

# The economic potential of cross-border pay-to-view and listen audiovisual media services

Final report for the European Commission

March 2012

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## Executive Summary

### Purpose and scope of the study

This is the final report of the study “The economic potential of cross-border pay-to-view and listen audiovisual media services” produced by a consortium of TNS Opinion, Plum Consulting and the Futures Company for the European Commission.

The objective of the study is to provide the Commission with data on the demand for cross-border pay-to-view and/or listen to audiovisual media services in the European Union from an economic perspective. The study is in response to issues identified in the Commission’s second report into the implementation of Directive 98/84/EC<sup>1</sup> regarding conditional access.

That report found that there was a “grey market” for satellite pay-television services. Some consumers who live outside their country of origin (or first language) use letter box addresses to obtain reception equipment (set-top boxes and conditional access cards) for pay-TV services in their country of origin. They then view the services in their country of residence. On 4 October 2011 the European Court of Justice ruling in cases C-403/08 and C-429/08 made it clear that this is a legitimate (i.e. not grey) market.

The Commission’s second report identified the need to *‘gather information, in particular concerning the exercise by European citizens of the right to free movement and the supply and demand situation for audiovisual and/or listen to media services abroad. Such information should help to establish the potential of such pay-to-view cross-border services and contribute to deliberations on copyright and rights to cultural and sports events’*.

We have interpreted “cross-border pay audiovisual media services” to include services in which both the contract and the delivery of the service are cross-border, so excluding the provision of non-national EU channels in national pay-television packages and non-national programming on national television channels.

Despite this narrow definition, the scope of the study is broad. The study includes all distribution platforms relevant to cross-border audiovisual media services, existing services and potential new services designed for cross-border markets and all populations that may be interested in cross-border propositions, including migrant populations and nationals who may have an interest in foreign content in all 27 EU Member States.

The satellite and internet-based pay-television services that are the focus of this study are part of a larger audiovisual media sector in Europe. There were over 6,000 distribution platforms in 36 European countries in 2010, the majority of which were cable platforms. Of 201 million EU 27 households at the end of 2009 61 million had digital terrestrial television, 51 million digital satellite, 21 million digital cable and 14 million IPTV<sup>2</sup>. Television sector revenues in the EU were €69.3 billion in 2009 including €27.3 billion from television advertising, €23.3 billion in public income and €27.7 billion of consumer spending on pay-television services<sup>3</sup>.

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<sup>1</sup> Second report on the implementation of Directive 98/84/EC of the European Parliament and of the Council of 20 November 1998 on the legal protection of services based on, or consisting of, conditional access.

<sup>2</sup> Source: European Audiovisual Observatory, MAVISE database.

<sup>3</sup> Source: OBS. Public income includes spending on radio services.

## Current supply of audiovisual media services nationally

Potential future cross-border audiovisual media services would most likely be formed from the audiovisual content and services currently supplied nationally (by national we mean specifically targeted at consumers in a particular country). There are significant variations in the amount, quality and origin of television channels and programming available by country. Starting from the proposition that cross-border demand for audiovisual media services will relate mainly to content that is distinctive to the country of origin in terms of language and culture, we investigated the relative strength and distinctiveness of supply of broadcast TV services in the EU27 using three metrics: number of national channels, proportion of fiction hours that are national and annual broadcasting sector revenues. We found (in Section 2) that overall the UK, France, Italy, Germany and Spain have particularly strong and distinctive output of national channels.

The supply of internet-based audiovisual media services nationally is increasing. We found that about three-quarters of the top three free-to-view broadcasters in each EU country provide some long-form video content on their websites. This ranged from selected highlights from the schedule to the full schedule. In addition, there is some provision of national on-demand video services on the internet. These include the services of national pay-television operators (e.g. Viaplay in Scandinavia) and film services (e.g. Lovefilm.com in the UK). We expect supply of these kinds of services to increase in future. Also, viewing of these services will be increasingly on devices other than PCs, especially connected television sets and personal devices such as tablet computers and mobile handsets.

## Current supply of audiovisual content and services cross-border

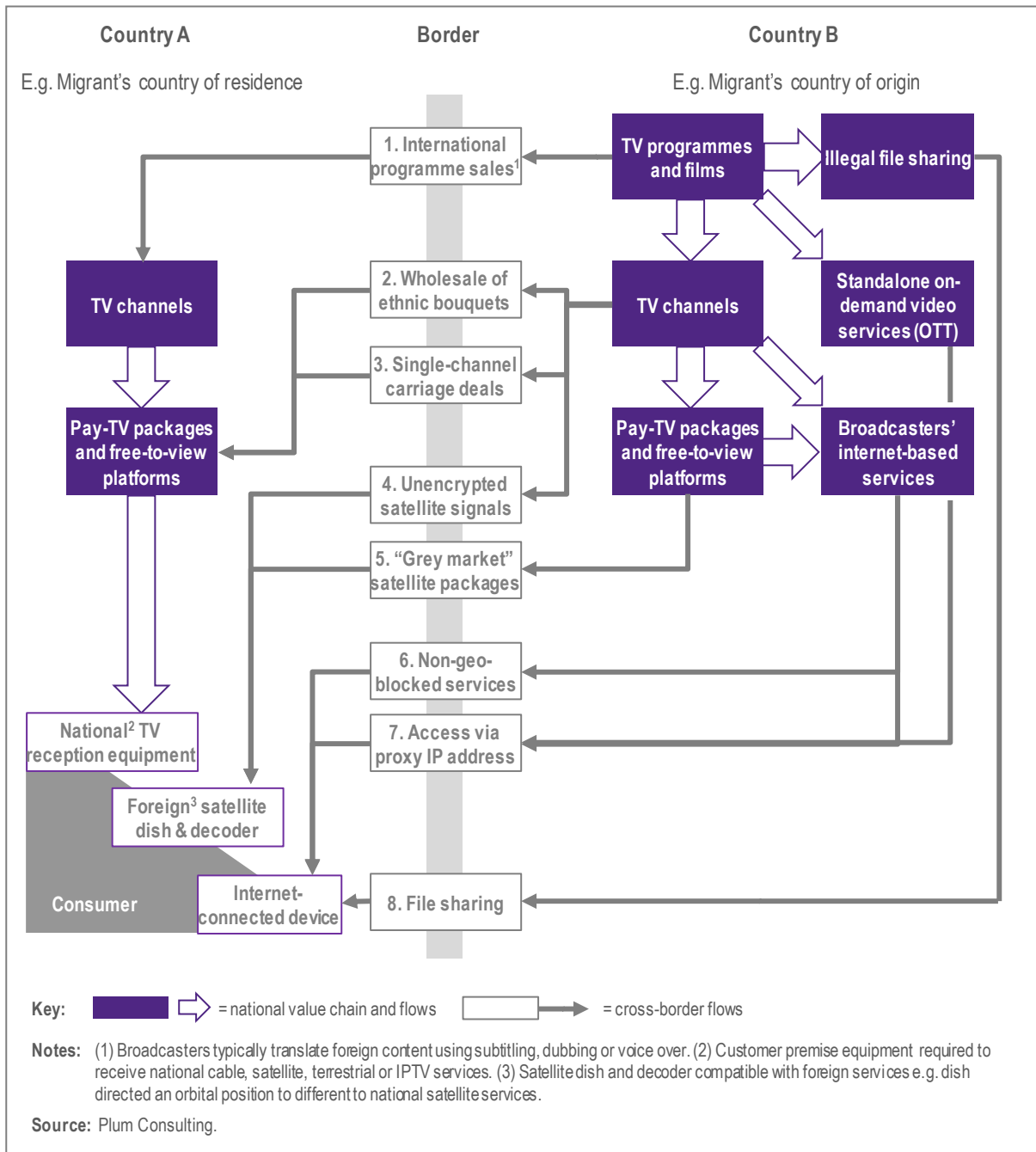
The market and, more especially, public service broadcasters currently supply consumers with some audiovisual content and services from other EU countries. Figure 1 shows the variety of ways in which this happens.

With regard to the extent of this supply, there are overall many individual programmes, channels and audiovisual packages that can be accessed cross-border within the EU – the next sections give examples. However, this supply is limited to certain countries of origin and destination, to a certain portion of the audiovisual output of countries of origin and to certain distribution platforms or channels in countries of destination. Therefore, the availability of video content from other EU countries depends greatly on which country a consumer is resident in, which country they seek content from and which distribution platform they happen to use. Table 1 shows the relative extent of cross-border supply.

In large part, the pattern of supply can be explained by the way in which rights are licensed. Rights holders tend to license content that has international appeal (e.g. US films and series, international sports events), on an exclusive basis to different broadcasters in each country. In most cases these broadcasters obtain rights to only one territory, preventing them from distributing channels cross-border, and in the case of internet-based services preventing them from granting cross-border access. Therefore, the channels that are most widely distributed cross-border are those with a relatively high proportion of nationally-produced content but not content with international appeal.

As a consequence the type of programming that is most widely available cross-border tends to be nationally produced programming, especially programming that has limited mass-market appeal beyond national borders (e.g. news, factual programming of local interest).

Figure 1: Cross-border flow of audiovisual content and services (simplified)



**Table 1: Relative extent of cross-border supply of video content by type**

Method of supply	Extent of supply				
	Proportion of countries – by source	Proportion of countries – by destination	Availability within countries supplied <sup>(1)</sup>	Amount of content <sup>(2)</sup>	Type of content
International programme sales					National film, fiction series & documentaries in translation.
Wholesale of ethnic bouquets					
Single-channel carriage deals					Mainly nationally-produced programming (e.g. news, fiction, factual). Relatively low levels of international programming in translation.
Unencrypted satellite signals					
Non-geo blocked internet-based services					
	Key:	= Low	= High		

**Notes:** (1) Availability with respect to the number and geographic reach of the platforms on which the content / service is supplied and any need for specific technology to access the service. (2) Relative number of hours – based on highly approximate comparisons.

**Source:** Plum Consulting analysis.

## Current supply of non-national EU television services and content

Consumers are able to watch foreign programmes transmitted by domestic broadcasters (facilitated by international programme sales). The number of hours of non-national EU fiction as a proportion of total fiction hours in the schedules of a sample of broadcasters varies from 2% to 35% in the countries for which data is available. Flows are highly asymmetric, with most programming originating in countries with larger audiovisual markets, especially the UK, Germany and France. These programmes tend to be films, series and documentaries that appeal to international audiences, and are subtitled or dubbed into the local language.

Consumers in some countries have access to a small selection of channels originating in other EU countries that have carriage on pay- or free-to-view TV platforms in the country of destination. The channels carried are mainly supplied by public service broadcasters, with channels originating in the larger European countries carried the most widely. For example, ARD1 and ZDF (Germany), ARTE (France/Germany), TVE Internacional Europa (Spain), France 2 and France 24 (France), RAI 1 (Italy), TVP Polonia (Poland), RTP Internacional (Portugal) and TVR International (Romania) are available on at least one platform in ten or more EU countries. Private channels tend to be much less widely carried, with only the major German private channels being carried by platforms in ten or more other EU countries. Reasons for this include the higher proportion of non-national programming on private channels compared to public channels.

Some pay-television platforms offer packages of non-national EU channels for an additional subscription. For example, Bouquet Allemand<sup>4</sup> is a package of German channels provided to subscribers of the French IPTV service SFR for an additional fee of €8.90 per month. Availability of this type of service varies widely by country and platform. The online survey of migrants that we conducted found that 31% of respondents watch channels from other EU countries available for subscription as part of cable or satellite services in the country of residence.

“Grey market” satellite services offer the largest choice of content from other EU countries. The online survey found that about 14% of migrants use these services to watch television from other EU countries<sup>5</sup>.

## Cross-border access to internet-based audiovisual media services

Consumers are able to access non-national EU content cross-border over the internet. About three-quarters of a sample of the top three broadcasters in each country by audience share provided some long-form video content on their websites<sup>6</sup>. 51% of the broadcasters with a service provided full cross-border access to it: geo-localisation of access to the video content was not used. 35% used geo-localisation to restrict access to certain types of content. Typically, access to international content (e.g. US films, international sports and music events) was either blocked or absent from the service, and access to the most well developed services was the most restricted.

The low fixed costs of internet distribution are stimulating increasing provision of services that target demand for video content from other EU countries e.g. subscription-based BBC iPlayer global iPad application.

Consumers also have access to live streaming services provided by some broadcasters (e.g. Antena 3<sup>7</sup>) and internet re-transmission services (e.g. Zattoo.com).

National on-demand video services are typically not available cross-border: these are geo-blocked. Similarly, major international operators (e.g. Apple, YouTube) tend to provide localised versions of their services in each market and these are not available cross-border. However, some consumers may use proxy-IP addresses to circumvent geo-blocking and access services from other EU countries. The extent of this practice is unknown. In addition, some consumers may access pirated video content online.

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<sup>4</sup> <http://www.lebouquetallemand.com/>

<sup>5</sup> TNS online survey of 462 migrants resident in France, Poland, Spain, Sweden and the UK.

<sup>6</sup> Source: Plum Consulting analysis of broadcasters' websites, May 2011.

<sup>7</sup> <http://www.antena3.com/directo>



Increasing penetration of broadband and uptake of “connected” television devices will enable more people to receive cross-border audiovisual media services over the internet in future.

