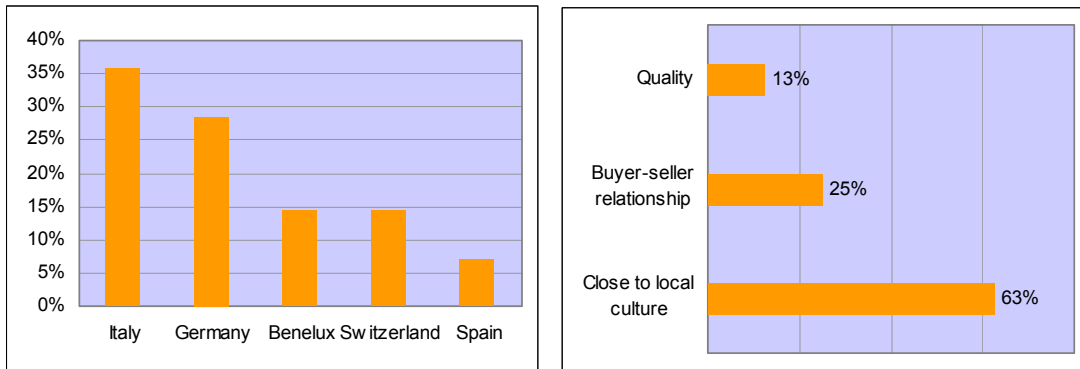


**Figure 42:** The UK imports audio-visual content from  
**Figure 43:** ... for following reasons (Q18)

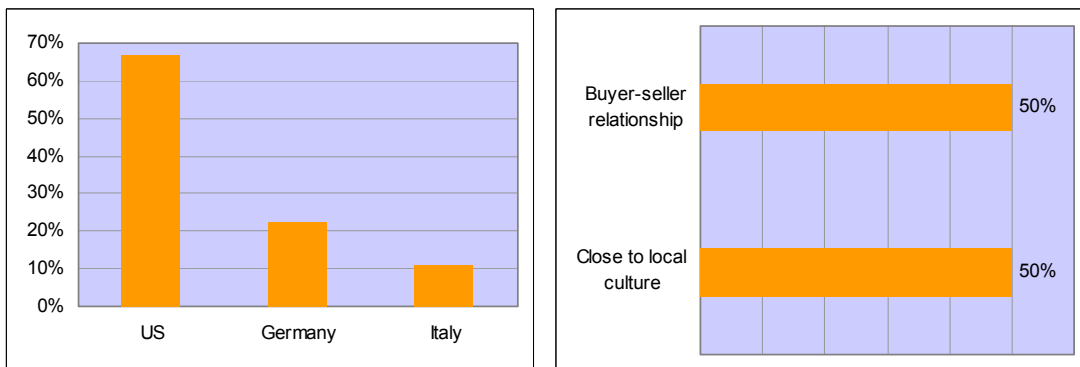


<sup>110</sup> Sample Q17: n UK = 4, n France = 2, n Germany = 1, n Monopolistic markets = 0, n Mixed model markets = 7; Sample Q18: n UK = 6, n France = 2, n Germany = 2, n Monopolistic markets = 1, n Mixed model markets = 10

**Figure 44:** France exports audio-visual content to  
**Figure 45:** ... for following reasons (Q17)



**Figure 46:** France imports audio-visual content from  
**Figure 47:** ... for following reasons (Q18)



**Figure 48:** Germany exports audio-visual content to  
**Figure 49:** ... for following reasons (Q17)

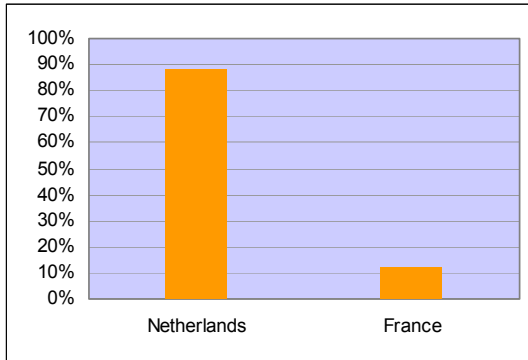


**Figure 50:** Germany imports audio-visual content from  
**Figure 51:** for following reasons (Q18)

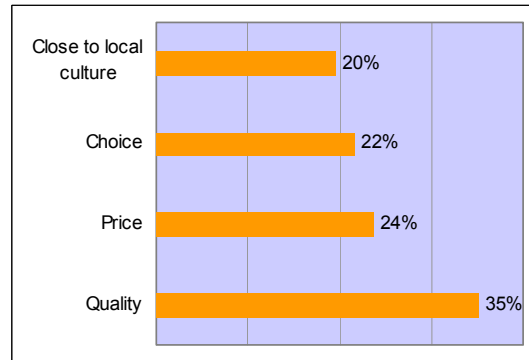
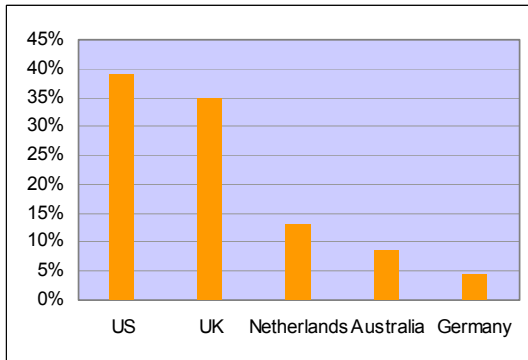


Mixed Model Markets

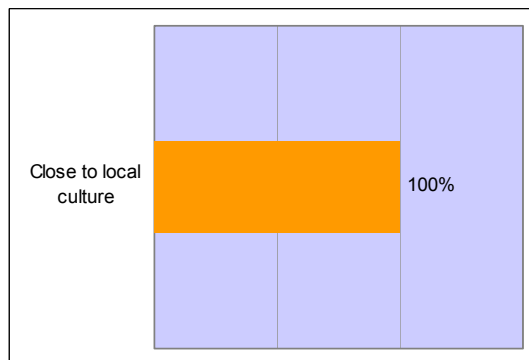
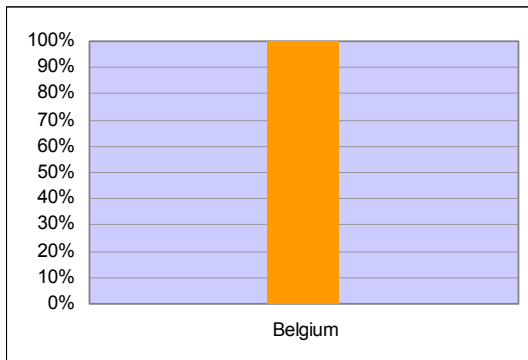
**Figure 52:** Belgium exports audio-visual content to  
**Figure 53:** ... for following reasons (Q17)



**Figure 54:** Belgium imports audio-visual content from  
**Figure 55:** ... for following reasons (Q18)



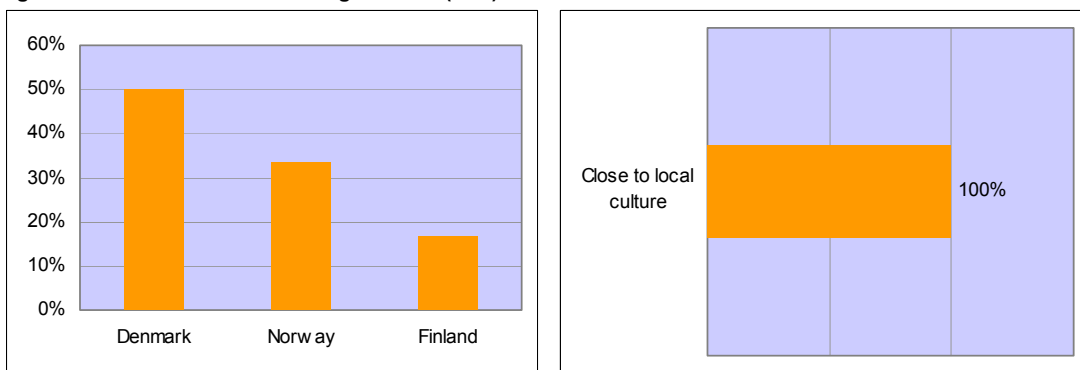
**Figure 56:** The Netherlands exports audio-visual content to  
**Figure 57:** ... for following reasons (Q17)



**Figure 58:** The Netherlands imports audio-visual content from  
**Figure 59:** ... for following reasons (Q18)



**Figure 60:** Sweden exports audio-visual content to  
**Figure 61:** ... for following reasons (Q17)



**Figure 62:** Sweden imports audio-visual content from  
**Figure 63:** ... for following reasons (Q18)



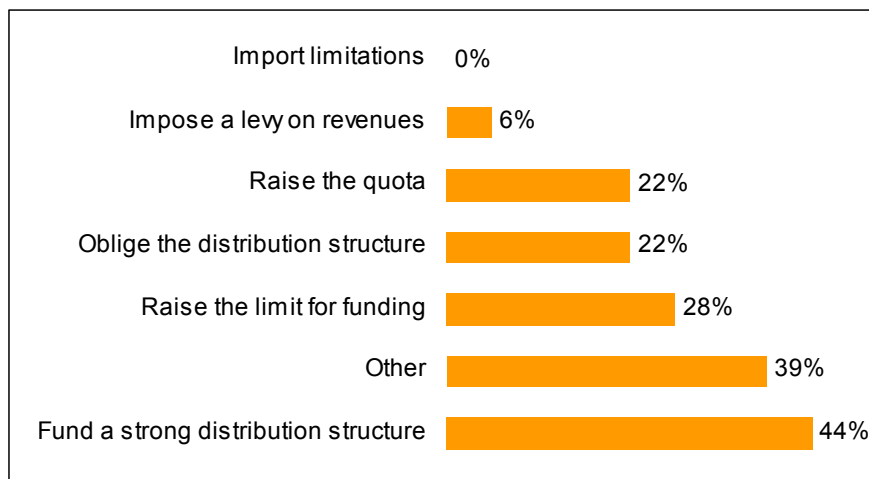
### 3.2.1.3 Regulatory Issues

#### *Measures to Improve the Market Share of European Content*

We have asked interviewees' opinion of which measures would be effective in improving the limited market share of European content.

**44% of the respondents agree that funding a distribution structure would be efficient, while raising the limit for funding is selected by another 28%.**

Figure 64: Regulatory measures that could improve the market share of European content (Q16b)<sup>111</sup>



In the category “other”, industry players cite several other possible measures. Content producers believe that production grants would be effective as well as making sure that the rights remain in their hands.

Regulatory bodies and associations feel that the government should promote competition in order to improve the European market share.

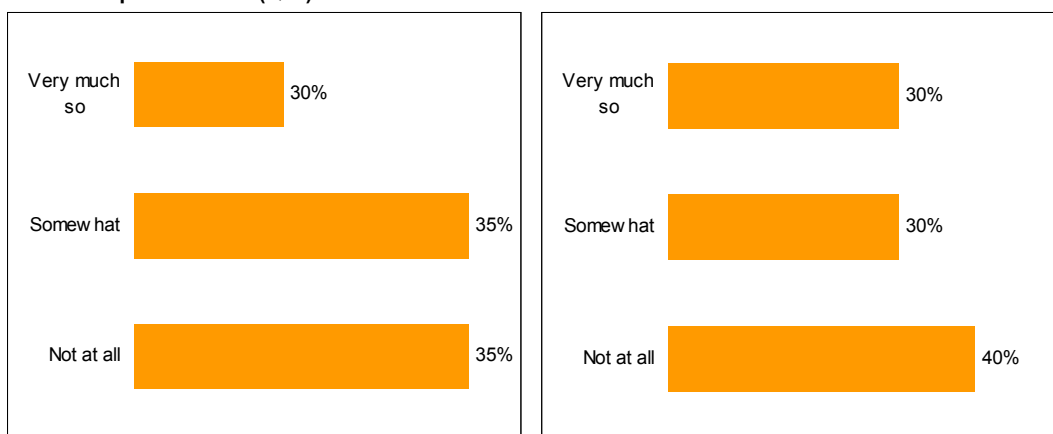
Programme packagers’ input on possible regulatory measures are: obliging public service programme packagers to invest in European content and taking actions to reinforce the production industry.

### *Objectives of Public Funding*

Since industry players identify the distribution structure as the factor limiting the market share of European content, it is not surprising that the interviewees assess the objectives of public funding that relate to the competitiveness of European content as not being met.

<sup>111</sup> Sample: n regulatory = 4, n producers = 5, n programme packagers = 7, n access providers = 2, n Internet players = 0

**Figure 65: Objectives of public funding**  
**Figure 66: Increase European competitiveness of national content and the international competitiveness of European content (Q20)<sup>112</sup>**



### 3.2.2 Origin of Content

#### 3.2.2.1 Where Industry Players get their Content

In order to gain a better insight to the origin of the audio-visual content in the different countries, interviewees were asked from whom they buy their content.

A split was made between the content produced in-house / co-produced, dependent and independent producers and competitors. The independent producers were defined as “companies or persons, engaged in the production of content for any distribution channel, who are not controlled or owned by a programme packager”.

As can be seen from Table 9, there are some remarkable differences between the different countries. The results, however, should be taken with great caution, given the fact that the number of respondents to this question is low. Therefore, it is possible that the view of one single company does not reflect the general trend of that country.

**Table 9: Origin of content today – market model segmentation (Q21)<sup>113</sup>**

	UK	France	Germany	Mixed model markets
<i>n</i>	1	1	1	5
In-house or co-production	-	-	70%	28%
Dependent producers	60%	33%	20%	12%
Independent producers	30%	66%	10%	52%
Competitors	2%	-	0%	-

France and the Mixed model markets (Belgium, the Netherlands and Sweden) get most of their content from independent producers, while the UK’s main source of content is the dependent production industry. Germany produces 70% of its content in-house or in co-production, while only 10% is acquired from independent producers.

<sup>112</sup> Sample: n regulatory = 4, n producers = 6, n programme packagers = 8, n access providers = 2, n Internet players = 0

<sup>113</sup> Sample: n regulatory = 0, n producers = 3, n programme packagers = 5, n access providers = 0, n Internet players = 0

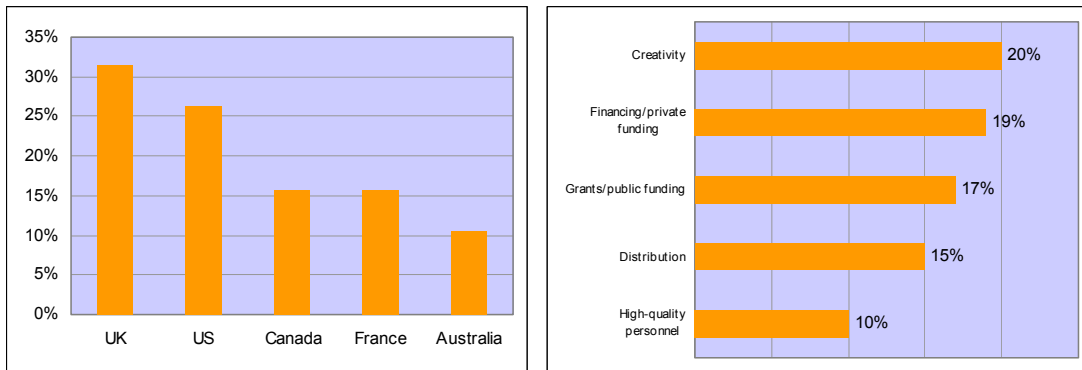
Respondents were also asked if their origin of content would be different in 2010. Only two interviewees responded. According to a German player, their in-house production will decrease in favour of acquiring content from independent producers. One Belgian player indicates that there will be no change in the origin of their content.

### 3.2.2.2 Co-productions<sup>114</sup>

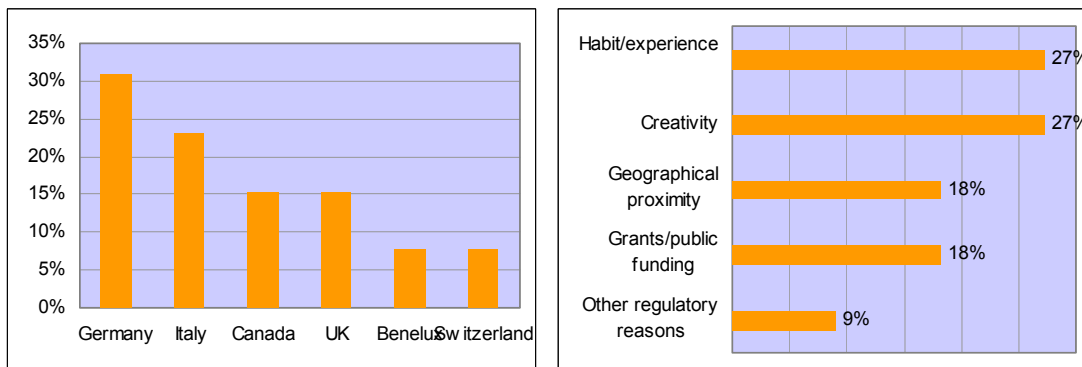
European production companies make an offer to other countries to co-produce audio-visual content. During the interviews, the industry players were asked with whom they mostly co-produce and for which reasons.

Creativity and possibilities to receive financing, in the form of grants or public funding, are the main criteria used across countries to select co-producers.

**Figure 67:** The UK co-produces with  
**Figure 68:** ...for following reasons (Q22)



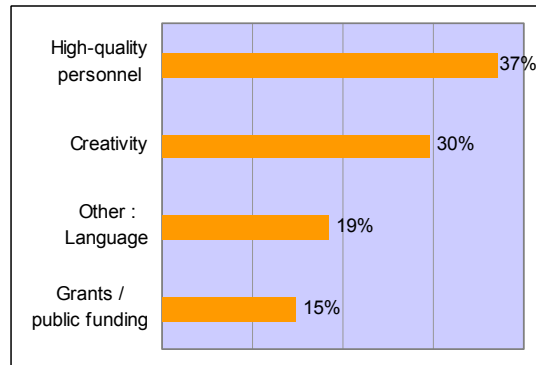
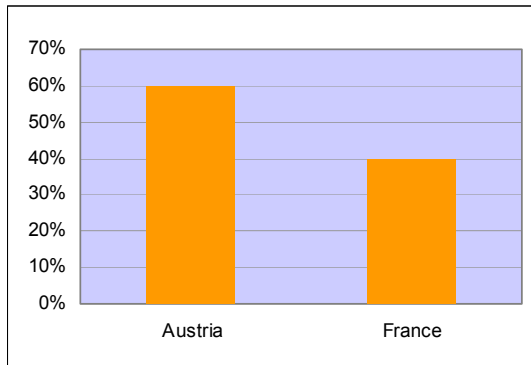
**Figure 69:** France co-produces with  
**Figure 70:** ... for following reasons (Q22)



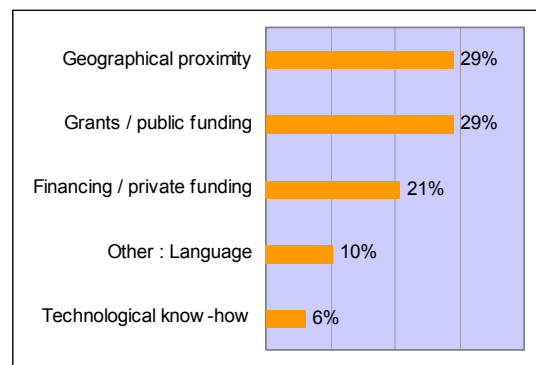
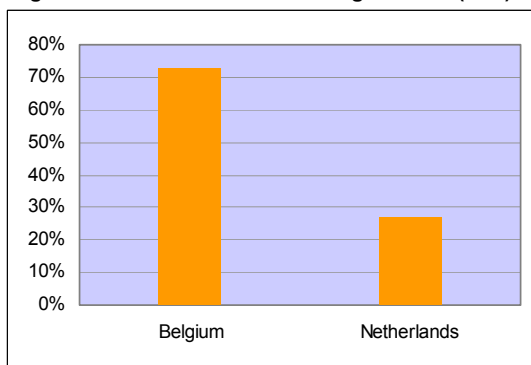
<sup>114</sup> Sample: n UK = 4, n France = 2, n Germany = 1, n Monopolistic markets = 0, n Mixed markets = 4



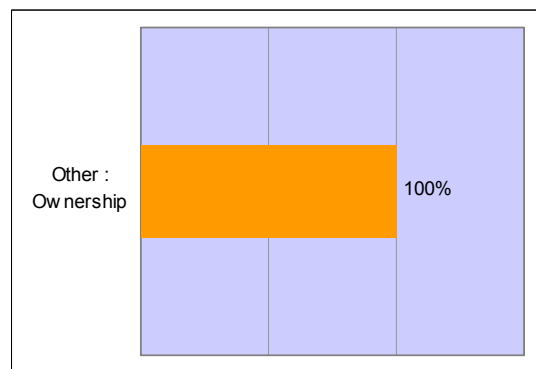
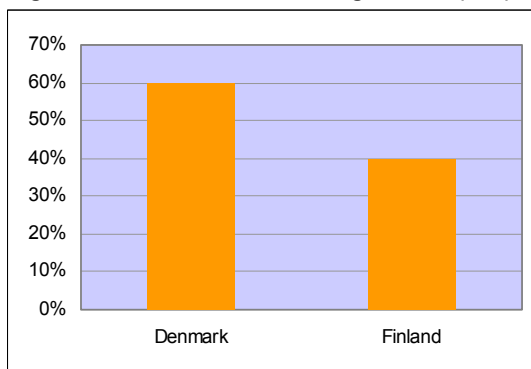
**Figure 71: Germany co-produces with**  
**Figure 72: ... for following reasons (Q22)**



**Figure 73: Belgium co-produces with**  
**Figure 74: ... for following reasons (Q22)**



**Figure 75: Sweden co-produces with**  
**Figure 76: ... for following reasons (Q22)**

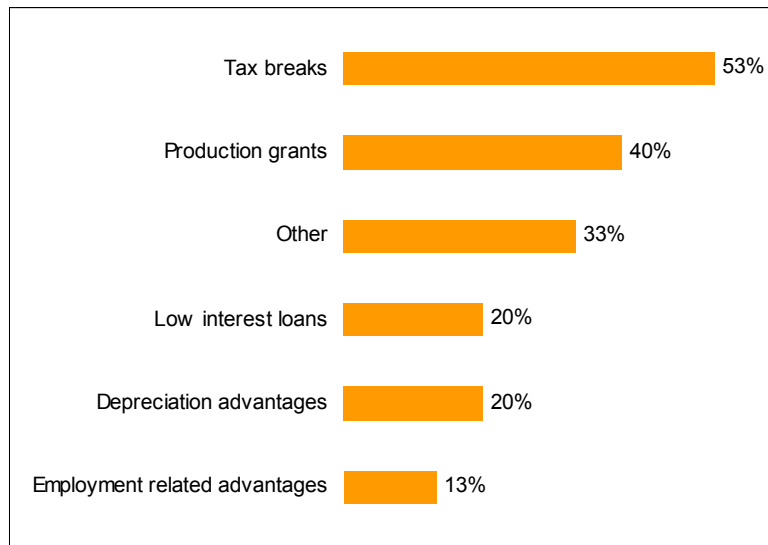


### 3.2.3 Regulatory Help

The industry's opinion regarding the regulatory measure that would be effective in stimulating local content production was solicited. Respondents were allowed to give multiple answers.

Tax breaks are seen as the most efficient way to stimulate the production, while production grants are quoted by 30% of the respondents.

Figure 77: Regulatory measures stimulating local content production (Q23)<sup>115</sup>



The answers given by the different industry players as well as the answers given by the countries all indicate these two measures are perceived to be the most effective. The UK is of the opinion that employment-related advantages might be efficient as well.

Industry players indicate following “other” measures that could be taken:

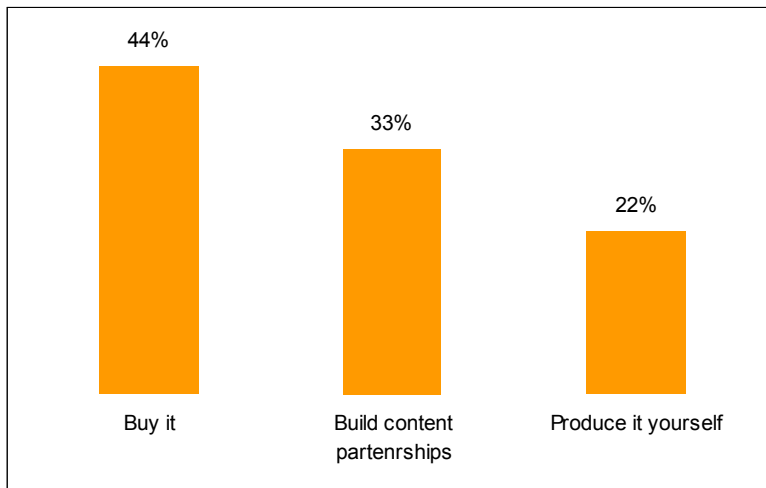
- Funding the public service programme packagers (programme packager and a regulatory body and association);
- National quotas for local production (programme packager);
- Solve copyright issues (content producer);
- Quota for independent productions (content producer).

### 3.2.4 Opportunities for New Media

Access providers and Internet players are no longer involved in the sole activity of distributing audio-visual content, they also have to make sure they offer appealing content to the customers.

<sup>115</sup> Sample: n regulatory = 2, n producers = 6, n programme packagers = 5, n access providers = 2, n Internet players = 0

Figure 78: Source of content for access providers and Internet distributors (Q24)<sup>116</sup>



The industry expects that these players will mostly buy content (44%), while building partnerships is seen as a second source for content (33%).

Access providers indicate building content partnerships is their preference to get content (43%), while Internet players will buy it (60%).

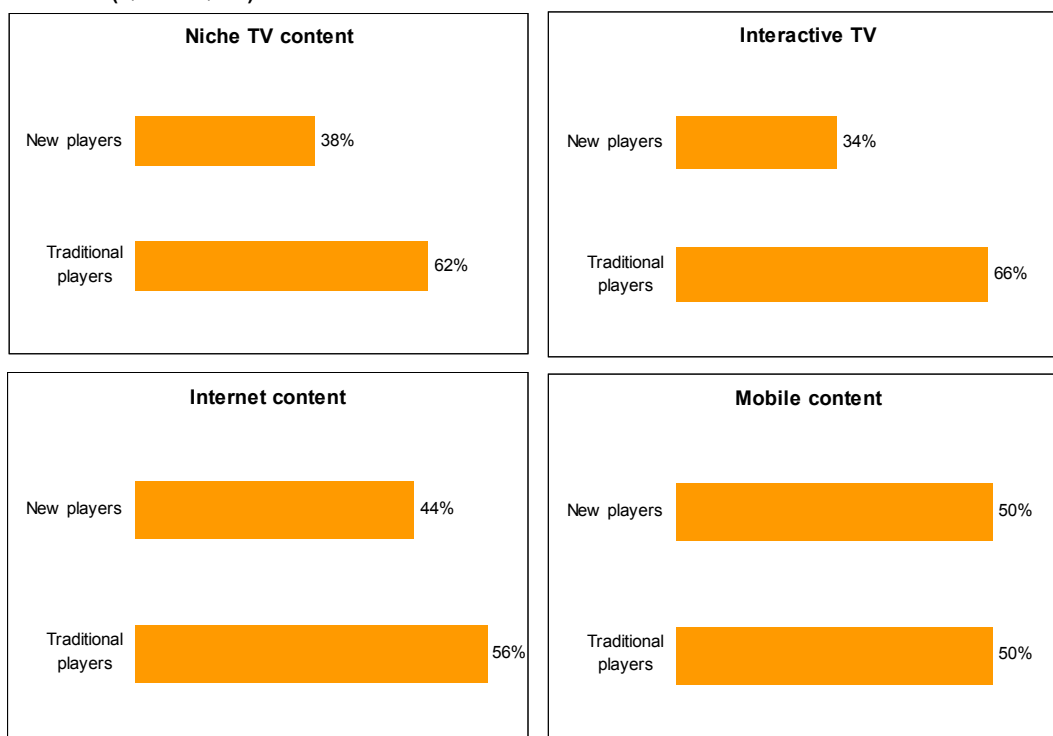
### 3.2.5 Is there a Role for New Entrants?

The advent of possible new distribution channels for audio-visual content raises the questions of who will deliver the content to these new channels and who will obtain the largest part of the market by 2010: existing players or new players?

According to the industry, the majority of niche TV, interactive TV and Internet content will be supplied by existing market players with 62%, 66% and 56% of the market respectively. It is only in mobile content production that new entrants are expected to take half of the market.

<sup>116</sup> Sample: n regulatory = 1, n producers = 0, n programme packagers = 3, n access providers = 6, n Internet players = 3

Figure 79: Niche TV content  
 Figure 80: Interactive TV  
 Figure 81: Internet Content  
 Figure 82: Mobile Content  
 Which players will take the largest share in the production market for the different content distribution channels? (Q34a – Q34d)<sup>117</sup>



The interviewees from the industry made following comments:

- Both players will take market share: there will be new actors coming to the market, but existing content producers will adapt themselves and create new departments dedicated to the production of new content. (France Télévision)
- Many of the traditional players (for all the types of content) will find a certain niche to develop their future business. (Tele2, Ericsson)
- For Internet content, the success criteria are completely different than those of TV content. New players will take the largest share in this part of the market. (NTL)
- For interactive TV, there is room for both players. (NTL)
- For mobile content, it would be a big mistake to think that mobile content and TV content are the same. Here it will be traditional players who will take the lead. (NTL)

<sup>117</sup> Sample Q34a/b/c: n regulatory = 4, n producers = 5, n programme packagers = 8; Sample Q34 a: , n access providers = 5, n Internet players = 2; Sample Q34b: n access providers = 6, n Internet players = 3; Sample Q34c: n access providers = 5, n Internet players = 3; Sample Q34d: n regulatory = 3, n producers = 5, n programme packagers = 8, n access providers = 5, n Internet players = 3

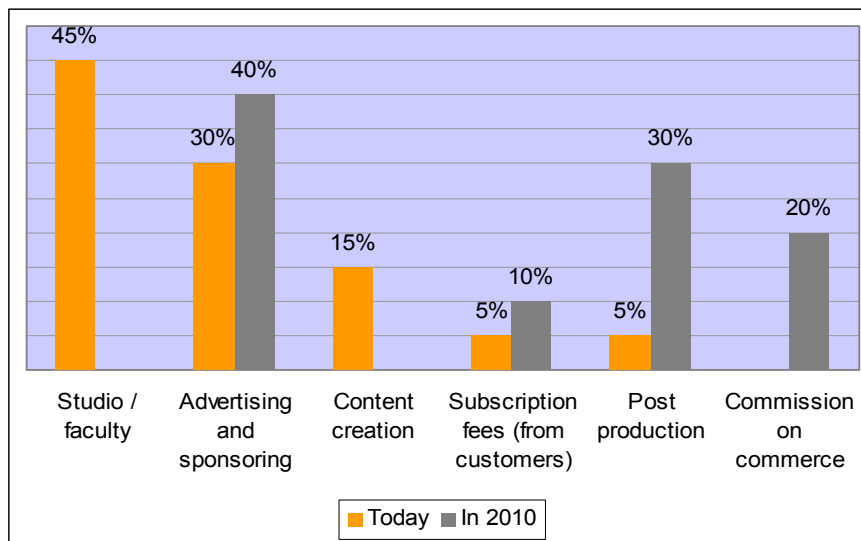
### 3.2.6 Break down of Revenues & Cost Drivers of Content Producers

#### 3.2.6.1 Break down of Revenues

Content producers were asked to give the break down of their current revenue sources and the ones they expect in 2010.

Today, the lion's share of content producers' revenue is made up of studio/faculty revenues (45%) and advertising and sponsoring (30%), while by 2010, it will be advertising and sponsoring (40%), post production revenues (30%) and commission on commerce (20%) that will be the main sources.

Figure 83: Break down of content producers' revenues today and in 2010 (Q49)<sup>118</sup>



#### 3.2.6.2 Cost Drivers

The industry indicate that European audio-visual content is not competitive enough. US programming is generally cheaper than EU content due to scale advantages and a structured distribution.

Due to technological developments, the production process will undergo significant changes. Production costs might be affected in a negative way since the producers have to invest in new, more expensive camera's, post production equipment, etc.

In order to ascertain content producers' costs, the interviewees operating in this part of the value chain were asked to indicate their major cost drivers today and in 2010.

<sup>118</sup> Sample: n content producers = 2 (please note that both answers are obtained from the UK)

**Figure 84: Main cost drivers of the content producers' business today and in 2010 (Q26)**<sup>119</sup>

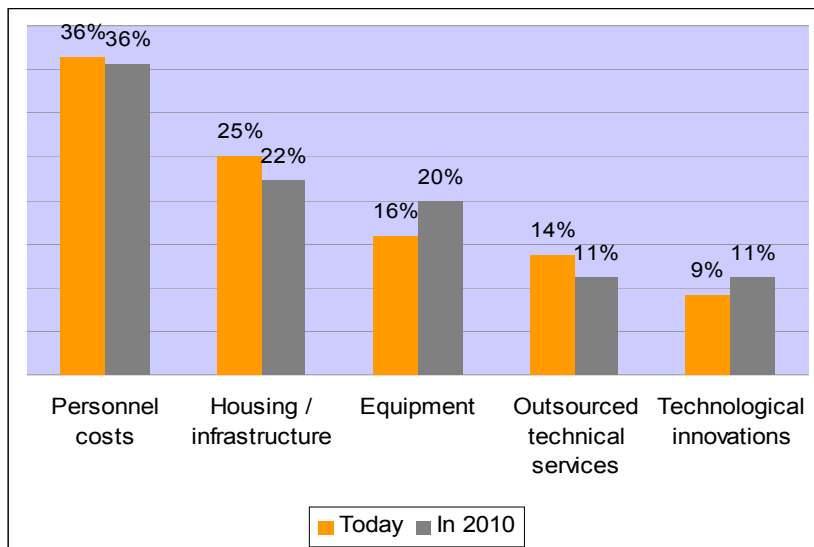


Figure 84 represents the results. Personnel costs (36%) and infrastructure (25%) are the main cost drivers today and content producers do not expect this to change in the future. Costs related to technological innovations and equipment will increase, while outsourced technical services costs will decrease.

### Employment

Some of the cost drivers have been analysed in greater detail. With regard to the personnel, interviewees were asked which industry professionals are scarce in their market and of the number of professionals they employ in content production come from outside their market.

Content producers have indicated a scarcity in different types of industry professionals (Q29)<sup>120</sup>:

- Post production people (UK)
- Writers (UK, Mixed model markets)
- Distribution professionals (UK)
- Creative talent (Mixed model markets)

Most respondents rely on industry professionals within their local market, as can be seen from Table 10.

**Table 10: Source of professionals per country (Q30)**<sup>121</sup>

	UK	Germany	Italy	Belgium	Netherlands	Sweden
% professionals outside own market	10%	3%	100%	0% - 1%	0%	5%
- of which EU	50%	2%	0%			100%
- of which non EU	50%	1%	0%			

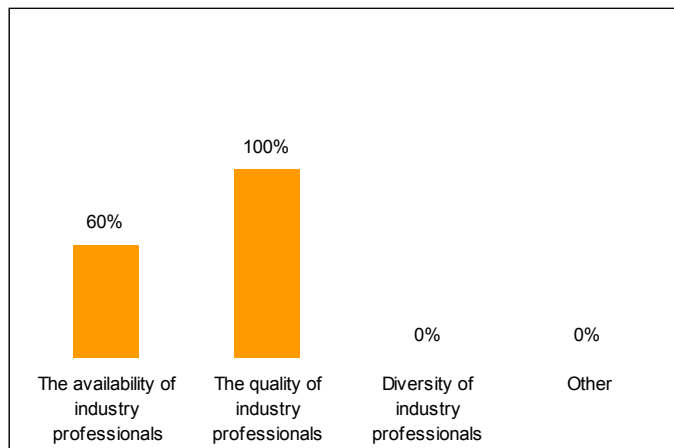
Industry players indicate that the quality of industry professionals could improve and thereby stimulate their business. The diversity of professionals is assessed as satisfactory overall.

<sup>119</sup> Sample: n regulatory = 0, n producers = 4, n programme packagers = 6, n access providers = 2, n Internet players = 1

<sup>120</sup> Sample: n producers = 4

<sup>121</sup> Sample : n UK = 2, n Germany = 1, n Italy = 1, n Belgium = 2, n Netherlands = 1, n Sweden = 1

Figure 85: Type of employment-related regulatory measures that would stimulate your business (Q31)<sup>122</sup>



Several players indicate possible measures or areas of improvement where the regulator could intervene:

- A content producer from the UK indicates that they expect the regulation to address skill shortage. (PACT)
- Higher education and universities could play a big role by making courses more practical and thus better addressing the issues in the sector. (UK, PACT, VOTP)
- A French player is of the opinion that the government should provide funds for the education of journalists and technical people. (France Télévision)
- Another player from the UK indicates that the government should create training schemes and provide funds for the education of industry professionals. (Granada)

### *Technological Innovations*

Costs related to technological innovations are expected to increase from 9% to 11%. A Content Management System is one of the innovations in which industry players might invest and which they see as a key success factor for the future.

The key features of a content management system are:

- The ability to register, search and retrieve media assets online;
- The ability to index the properties (metadata) about these objects;
- The elimination of the need for user-defined unique identifiers;
- The ability to define access authority on any media object;
- The ability to group media objects into a classification.

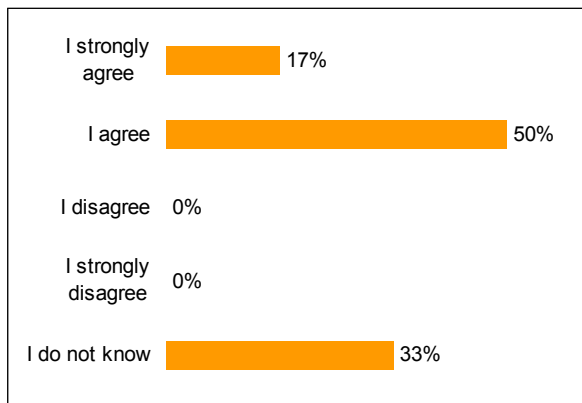
The CMS has the following benefits:

- Cost savings by re-using and re-purposing original media;
- Protect commercial value by preventing unauthorised use of intellectual property;
- Increases efficiency;
- Allows electronic distribution of media to customers, suppliers and subsidiaries;
- Reduces shipping and distribution costs.

67% (50% who agree plus 17% who strongly agree) of the content producers believe that investing in a content management system is a key success factor for the future.