## Who may be interested in cross border audiovisual services?

There are several types of population group that may be interested in cross-border audiovisual media services, including migrant populations, people with proficiency in or learning non-national languages and people travelling within the EU<sup>8</sup>. Figure 1 shows the relative scale of these population groups. People with foreign language skills and long-term migrants are the largest relevant population groups, though travellers, linguistic minorities<sup>9</sup> and short-term migrants are also significant. There may be some overlap between these categories, especially between travellers and people with foreign language skills.

Intra-EU migrant populations comprise 702 different groups, defined by country of citizenship/origin and country of residence, however, they are concentrated in a small number of groups - 10% of groups account for 83% of migrants. By country of origin/citizenship most intra-EU migrants come from Romania, Poland, Portugal and the five most populous EU countries (Germany, UK, France, Italy and Spain). Most migrants (over 75%) reside in the five largest countries.

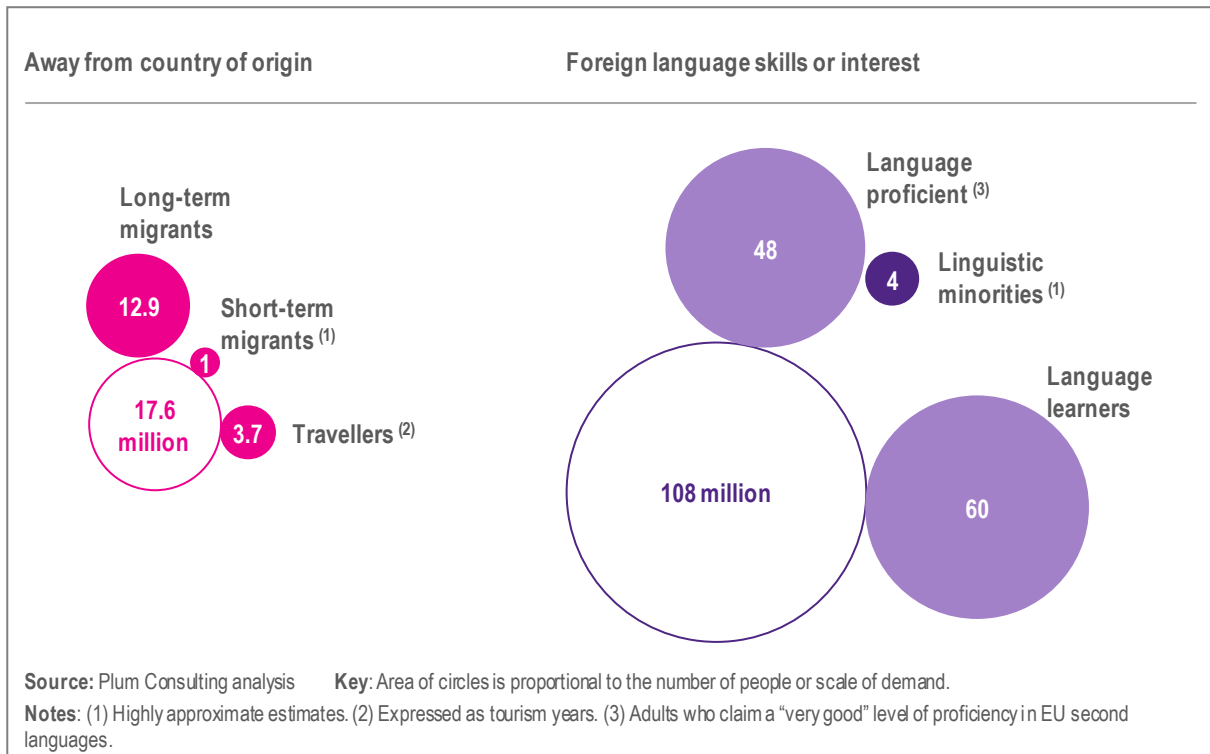
Large numbers of Europeans have proficiency in second and further languages. The majority of these have proficiency in English or are learning English, with significant but smaller proportions learning German, French, Spanish and Italian.

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<sup>8</sup> In addition, sports fans who wish to obtain access to premium sports content at a lower price than they can in their domestic market may be interested in cross-border services should these offer lower prices than national services. This group has not been analysed as demand is highly dependent on the relative pricing strategies of operators, which is difficult to predict.

<sup>9</sup> We define linguistic minorities as nationals with a mother tongue different from the official natural language, excluding naturalised immigrants.

Figure 2: Size of populations that may be interested in cross-border AVMS



## Consumer demand for cross border services

To estimate demand for pay-to-view cross border audiovisual media services we undertook

- An online survey of migrant populations in five countries (France, Spain, Poland, Sweden, UK), which asked questions regarding their current viewing of audiovisual material from other countries, their interest in cross-border services and their willingness to pay for these services.
- A short telephone survey of the general population in each EU 27 country. This survey provided particular information about non-migrant populations that may be interested in cross-border services.

### Demand from migrants

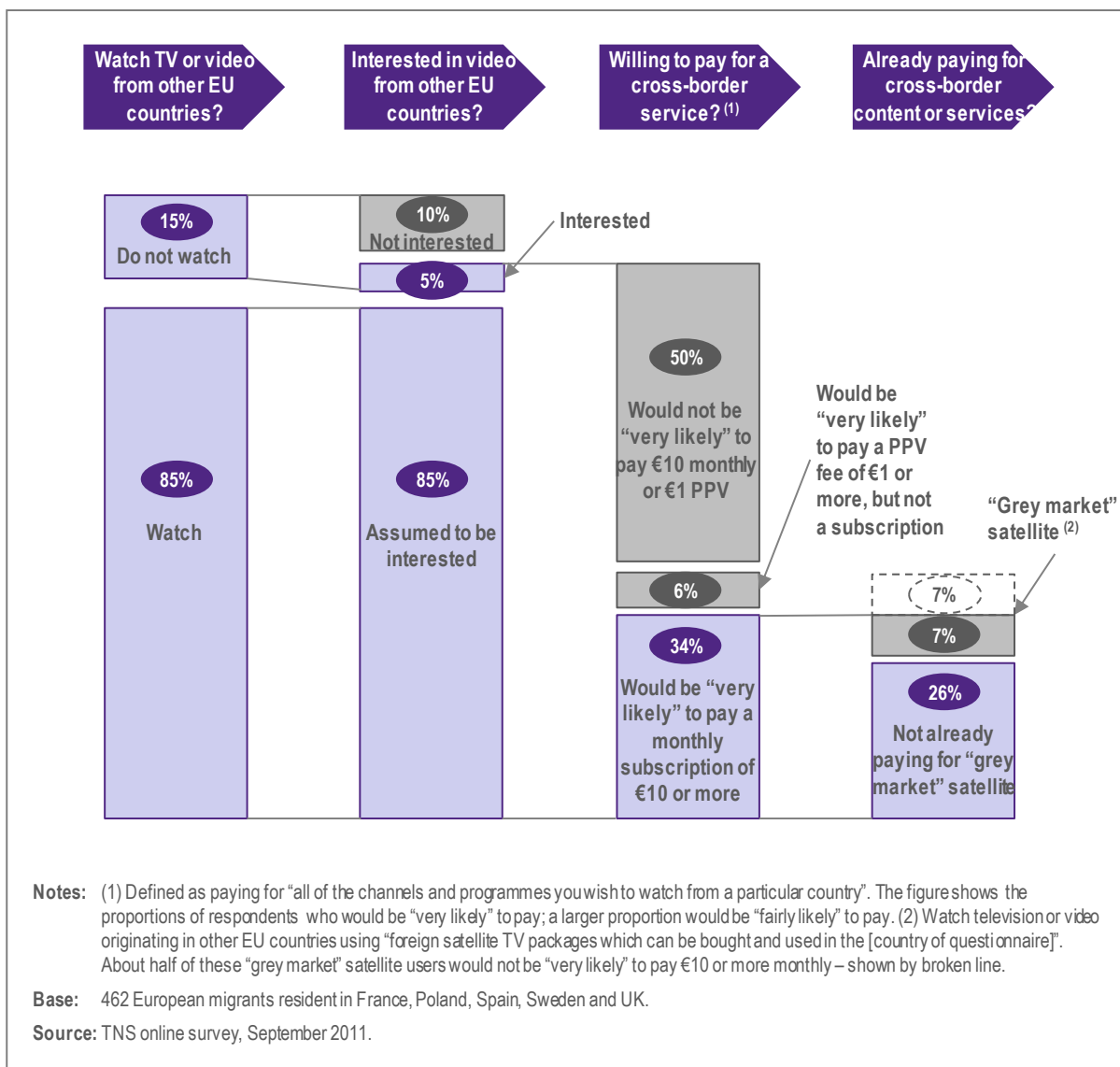
Figure 2 gives a summary of the results of the online survey. The majority (85%) of the sample watch television or video from other EU countries, of which 76% watch on television and 58% using the internet. Higher proportions of migrants originating in new Member States than the rest of the EU watch television or video using internet-based services, which may relate to the relative supply of audiovisual content and services from these countries. 52% of those that watch television or video from other EU countries, do so using paid services including foreign channels available for subscription as part of cable or satellite services (37%) and “grey market” satellite services (16%<sup>10</sup>). The proportion of migrants that said they use “grey market” satellite services is highest among those

<sup>10</sup> This is equivalent to 14% of the total sample of respondents.

originating from newer Member States, and those resident in the UK and Spain. This may relate to relatively lower supply of foreign channels on national pay- and free-to-view television platforms in these countries.

The survey found that 34% of migrants in the sample would be willing to pay a monthly subscription of €10 or more for “all of the channels and programmes you wish to watch from a particular country”. Of these 22% (7% of the total sample) were already using foreign satellite packages (“grey market”) to watch television from other EU countries. An additional 7% of respondents use “grey market” services, but said that they would not be very likely to pay a monthly subscription of €10 or more.

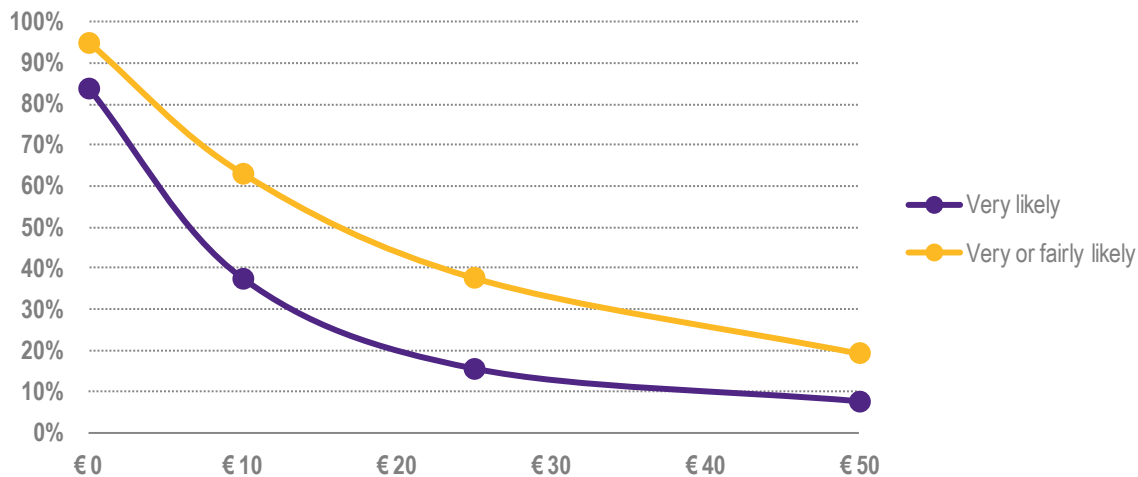
Figure 3: Summary of online survey results



The willingness to pay of respondents at different price points is shown in Figure 3. The survey results show that willingness to pay a subscription for cross-border audiovisual media services falls as years of residence increases, but is higher for respondents who frequently watch programmes from other EU countries and who frequently stay in other countries for a month or more or frequently travel abroad.

Willingness to pay does not vary greatly by country of residence or type of country of origin (e.g. EU12 vs. EU15, large vs. small audiovisual markets). The sample size was not sufficiently large to identify differences between individual countries of origin.

**Figure 4: Willingness to pay a monthly subscription for channels and programmes from other EU countries**



**Note:** The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted.

**Base:** 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

**Source:** TNS online survey, September 2011

In addition, 6% of the sample of migrants said they would be willing to pay €1 per item or more on a pay-per-view basis, but would not pay €10 or more for a monthly subscription.

## Demand from non-migrants

The telephone survey showed there is a low level of interest in television or video from other EU countries among those who do not currently watch it, but this varies by country. It is possible that respondents in countries with a limited supply of such content at present (e.g. Cyprus) register the greatest interest in it. Respondents with fluency in a foreign language and respondents who travel frequently watch television or video from other EU countries the most frequently. The data is inconclusive with regard to whether non-migrants who have fluency in other languages or who travel frequently would be willing to pay for television or video from other EU countries in the sense of a cross-border proposition as defined in this study. However, the data does suggest that substantial proportion of the general population in some countries (e.g. Germany) are unwilling to pay for television or video from other EU countries.