<sup>122</sup> Sample : n regulatory = 1, n producers = 1, n programme packagers = 3, n access providers = 0, n Internet players = 0

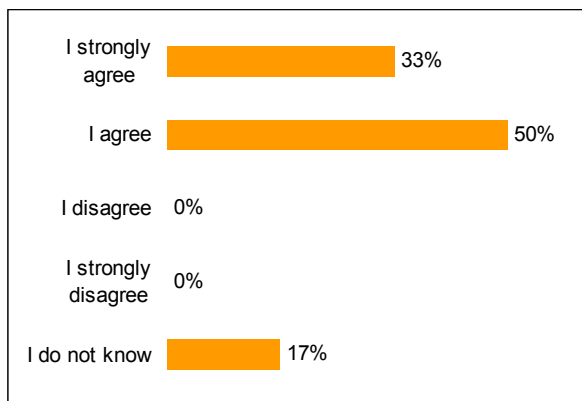
**Figure 86:** <sup>123</sup> Content producers' cost drivers – Technological innovations: Content Management Systems (Q28)



### *Marketing / Branding*

Interviewees gave their opinion on the importance of a marketing budget for the future: 50% of the content producers see an increased marketing budget as a success factor for the future.

**Figure 87:** <sup>124</sup> Content producers' cost drivers – Marketing/branding (Q27)



<sup>123</sup> Sample : n producers = 6

<sup>124</sup> Sample: n producers = 6



## 4. Programme Packagers

In this part of the questionnaire, a focus is put on the programme packagers' business. Industry players were asked:

- To provide their opinion on the growth of channels and the evolution of the pay TV viewing share ;
- To indicate their major revenue sources today and in 2010 ;
- To indicate their cost drivers today and what they will be in 2010.

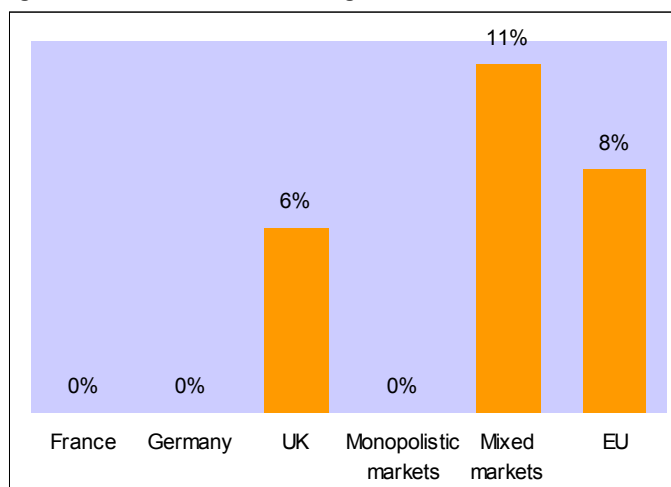
Programme packagers are defined as the industry players responsible for the selection of individual programmes, the creation of a schedule through packaging programmes and the selling of advertising airtime to fund their schedules.

### 4.1 Channel Development

#### 4.1.1 Channel Growth

The past few years have been characterised by an increase in the number of thematic channels brought to the market. As can be seen from Figures 88 and 89 below, interviewees expect a yearly growth of generalist channels in the EU of 6%, while the figure is much higher for the thematic channels (22%).

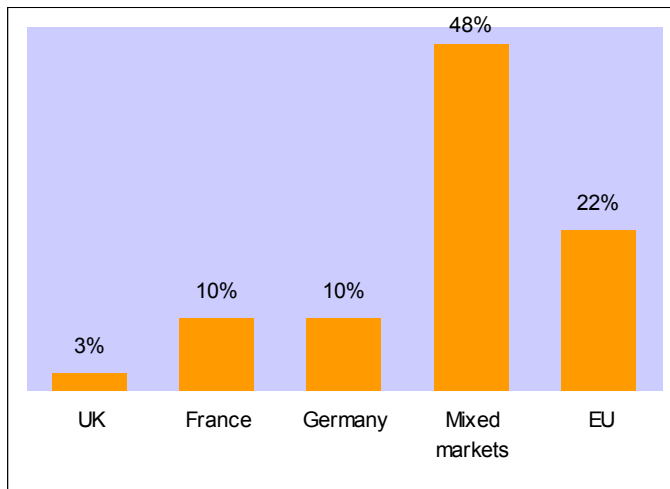
Figure 88: Growth rate of generalist channels – market model segmentation (Q13)<sup>125</sup>



By and large, fewer generalist channels will be introduced. In the large markets, players even indicate zero growth. The reason for this, according to some players, is the introduction of new media that leads to fragmentation. Consequently, launching new channels becomes a risky and costly move. (Nozema)

<sup>125</sup> Sample: n UK = 5, n France = 1, n Germany = 1, n EU = 8, n Mixed markets = 4, n Monopolistic markets = 1

Figure 89: Growth rate of thematic channels – market model segmentation (Q13)<sup>126</sup>



Overall, two developments will coexist. On the one hand, the actual competition has increased programme expenditure and decreased revenues through fragmentation. This will limit the creation of new channels in countries that are already developed.

On the other hand, current programme packagers will create niche channels to retain overall viewing shares. This trend will be accelerated by the introduction of digital technologies.

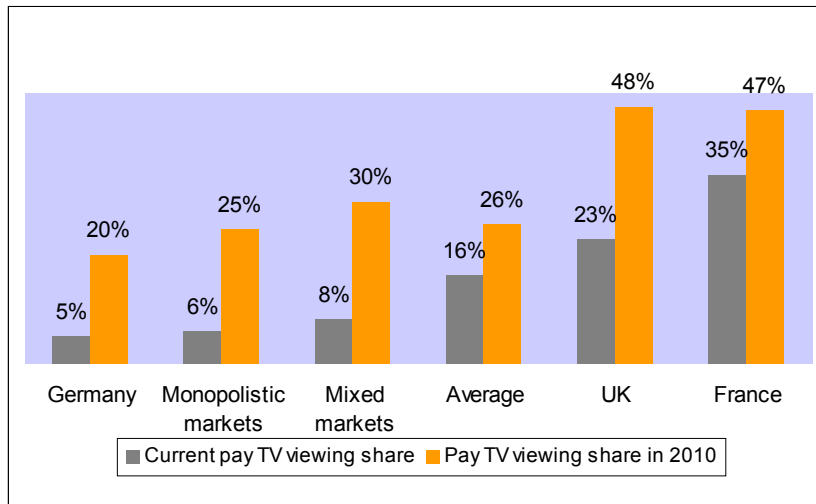
#### 4.1.2 Pay TV Growth

The increasing number of channels brought to the market leads to a fragmentation of advertising budgets. Increasingly new channels will be subscription-based. Consequently, it is expected that pay TV viewing share will increase remarkably.

As can be seen from Figure 90, the average pay TV viewing share is expected to reach 26% in the EU in 2010. This means a yearly growth of 6,2%. Germany and the Monopolistic markets (Austria and Ireland) are expected to have the highest boom in pay TV.

<sup>126</sup> Sample: n UK = 4, n France = 1, n Germany = 1, n EU = 7, n Mixed markets = 4

Figure 90: Evolution of the pay TV viewing share – market model segmentation (Q14)<sup>127</sup>

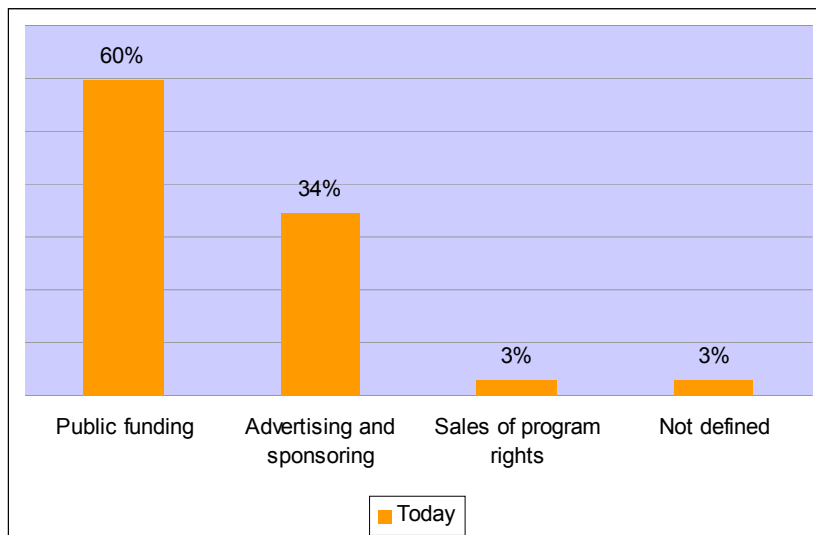


## 4.2 Break down of Revenues & Cost Drivers of Packagers

### 4.2.1 Break down of Revenues

Public programme packagers receive an average of 60% of their revenues from public funding, while 34% comes from advertising and sponsoring. The industry players did not indicate their expectations for 2010.

Figure 91: Break down of public programme packagers' revenues today (Q49)<sup>128</sup>

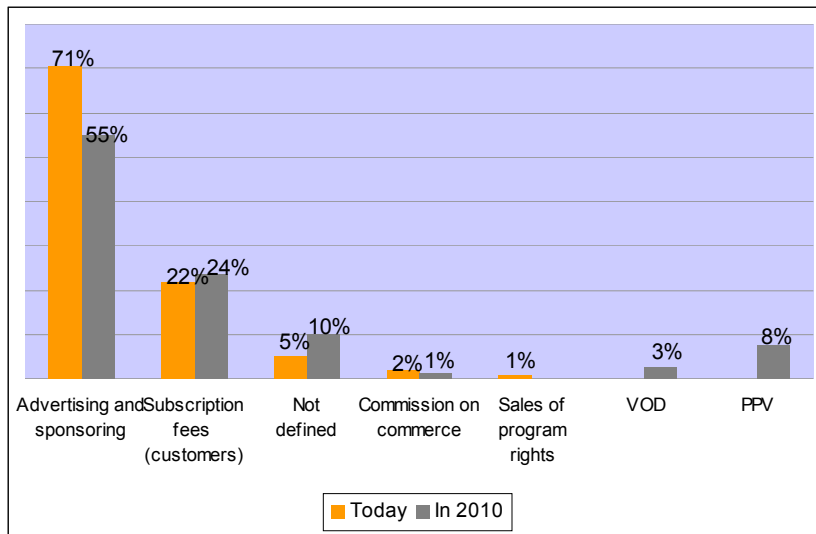


<sup>127</sup> Sample current pay TV viewing share: n UK = 5, n France = 1, n Germany = 1, n Monopolistic markets = 1, n Mixed markets = 8; sample pay TV viewing share in 2010: n UK = 4, n France = 1, n Germany = 1, n Monopolistic markets = 1, n Mixed markets = 5

<sup>128</sup> Sample: n public programme packagers = 5

Private programme packagers' main revenue source today is advertising and sponsoring. Industry players expect it to remain the main source in 2010. Subscription fees from customers are expected to grow, as are revenues from VOD and PPV.

Figure 92: Break down of private programme packagers' revenues today and in 2010 (Q49)<sup>129</sup>



#### 4.2.2 Cost Drivers

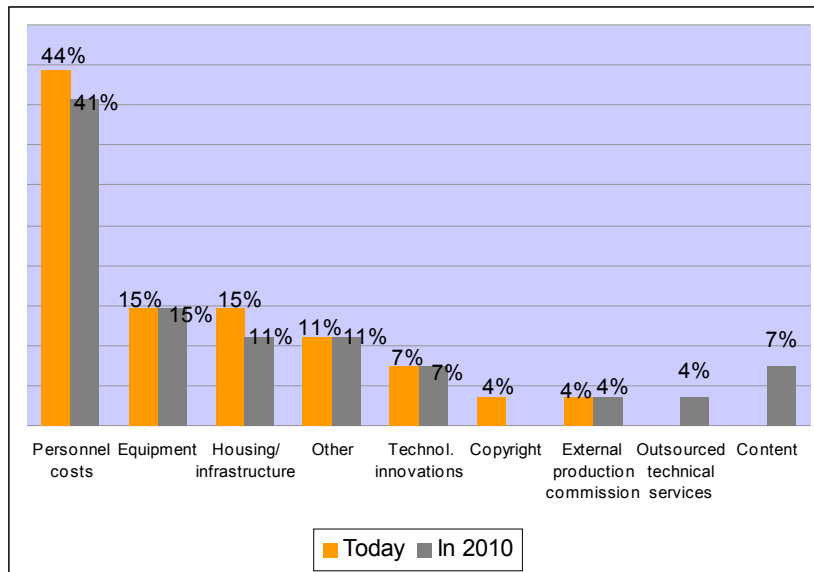
The packagers list the following cost drivers for their business today:

- Personnel costs (44%)
- Equipment (15%)
- Housing/infrastructure (15%).

These cost items are expected to remain to be the major costs in 2010. Costs from outsourced technical services (4%) and content costs (7%) are expected to increase by 2010.

<sup>129</sup> Sample: n private programme packagers = 6

Figure 93: Main cost drivers of the programme packagers' business today and in 2010 (Q26)<sup>130</sup>



### Employment

Packagers indicate a scarcity in different types of industry professionals (Q29)<sup>131</sup>:

- Multi-camera operators (Monopolistic markets)
- Vision mixers (Monopolistic markets)
- New media experts who are the link between interactive media and broadcasting. (Mixed model markets, VRT)
- Creative talent (UK, Mixed model markets):
- The growth in media platforms has driven the demand for content, which resulted in the demand for strong creative talent (Channel4)

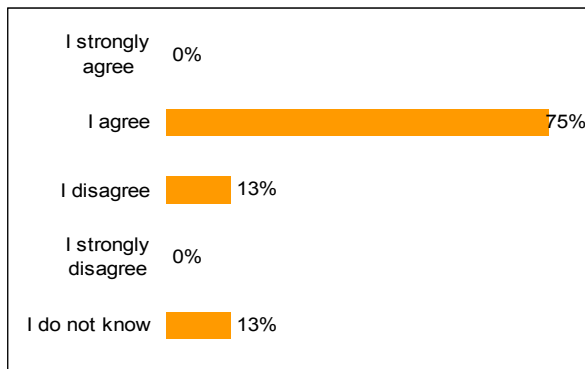
### Marketing / Branding

75% of the industry players' believe that the marketing budget will increase and become a critical success factor for the future.

<sup>130</sup> Sample: n programme packagers = 6

<sup>131</sup> Sample: n programme packagers = 6

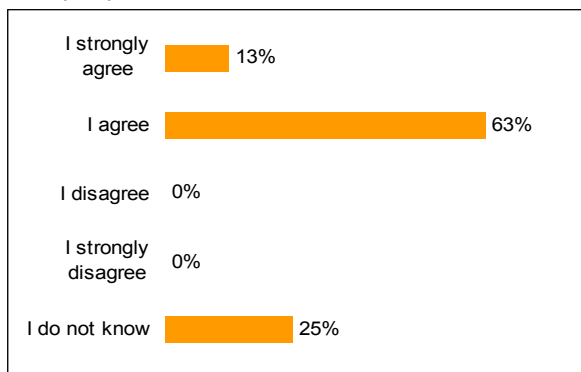
**Figure 94: Programme packagers' cost drivers – Marketing/branding (Q27)**<sup>132</sup>



### *Technological Innovations*

Programme packagers indicate that investing in content management systems is a key success factor for the future.

**Figure 95: Programme packagers' cost drivers – Technological innovations: Content Management Systems (Q28)**<sup>133</sup>



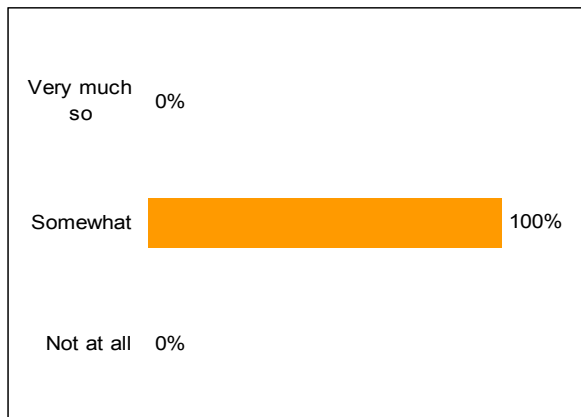
Customer Relation Management consists of continually identifying, targeting, tracking, selling, serving and evaluating customers in order to manage relationship and increase retention and acquisition of profitable customers.

All programme packagers indicate that they have already invested in such a system or that they are planning to in the future.

<sup>132</sup> Sample: n programme packagers = 8

<sup>133</sup> Sample : n programme packagers = 8

**Figure 96:** <sup>134</sup> Programme packagers' cost drivers – Technological innovations : CRM activities and systems  
**(Q48)**



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<sup>134</sup> Sample: n programme packagers = 7

## **5. Content Distribution**

This part focuses on the distribution of content and the players responsible for this activity, the aggregators and access providers.

Aggregators are defined as the industry players responsible for the packaging of individual channels into a packaged market offer that will be sold to customers.

In view of the development of new media applications, aggregators are also increasingly working on the integration of applications and services in the broadcasting stream (e.g. creation of walled garden, enhanced and interactive applications, etc.)

Access providers operate media platforms and manage the customer premises equipment. These players are also responsible for customer relations, the billing process and usage tracking. They are often called gateways as they offer customer access to a range of services and the Internet.

Some access providers own their networks (this is typically the case for cable networks), while others outsource this to specialised companies (often the case for satellite and terrestrial operators).

The main objectives of part 5 on content distribution are to:

- Attain insight to the issue of standards ;
- Receive feedback on the uptake of digital cinema and its opportunities for the industry ;
- Assess the impact of the introduction of DVD and VOD on the video rental and sales business ;
- Get the industry's opinion on broadband penetration in their market and its major delivery infrastructures;
- Estimate the impact of new media distribution channels on the demand for content;
- Understand the major revenue sources and cost drivers today and in 2010.

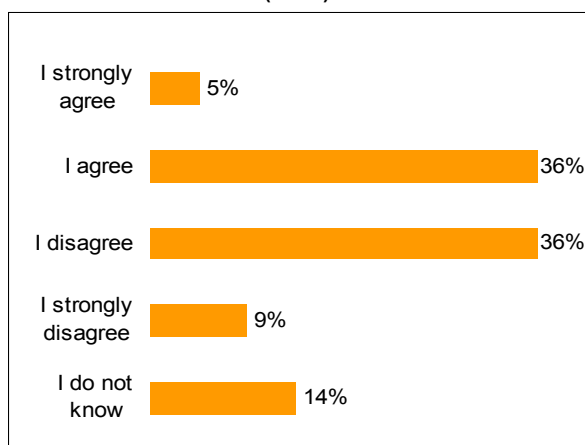
### **5.1 Television**

#### **5.1.1 Digital Television Platform Standards**

45% of the respondents disagree with the statement that the existing operators of distribution infrastructures will implement open standards for pay TV and interactive services. New operators, on the other hand, are expected to implement open standards (56% of the respondents agree with the statement).