## Revenue potential of cross border services

We have combined the results of the consumer surveys with the analysis of population groups to estimate, by quantitative modelling, intra-EU migrants' potential willingness to pay for subscription-

based cross-border audiovisual media services. We do not have the data required to estimate the potential willingness to pay generated by linguistic minorities, other non-migrants with language proficiency, language learners or travellers.

As with any estimate, we have made a number of assumptions which, together with potential statistical error in the survey, introduce uncertainty into the result. On balance, a range of factors are likely to mean that the willingness to pay estimates are larger than the actual potential revenue of cross-border services were these to be offered under present market conditions. Nevertheless, the exercise provides an indication of the order-of-magnitude value of willingness to pay.

The headline result is potential willingness to pay for subscription-based cross-border audiovisual media services of between €760 million and €1,610 million annually in the EU based on the proportion of online survey respondents who were “very likely” and “fairly likely” to pay respectively. This compares to a total EU pay-television market size of €28.6 billion<sup>11,12</sup>, television advertising spend of €27.3bn and public income to television and radio of €23.3bn<sup>13</sup> in 2009. The willingness to pay is fragmented between a large number of population groups, and the value of any one population group is typically low: the median is €45,000 annually. There is concentration among the five largest countries of origin (Romania, Poland, Italy, Germany and the UK) which together account for 56% of the total estimated willingness to pay.

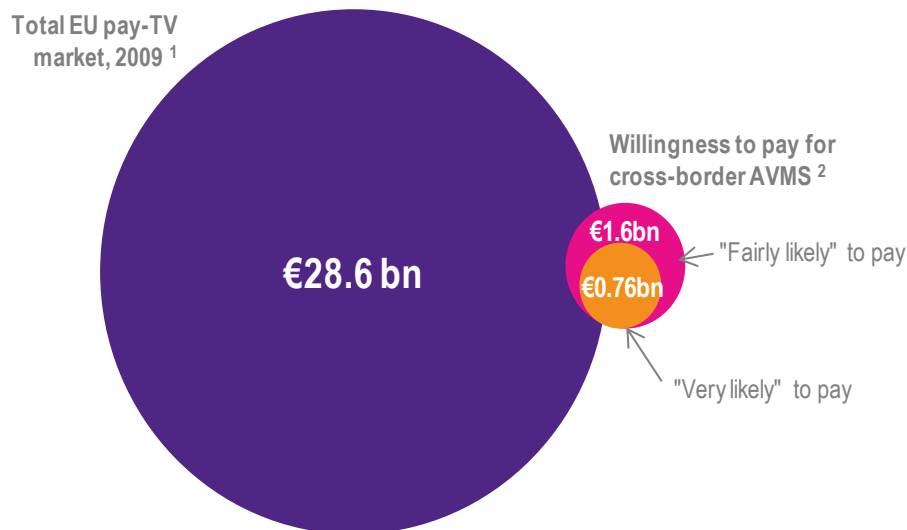
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<sup>11</sup> Source: Screen Digest

<sup>12</sup> Source: Screen Digest

<sup>13</sup> Source: European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data.

**Figure 5: Potential willingness to pay for subscription-based cross-border AVMS among intra-EU migrants, compared to the total EU market**



**For comparison, in 2009:**

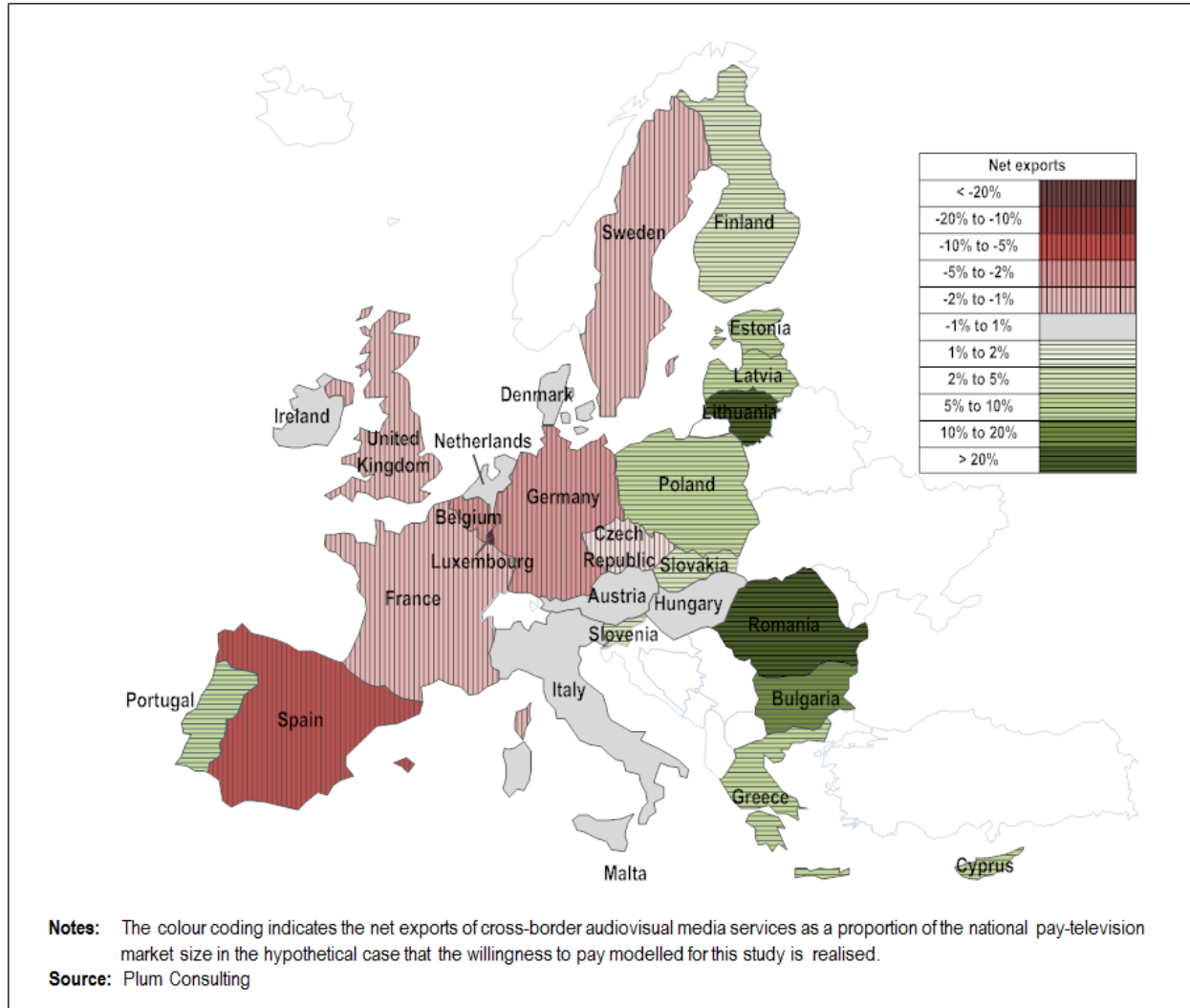
- Total EU television advertising spend = €27.3bn<sup>3</sup>
- Total EU public income = €23.3bn<sup>4</sup>

**Source:** (1) Screen Digest. (2) Plum Consulting analysis. (3) European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data. (4) European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data. Includes income of public radio.

**Notes:** Area of circles is proportional to market size. The overlap of circles represents potential demand that may already be met by the market. Demand for free-to-view cross-border AVMS is out of scope of this study. Total television advertising spend data is included for comparison only.

In the hypothetical situation in which this willingness to pay is realised, some countries would become net exporters of cross-border audiovisual media services and others importers. Figure 5 shows the net exports of each country expressed as a percentage of the total pay-television market size in that country. Many new Member States, Finland, Greece and Portugal would become net exporters, while many western European countries, especially Spain, Belgium, Germany, Sweden and the UK would become net importers. These results relate only to the balance of trade in cross-border audiovisual media services as defined in this study. The contribution of programme sales, wholesale selling of television channels, rights and any other sales are not included.

Figure 6: Hypothetical intra-EU exports of cross-border AVMS as a proportion of national pay-TV market size



## Costs of supply

The provision of cross-border subscription-based audiovisual media services would involve set-up and operational costs and possibly incremental<sup>14</sup> rights costs. Quantitative modelling of costs was not within our terms of reference, however, we provide a qualitative analysis that provides a broad indication of which types of service could be economic to provide.

<sup>14</sup> The costs of serving a customer cross-border compared to serving a customer in a domestic market.

The key conclusions are that:

- Under current market practice in which rights are licensed on a territorially exclusive basis, cross-border services which include internationally premium content<sup>15</sup> are unlikely to have affordable<sup>16</sup> rights costs (assuming that these services target niche groups such as migrants and not the mass market in foreign territories).
- It is possible that the ruling of the European Court of Justice<sup>17</sup> will lead changes in the way that rights are licensed for satellite broadcasting. These changes might enable satellite services that include internationally premium content to provide their services cross-border with affordable licence costs (e.g. by permitting passive sales cross-border). However, outcomes are highly uncertain.
- Services that do not include internationally premium content could be provided cross-border with lower rights costs. However, few existing linear services exclude all internationally premium content and consumer demand for these services may be low.
- Set-up and operational costs relating to technology are affordable for existing satellite services, but are likely to be prohibitively high for newly formed satellite services or the extension of existing satellite services beyond their current footprints.
- Set-up and operational costs relating to technology are affordable for existing internet-based services. Internet technology and market developments, especially cloud-based business-to-business services, may make these costs increasingly affordable for newly formed internet based services
- Satellite and internet based services would have costs of doing business in other countries including costs relating to contract law, compliance and payment. These costs are not specific to audiovisual media services. We do not have the data to estimate the possible scale of these costs.

These findings are consistent with our observations about the current state of cross-border provision of audiovisual media services: services carry internationally premium content tend not to cross borders. Our conclusions are based on the assumption that existing services, satellite and internet-based, are profitable or have the potential to be profitable in their domestic markets.

## Economic potential of pay-to-view cross-border audiovisual media services

Willingness to pay by intra-EU migrants for cross-border audiovisual media services is estimated to be in the range €780 million to €1,610 million annually. There may be additional willingness to pay among nationals who have language proficiency or who travel to other EU countries. We do not have the data to make a quantitative estimate of this willingness to pay, but approximate estimates which carry a high degree of uncertainty suggest that willingness to pay among these groups is lower than among migrants

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<sup>15</sup> By "internationally premium content" we mean content that significant numbers of consumers in the mass market in several countries are willing to pay for and / or watch on advertising funded channels.

<sup>16</sup> By "affordable" we mean that the cost is below the level of potential revenues from a particular service. In other words, that this service could be economic to provide.

<sup>17</sup> Cases C-403/08 and C-429/08 relating to the FA Premier League.



In practice, the economic potential of cross-border audiovisual media services may be more modest than we have estimated as not all consumers will have the technical or practical means to receive the services (e.g. unable to install a DTH satellite dish, no broadband), though this effect may decrease in future as broadband penetration increases. In addition, there may be some overlap between willingness to pay for cross-border audiovisual media services and existing spend on “grey market” satellite services and subscriptions to national pay-television packages that carry channels from other EU countries.

There are significant costs associated with the provision of cross-border audiovisual media services including rights costs, set up and operational costs and the costs of doing business in other EU countries. Rights costs are a limiting factor for the cross-border provision of many services that include internationally premium content. Therefore, few cross-border services as defined in this study would be viable and only a small proportion of the willingness to pay identified in this report would be economic to serve.

This is consistent with the current market provision which includes services such as Pro TV which target migrants. Pro TV serves Romanian migrants in the EU, and elsewhere, with nationally-produced content provided over satellite and the internet.

In future, it is possible that the impact of the ECJ ruling and the internet technology and market developments will change the economics of offering cross-border services, such that a larger proportion of the willingness to pay becomes economic to serve.

# 1 Introduction

This is the final report of the study “The economic potential of cross-border pay-to-view and listen audiovisual media services” produced by a consortium of TNS Opinion, Plum Consulting and the Futures Company for the European Commission. Sections 1.1 to 1.3 below explain the background to this work, the process of the study and the definitions and scope that apply to the work.

## 1.1 Background

### 1.1.1 Context

Pay-television services are widely available across the EU. Typically pay-television operators offer a selection of third-party channels (including television and radio), in-house channels and on-demand content. Pay-television operators tend to develop their consumer propositions to serve a specific national market or markets, providing a selection of channels that meets the needs of consumers in these markets. One reason for this approach is the way that content rights are currently licensed by national territory often on an exclusive basis. Due to this territoriality in the system of audiovisual copyright to-date, broadcasters have typically not acquired rights outside their target market(s). This means that reception of broadcasts by users outside the target market(s) are not typically covered by copyright licences.

Therefore there is limited cross-border provision of individual channels and entire pay-television packages. Due to this limitation some consumers who live outside their country of origin (or first language) use letter box addresses to obtain reception equipment (set-top boxes and conditional access cards) for pay-TV services in their country of origin. They then view the services in their country of residence. To-date this has been known as the “grey market”. We note that at no time has the personal use of conditional access equipment in the “grey market” been prohibited by Directive 98/84/EC, in contrast with the piracy of conditional access which is explicitly prohibited by this Directive.