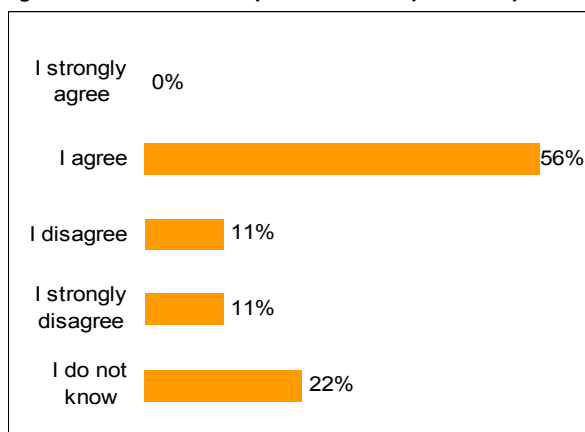
**Figure 97: Existing distribution infrastructure operators will implement open standards for pay TV and interactive services (Q44a)**<sup>135</sup>



The reasons why respondents disagree are:

- Most operators of proprietary technology will not adopt open systems unless they are obliged to do so. Their technology should genuinely be open to other content suppliers. (ITV)
- Existing cable and satellite operators will not implement open standards, but DTT operators will. (M6)

**Figure 98: New operators will implement open standards for pay TV and interactive services (Q44b)**<sup>136</sup>



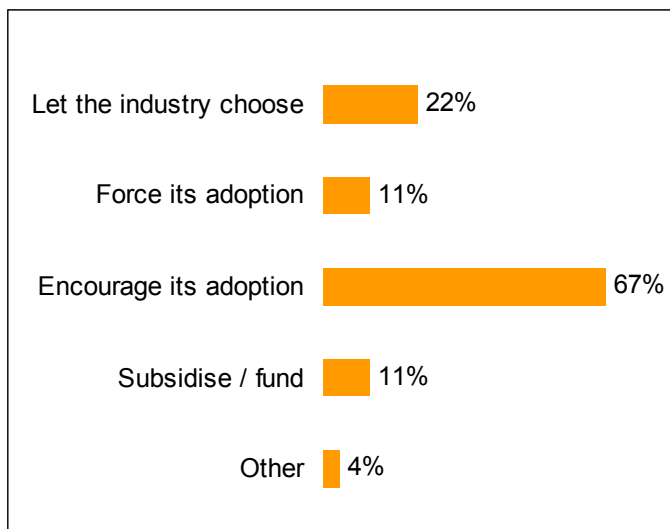
Some industry players grouped in order to encourage one open standard, DBV-mhp, and want the industry to adopt this standard. The regulator could play a role here and industry experts were asked what they believe the regulator should do.

67% of respondents are in favour of encouraging its adoption, while 22% would let the industry choose.

<sup>135</sup> Sample: n regulatory = 3, n producers = 2, n programme packagers = 9, n access providers = 4, n Internet players = 3

<sup>136</sup> Sample: n regulatory = 3, n producers = 2, n programme packagers = 7, n access providers = 3, n Internet players = 3

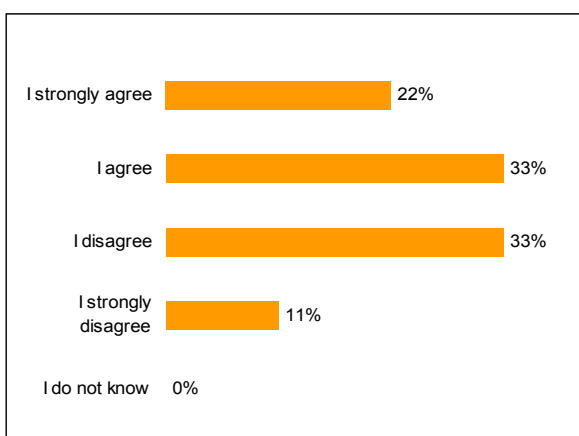
**Figure 99: DVM-mhp is considered as a de facto standard. What will the regulator do? (Q45)<sup>137</sup>**



### 5.1.2 Barriers to a Digital Rollout

In order to be able to receive digital programmes, viewers need to have a digital set-top box. Today, these set-top boxes are quite expensive. Therefore, the price of this equipment may impede the penetration of digital services.

**Figure 100: The price of the STB is a barrier to digital rollout (Q43)<sup>138</sup>**



The players who disagree, especially the content producers (67%) and the players from the UK (72%), argue that:

- In some countries, as for example the UK, the set-top boxes are free (subsidised by operators), so that does not delay the penetration of digital services. (NTL)
- The main barrier for digital rollout is not the price of the set-top box, but the proprietary technology that is used by dominant market players. (ARD)

<sup>137</sup> Sample: n regulatory = 4, n producers = 3, n programme packagers = 9, n access providers = 8, n Internet players = 2

<sup>138</sup> Sample: n regulatory = 4, n producers = 3, n programme packagers = 9, n access providers = 7, n Internet players = 4

## 5.2 Cinema & Digital Cinema

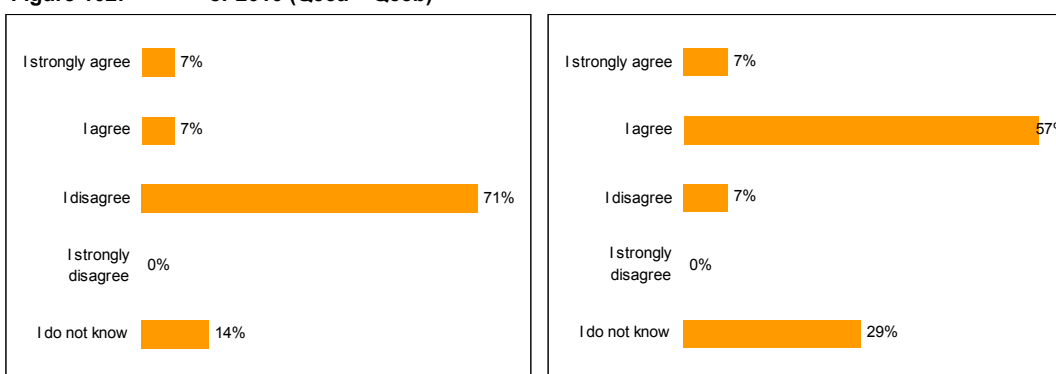
The cinema, as a distribution channel, is undergoing major changes: the channel is undergoing the digitisation process, providing several opportunities like improved quality, better scheduling possibilities, etc.

Digital cinema can be defined as the system in which a movie is distributed digitally (via cable, satellite or the Internet) to movie theatres and then projected using a digital projection system<sup>139</sup>.

**Digitisation of the cinema industry will be the norm in your market**

**Figure 101: by 2005**

**Figure 102: or 2010 (Q35a – Q35b)<sup>140</sup>**



According to 64% of the industry players (57% who agree plus 7% who strongly agree), the digitisation process of cinemas will not take place until 2010.

In order to identify the opportunities and threats of digital cinema on the industry, interviewees were asked if they agree with following statements (see Figures 103-106).

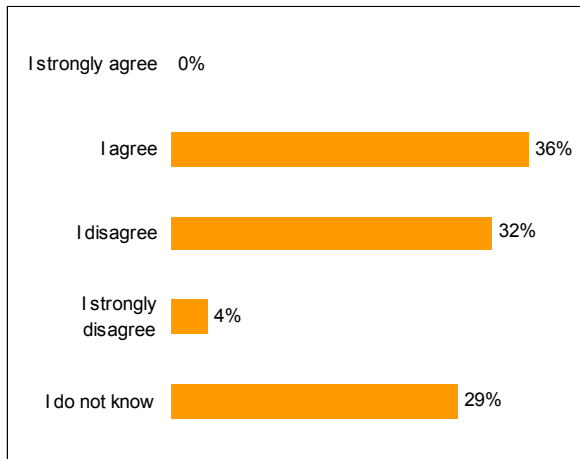
The majority of respondents agree that the digitisation of the cinema industry will create following opportunities:

- 36% of the interviewees believe that digital cinema will increase the demand for specific formats of content, especially the regulatory bodies and associations (50%) and access providers (100%) ;
- 64% of interviewees believe that movie distribution costs will be dramatically reduced. It will save the studios costs for shipping and prints ;
- 62% of respondents are of the opinion that simultaneous worldwide release of movies will be possible ;
- 69% of respondents indicate that it will allow huge flexibility in movie theatre programming.

<sup>139</sup> Definition given by Forrester, Movie distribution's new era, March 2001

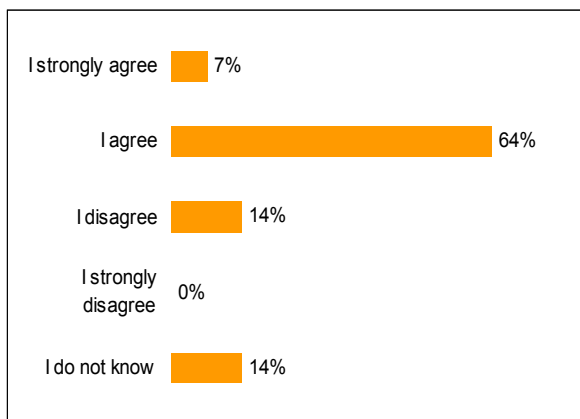
<sup>140</sup> Sample Q35 a - Q35 b: n regulatory = 2, n producers = 5, n programme packagers = 4, n access providers = 3, n Internet players = 0

**Figure 103: Digital cinema will increase the demand for specific formats (Q33e)**<sup>141</sup>



The Mixed model markets (Belgium, The Netherlands and Sweden) do not believe that digital cinema will create demand for specific formats, nor do the programme packagers (38%) or content producers (100%).

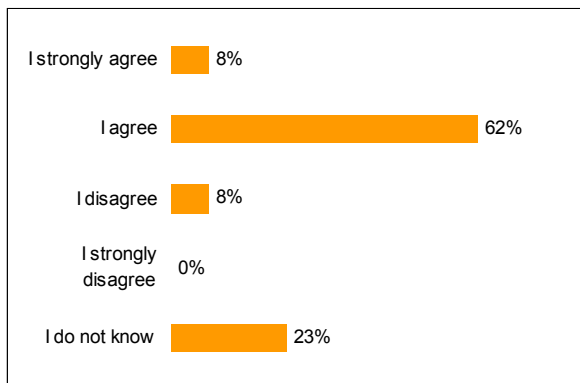
**Figure 104: Digitisation of the cinema industry will reduce movie distribution costs (Q35c)**<sup>142</sup>



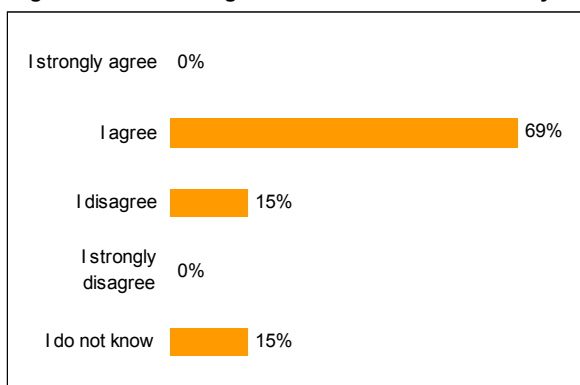
<sup>141</sup> Sample: n regulatory = 4, n producers = 6, n programme packagers = 8, n access providers = 6, n Internet players = 4

<sup>142</sup> Sample: see sample Q35 a

**Figure 105: Digitisation of the cinema industry will allow simultaneous worldwide release of movies (Q35e)**<sup>143</sup>



**Figure 106: Digitisation of the cinema industry will allow flexibility in movie theatre programming (Q35f)**<sup>144</sup>



On the other hand, the digitisation of the cinema may also create challenges. Industry players indicate in half of the cases (36% who agree plus 14% who strongly agree), that it will create serious threats regarding the protection against piracy.

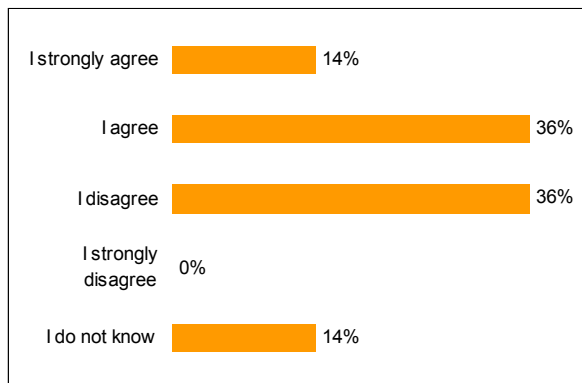
36% of the respondents indicate that digitisation of the cinema industry does not create piracy threats, especially the UK (75%) and the content producers (60%). They think the piracy issue is more or less solved for digital cinema:

- Technologies like Digital Rights Management can solve the piracy problem in an efficient way ;
- People will not copy the discs since they want to see the movie in the cinema, because it is another kind of experience.

<sup>143</sup> Sample: n regulatory = 1, n producers = 5, n programme packagers = 4, n access providers = 3, n Internet players = 0

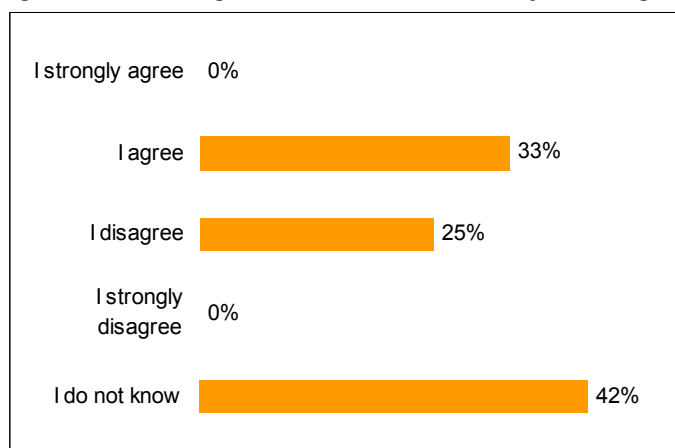
<sup>144</sup> Sample: see sample Q35 e

**Figure 107: Digitisation of the cinema industry will create threats regarding protection against piracy (Q35d)**<sup>145</sup>



33% of the interviewees are of the opinion that the digitisation process in the cinema business will change the way cinema advertising is sold. The content producers are not convinced about this statement: 50% do not agree.

**Figure 108: Digitisation of the cinema industry will change the way cinema advertising is sold (Q35g)**<sup>146</sup>



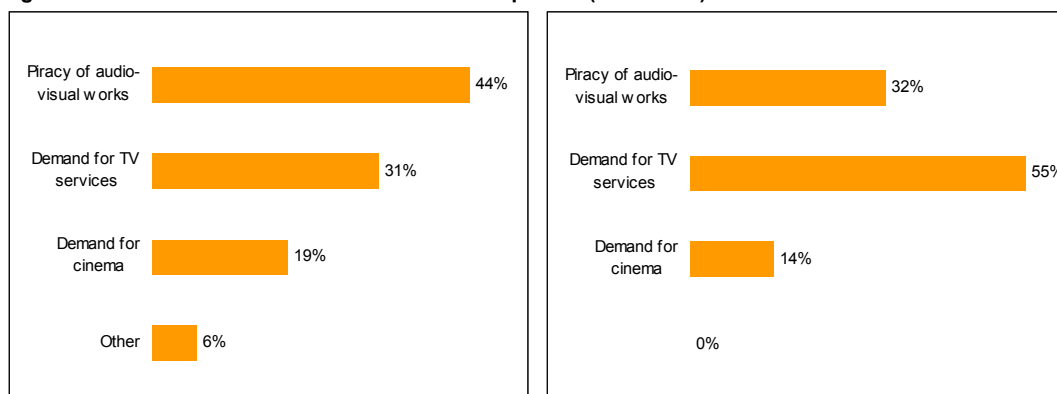
### **5.3 VOD/DVD Impact**

The introduction of the DVD and Video-on-demand influence different aspects of the audio-visual industry. Industry players were asked to provide their opinion on the impact of VOD and DVD on the piracy of audio-visual works, the demand for TV services and the demand for cinema services.

<sup>145</sup> Sample: n regulatory = 2, n producers = 5, n programme packagers = 4, n access providers = 3, n Internet players = 0

<sup>146</sup> Sample: n regulatory = 1, n producers = 4, n programme packagers = 4, n access providers = 3, n Internet players = 0

**Figure 109: The introduction of DVD recorders will impact...**  
**Figure 110: The introduction of VOD will impact ... (Q37 – Q38)**<sup>147</sup>



DVD recorders will have an impact on the piracy of audio-visual works, according to 44% of the respondents.

The interviewees made following remarks:

- The impact on piracy will be greatest on the digital receivers with hard disks. (France Télévision)
- The impact on the demand for TV services will not be felt in the domain of sports, since this type of content relies on live and fast turnaround highlights of events. (ITV)
- The impact of piracy on audio-visual works should be limited since the new copyright directive will deal with piracy in the digital future. (AOL)

The introduction of VOD, on the other hand, will have the largest impact on the demand for TV services (55% of the interviewees). Interviewees argue that:

- The rights holders' rights are loaded on a server and they will earn revenues by pay per click for example. They do not want to adapt an automated approach yet as they are still concerned about security of transactions. (NTL)
- VOD will only have an impact on certain genres of content, like movie channels. There will be no impact on sports channels or children's programmes. (SOURCE)
- VOD will increase the demand for pay TV. (Dutch Independent Producers Association)
- The "linear" TV will lose some market share due to the VOD, since people can watch programmes when they want, so on-demand services will gain market share. (VRT)

32% of respondents indicate that VOD will have an impact on the piracy of audio-visual works, while only 14% of respondents indicate that there will be an impact on cinema demand:

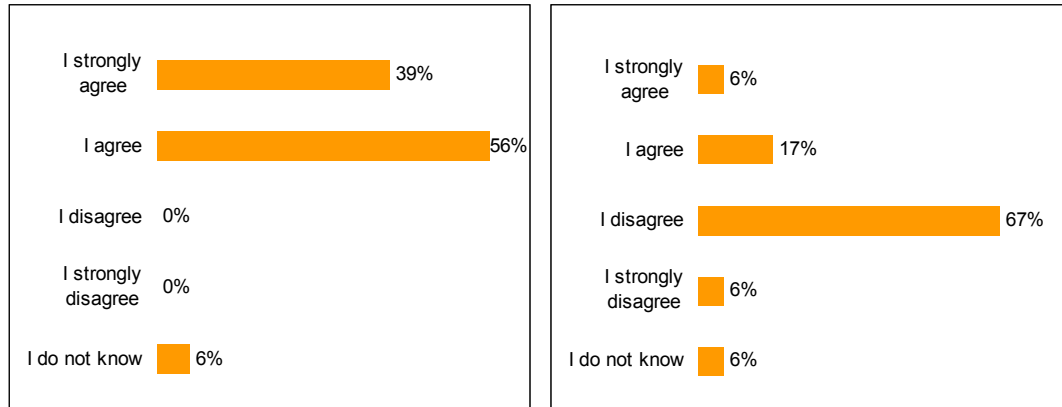
- Rights owners need to move towards new payment methods, since the biggest threat in a broadband world is Internet piracy. (Telewest)
- VOD and cinema are two totally different services and they do not compete with each other. (NTL, France television)
- The user behaviour regarding cinema might be different when VOD comes to the market. (Kirch)
- The video distribution might be negatively impacted. (Kirch)

<sup>147</sup> Sample Q37: n regulatory = 2, n producers = 2, n programme packagers = 5, n access providers = 3, n Internet players = 0; Sample Q38: n regulatory = 2, n producers = 2, n programme packagers = 5, n access providers = 4, n Internet players = 1

The DVD impacts the video rental and sales business. 95% of the interviewees (56% who agree plus 39% who strongly agree) cite that the DVD will make the VHS format disappear, while the rental business is expected to remain unaffected.

**Figure 111: The VHS format rental business will disappear due to the arrival of the DVD**

**Figure 112: The video format rental business will disappear due to the arrival of the DVD (Q52a – Q52b)<sup>148</sup>**



VOD, on the other hand, will make the VHS and DVD sales disappear, according to 73% of respondents (67% who agree plus 6% who strongly agree). Those who disagree with this statement indicate that:

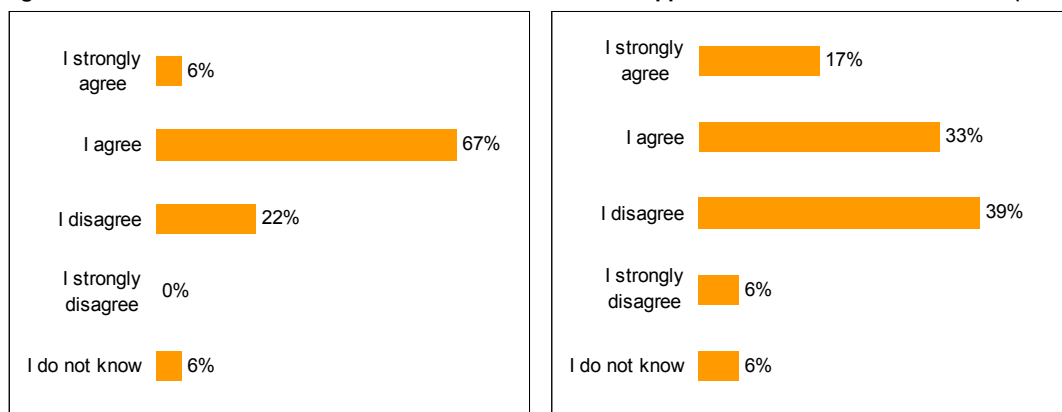
- A large percentage of DVDs sold through the Internet are “impulse” sales. (VOTP)
- People are willing to buy DVDs because they are better quality and can be kept longer. (VOTP)

Regarding the video rental business, the views of the respondents are more diverse: 50% believe that video rental will disappear, in particular the Mixed model markets, France and Italy.

Programme packagers (84%) are the only industry players who think that the video rental business will not disappear due to VOD.

**Figure 113: The VHS/DVD sales will decrease / disappear due to the arrival of the VOD.**

**Figure 114: The video rental business will decrease / disappear due to the arrival of the VOD (Q52c – Q52d)<sup>149</sup>**



<sup>148</sup> Sample Q52 a - Q52 b: n regulatory = 4, n producers = 5, n programme packagers = 6, n access providers = 3, n Internet players = 0

<sup>149</sup> Sample: see sample Q52 a



## 5.4 New Media

### 5.4.1 Broadband

Broadband provides the opportunity to deliver rich interactive content and services to several devices over multiple distribution channels. The increase in bandwidth has led to a number of new ways to provide content to the consumer e.g. streaming content, interactive games, e-learning, e-mail, etc.

In this part of the questionnaire, industry experts were asked how they think broadband will evolve and what the impact will be on their business.

#### 5.4.1.1 Long-term Impact on Costs and Revenues

As can be seen from Table 11 below, there is an overall increasing impact on the costs and revenues of the industry players. The access providers face the highest impact on their investments: 71% expect a strong increase. While 56% of the programme packagers expect that their revenues will remain at the same level with the advent of broadband, all other industry players see an increase.

**Table 11: Impact of broadband – per industry player (Q9)<sup>150</sup>**

	Regulatory bodies & associations	Content producers	Programme packagers	Access providers	Internet players
Costs	↑	↑	↑	↑	↑
Investment	-	↑	↑	↑↑	↑ – ↑↑
Revenues	0	↑	0	↑	↑
Capacity to innovate	↑	0 – ↑	↑	↑↑	↑

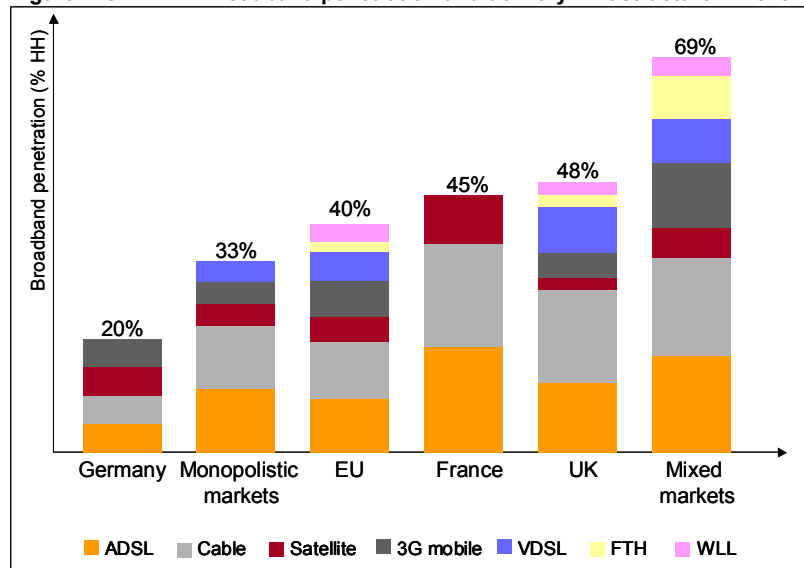
#### 5.4.1.2 Broadband Penetration & Delivery Infrastructure

**Figure 115 below reflects the broadband penetration per market model. The stacked bars represent the split of the delivery platforms for broadband services.**

On average, the industry expects a broadband penetration of 40% in the European Union by 2010. Germany and the Monopolistic markets (Austria and Ireland) expect to perform below the European average with 20% penetration and 33% penetration respectively, while France, the UK and the Mixed model markets (Belgium, the Netherlands and Sweden) perform above average with 45%, 48% and 69% respectively.

<sup>150</sup> Sample costs and revenues: n regulatory = 3, n producers = 3, n programme packagers = 9, n access providers = 6, n Internet players = 2; Sample investments: n regulatory = 3, n producers = 2, n programme packagers = 9, n access providers = 7, n Internet players = 2; Sample capacity to innovate: n regulatory = 3, n producers = 2, n programme packagers = 9, n access providers = 5, n Internet players = 2

Figure 115: Broadband penetration and delivery infrastructure in 2010<sup>151</sup> (Q10 - Q11)<sup>152</sup>



The high rate of broadband penetration in the Mixed model markets (Belgium, The Netherlands and Sweden) can be explained by the fact that these countries' main distribution platform is cable.

The delivery infrastructures that are expected to prevail in bringing broadband services to the EU are cable (26%) and ADSL (26%). Satellite is expected to deliver only a small part of the broadband services (9%).

Mobile 3G is seen as a potential platform in each country. France does not expect mobile to deliver broadband services, which can be explained by the fact that at the time of the interviews, the UMTS license deals had yet to be concluded.

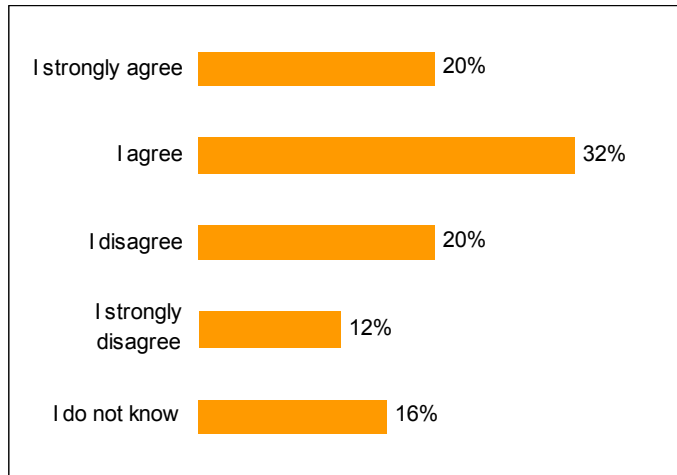
#### 5.4.1.3 Regulatory Measures

Broadband is necessary in supplying new types of content and services in the future. Respondents were asked whether or not the government should enforce regulation to promote broadband penetration. Slightly more than half of the respondents agree and indicate that such a regulation could stimulate their business.

<sup>151</sup> Please note that the results reflect the estimation of programme packagers (47% of respondents to Q10 and 36% to Q11)

<sup>152</sup> Sample: n Germany = 2, n Monopolistic markets = 2, n EU = 25, n France = 3, n UK = 8, n Mixed markets = 10

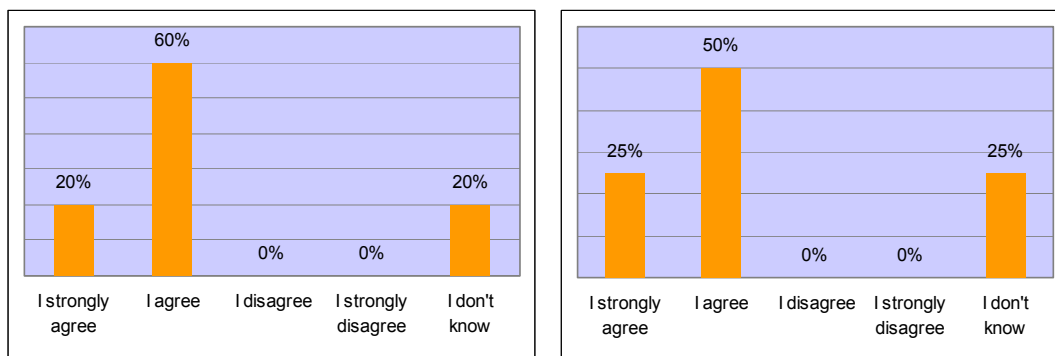
**Figure 116: Usefulness of enforcing a regulation to promote broadband penetration (Q12)<sup>153</sup>**



Large differences occur when looking at the results on an industry player level. All regulatory bodies and associations (100%), 80% (60% who agree plus 20% who strongly agree) of access providers and 75% of Internet players (50% who agree plus 25% who strongly agree) believe that a regulation would be effective in promoting broadband penetration.

**Figure 117: Enforcing a regulation to promote broadband would stimulate your business**

**Figure 118: Enforcing a regulation to promote broadband would stimulate your access providers and Internet players (Q12)<sup>154</sup>**



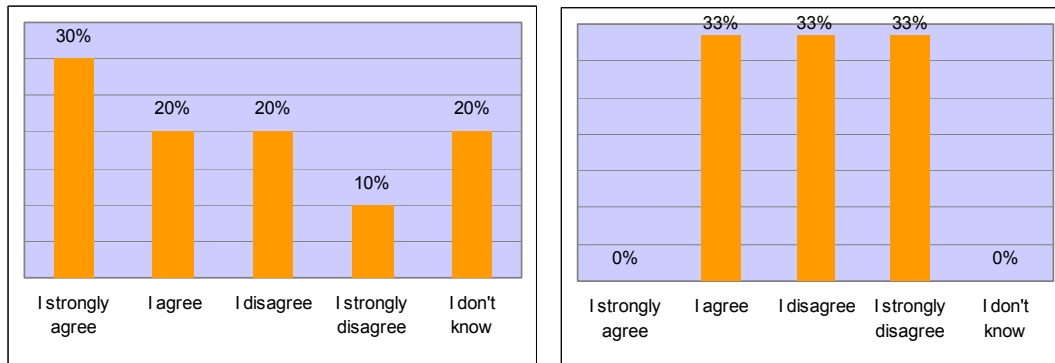
The programme packagers and content producers however, have a differing view on this matter. 50% of the programme packagers agree with regulation, while 30% are not in favour.

On the content producers' side, a general trend for the group cannot be derived from the responses since the sample existed of only three content producers. Two content producers however are not in favour of introducing such a regulation.

<sup>153</sup> Sample: n regulatory = 2, n producers = 3, n programme packagers = 10, n access providers = 5, n Internet players = 4

<sup>154</sup> Sample: n access providers = 5, n Internet players = 4

**Figure 119: Enforcing a regulation to promote broadband would stimulate your business**  
**Figure 120: Enforcing a regulation to promote broadband would stimulate your programme packagers and content producers (Q12)**<sup>155</sup>



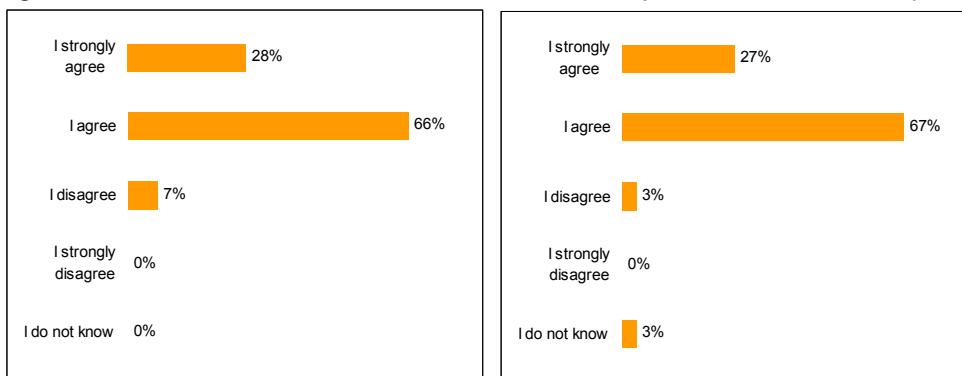
### 5.4.2 New Channels create high Demand for Content

The arrival of new content distribution channels and the possibilities that streaming and compression techniques offer, might have an impact on the demand for content.

Industry experts were asked if these new channels need new formats of content. Or if they can use existing content.

94% of respondents (% of those who agree plus % of those who strongly agree) expect that the Internet and interactive TV will use specific formats of content (94% of respondents).

**Figure 121: Internet will increase the demand for specific formats of content**  
**Figure 122: Interactive TV will increase the demand for specific formats of content (Q33a – Q33b)**<sup>156</sup>

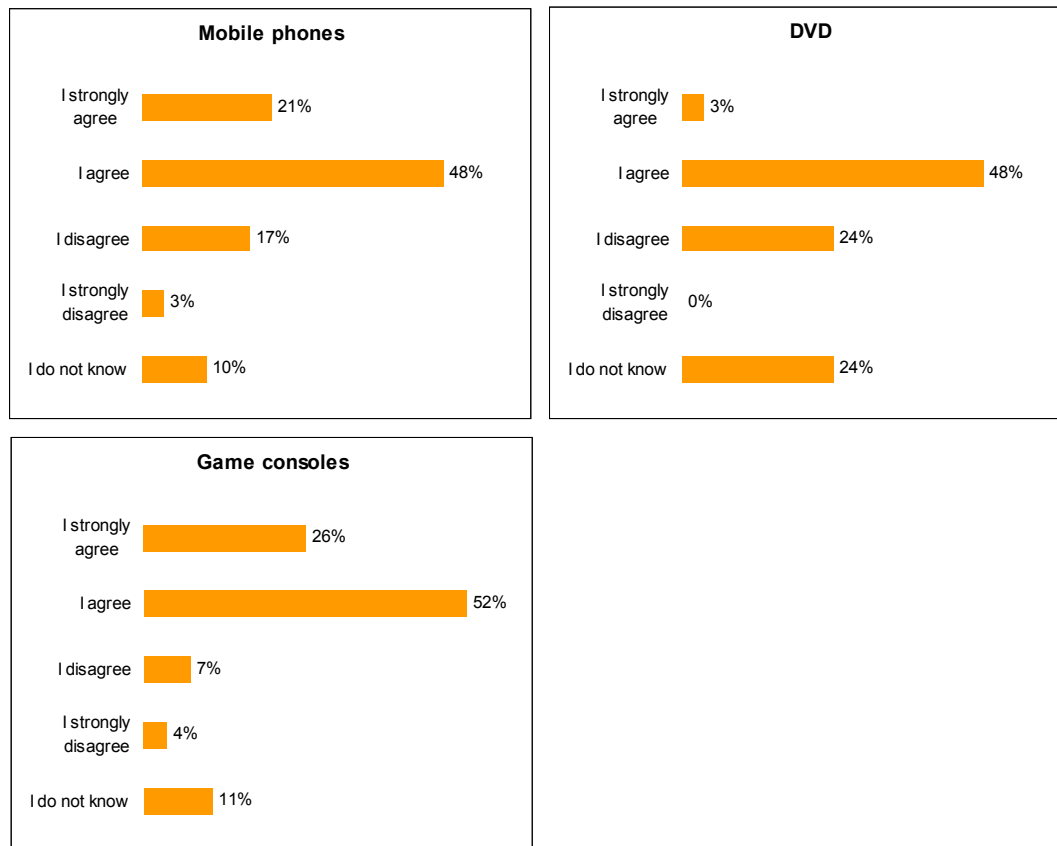


The majority of interviewees expect that new formats are also needed for mobile phones (69% or 21% who strongly agree plus 48% who agree) and game consoles (78% or 52% who agree plus 26% who strongly agree).

<sup>155</sup> Sample: n programme packagers = 10, n producers = 3

<sup>156</sup> Sample Q33 a: n regulatory = 4, n producers = 6, n programme packagers = 9, n access providers = 6, n Internet players = 4; Sample Q33 b: n regulatory = 4, n producers = 6, n programme packagers = 9, n access providers = 7, n Internet players = 4

**Figure 123: Mobile phones will increase the demand for specific formats of content**  
**Figure 124: DVDs will increase the demand for specific formats of content**  
**Figure 125: Game consoles will increase the demand for specific formats of content (Q33c – Q33d)**<sup>157</sup>



However, while half of the content producers believe that mobile phones will increase the demand for specific formats, the other half of the producers indicate the opposite.

Regarding the DVDs, only slightly more than half of the respondents believe new formats are needed (51% or 48% who agree plus 3% who strongly agree). France (75%) is the only country indicating that DVDs do not create demand for content, while on the industry player level, it is the programme packager (44%) who disagrees.

## **5.5 Break down of Access Providers' Revenues & Cost Drivers**

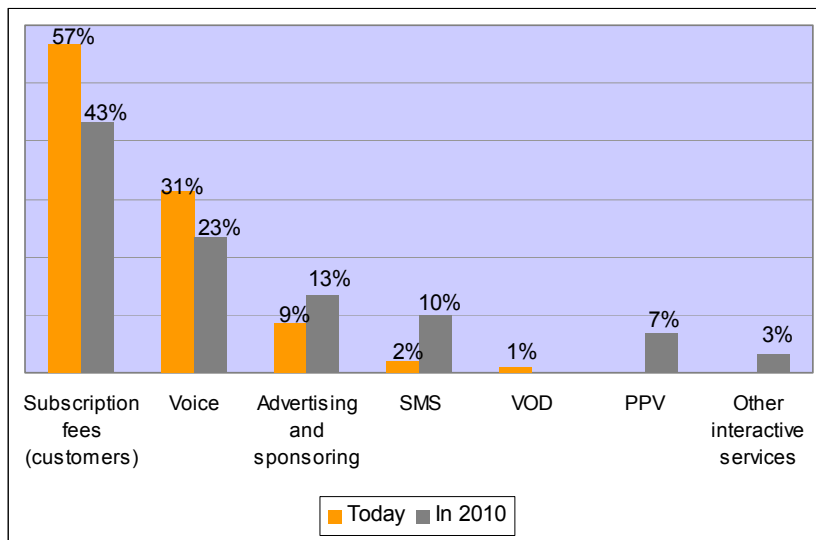
### **5.5.1 Break down of revenues**

The current revenues of access providers consists of subscription fees from customers (57%), voice (31%) and advertising and sponsoring (9%), which will remain to be the most important sources in 2010.

<sup>157</sup> Sample Q33 c - Q33 d : n regulatory = 4, n producers = 6, n programme packagers = 9, n access providers = 6, n Internet players = 4; Sample: n regulatory =3, n producers = 6, n programme packagers = 8, n access providers = 6, n Internet players = 4

However, the access providers anticipate some changes. They expect revenues from advertising (13%), SMS (10%), PPV (7%) and other interactive services (3%) to increase.