This “grey market” relates to satellite pay-television services as the footprints of satellites are not typically restricted to any one market. The “grey market” is not observed for cable and IPTV services which are limited to national markets by physical infrastructure, but is relevant to terrestrial broadcasting only in areas near national borders. Due to its nature, the size of the “grey market” is not well understood.

Directive 98/84/EC of the European Parliament offers protection to services based on conditional access. The “grey market” is of interest to the Commission as it represents a European dimension relating to this Directive. There may be benefits to “legalising” the “grey market” including facilitating free movement of people by guaranteeing access to audiovisual offers in citizens’ native language and culture, and increased dissemination of European audiovisual works between Member States.

The issues surrounding cross-border subscription audiovisual media services came to light in the Commission’s work on conditional access. The Commission’s second report into the implementation of Directive 98/84/EC<sup>18</sup> identified the need to *‘gather information, in particular concerning the exercise*

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<sup>18</sup> Second report on the implementation of Directive 98/84/EC of the European Parliament and of the Council of 20 November 1998 on the legal protection of services based on, or consisting of, conditional access.

by European citizens of the right to free movement and the supply and demand situation for audiovisual and/or listen to media services abroad. Such information should help to establish the potential of such pay-to-view cross-border services and contribute to deliberations on copyright and rights to cultural and sports events'. This recommendation is the basis for this study.

### 1.1.2 Ruling of the European Court of Justice in cases C-403/08 and C-429/08

On 4 October 2011 the European Court of Justice issued its Judgement in cases C-403/08 and C-429/08: Football Association Premier League and Others v QC Leisure and Others; Karen Murphy v Media Protection Services Ltd<sup>19</sup>. These cases arose from attempts by certain pubs in the UK, Karen Murphy is the landlady of one, to circumvent the territorially exclusive right that the Football Association Premier League ('the FAPL') grants to broadcasters. The pubs in question had begun to use foreign decoder cards, issued by a Greek broadcaster to subscribers resident in Greece, to access Premier League matches. The pubs bought a card and a decoder box from a dealer at prices lower than those of Sky, the holder of the broadcasting rights in the UK.

The ruling covered matters regarding free movement, competition and copyright and has significant implications for this work. The key impacts are that:

- The "grey market" is not a grey market. The Court held that *national legislation which prohibits the import, sale or use of foreign decoder cards is contrary to the freedom to provide services and cannot be justified*. In relation to this it explained that decoding devices (set-top boxes) imported from another Member State cannot be regarded as "illicit devices" as defined in Directive 98/84/EC.
- An end to the use of restricted sales of decoders and conditional access cards to partition the EU on a territorial basis. In relation to the licensing of copyright the ruling stated that *a system of exclusive licences is also contrary to European Union competition law if the licence agreements prohibit the supply of decoder cards to television viewers who wish to watch the broadcasts outside the Member State for which the licence is granted*. (This is discussed in more detail in Section 7.2.1)

The overall methodology of this study has not changed as a result of the ruling, which came during the final month of the project. However, we have discussed potential changes to the costs of providing subscription-based audiovisual media services cross-border as a result of the second point above. This affects the economic potential of these services.

### 1.1.3 Terms of reference

The objectives and methodology for this study were relatively tightly defined by the terms of reference set out in the Invitation to Tender<sup>20</sup>. The objective of this study is to provide data on the demand for cross-border pay-to-view and/or listen to audiovisual media services in the European Union from an economic perspective. Given that the potential lack of commercial potential of these services is a key issue, the study should *give 'a genuine perspective of their size and importance'*.

<sup>19</sup> <http://curia.europa.eu/jcms/upload/docs/application/pdf/2011-10/cp110102en.pdf>

<sup>20</sup> Invitation to tender n° MARKET/2010/12/E: [http://ec.europa.eu/dgs/internal\\_market/calls/calls-2010\\_en.htm](http://ec.europa.eu/dgs/internal_market/calls/calls-2010_en.htm)

The Invitation to Tender described the main elements of the required methodology as follows:

- Collection of existing data on EU citizens' mobility and language efficiency.
- Careful evaluation and analysis of the data collected in order to achieve a readable and easily-understandable presentation, through tabular as well as textual analysis.
- List of subscription based audiovisual media including streaming services available in the different Member States.
- Decide which population samples to select in order to conduct the requested market survey
- Market survey should identify which part of the selected population is interested in buying cross-border audiovisual content, as well as the kind of content requested.

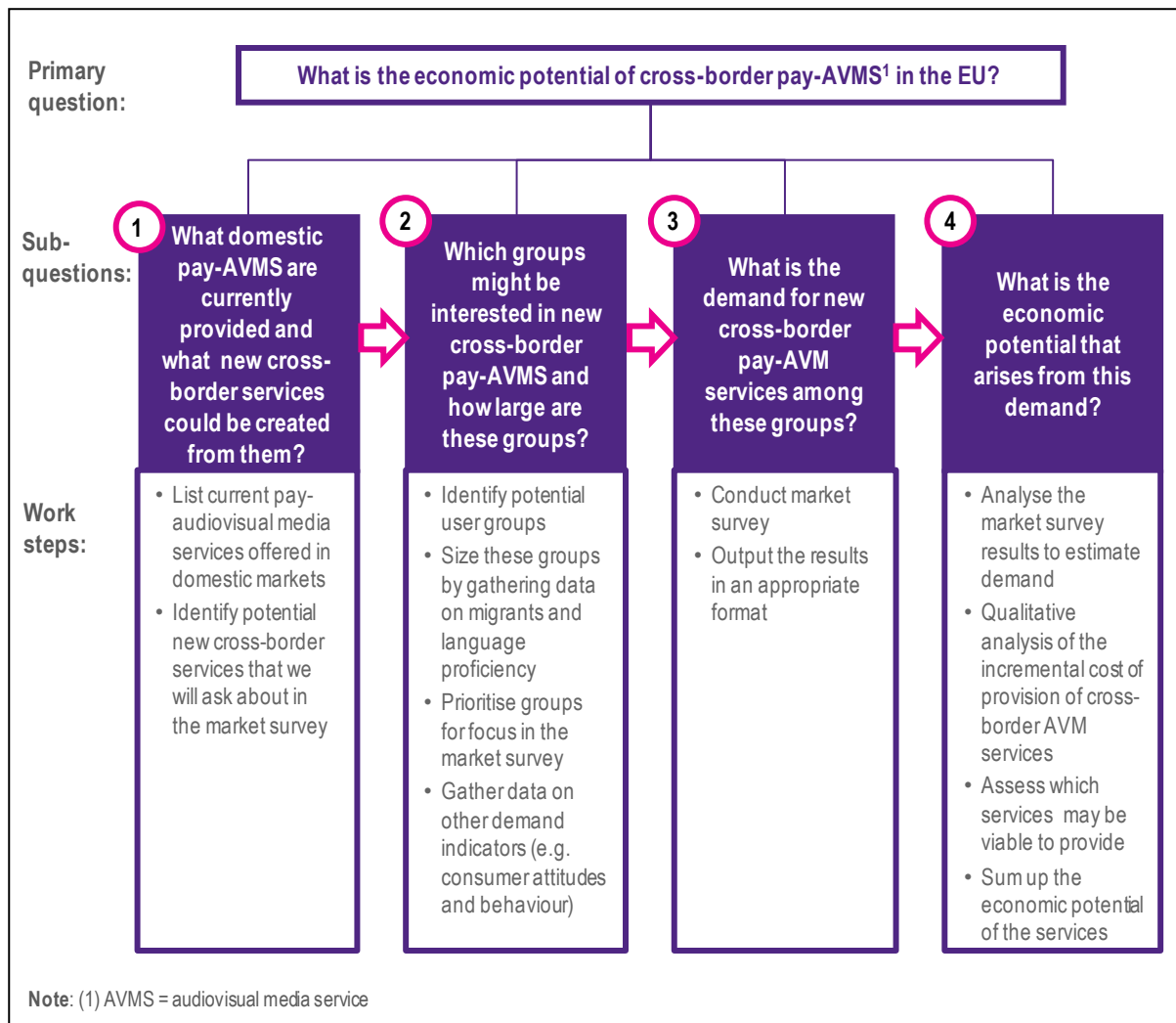
## 1.2 Methodology

Our methodology follows the basic framework set out in the terms of reference. The question tree and work steps shown in Figure 1-1 below describe the methodology chosen within this framework. In order to answer the question of “what is the economic potential of cross-border pay-audiovisual media services in the EU?” we conducted a desk-based study of the potential supply and demand side (work steps 1 and 2). The next step was a market survey to test demand for cross-border pay-audiovisual media services among the groups identified in work step 2. There followed a quantitative analysis of the results of the survey in order to estimate demand.

We have done some additional analysis in work step 4 to assess the economic potential of cross-border services. The fact that the market does not provide certain cross-border audiovisual media services at present suggests that these have low or no economic potential. In a sense, the analysis provided in work step 4 explains the reasons for the current pattern of service provision. Though not an objective for this study, the analysis may also provide a basis for considering how market provision might change following the ECJ ruling.

The study was conducted over the period of January to October 2011, with the consumer survey taking place in September 2011.

Figure 1-1: Question tree and work steps



### 1.3 Scope and definitions

Regarding the scope of work, the Commission's second report into the implementation of Directive 98/84/EC states that *'It is important to note, in this respect, that the only cross-border market which the Commission would like to see being developed is that for services catering to the mobility and legitimate expectations of European citizens and, as such, legally available in their mother tongue and the language of their native country.'* In terms of technology, the scope is broad as the Directive is technology neutral and new distribution platforms may be highly relevant to cross-border services. Existing services and potential new services designed for cross-border markets are included. Regarding groups that may be interested in cross-border propositions, migrant populations are in scope, but also nationals who may have an interest in foreign content. The geographic scope is all 27 EU Member States.

Regarding the definitions, this study interprets "Cross-border pay-to-view and listen audiovisual media services" broken down by element as follows.

- “Cross-border”. The provider of the service is established in a different country to the location of the consumer of this service (therefore, the contract is cross-border) and the service is delivered cross-border. For example, the provision of the Sky Italia satellite pay-television service to customers in France would meet both of these conditions. However, the provision of RAI (Italian public service broadcaster) channels on the French IPTV service Free is not considered “cross-border” as customers make a contract with Free rather than with RAI, and this contract is in no sense part of a “grey” market.
- “Audiovisual media”. This has been taken to mean linear and non-linear video. Though video games might be considered under the definition of audiovisual, the operators that are protected by the Directive are concerned primarily with the distribution of television services. The study includes only services that have the primary purpose of providing audiovisual media. Therefore, web content sites that include video clips, for example, are not included. Radio services are not included in this study as these tend to be offered for free<sup>21</sup> and therefore have limited potential as pay-services.
- “Pay services”. This has been taken to mean services that are paid for voluntarily either by subscription or one-off payment. Licence fees paid to public service broadcasters and services funded by advertising are therefore excluded.

In addition, this study focuses on business-to-consumer service provision. We have excluded the business-to-business provision of audiovisual media services (e.g. wholesaling of channels to cable operators, provision of pay-television services to bars and restaurants). In summary, this study is concerned primarily with pay-television and internet video services provided by operators in one EU country to consumers in another country.

## 1.4 The European audiovisual media sector

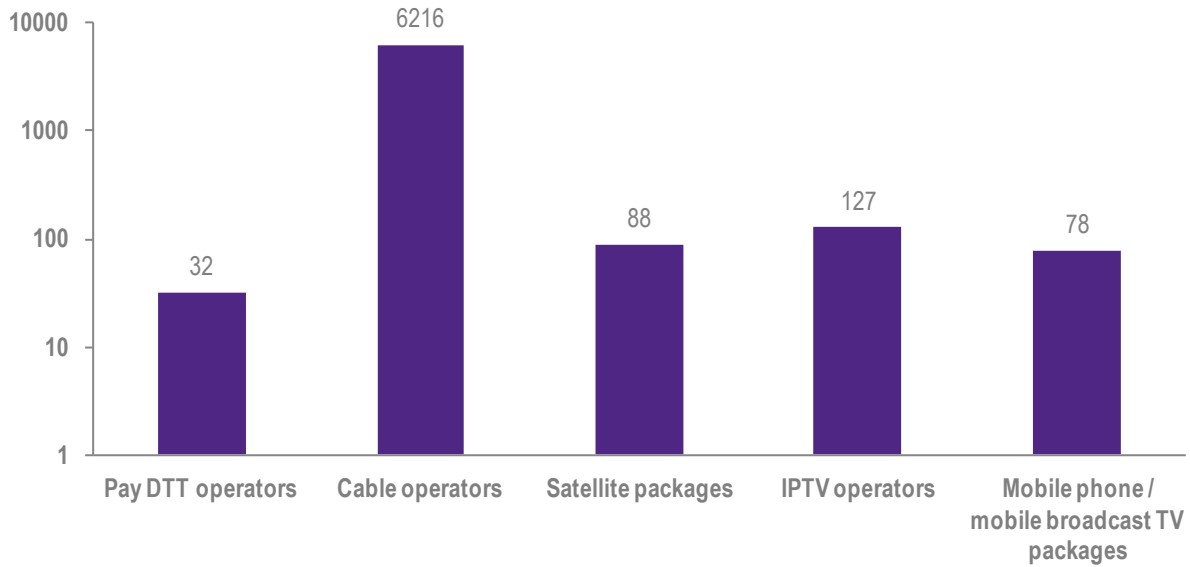
The satellite and internet-based pay-television services that are the focus of this study are part of a larger audiovisual media sector in Europe. This section positions these sub-sectors within the context of the overall sector. The wider audiovisual sector is discussed throughout the report as it supplies services that may be a substitute for cross-border audiovisual media services as defined in this study.