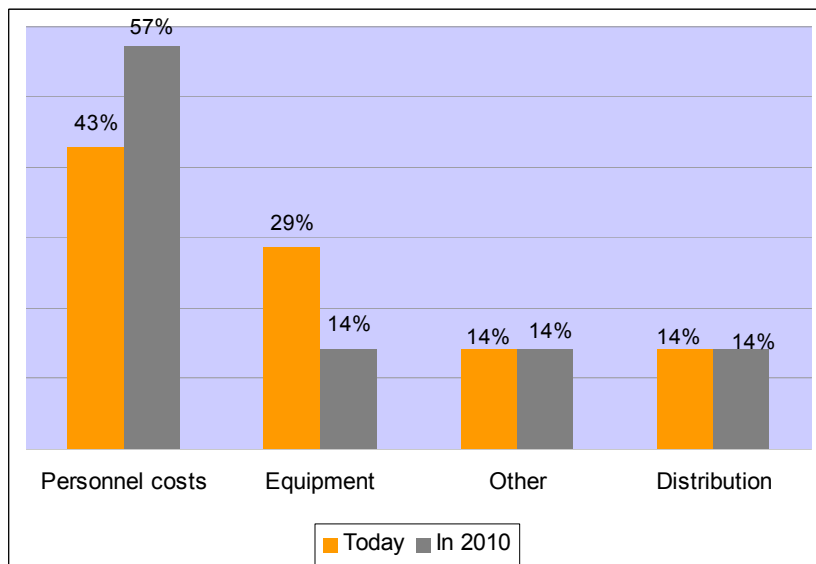
**Figure 126: Break down of access providers' revenues today and in 2010 (Q49)**<sup>158</sup>



### 5.5.2 Cost drivers

As for all other players, the main cost driver of the access providers is the personnel cost. Industry players even expect an increase from 43% today to 57% in 2010. The rest of their costs consist of equipment (29%) and distribution (14%).

**Figure 127: Main cost drivers of the access providers' business today and in 2010 (Q26)**<sup>159</sup>



<sup>158</sup> Sample: n access providers = 3

<sup>159</sup> Sample: n access providers = 2

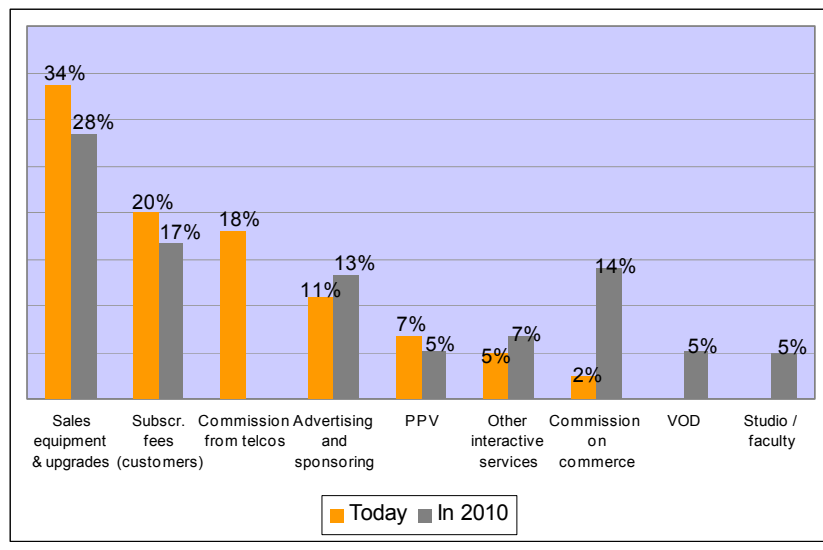
## 5.6 Break down of Internet players' Revenues and Cost Drivers

### 5.6.1 Break down of revenues

Internet players' revenues are primarily derived from equipment and upgrades (34%), subscription fees from customers (20%), commission from access providers (18%) and advertising and sponsoring (11%).

By 2010, the revenues from selling equipment and upgrades and the subscription fees will remain to be the most important sources. Interactive revenues are expected to increase (7%), as well as the commission on commerce (14%) and VOD revenues (5%).

Figure 128: Break down of Internet players' revenues today and in 2010 (Q49)<sup>160</sup>



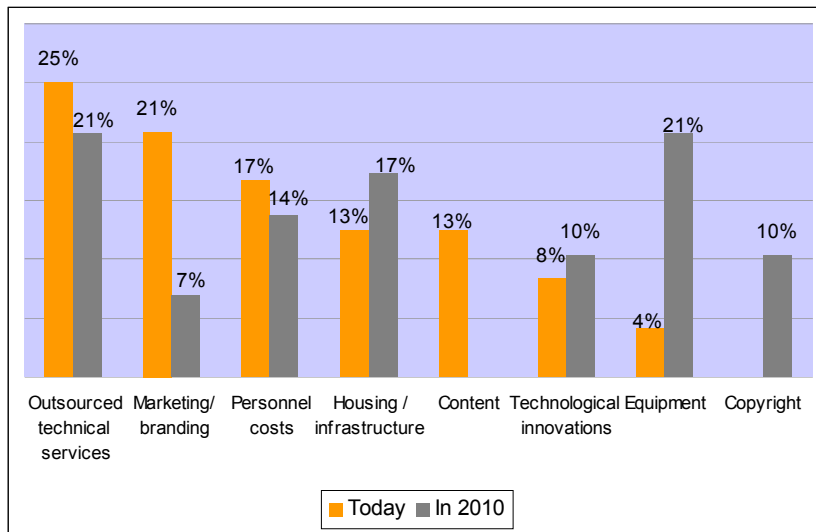
### 5.6.2 Cost Drivers

Internet players have different costs driving their business: outsourced technical services is the biggest cost (25%), closely followed by marketing and branding (21%) and personnel costs (17%).

By 2010, housing/infrastructure (17%), technological innovations (10%) and copyright costs (10%) are expected to increase.

<sup>160</sup> Sample: n Internet players = 3

**Figure 129: Main cost drivers of the Internet players' business today and in 2010 (Q26)**<sup>161</sup>



### Employment

The access providers and Internet players indicate that the following professionals are scarce:

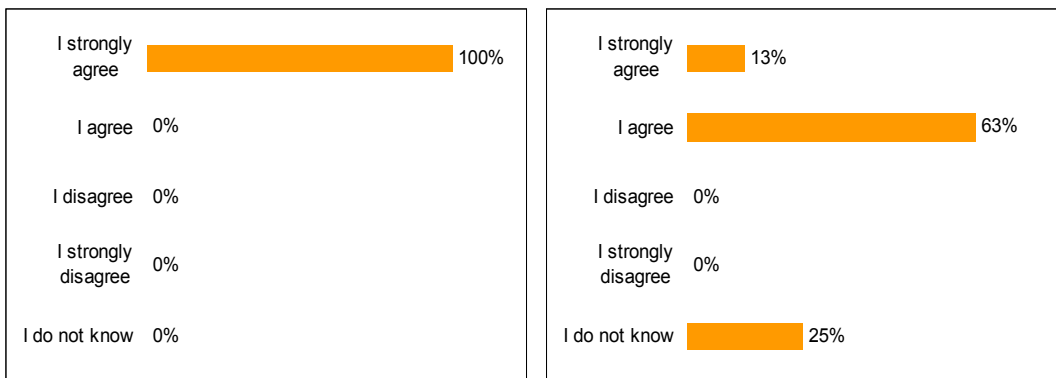
- Programmers/developers (Sweden)
- Media producers (Sweden)
- System integrators (Sweden)
- Application developers (Sweden)
- Webmasters (Italy)

### Technological Innovation

The access providers as well as the Internet players are both standing behind the statement that investing in content management systems is a key success factor for the future.

**Figure 130: Access providers' and Internet players' cost drivers: Content Management Systems**

**Figure 131: Technological innovations: Content Management Systems (Q28)**<sup>162</sup>



<sup>161</sup> Sample: n Internet players = 1

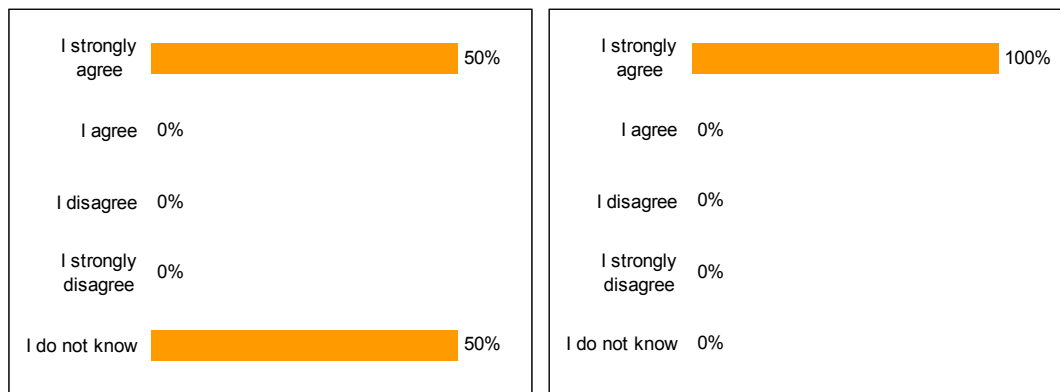
<sup>162</sup> Sample: n access providers = 1, n Internet players = 3



## Marketing / Branding

**Figure 132: Access providers' and Internet players' cost drivers**

**Figure 133: Access providers' and Internet players' Marketing/branding (Q27)**<sup>163</sup>



Given the fact that Internet players cite marketing and branding as one of their major costs, their responses regarding future marketing budgets do not come as a surprise.

<sup>163</sup> Sample: n access providers = 2, n Internet players = 2

## **6. Market Structure & Business Models**

This part of the report focuses on the market structure of the audio-visual industry and the industry players' business models.

The traditional market structure is under high pressure. Existing market players will look for opportunities and new revenue streams in order to find a viable and sustainable business model for the future. New players will enter the market.

Industry players were asked to provide their insights on:

- Changes in advertising ;
- Expected partnerships, mergers and acquisitions in their industry segment ;

### **6.1 Industry Revenue Streams**

#### **6.1.1 Advertising**

The advent of new technologies, such as digitisation, high capacity local storage on PVRs, etc. impacts the way advertising is done today. On the one hand, it's a threat for advertisers, since:

- Personal Video Recorders make it possible for viewers to skip ads ;
- The increase in the number of channels leads to fragmentation of the audience.

On the other hand, these new developments create opportunities:

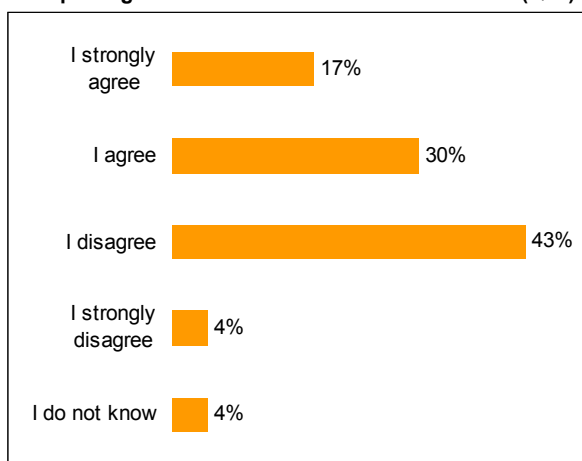
- Set-top boxes contain a lot of personal information and information on the viewers' behaviour and preferences ;
- The introduction of the Electronic Programme Guide allows for new locations to insert advertising messages ;
- Digitisation allows for new advertising techniques such as product placement.

##### **6.1.1.1 Shift in Advertising Budgets**

Interviewees were asked if the change in watching behaviour will move a part of the advertising budget from programme packagers to those in control of the set-top box.

47% believes that advertising revenues will move in the direction of the actors in control of the set-top box. Especially the access providers (60%) and the Internet players (100%) agree with the statement.

**Figure 134: The change in watching behaviour will move part of the advertising budgets from programme packagers to the actors in control of the STB (Q60)**<sup>164</sup>

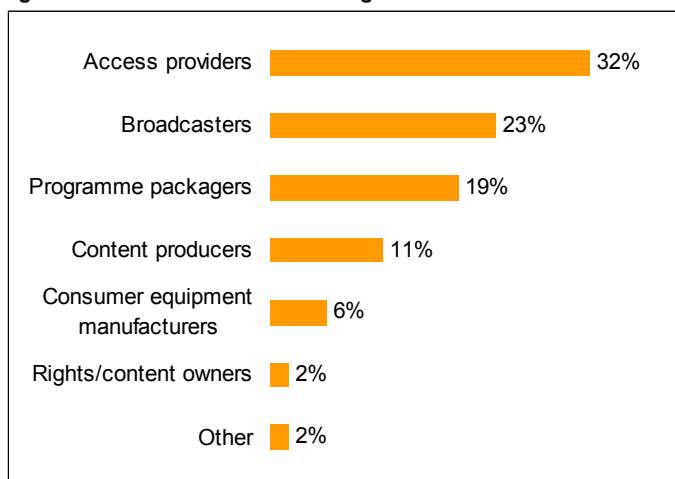


Another 47%, mainly the content producers (80%) and programme packagers (67%), do not see this to happen. They argue that:

- The advertising revenue is associated with the content and therefore, advertising budgets will move to the content providers. (NTL)
- There will be a shift in advertising revenue away from free-to-air broadcasting to non-linear broadcasting. (NTL)

### 6.1.1.2 Actors in Control of the Set-top box

**Figure 135: Which actor will gain control over the STB and thus the relationship with the consumer (Q47)**<sup>165</sup>



Most respondents (32%) are of the opinion that the access providers will gain control over the set-top box. Programme packagers were mentioned by 23% of the interviewees, packagers by 19%.

All industry players share this opinion, except for the access providers, of which 30% refers to the content producers as the players who will gain control over the set-top box.

<sup>164</sup> Sample: n regulatory = 2, n producers = 5, n programme packagers = 9, n access providers = 5, n Internet players = 3

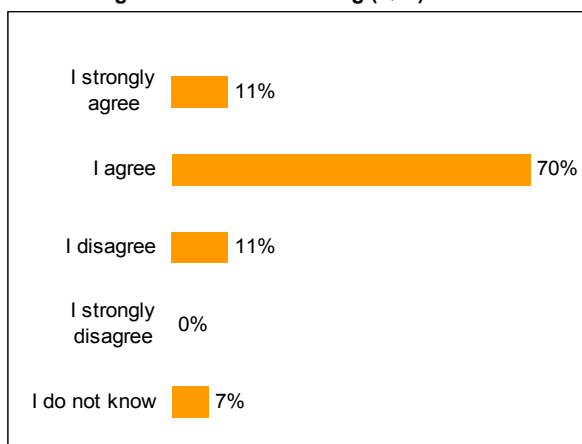
<sup>165</sup> Sample: n regulatory = 4, n producers = 5, n programme packagers = 9, n access providers = 5, n Internet players = 3

### 6.1.1.3 Customisation of Advertising

70% of interviewees agree that customisation techniques, through interactive media, will develop up to the individual level. Consequently, one-to-one marketing will allow premium-advertising.

A remark made is that this will only be possible if consumers allow their personal information to be used for these purposes. There are still data protection and piracy laws. (ITV)

**Figure 136: Customisation techniques (through interactive media) will allow premium advertising revenues through one-to-one marketing (Q61)<sup>166</sup>**



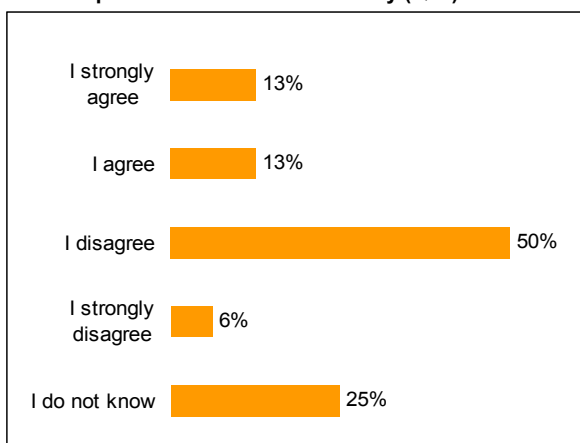
### 6.1.1.4 Impact of Advertising Regulation

56% of the respondents (50% who disagree plus 6% who strongly disagree) are not convinced that supporting the advertising industry will positively impact the audio-visual industry.

A remark made by one of the respondents is that regulation of advertising has nothing to do with competitiveness, but about consumer and child protection. (ITC)

<sup>166</sup> Sample: n regulatory = 2, n producers = 5, n programme packagers = 10, n access providers = 6, n Internet players = 4

**Figure 137: Supporting the advertising industry and its competitiveness through regulation will positively impact the audio-visual industry (Q62)<sup>167</sup>**



## **6.2 Consolidation or Fragmentation**

### **6.2.1 Content Producers & Rights Owners**

#### 6.2.1.1 Evolution of the Segments' Structure

The production industry in the European Union is fragmented: the five major European players (Endemol, RTL Group, Granada, Carlton and Expand/Ellipse) account for less than 25% of the market<sup>168</sup>.

Although this segment is fragmented, some production houses have been able to secure a strong market position in recent years.

Trends that are expected for the coming years are:

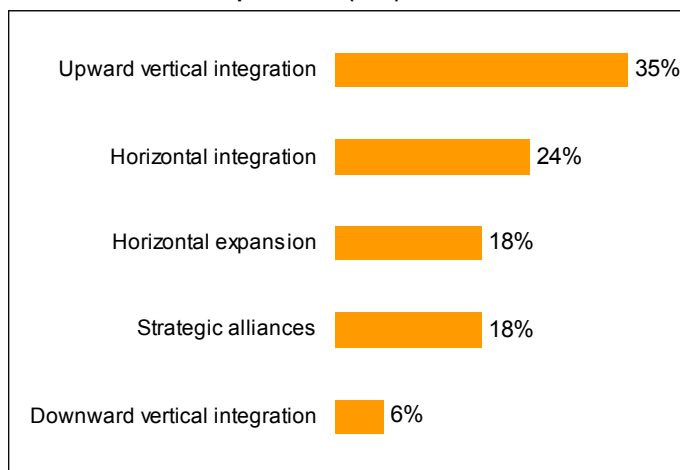
- Horizontal integration and the creation of large pan-European players ;
- The reminder of the market will remain fragmented in view of the low barriers to entry.

These trends are confirmed by the interviewees: 35% of respondents expect an upward vertical integration of players, creating large groups, while 24% expect horizontal integration.

<sup>167</sup> Sample: n regulatory = 2, n producers = 3, n programme packagers = 8, n access providers = 2, n Internet players = 1

<sup>168</sup> In terms of TV production revenues

**Figure 138: Expected evolution in terms of partnerships / mergers & acquisitions in the national audio-visual market – content producers (Q63)<sup>169</sup>**

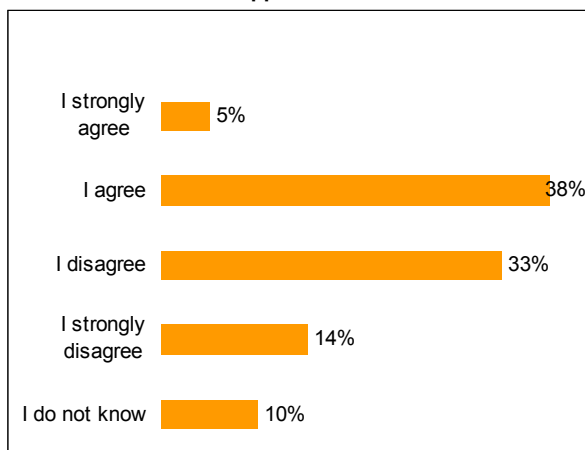


### 6.2.1.2 Structure of Independent Producers

The industry's opinion on the evolution of the independent producers diverges.

43% of respondents agree with the statement that a significant part of the independent producers will not have the financial ability to invest in new technologies. Thus, these production houses will either disappear or be limited to a secondary low value market.

**Figure 139: Part of the independent producers will not have the financial ability to invest into new technologies and will either disappear or be limited to a secondary low value market (Q66)<sup>170</sup>**



Slightly more respondents, 47% (33% who disagree plus 14% who agree) disagree. They argue that:

- The technologies in which the producers invest become cheaper. (France Télévision, NTL)
- The production itself is cheaper due to the digital revolution. (Granada, BBC)
- Equipment costs are no longer a barrier of entry. (NTL)

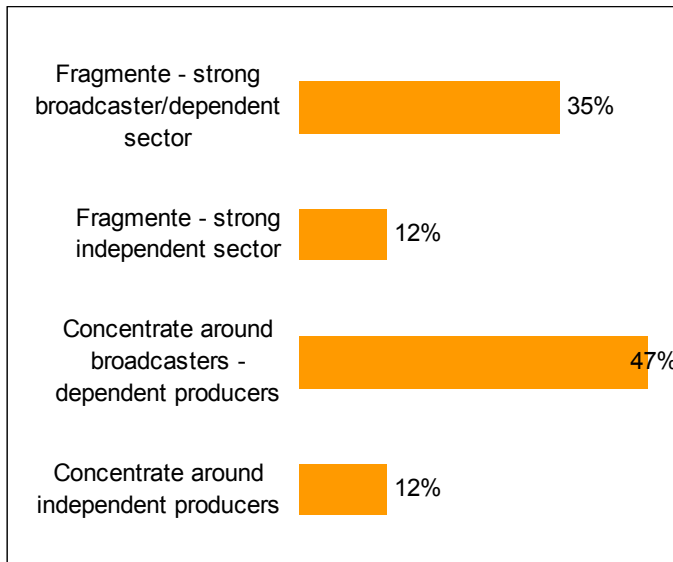
<sup>169</sup> Sample: n producers = 6

<sup>170</sup> Sample: n regulatory = 4, n producers = 5, n programme packagers = 8, n access providers = 4, n Internet players = 0

- Public service programme packagers can help the independent producers to work with new technologies. (VRT)

According to 47% of the interviewees, the European production industry will concentrate around programme packagers and dependent producers.

Figure 140: Figure 140 : The European production industry will ... (Q65)<sup>171</sup>



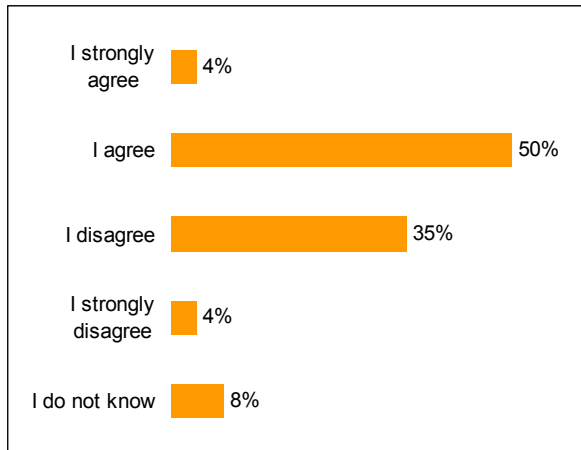
### 6.2.1.3 Online Business for Content Producers

With the advent of new distribution channels, one can expect that content producers will try to sell their content directly to the end consumer.

54% of interviewees (50% who agree plus 4% who strongly agree), however, are of the opinion that content producers bypassing packagers when selling their content over the Internet, will not be able to build a profitable business online.

<sup>171</sup> Sample: n regulatory = 2, n producers = 4, n programme packagers = 8, n access providers = 1, n Internet players = 0

**Figure 141: Content producers trying to bypass traditional packagers by selling content to the end consumer, over the Internet, will not be able to build a profitable business online (Q67)<sup>172</sup>**



One interviewee who disagrees with this statement argues that content producers will be able to sell content online, since sponsoring will give the opportunity to the develop new channels.  
(Ericsson)

## 6.2.2 Programme Packagers

The packagers' segment is characterised by a strong concentration. Already, some pan-European groups, such as RTL Group, SBS, etc. have been created and further (horizontal) consolidation of the segment is expected.

The relation between programme packagers and content producers is also characterised by vertical integration as a lot of programme packagers are involved in TV production.

### 6.2.2.1 Evolution of the Segments' Structure

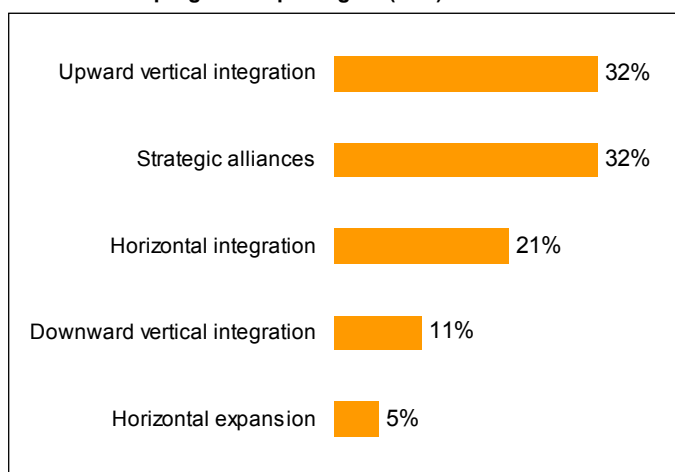
The industry expects this evolution to continue: 32% of the interviewees indicates vertical integration, while 21% expects horizontal integration to take place.

Strategic alliances are also considered as an important evolution (32% of industry players).

<sup>172</sup> Sample: n regulatory = 4, n producers = 4, n programme packagers = 9, n access providers = 5, n Internet players = 4



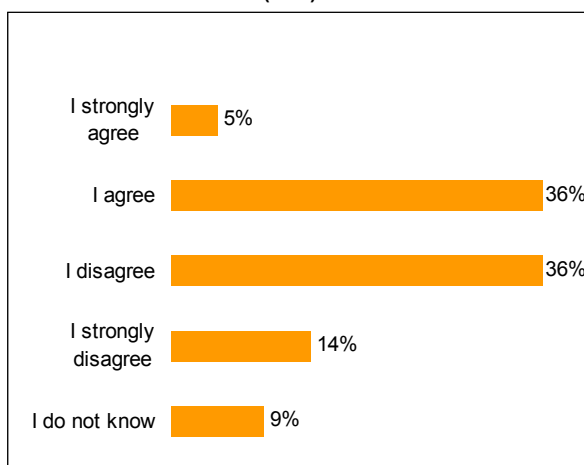
**Figure 142:** Expected evolution in terms of partnerships / mergers & acquisitions in the national audio-visual market – programme packagers (Q63)<sup>173</sup>



### 6.2.2.2 Impact of Globalisation on Local Content

The impact of large media groups is not expected to have a negative impact on the availability of local content for the local market (50%).

**Figure 143:** Globalisation of media companies will have a negative impact on the availability of local content for the local market (Q68)<sup>174</sup>



### 6.2.3 Content Distributors : Aggregators & Access Providers

The structure of access providers differs greatly according to the type of access and geography.

Satellite operators are concentrated, since they are able to cover systematically the whole territory.

<sup>173</sup> Sample: n programme packagers = 3

<sup>174</sup> Sample: n regulatory = 4, n producers = 5, n programme packagers = 8, n access providers = 4, n Internet players = 1

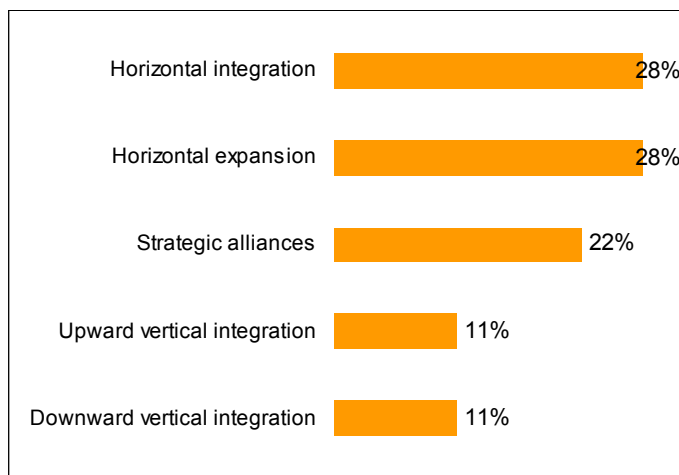
For cable operators, the structure depends on the country. Austria, Finland and Luxembourg, for example are very fragmented, while the UK, France and Italy are strongly consolidated.

For technological reasons, it is expected that the digital terrestrial operators' segment will be concentrated.

### 6.2.3.1 Evolution of the Segments' Structure

Access providers expect horizontal integration (28%) for the future, as well as horizontal expansion (28%). Strategic alliances are also considered to be an important evolution (22%).

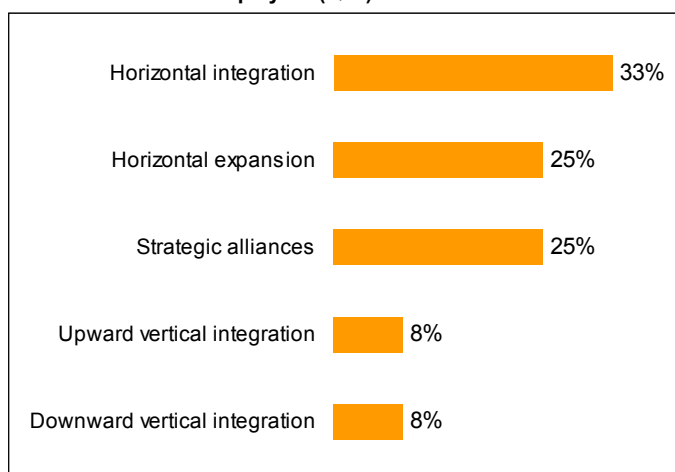
**Figure 144:** Expected evolution in terms of partnerships / mergers & acquisitions in the national audio-visual market – access providers (Q63)<sup>175</sup>



Internet players expect the same evolution in their industry segment: 33% indicated horizontal integration, 25% horizontal expansion and 25% strategic alliances.

<sup>175</sup> Sample: n access providers = 7

**Figure 145: Expected evolution in terms of partnerships / mergers & acquisitions in the national audio-visual market – Internet players (Q63)<sup>176</sup>**



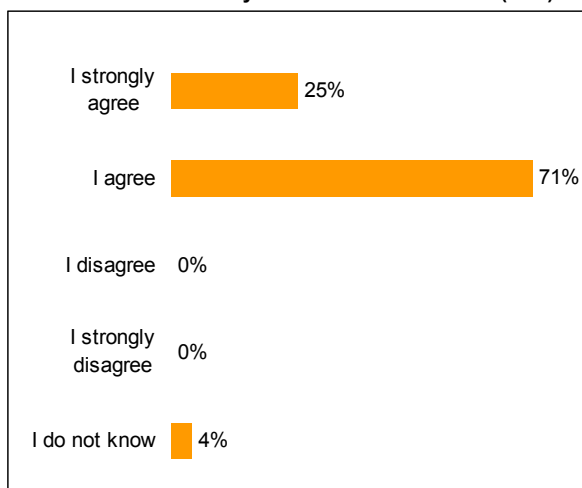
### 6.2.3.2 Consolidation of the Carriers' Industry

Due to huge investments in upgrading the network infrastructure for digital broadcasting, 96% of respondents expect the carriers' industry to consolidate.

Carrier activities are defined as the role, typically assumed by access providers, by which information is transported over communication networks.

According to an interviewee, the consolidation in the carrier industry will lead to higher Internet prices. (AOL)

**Figure 146: Upgrading network infrastructure for digital broadcasting requires huge investments, as a result the carrier industry will further consolidate (Q64)<sup>177</sup>**



## **6.3 Release Windows**

Release windows are the different distribution channels (cinema, video, pay TV, etc.) for which intellectual property rights are sold.

<sup>176</sup> Sample: n Internet players = 4

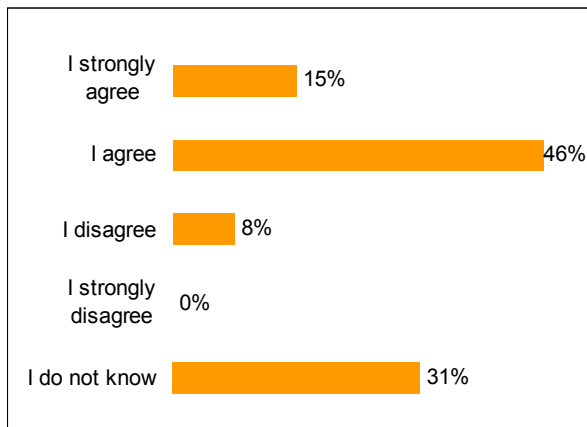
<sup>177</sup> Sample: n regulatory = 3, n producers = 3, n programme packagers = 8, n access providers = 6, n Internet players = 4

The proliferation of distribution channels, like the Internet and digital cinema, allow the unlimited international release of certain audio-visual content. This will lead to changes in the “channel-based windows”.

Industry players were asked to provide their expectations for the future regarding the changes in the release windows.

61% of the interviewees agree that the “channel-based windows” are going to shift into “transaction-based windows”.

Figure 147: Current “channel-based windows” are going to shift into “transaction-based windows” (Q51)<sup>178</sup>



<sup>178</sup> Sample: n regulatory = 1, n producers = 4, n programme packagers = 5, n access providers = 3, n Internet players = 0

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## Appendix 5

### Glossary

## Appendix 5: List of acronyms and terms used

<b>3G (services)</b>	<p>Third Generation Wireless System. It refers to the next major evolution in the technologies for digital cellular and PCS after 2G.</p> <p>One major driving force for 3G is the desire to support wireless Internet access at data rates exceeding 144 Kb/s in a vehicular environment, exceeding 384 Kb/s in an outdoor/indoor pedestrian environment, and exceeding 2 Mb/s in an indoor environment. Another major driving force is the desire for even more efficient digital cellular/PCS technologies to support increasing voice traffic.</p>
<b>Above-the-line advertising</b>	<p>One category of advertising. It includes classical display advertisements, such as advertisements on paper press, TV, movie, radio, outdoor or the Internet.</p>
<b>Access Providers</b>	<p>Access providers operate physical media physical mode of transmissions and manage end-user equipment (set-top boxes). Typically, access providers are responsible for the billing process, the usage tracking (through conditional access) and the customer relationship (some say they "own" the customer). Access providers are often called gateways as they offer customers access to a range of services as well as the Internet.</p>
<b>Acquisitions</b>	<p>Acquisitions are programmes purchased by a broadcaster but which were not commissioned by the broadcaster.</p>
<b>Ad-skipping techniques</b>	<p>Possibility for the viewer to skip inter-programme advertisements</p>
<b>Advertising share</b>	<p>Part of the total TV advertising budget allocated to a specific broadcaster in a country.</p>
<b>ADSL</b>	<p>Asymmetric Digital Subscriber Line. It is a technology for transmitting digital information at a high bandwidth (the width of a band of electromagnetic frequencies) on existing phone lines to homes and businesses. Unlike regular dialup phone service, ADSL provides continuously available, "always on" connection. ADSL is asymmetric in that it uses most of the channel to transmit downstream to the user and only a small part to receive information from the user. ADSL simultaneously accommodates analogue (voice) information on the same line. ADSL is generally offered at downstream data rates from 512 Kbps to about 2 Mbps</p>
<b>Aggregators</b>	<p>Aggregators are responsible for the packaging of individual channels that will be sold to customers (often in a subscription mode). Aggregators have a purely commercial function. In view of the development of new media applications, aggregators are also increasingly working on the integration of applications and services in broadcasting (e.g. creation of walled garden, enhanced and interactive applications, etc.).</p>
<b>API</b>	<p>Application Programming Interface : A set of documented programming routines, provided by the manufacturer of an application or a device, designed to allow third-party access to functions or capabilities of the application or device. Used to facilitate the development of value-added features by parties other than the manufacturer. APIs are developed for operating systems to allow access to and modification of low-level routines, such as those that provide the user interface or perform screen redraws.</p>

<b>ATVEF</b>	Advanced Television Enhancement Forum : Cross-industry alliance of companies representing the broadcast and cable networks, television transports, consumer electronics, and PC industries.  This alliance of companies has defined protocols for Hypertext Markup Language (HTML)-based enhanced television
<b>Audience share</b>	Part of the audience obtained by the broadcaster in the total TV consumption time.
<b>B2B</b>	Business To Business. On the Internet, B2B is the exchange of products, services, or information between businesses rather than between businesses and consumers.
<b>B2C</b>	Business To Consumer, retailing part of e-commerce on the Internet
<b>Bandwidth</b>	The ability of a data network to send information measured in bits per second.
<b>Basic subscriptions package</b>	Basic subscription package includes some basic channels, and generally includes the must carry channels (if any), and often the set-top box rental cost
<b>Below-the-line advertising</b>	One category of advertising. It covers the following elements: Presence in points of sale, Direct Marketing, Loyalty card, Events sponsorship, Internet activity.
<b>B-ISDN</b>	Broadband Integrated Services Digital Network : BISDN is both a concept and a set of services and developing standards for integrating digital transmission services in a broadband network of optic fibre and radio media.
<b>Bit</b>	Binary digit. The smallest unit of data in a digital system. A bit is a single one or zero.
<b>Broadband</b>	In telecommunications transmission systems, any transmission system that operates at rates greater than the primary rate of 1.5 Mb/s in the US or 2.0 Mb/s internationally.
<b>Broadcast</b>	In radio and television, electromagnetic signals transmitted multi-directionally over air, and intended for reception by the public.
<b>Broadcast quota</b>	A fixed amount of certain programmes/content that the broadcaster has officially to broadcast.
<b>Broadcaster</b>	The natural or legal person who has editorial responsibility for the composition of schedules of TV programmes within the meaning of and who transmits them or has them transmitted by third parties.
<b>CA</b>	Conditional Access. CA is a technology used to control access to digital television services to authorised users by encrypting the transmitted programming.
<b>Cable Operators, level 2/3/4</b>	Segmentation existing in Germany for cable operators. Level 2 operators stands for signal reception at Head End and transmission to Local Access Area, i.e. Regional level. Level 3 operator stands for signal distribution to the Front Door (backbone network), i.e. Local level. Level 4 operator stands for the delivery of signal from Front Door to wall socket in Home, i.e. House level.
<b>Caching</b>	Reproduction technique used on networks in order to speed up transmission. It consists in copying the content to geographically dispersed servers and, when this content is requested, dynamically identifying and serving content from the closest server to the user, enabling faster

delivery.