There were over 6,000 distribution platforms in 36 European countries in 2010. The vast majority of these are cable platforms which are highly fragmented geographically. Figure 1-2 shows the number of platforms by type. Rights frameworks differ between cable and satellite platforms (see Section 6.2.1) and only satellite platforms offer cross-border distribution outside border areas.

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<sup>21</sup> The exception is radio channels included as part of pay-television packages. Our assumption is that these are not the main reason that consumers pay for these packages.

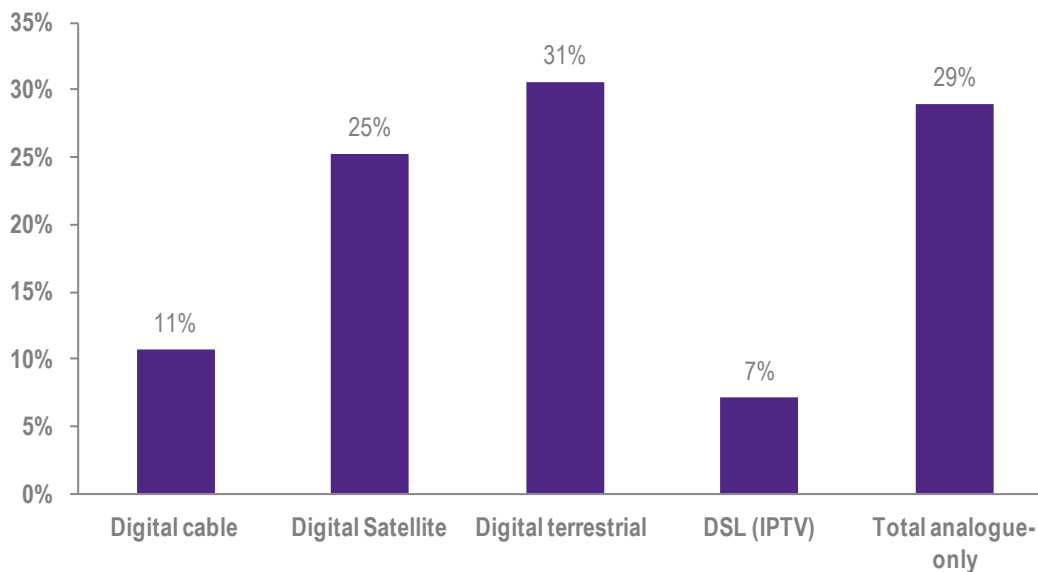
Figure 1-2: Number of distribution platforms in 36 European countries, 2010



Source: European Audiovisual Observatory, MAVISE database.

In terms of platform penetration, of 201 million EU 27 households at the end of 2009 61 million had digital terrestrial television, 51 million digital satellite, 21 million digital cable and 14 million IPTV<sup>22</sup>. 58 million did not have digital television: these households will have used mainly analogue cable or analogue terrestrial services. Figure 1-3 shows the penetration of platforms to households. In addition, there were 106 million broadband households in the EU 27 at the end of 2009<sup>23</sup>, 53% penetration.

Figure 1-3: Penetration of households by different distribution platforms



Source: Screen Digest, European Audiovisual Observatory.

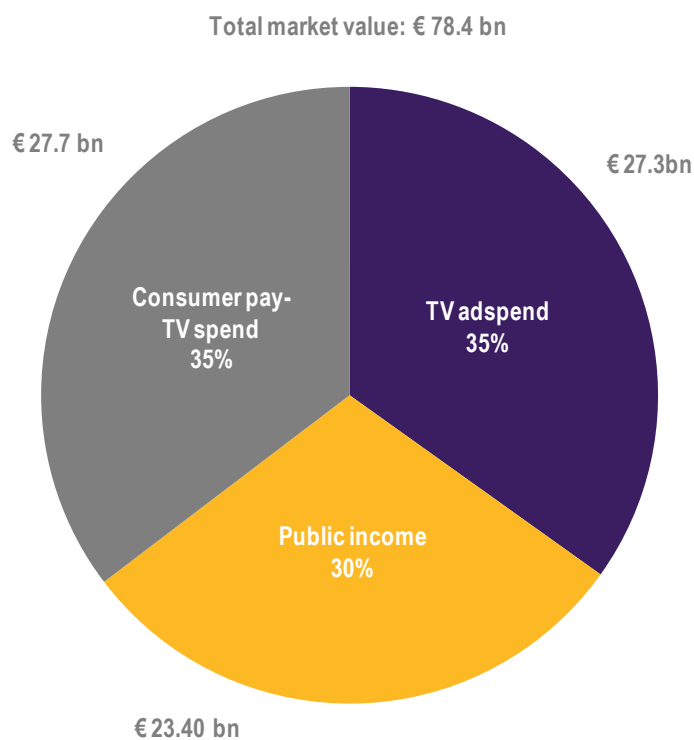
<sup>22</sup> Source: European Audiovisual Observatory, MAVISE database.

<sup>23</sup> Source: Screen Digest.

Television sector revenues were €69.3 billion in 2009 including €27.3 billion from television advertising, €23.3 billion in public income and €27.7 billion of consumer spending on pay-television services<sup>24</sup>. Figure 1-4 shows the distribution of these revenues by source. Internet-based services currently generate far less revenue: online video-on-demand and subscription video on demand generated revenue of €471 million in 2010<sup>25</sup>.

In addition, the audiovisual sector generated offline retail revenues of €14.8 billion in 2009 (excluding video games revenues) that included €8.7 billion of DVD and Blu-Ray retail and rental revenue and €6.1 billion gross cinema box office.

Figure 1-4: EU 27 television revenues by source, 2009



Note: Public income includes radio

Source: European Audiovisual Observatory, Screen Digest, Warc

<sup>24</sup> Source: OBS. Public income includes spending on radio services.

<sup>25</sup> Source: Screen Digest.



## 1.5 Structure of this report

The rest of this report is structured as follows:

- Section 2 describes the current provision of audiovisual media services within the EU Member States.
- Section 3 describes the current provision of cross-border audiovisual services and content within the EU. The possible shape of new cross-border propositions is discussed.
- Section 4 identifies, sizes and describes the characteristics of groups that might be interested in cross-border pay-audiovisual media services.
- Section 5 presents analysis into future trends and attitudinal factors.
- Section 6 describes the results of the market surveys undertaken for this study and desk research into other indicators of demand.
- Section 7 analyses the economic potential of cross-border audiovisual services by examining willingness to pay and the costs of providing these services.

The main body of this report presents an analysis leading to the recommendations. Detailed tables and lists relating to population groups and willingness to pay are provided in appendices. We have provided a separate Annex that includes the questionnaires and results of the market surveys and lists of audiovisual media services by country.

## 2 Supply of audiovisual media services

This section describes relevant aspects of the current supply of audiovisual media services to meet demand within domestic markets within the EU (i.e. excluding cross-border supply). Developing a clear view of the current patterns of supply is important to:

- Define potential cross-border propositions. The pay-television services, television channels and on-demand audiovisual media services available currently, or likely to be provided in future, are the probable main basis for potential cross-border services. Section 2.1 describes the current supply of pay-television services, while Section 2.3 describes the development of on-demand and internet-based services.
- Consider the inherent appeal of these services. The appeal of cross-border audiovisual media services will depend on the type of programming included. This will relate to the output of the audiovisual sector in the country of origin. Section 2.2 describes the current supply of television channels and programming.

In addition, the following sections describe the current levels of uptake of pay-television as these give an indication of differences in willingness to pay for television services by country.

### 2.1 Supply of pay-television services and packages

Pay-television services and / or packages are supplied in every EU 27 country, and there tends to be provision of different services over cable, satellite, DTT and IPTV in each market. Satellite services are most significant to this study as these can be supplied cross-border with the least incremental cost, though services distributed by other means are also relevant as it may be possible to redistribute version of them over the internet. Cable, IPTV and DTT services are by nature targeted at national (or local) markets, while satellite services tend to be targeted at specific national markets or regions with a common language and culture. Table 2-1 lists the main satellite pay-television services and packages within the EU.

Table 2-1: Satellite television services and packages targeted at each EU country<sup>26</sup>

Country	Satellite television services and packages targeted at the country
Austria	ORF Satellit, Sky Österreich, Austria Sat
Belgium	TV Vlaanderen, TeleSat numerique, Mobistar Digital TV
Bulgaria	Bulsatcom, Total TV Bulgaria, Vivacom
Cyprus	Multivision (Nova Cyprus)
Czech Republic	CS Link, Digi TV, Skylink, UPC Direct
Denmark	Canal Digital, Viasat
Estonia	Viasat
Finland	Canal Digital, Viasat

<sup>26</sup> Source: European Audiovisual Observatory Yearbook, 2010.

Country	Satellite television services and packages targeted at the country
France	AB Sat (Bis TV), Canal+ (CanalSat, TNT Sat*), France Telecom (Orange), Fransat*
Germany	Alles Sehen TV, HD+, Sky Deutschland
Greece	Multichoice Hellas (Nova)
Hungary	Digi TV, UPC Direct, Hello HD, T-Home
Ireland	Sky, Freesat*
Italy	Sky Italia, TivuSat*
Latvia	Viasat
Lithuania	Viasat
Luxembourg	TéléSat Luxembourg
Malta	nil
Netherlands	Canal Digitaal
Poland	Cyfrowy Polsat, Canal+ (Cyfra+), ITI Neovision (N, Telewizja na karte), TP (Orange Polska)
Portugal	Portugal Telecom (Meo), Zon Multimedia (TV Cabo)
Romania	Akta TV, Dolce, Digi TV, Boom TV
Slovakia	Digi TV, Skylink, UPC Direct, Magio TV
Slovenia	Total TV
Spain	Sogecable (Digital+)
Sweden	Canal Digital, Viasat
UK	Sky, Freesat*

**Note:** \* = Platform offering free-to-view services.

Some satellite service providers operate across more than one country, particularly countries with a common language. However, conditional access allows different versions to be provided in each country. For example, slightly different versions of the Canal Digital service are offered in Denmark, Finland, Norway and Sweden.

### 2.1.1 Pay-television propositions

The pay-television services supplied in the EU differ by country and by distribution platform. Typically, consumers have the choice of various packages. Overall, pay-television propositions tend to comprise:

- “Basic tier” packages of 20 or many more television channels, including national free-to-view channels and national and trans-national thematic channels.
- “Premium” packages that include sports, films and other premium channels.

- In some cases on-demand access to films, catch-up content or other programming.
- An electronic programme guide.
- Set-top boxes supplied by the service provided that may include a hard drive to record programming.

Increasingly these services include channels broadcast in high-definition and in 3D. The nature of the channels available in each country is described in more detail in Section 2.2.

There are also a small number of pay-television services that comprise a single channel or a small set of channels. These tend to be provided as add-ons to other services. For example, in Spain Gol TV, AXN and Canal+ Dos are provided as standalone pay-channels on the DTT platform in Spain, on which most channels are free to view.

Pay-television services tend to differentiate from each other by providing a wide choice of channels and premium film, sports and other content that is not available on free-to-view television platforms. However, when provided as cross-border propositions the free-to-view channels that are carried by pay-television services may also be a differentiator as these might not be available in the market in which the user lives.

### Example: Sky Deutschland<sup>27</sup>

The Sky Deutschland satellite pay-television service offers various packages and tiers of service. The entry level package is “Sky Welt” which includes basic pay thematic channels and 4 HD channels. Other tiers are built up from packages of film, sport and football channels. The film package provides 80 films daily. The sport package includes sports / events including tennis, golf, Formula 1 and UEFA Champions League. The football package includes live Bundesliga games. The HD option includes HD versions of up to 11 channels, depending on the package. These packages also include the Sky+PVR<sup>28</sup> and, in some cases, access to Sky Go, an internet service.

Figure 2-1: Sky Deutschland packages and pricing, May 2011

Paketkombinationen	Standardpreise pro Monat <sup>21</sup>	Preise inkl. HD-Sender pro Monat <sup>31</sup> für Film und /oder Sport/Bundesliga	Angebotspreise pro Monat <sup>41</sup>	
Inklusive 4 HD-Sendern	€ 16,90			
oder oder  30 Tage kostenlos	€ 33,90	€ 43,90	<div style="background-color: #ADD8E6; padding: 10px; text-align: center;"> <p>Aktuelles Angebot:</p> <p><b>3 Monate Sky geschenkt.</b></p> </div>	
oder oder  30 Tage kostenlos	€ 45,90	€ 55,90		
 30 Tage kostenlos	€ 55,90	€ 59,90 inkl.		
<b>Bei Sky ist jeder neue Kunde ein HD-Kunde</b> Im Sky Welt Paket sind 4 HD-Sender direkt enthalten – zum gleichen Preis. Das ist für Sie der direkte Einstieg in die Welt des HD-Fernsehens.		<b>Zubuchbare HD-Sender</b> Für Sport/Fußball Bundesliga erhalten Sie Sky Sport HD 1, Sky Sport HD 2 und ESPN America HD und/oder für Film Sky Cinema HD, Sky Cinema Hits HD, SkyAction HD und Disney Cinemagic HD.		