<b>CAGR</b>	Compound Annual Growth Rate
<b>CAS</b>	Conditional Access System. These are necessary to prevent unauthorised access to broadcast services to subscribers, protected by digital encryption. Legitimate subscribers can access to encrypted services by means of decryption keys (known as "control words"), which are transmitted together with the services and allow decryption.
<b>CATV</b>	Cable TV (originally "community antenna television," now often "community access television"). In addition to bringing television programs to those millions of people throughout the world who are connected to a community antenna, cable TV is an increasingly popular way to interact with the World Wide Web and other new forms of multimedia information and entertainment services.
<b>Channel</b>	In television, the band of frequency (8 MHz in Europe) allocated to each separate television signal (when using traditional broadcast methods). Also used to describe any of the discrete signals in alternative delivery methods of television distribution (such as cable TV or DBS).
<b>CI</b>	Common Interface : The principle is to define a standard interface, common to all current and future CAS to be built into the receiver. Typically, all CAS elements are placed in a detachable module.
<b>Compression</b>	A process where information is converted from its raw format into a smaller format. Voice, data, video and images are often compressed in order to reduce the cost associated with storage or to reduce the bandwidth requirements for transmission over a network. Compression can use lossless coding or lossy coding.
<b>Conditional access device</b>	Any equipment or software designed or adapted to give access to protected service in an intelligible form.
<b>Content producers</b>	Content producers assume responsibility for the production of audio-visual works by combining artistic, financial and commercial know-how. They can produce content or be solely responsible for the creation of formats.
<b>CPE</b>	Customer Premises Equipment, typically TV sets, PCs, set-top boxes, modems, etc...
<b>CPE vendors</b>	CPE vendors are responsible for developing and marketing of the end-user equipment (also called customer premises equipment). CPE ranges from television sets, set-top boxes to mobile phones and personal computers.
<b>CRM</b>	Customer Relationship Management
<b>DAB</b>	Digital Audio Broadcasting, the EU digital radio standard.
<b>DBS</b>	Direct Broadcast Satellite : A system for the satellite broadcast of digitised television signals direct to the consumer. Analogue signals are digitised and compressed (using MPEG) at the headed, uplinked to satellites and downlinked to customers. DBS customers use smaller dishes for reception than those required for receiving BSS.
<b>DDL</b>	Description Definition Language.
<b>Delphi Study</b>	A Delphi study is an interview technique whereby industry experts are asked their opinion on certain issues.

<b>Digital Broadband Networks</b>	Allow the transport of media content and new media-rich applications between the players in the value chain and to the end customer.
<b>Digital media asset management</b>	Series of processes and technologies aimed at digitising, cataloguing, multipurposing, and delivering media content.
<b>Digital Rights Management</b>	System functioning on the digital transmission networks that safeguards revenues and intellectual property rights.
<b>Digital television network</b>	A television network that transmits digital, as opposed to analogue, television signals. In digital systems, signals are coded into strings of numbers represented in binary form, which are then organised in a data processing file. Digital transmission enables interactivity and mobile reception of moving images, and improves picture quality and capacity.
<b>Distribution</b>	In cable TV, the portion of the system to which subscribers are connected. Usually a cable extending from a bridger amplifier into a specific area or feeder for that area.
<b>DOCSIS</b>	Data Over Cable Service Interface Specification : Standard interface for cable modems, the devices that handle incoming and outgoing data signals between a cable TV operator and a personal or business computer or television set
<b>DTH</b>	Also referred to as Direct-to-Home, DTH or Direct Broadcasting Satellite (DBS). Direct to home satellite reception. A system for the satellite broadcast of digitised television signals direct to the consume via small antennae (18 to 36 inch dishes), rather than using transmissions through a cable or MDS system, analogue signals are digitised and compressed (using MPEG) at the headed, uplinked to satellites via 17 GHz Ku band, and downlinked to customers via 12 GHz Ku band.
<b>DTT</b>	Digital Terrestrial Television. Over-the-air broadcasting of digital television signals, using locally available radio spectrum.
<b>DTV</b>	Digital TV : A wide spectrum of features and services, encompassing everything from basic control enhancements like EPGs to much more complex systems incorporating Internet access, VOD and TV-based commerce. Digital television (DTV) is the transmission of television signals using digital rather than conventional analogue methods.
<b>DVB</b>	Digital Video Broadcasting (DVB) is a set of standards that define digital broadcasting using existing satellite, cable, and terrestrial infrastructures.
<b>DVB-C</b>	Digital Video Broadcasting Cable
<b>DVB-S</b>	Digital Video Broadcasting Satellite
<b>DVB-T</b>	Digital Video Broadcasting Terrestrial
<b>DVD</b>	Digital Versatile Disc : An optical disc technology that is expected to rapidly replace the CD-ROM disc (as well as the audio compact disc) over the next few years. The digital versatile disc (DVD) holds 4.7 gigabyte of information on one of its two sides.
<b>DVR</b>	Digital Video Recorder : A high-capacity magnetic hard drive, TV tuner, video compression circuitry, dial-up modem and downloaded programme guide.
<b>EBU</b>	European Broadcasting Union



<b>ECM</b>	Entitlement Control Messages
<b>EMM</b>	Entitlement Management Messages
<b>Encryption</b>	The translation of data into a secret code. Encryption is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it. Unencrypted data is called plain text ; encrypted data is referred to as cipher text. There are two main types of encryption: asymmetric encryption (also called public-key encryption) and symmetric encryption.
<b>EPG</b>	Electronic Programme Guide. An electronic directory for advanced multichannel television and interactive TV. A sophisticated interface programme installed in the STB or television set that will enable users to search and select programmes interactively.
<b>ERO</b>	European Radiocommunications Office
<b>ETSI</b>	European Telecommunications Standards Institute
<b>FCC</b>	Federal Communications Commission
<b>Fin / Syn rules</b>	American law voted during the seventies, which limited the broadcasters network ability to gain financial interest or syndication rights in television programming or to engage in active syndication of such programming.
<b>Flow Programmes</b>	Flow programmes (e.g. games, TV shows, ...) are sold only once to broadcasters, and have nearly no value after their first broadcast.
<b>Footage</b>	The process of capturing quality pictures.
<b>Free commercial broadcasters</b>	National free-to-air commercial broadcasters that entered the market during the general liberalisation in the 1980's (and 1970's for Italy) with mainly a generalist programming, whose only source of revenue is advertising.
<b>Free To Air (FTA)</b>	TV Channel financed by advertising and/or public funding. It may be broadcast through terrestrial, cable or satellite.
<b>FRND</b>	Fair, Reasonable and Non-Discriminatory : Part of the European Access and Interconnect Directive which is imposed to all operators (those who produce and market conditional access).
<b>GDP</b>	Gross Domestic Product.
<b>GPRS</b>	General Packet Radio Services : Packet-based wireless communication service that promises data rates from 56 up to 114 Kbps and continuous connection to the Internet for mobile phone and computer users.
<b>GRP</b>	Gross Rating Point: total number of contacts delivered through an advertising campaign, expressed in percentage of the reference population.
<b>GSM</b>	Global System for Mobile Communications : The pan-European digital cellular radio standard (based on TDMA), now used in many developed nations around the world. The frequency of operation is in the 900 MHz band. Through use of a Subscriber Identity Module (SIM) card permits international roaming even when different frequencies are used in different regions
<b>HBO</b>	Home Box Office, American broadcaster, division of Time Warner
<b>HDTV</b>	High Definition TV. HDTV requires a larger television set with 16:9 aspect ratio for wide screen television services

	ratio for wide screen television services.
<b>HH</b>	Household
<b>Home media gateway</b>	Home Media Gateway is the user device that connects the broadband network to the media consumption devices the user selects (TV, PC, etc.)
<b>HMS</b>	Home Media Server – generic name of home storage devices of which the current PVRs represent the first generation.
<b>iDTV</b>	Interactive Digital TV : Interactive services delivered through digital broadcasts to a set-top box with phone or cable return path.
<b>IMS</b>	Instant Message Service (e.g. msn Messenger, AOL Messenger)
<b>Independent film industry</b>	Companies engaged in the production and/or distribution world-wide in all media of all motion pictures and television programmes that are not generated by the recognised major studios. It includes independent productions, in which the producer retains a significant portion of production costs.
<b>IP rights</b>	Intellectual property rights.
<b>IP video</b>	The transmission and display of digital video data over IP networks, including corporate intranets and the public Internet.
<b>IPG</b>	Interactive Program Guide, see EPG
<b>ISP</b>	Internet Service Provider.
<b>iTV</b>	Interactive TV : Any activity in which viewers interact with information displayed on a TV screen. A range of services in which the consumer uses a television set for receiving downstream information, and an upstream channel for responding to, or controlling the downstream information.
<b>iTV platform</b>	A suite of software programs used to implement and manage networked interactive content and services that viewers can access through their TV sets.
<b>Kb/s</b>	Kilobits per second : A unit of transmission rate, equal to one thousand bits per second
<b>"Lean back" TV viewing</b>	Lean back TV viewing excludes any form of interactivity from the viewer, passive way of watching television.
<b>"Lean forward" TV viewing</b>	Lean forward TV viewing encompasses an active behaviour of the viewer, where he interacts with the programme.
<b>License Fee</b>	Audio-visual tax that is due by TV households and whose original purpose is to finance public service broadcasters
<b>Metadata</b>	Informational data about the programme, included in a signal's data stream.
<b>MHP</b>	Multimedia Home Platform : Defines a generic interface between interactive digital applications and the terminals on which those applications execute. This interface decouples different provider's applications from the specific hardware and software details of different MHP terminal implementations. The MHP extends the existing, successful DVB open standards for broadcast and interactive services in all transmission networks including satellite, cable, terrestrial and microwave systems.

<b>Micropayment</b>	Micropayment is a business concept whose goal is to generate revenue by offering services for small amounts of money called "microcents". Since it is not practical for individual users to charge small amounts of money to a major charge card, a different method of payment is needed.
<b>MMDS</b>	Multichannel Multipoint Distribution Service. Broadcasting and communications service that operates in the ultra-high-frequency (UHF) portion of the radio spectrum between 2.1 and 2.7 GHz. MMDS is also known as wireless cable
<b>MP3</b>	An audio compression standard derived from the MPEG video and audio compression standards. MP3 uses the audio "layer" (Layer 3) of MPEG-1 compression to reduce a digital CD music stream of ~1.4 Mb/s to ~128 Kb/s without a noticeable reduction in sound quality.
<b>MPEG</b>	Moving Picture Experts Group
<b>MPEG 4</b>	MPEG4 is an ISO standard for the coding of digital content that supports very low to very high bandwidth and is portable to many devices.
<b>MPEG 7</b>	MPEG7 is an ISO standard digital content description interface based on the XML standard. MPEG7 is an efficient way to code and interchange metadata between the different players along the value chain.
<b>MSO</b>	Multiple Systems Operator : A cable company which operates several franchises.
<b>Multimedia</b>	The integration of more than one multiple Information elements using media such as text, sound files, static images or digital video files, into a single presentation or application. Implies a computing environment that presents information in an attractive, easily accessed manner, with a high level of user interaction.
<b>Multiplex</b>	A methodology for combining more than one information stream into a single stream for transmission.
<b>Must Carry</b>	Must Carry Regulation : Legal requirement whereby the owner or operator of a distribution infrastructure (be it cable network, satellite, etc.) has to provide selected broadcast channels over its network (TV or radio) to its customers.
<b>MVNO</b>	Mobile Virtual Network Operator
<b>Near Video-on-Demand (NVoD)</b>	A service that allows a subscriber to watch a programmer-chosen video program at nearly any time. nVoD provides access to movies within minutes rather than the seconds associated with VOD
<b>ONP</b>	Open Network Provisioning  ONP concerns the harmonisation of conditions for efficient access to and use of public telecommunications networks and where applicable, publicly available telecommunications services
<b>Originations</b>	Originated programming is that programming made by (own production) or for (commissioning) the broadcaster which first shows them; co-productions will constitute originated programmes for the two or more broadcasters that participate in the production.
<b>OS</b>	Operating System
<b>Pay-TV operators</b>	Pay-TV operators are mainly pay-TV channels. They are often categorised as the more targeted or thematic channels, typically cable and satellite channels that emerged mainly in the late 1980's and the 1990's.

	The third generation programme packagers' revenues consist in subscription and in some case advertising.
<b>PDA</b>	Personal digital assistant.
<b>Power ratio</b>	The link between audience share and advertising share for each programme packager.
<b>PPV/Pay-per-view</b>	Pay-Per-View. A video service in which a subscriber has to pay a special price to view a special, one-time event. In most architectures, the event is broadcast to many subscriber, but only subscriber that pay to view the program are given the code to descramble the signal.
<b>Premium Content</b>	High value content
<b>Prime time</b>	It can be defined as the evening window where most viewers watch television, typically from 7 pm to 10 pm.
<b>Producer</b>	The person that organises the practical and financial matters connected with the preparation of a film, play or television or radio programme.
<b>Programme expenditure</b>	Programme expenditure is the cost to the broadcaster of programming transmitted in a given period, not including the costs of the transmission network itself, nor engineering and play out costs. Programme expenditure reflects fully allocated costs (staff costs attributable to production, facilities costs (including depreciation), legal costs, film/tape stock and purchased inputs (including programmes).
<b>Programme Packagers</b>	Programme packagers are responsible for the selection of individual programmes, for the creation of a schedule through packaging of programmes and for selling advertising airtime to fund this schedule. Some channels will outsource content production while others will produce internally.
<b>Programmes /Programming</b>	Programming is the output of a channel, excluding commercials but including presentation material (links, trailers, on-screen logos, etc.). This includes originated programmes (in-house and commissioned by the broadcaster from independents), acquisitions (including co-financed and pre-purchased programmes), and re-transmissions as well as first-run. This definition of programming, therefore, makes no distinction as to the genre of the programme. Equally, no distinction is made between "stock" programmes (i.e. programmes designed to be re-used) and "flow" programmes (i.e. programmes designed to be shown only once).
<b>PSTN</b>	Public Switched Telephone Network : The world's collection of interconnected voice-oriented public telephone networks, both commercial and government-owned. It's also referred to as the Plain Old Telephone Service (POTS).
<b>PTO</b>	Public Telecommunication Operator.
<b>Public Funding</b>	The third source of financing for the audio-visual industry, beside advertising and subscription. It consists mainly of:  <i>Public Funding to public service broadcasters:</i> state financing of public service broadcasters for the fulfilment of their public service remit.  <i>Public Funding to cinematographic and other audio-visual works.</i>
<b>Public Service</b>	Public Service Broadcasters mainly in existence prior to the early 1980s. Characteristics: public or mixed funding, general output, strong licence

<b>Broadcasters</b>	conditions, and programme expenditure mainly originated. The Public Service Broadcasters get mainly public funding revenues, and in some countries advertising.
<b>PVR</b>	Personal Video Recorders. Consumer devices that use an intelligent interface and an internal hard drive to record programming digitally in anticipation of viewer preferences.
<b>Release Windows</b>	The different possible distribution channels for an audio-visual programme, such as theatres, video stores, pay-per-view, pay-TV and free-to-air TV, Internet, etc.
<b>Simulcrypt</b>	The principle of simulcrypt is the simultaneous transmission of one programme with the conditional access messages corresponding to several different CAS, opening several populations of decoders
<b>Simultaneous TV</b>	Simultaneous TV can be defined as watching the TV at the time the programme is broadcast
<b>SMP</b>	Significant Market Power : A market player is considered to have SMP if "either individually or jointly to other" it is able to act to an appreciable extent independently of competitors, customers, and consumers" In the Information Society regulation, SMP is normally applied to companies with a minimum of 25% market shares
<b>Sponsorship</b>	Any contribution made by a public or a private undertaking not engaged in television broadcasting activities or in the production of audio-visual works, to the financing of television programmes with a view to promoting its name, its trade mark, its image, its activities or its products.
<b>STB</b>	Set-top box : A device, usually on top of a subscriber's television set, which processes and interprets an incoming signal for output to a subscriber's television set. Frequently used in emergent alternative delivery systems, the device can interpret and display video signals as well as navigational aids and other information (such as email or system billing information).
<b>Stock Programmes</b>	Stock programmes (mainly fictions, documentaries and animation) are programmes that are likely to be broadcast several times, and have a patrimonial value after their first transmission.
<b>Streaming media</b>	The delivery of content (audio and/or video) characterised by a continuous flow of data from a server to a client, in real time.
<b>Syndication of content</b>	In general, syndication is the supply of material for reuse and integration with other material, often through a paid service subscription. Today content syndication is the way a great deal of information is disseminated across the Web.
<b>T-Commerce</b>	T-Commerce is defined as television commerce
<b>TDMA</b>	Time Division Multiple Access : A technique for multiplexing multiple users (calls) into what would otherwise support only a single channel on a single radio frequency carrier, by splitting the carrier into time slots
<b>Teletext</b>	Text embedded in TV broadcasts and viewable by all teletext-ready TV sets
<b>Thematic channel</b>	Television channel that broadcasts only one type of thematic content (e.g. sports channel, news channel, music channel, etc.).
<b>Time spent in front of TV</b>	Includes the TV viewing time as well as all other activities the consumer may do on its TV set, such as interactive activities.

<b>front of TV</b>	may do on its TV set, such as interactive activities.
<b>Triple/Quad - Play</b>	"tripleplay" or "quadplay strategies" : Strategies adapted by access providers to enlarge their value proposition to digital TV, Internet access and sometimes telephony services, wireline only for triple play, wireline and wireless for quadplay.
<b>TV HH</b>	Television Households : Households equipped with at least one TV set.
<b>TV Spend</b>	Television Spending : The total revenues in the TV market, be it from public funding, advertising subscription or other types of revenue.
<b>TV viewing time</b>	The time spent by a consumer who actually watches the television programme.
<b>UIP</b>	United International Pictures. UIP distributes the films of its Partner Studios in the international marketplace outside of North America, i.e. the role of a rights dealer (see above).
<b>UMTS</b>	Universal Mobile Telecommunications Service : also-called "third-generation (3G)," broadband, packet-based transmission of text, digitised voice, video, and multimedia at data rates up to 2 megabits per second (Mbps) that will offer a consistent set of services to mobile computer and phone users no matter where they are located in the world. Based on the Global System for Mobile (Global System for Mobile communication) communication standard, UMTS, endorsed by major standards bodies and manufacturers, is the planned standard for mobile users around the world by 2002
<b>Uptime</b>	Effective time that services (e.g. broadcasting) are performing as expected.
<b>US</b>	Universal Service : It consists in giving to "all users access to a defined minimum level of service of a specified quality at an affordable price".
<b>USO</b>	Universal Service Obligation : The European Union has identified the common scope of Universal Service obligations in Europe. This will improve the level of service currently found in Europe and will operate as a guarantee that these services are widely spread and that the interests of consumers are taken into consideration.
<b>VBI</b>	Vertical Blanking Interval. The part of a television transmission signal that is blanked, or left clear of viewable content, to allow time for the television's electron gun to move from the bottom to the top of the screen as it scans images. This blank area is now being used to broadcast closed caption and HTML -formatted information.
<b>VCR</b>	Video Cassette Recorder : A consumer-grade device for displaying and recording a broadcast television signal. The most popular tape format for VCRs is VHS cassettes.
<b>VDSL</b>	Very High Bit Rate Digital Subscriber Line : A proposed variation on the HDSL but at higher rates of between 3-6 Mb/s over shorter distances (only about 300 meters)
<b>VHS</b>	Video Home System: A video cassette recording format
<b>VoD</b>	Video-On-Demand : The virtual VCR service, whereby a subscriber can view any video program at any time, with pause, resume, forward and possibly rewind control. This service works with the use of sophisticated and very powerful video servers.

<b>Walled garden</b>	Walled garden is a concept that refers to a “wall” around content. The users can access only a set of content providers on a specific platform. The content is specially repurposed for this platform. A “walled garden” can also include television commerce applications.
<b>Watermarking</b>	A digital video watermark is information stored invisibly in the video content to which it belongs. This technology has been developed to protect content from being distributed electronically.
<b>Web-On-TV</b>	Web pages downloaded to computer-like dedicated set-top boxes through phone lines and reformatted for the TV screen.
<b>Window Management</b>	Typical management from right owners that implicates that rights for content productions are sold to different distribution channels (theatres, video stores, pay-per-view, pay-TV and free-to-air TV) over time.
<b>xDSL</b>	x Digital Subscriber Line : another representation of the generic name DSL. DSL (Digital Subscriber Line) is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. xDSL refers to different variations of DSL, such as ADSL, HDSL, and RADSL.

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## Appendix 6: Sources

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