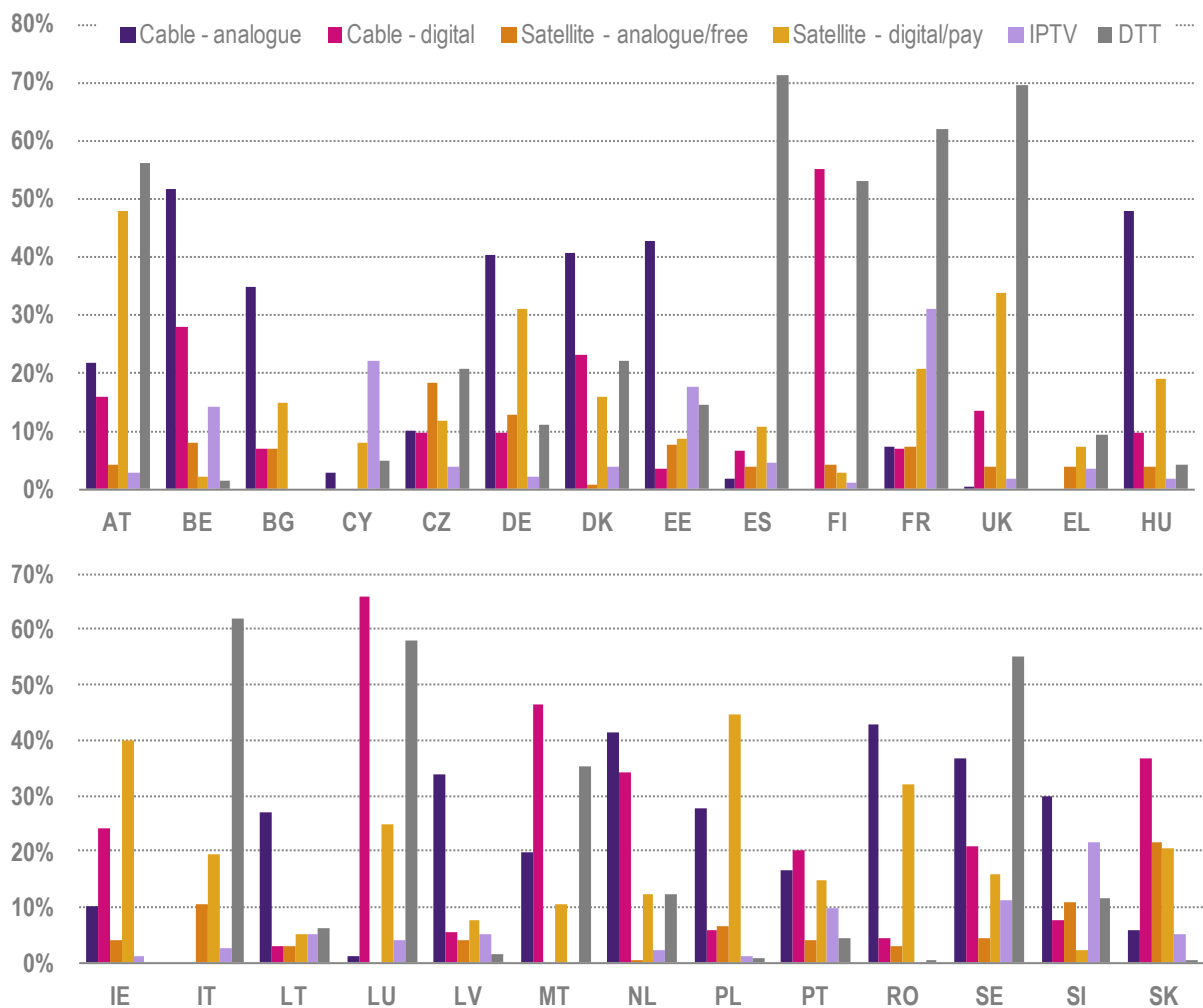
<sup>27</sup> Information gathered in May 2011. <http://www.sky.de/web/cms/de/abonnieren-preisinfos.jsp>

<sup>28</sup> PVR = personal video recorder, a set-top box that enables programmes to be paused, recorded and replaying.

### 2.1.2 Penetration of platforms

The shape of potential cross-border pay-television propositions will also depend on uptake of different distribution platforms in each country. Figure 2-2 shows the penetration to households of cable, satellite and digital terrestrial services.

Figure 2-2: Penetration of cable, satellite and DTT to households by country, 2009



Notes: (1) Penetration exceeds 100% in some countries as some households may have more than one platform (e.g. DTT and cable). (2) Satellite includes SMATV installations.

Source: Plum analysis based on Screen Digest and European Audiovisual Observatory data.

There is strong variation in the level of cable and satellite penetration by country. For example Belgium, the Netherlands, Denmark and Sweden have high levels of penetration of cable relative to satellite. The reverse is found in the UK, Italy and Spain. This affects the way in which cross-border audiovisual media services could be received.

It is possible that cross-border services, more especially standalone channels or small sets of channels, could be redistributed on the services that are already in place. In the case of the provision of entire satellite pay-television services cross-border, it may be possible to use any existing satellite reception equipment. However, if the orbital position of the satellite used for cross-border services

differs from the position of the satellite used to broadcast services into the domestic market, then the dish would need to be reoriented. In countries in which a large proportion of people live in apartment blocks there is a tendency for some provision of satellite services under the SMATV<sup>29</sup> model. Though classed as satellite in Figure 2-2, a SMATV system would not support cross-border satellite services as the satellite dish would tend to be oriented to receive national services. Therefore, countries with a high incidence of SMATV installations may generate less demand for cross-border services provided over satellite. SMATV is not distinguished from other DTH satellite in the country data, though information is available for the subscribers to some satellite packages. For example, Canal Digital had 657,000 SMATV subscribers and 141,000 DTH subscribers in Denmark in March 2010<sup>30</sup>.

## 2.2 Supply of national television channels and programming

There are significant variations in the amount, quality and origin of television channels and programming available by national market. It tends to be the case that the largest five EU Member States support a wide range of channels and have well funded television industries, while the smaller Member States support a narrower range of channels and have less well funded industries. This may affect the relative demand for cross-border services originating in each country.

This section considers the amount and type, quality and origin of television channels and programming by Member State, then makes an assessment of the relative strength of the overall output. The focus is on national channels and programming as, when offered into other countries, these most distinguish cross-border propositions from domestic offerings. Lists of channels available in each Member State are provided in a separate Annex.

### 2.2.1 Type of television channels

It is probable that cross-border demand for audiovisual media services will relate mainly to content that is distinctive to its country of origin in terms of language and culture. Other content (e.g. trans-national channels<sup>31</sup> broadcast in a non-national language version) might not differentiate cross-border services from services available domestically.

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<sup>29</sup> Satellite Master Antenna Television (SMATV) installations involve a communal satellite antenna that is connected via a private cable system to multiple households within a building.

<sup>30</sup> European Audiovisual Observatory Yearbook 2010, Volume 2.

<sup>31</sup> Trans-national channels are channels that target several different countries with the same service or similar services.

Figure 2-3: Classification of television channels

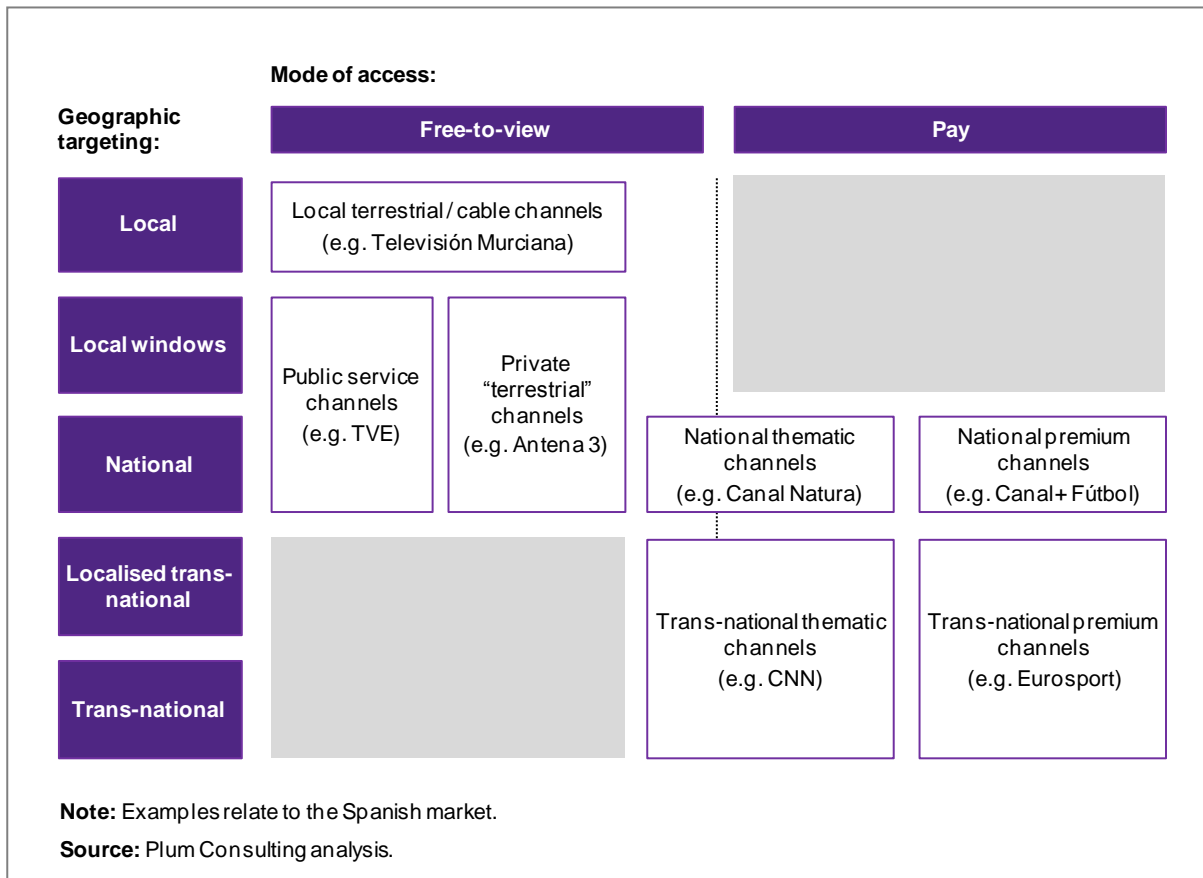


Figure 2-3 shows a classification that segments television channels according to the target market (in terms of national / local) and whether the channels are free-to-view or pay. The types of channel that are most distinctive to a specific country are:

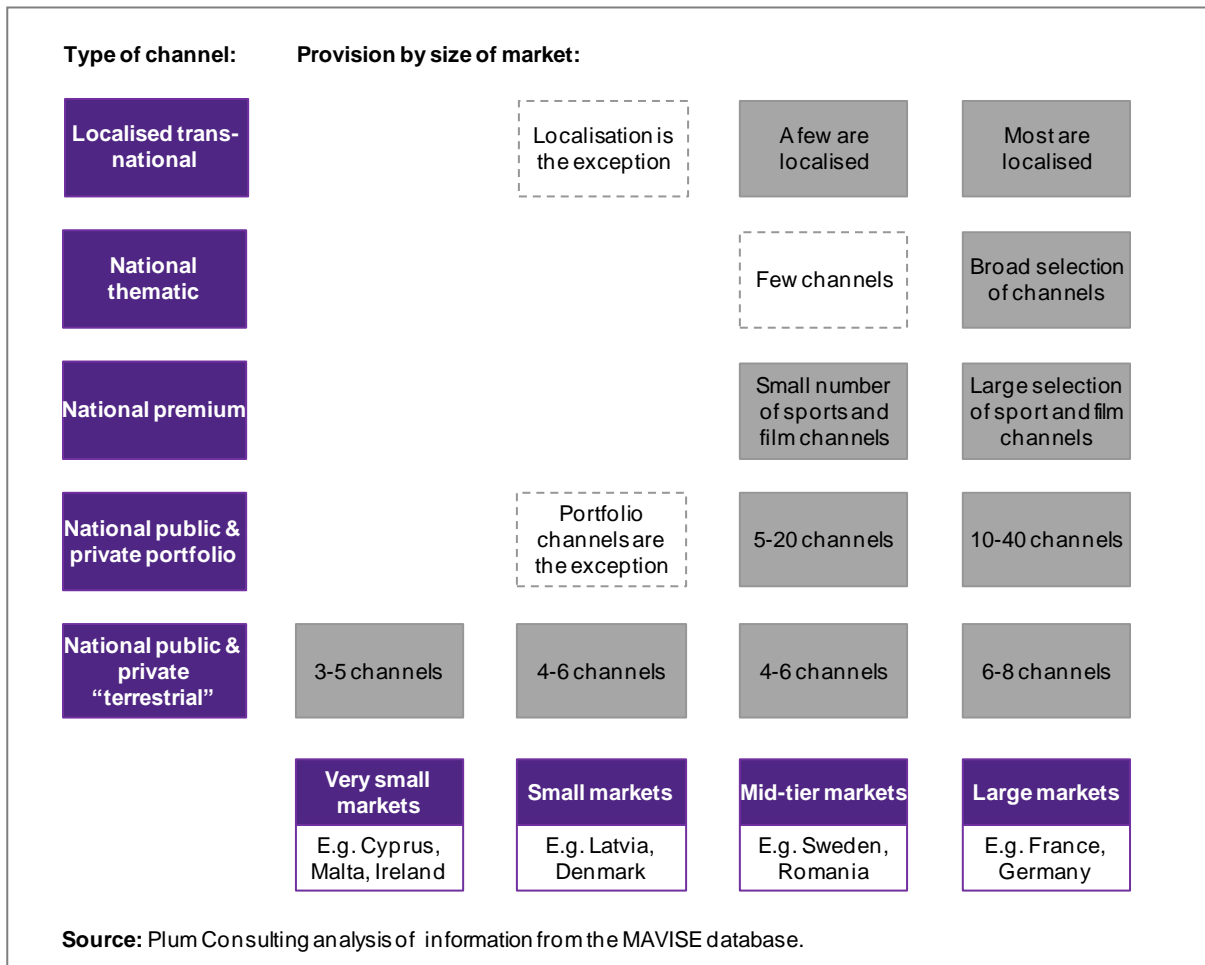
- Public service broadcasters' main channels and portfolio channels<sup>32</sup>.
- Private advertising funded channels and their portfolio channels.
- "Thematic" pay and free-to-view channels targeting the national market.
- Premium channels targeting the national market, including sport, film and "thematic" channels.
- Local and regional channels.
- Trans-national channels that are localised for the country.

The number and balance of channels provided differs by country. In general, the more populous Member States and / or States with high television industry revenues have the largest number and range of types of television channels. Figure 2-4 shows an approximate segmentation by size of country of the type of provision of nationally and linguistically distinct television channels.

<sup>32</sup> Portfolio channels are channels developed by public service and major private channels to target the multi-channel market. These are complementary to their core channels.



Figure 2-4: Provision of nationally and linguistically distinct television channels by country



### Public service broadcasters and private terrestrial broadcasters

All of the EU 27 countries except Luxembourg have public service broadcasters operating at least one, and more typically 2-4, main channels that are distributed on all platforms. These broadcasters range in scale from PBS in Malta which had income of €5.8 million in 2009, to ARD in Germany with income of €6.2 billion<sup>33</sup>.

In larger markets the public service broadcasters have also developed portfolio channels for digital platforms. For example, Italian public service broadcaster RAI operates 41 channels in total, including portfolio channels such as RAI HD (high definition), RAI Yoyo (children's), RAI Fiction (drama) and RAI News.

There are also privately operated "terrestrial"<sup>34</sup> channels in all EU countries. Owing in part to their strong brands and historic lack of competition these channels tend to benefit from large market share. Some of these channels have developed digital portfolio channels, much like their public sector

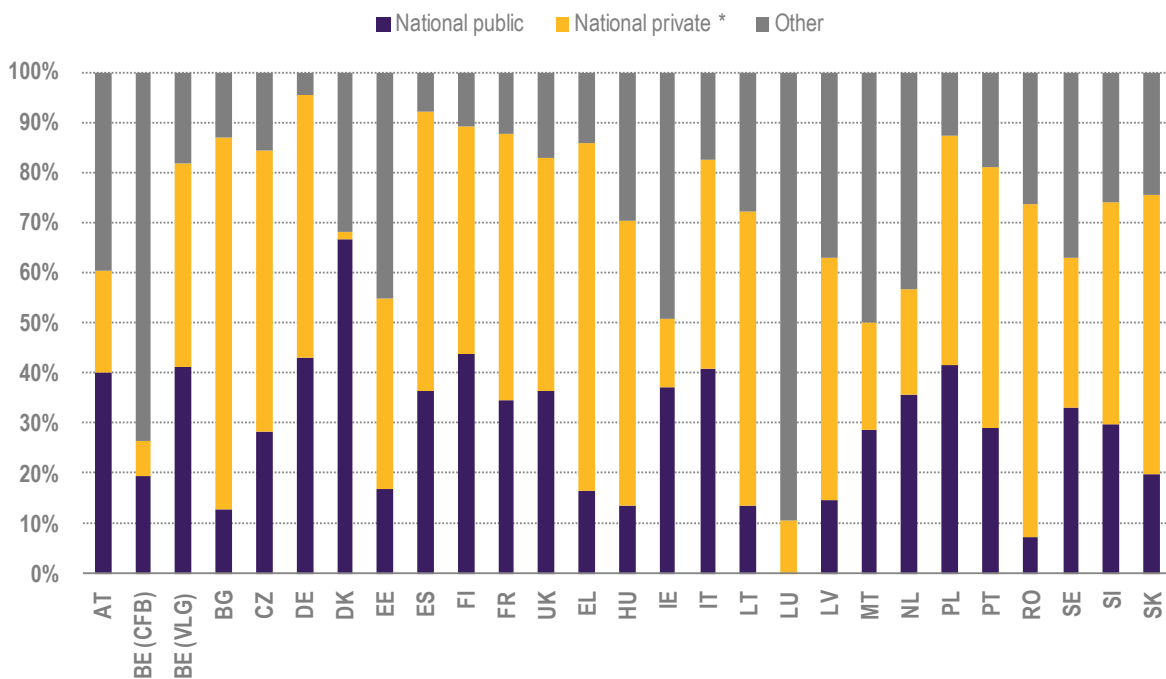
<sup>33</sup> Source: European Audiovisual Observatory Yearbook, 2010.

<sup>34</sup> These channels were historically distributed on analogue terrestrial services and are now typically available free-to-view on all distribution platforms in the relevant country. In highly cabled countries (e.g. the Netherlands) these channels may have origins as cable channels rather than terrestrial.

competitors. These portfolios are most extensive in the larger EU markets. For example, in Germany RTL Television offers 10 channels including RTL, RTL 2, RTL Crime and RTL Living.

In most EU markets the main public service channels and private terrestrial channels account for the majority of audience share. The rest is distributed between the digital portfolio channels of public service and private terrestrial broadcasters, national thematic channels and, to a lesser extent, foreign channels. Figure 2-5 shows audience share by type of channel by country. This suggests that a substantial proportion of demand for cross-border services may be related to public service and private national channels, assuming that migrants' tastes are similar to the populations of their countries of origin.

Figure 2-5: Daily audience share by type of channel by country, 2009<sup>35</sup>



Note: 'Private' channels may include localised transnational channels established nationally in some countries.

Source: Plum analysis of TV audience market share data provided in the European Audiovisual Observatory Yearbook, 2010.

### National thematic channels

“Thematic” pay and free-to-view channels targeting the national market are provided in most of the larger countries, though the number of such channels varies considerably. In the UK, for example, there is a large number of this type of channel. For example, UKTV operates a portfolio of thematic channels, based mainly on library programming, including Alibi, Blighty, Dave, Good Food, Home and Yesterday<sup>36</sup>. In small markets the provision of this type of channels is much less. The audiences for this type of channel tends to be low individually, but more significant collectively. Therefore, these channels may generate demand if provided as / as part of cross-border services.

<sup>35</sup> Source: Analysis of data presented in the European Audiovisual Observatory Yearbook, 2010. “Private” channels may include localised trans-national channels established nationally in some countries.

<sup>36</sup> <http://uktv.co.uk/network/homepage/sid/7372>

## National premium channels

Premium channels targeting the national market are significant as these provide exclusivity that drives consumers' willingness to pay. Nationally targeted premium channels are found in the large and medium sized European markets, and tend to be offered by pay-television service providers. For example, in Sweden Canal Digital provides a selection of film, sport and other channels under the Canal+ brand.

Premium film channels tend to show mainly US originated films. Most of these channels are localised to the extent that US films are shown in local language version and some nationally-produced films are shown. For example, in Sweden Canal+ Film HD shows mostly US films<sup>37</sup> with Swedish subtitles and some Swedish films. Therefore, premium film channels offered on a cross-border service would be similar to domestic premium film channels, except for the language version.

The programming of national premium sports channels tends to include some national sports as well as international sports. For example, Sky Sports channels in the UK screen national sports including English Premier League football and Super League rugby and international sports including PGA Tour golf and UEFA Champions League football. It holds some or all exclusive rights to these sports in the UK. An important consideration for this study is the extent to which key national sporting events are also covered by broadcasters targeting countries other than the country of origin. Do consumers need cross-border services in order to view sports events from other countries? In the case of the English Premier League, rights are currently licensed by territory to pay-television operators including Sky Deutschland in Germany, Sky Italia in Italy, Canal+ in France and Digital+ and Gol Televisión in Spain<sup>38</sup>. Coverage includes most EU countries. In contrast, the coverage of the football leagues of smaller countries tends not to be widely distributed outside the domestic market.

## Trans-national channels localised for the national market

Trans-national channels and brands target several markets, but are frequently localised to meet the linguistic needs and tastes of the target markets. Therefore, these channels provide some national distinctiveness to pay-television services. These channels / brands tend to have evolved from the localisation of a core channel to meet local needs, or have been built up from several local channels operating under a common brand. The results is three main forms of localisation in the current market:

- Local language versions.
- Local programming and local opt-outs.
- Distinct local channels.

Local language versions may involve translation (subtitling or dubbing) or multi-lingual signals<sup>39</sup>. For example, ESPN Classic broadcasts in Dutch, English, German, Polish and Portuguese translation, and Eurosport provides a multilingual signal in 16 official EU languages<sup>40</sup>.

Other channels are made up from a mix of centrally and locally provided programming. For example, Discovery Channel broadcasts several local versions of the channel that differ in language, schedule

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<sup>37</sup> Most the films listed on the channel's schedule originate in the US. <http://www.canalplus.se/schedule>

<sup>38</sup> These licensing arrangements might change as a result of the ECJ ruling (see Section 7.2.1).

<sup>39</sup> In this case a single video feed is provided with multiple audio feeds created live in different languages.

<sup>40</sup> Jean K. Chalaby, *Transnational Television in Europe: Reconfiguring Global Communications Networks*, 2009.

and on-air promotions. Within the EU versions of the channel are licensed for Benelux, Italy, Nordic, Spain & Portugal, UK, France, Central & Eastern Europe<sup>41</sup>.

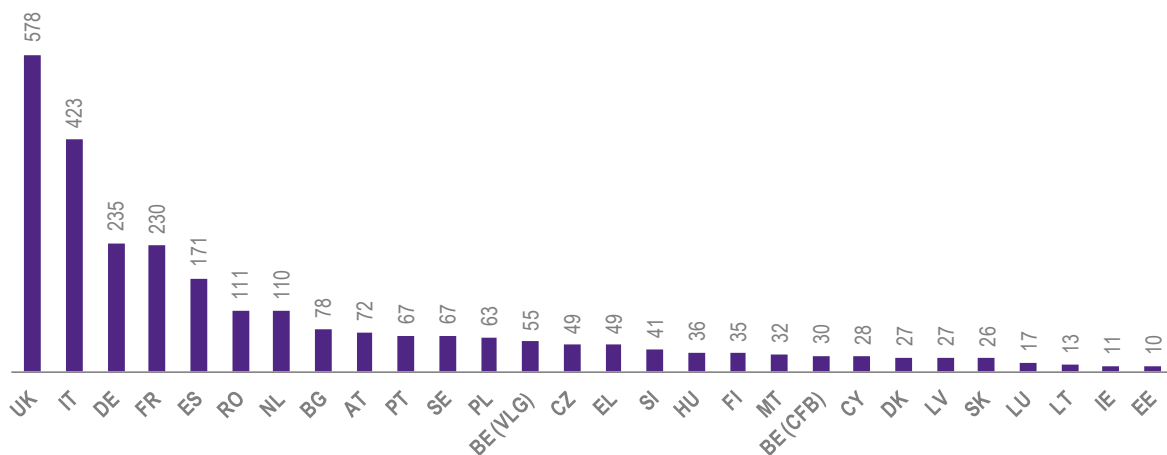
In some cases the process of localisation has led to highly distinctive local channels. For example, MTV operates 19 main local channels (excluding other portfolio channels such as MTV Dance) within the EU. These channels differ in the selection of music videos played, among other factors.

Owing to the cost of providing local language versions and or local programming, the practice is most common for the languages of the largest EU countries and the largest trans-national channel brands.

## 2.2.2 Number of television channels

There is a wide range in the number of national television channels<sup>42</sup> established in each Member State, varying from 10 in Estonia and 11 in Ireland to 578 in the UK and 423 in Italy. Figure 2-6 shows the number of national channels by country. The number of channels increases with the size of each market in terms of population and revenues for the television industry.

Figure 2-6: Number of national television channels by country, 2010<sup>43</sup>



Note: Excludes local/regional channels (channels that involve a mix of nationally and locally scheduled content).  
Source: Plum Consulting analysis based on European Audiovisual Observatory data.

In addition, all markets except Malta support local and regional television channels (including window channels<sup>44</sup>). The number of these channels by market varies considerably. For example, there are over 1,000 local channels / windows in Spain owing to the linguistic diversity within the country and the tradition of devolved public service broadcasting. Figure 2-7 shows the number of local and regional channels by country, in matching order to Figure 2-6.

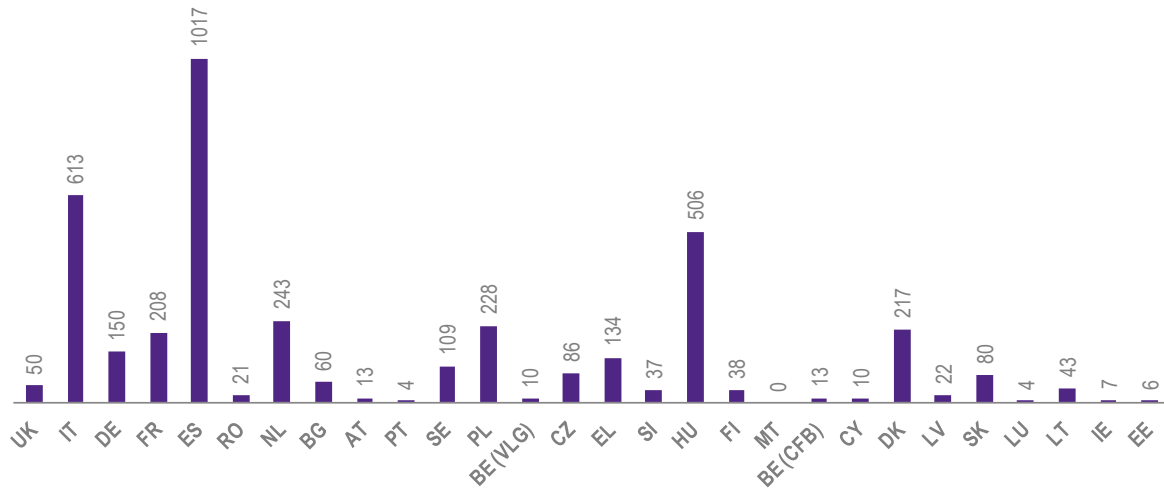
<sup>41</sup> <http://www.ofcom.org.uk/static/tvlicensing/cs/main.htm>

<sup>42</sup> We define national channels as those that are established and broadcast nationally, rather than locally or regionally within a country. We exclude channels that broadcast internationally and have a target market of several countries.

<sup>43</sup> We define national channels as those that are established and broadcast nationally, rather than locally or regionally within a country. We exclude channels that broadcast internationally and have a target market of several countries.

<sup>44</sup> Window channels are local or regional variations on a network channel. Particular times, or windows, in the schedule are reserved for local or regional programming, while the rest of the time a national schedule is broadcast.

Figure 2-7: Number of local and regional television channels by country, 2010<sup>45</sup>

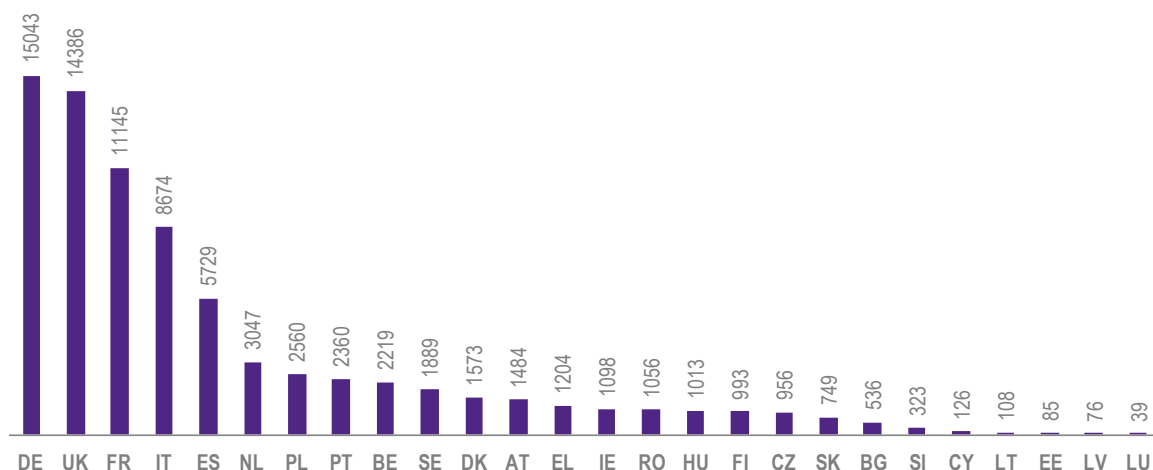


Source: Plum Consulting analysis based on European Audiovisual Observatory data.

### 2.2.3 Relative broadcasting sector revenues

There is strong variation by country in the revenues of the broadcasting sector, ranging from €39 million in Luxembourg in 2009 to over €15 billion in Germany. Figure 2-8 shows total broadcasting revenues, including public funding, advertising and consumer pay-television revenue by country. The variation is largely a result of differences in population, funding of public service broadcasters and the strength of the pay-television sector in each country.

Figure 2-8: Total broadcasting revenues by country, Euro million, 2009



Notes: (1) Total of television advertising spending, consumers' pay-TV spending and net income from public sources. Spending allocated to radio services may be included in the net income from public sources. (2) Consistent data is not available for Malta. (3) 2009 data is not available for CY, CZ, IE and LU, so the most recent data is shown.

Source: Plum Consulting analysis based on Screen Digest, WARC and other broadcasters' data.

<sup>45</sup> Defined as the number of channels established nationally that target local and regional markets. Includes local windows.

Some of these revenues are spent by broadcasters on programming, with the rest spent on other costs of operating pay-television services and channels or taken as profits. Generally, the larger the broadcasting revenues for a country, the larger the amount available to be spent on programming. Therefore the volume and / or quality, in relation to audience appeal, of the programming produced nationally is highest in countries with a well-funded broadcasting sector.

#### 2.2.4 Strength of national programming

National television channels within the EU tend to broadcast a mix of national and foreign programming. Recent data about the origin of programming broadcast on television channels is available only for fiction programming and for certain countries. The proportion of European works by hours in qualifying genres (including fiction) was measured by a study monitoring the implementation of the AVMS Directive, but the proportion of hours in these genres that were national was not. The following section considers each of these proportions in turn.

First, with regard to fiction the proportion of national programming by hours is relatively low, with the majority of programming originating in other EU countries or in the US. The average proportion of hours of feature films, TV films, short films, series, soaps and animation<sup>46</sup> that are national ranged from 26.5% for public service channels to 18.9% for thematic channels, 8.5% for advertising-funded channels and 8.0% for pay-television film channels in 2009<sup>47</sup>. For example, in Germany in 2009 public service channel ARD broadcast 2,184 hours of national fiction (61% of its total fiction hours), major private channel Sat1 broadcast 855 hours (40%) and private portfolio channel RTL2 broadcast 26 hours (1%)<sup>48</sup>. The proportion of programming that is national also varies by country. Data is available for the most EU countries only for the genre of fiction (feature films, TV films, short films, series, soaps and animation). Figure 2-9 shows the proportion of hours of fiction that are national for a selection of channels targeting each country. The larger television markets tend to have the highest proportion of national programming. However, this analysis is sensitive to the choice of the sample of channels which varies in type by country.

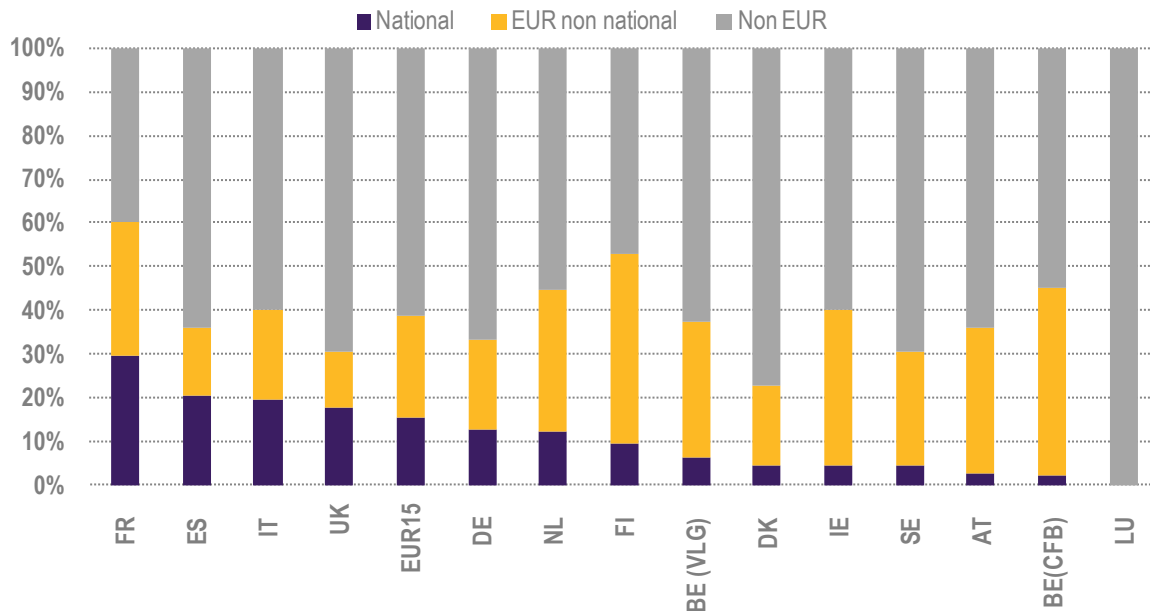
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<sup>46</sup> Data is provided only for these genres. Other genres such as news, documentaries and entertainment are not included.

<sup>47</sup> Source: European Audiovisual Observatory drawing on Infomedia data. Based on a sample of 137 channels in 15 EU countries.

<sup>48</sup> Source: Infomedia and Plum Consulting analysis.

Figure 2-9: Proportion of national hours in the fiction output of a sample of channels, 2009



**Note:** The data for Luxembourg is based on the output of RTL Télé Lëtzebuerg which broadcasts mainly news, factual and teleshopping programming. There is very little or no fiction programming. The 100% non-EU relates to this small (or zero) part of the schedule rather than the total output of the channel.

**Source:** Plum analysis on the basis of European Audiovisual Observatory, Yearbook 2010 which draws on Infomedia data.

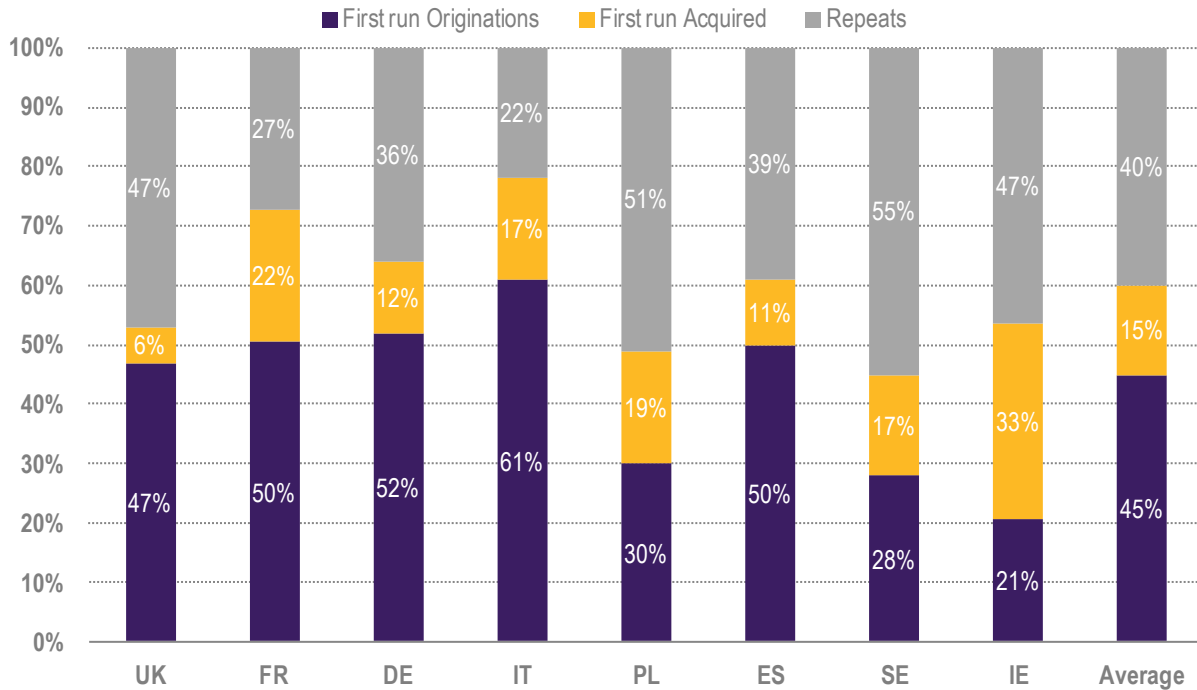
Second, under a wider definition including the genres of fiction and all others except news, sports, games, advertising, teletext and teleshopping, the proportion of European works is 68.3%. This definition relates to Article 16 of the AVMS Directive which states: *Member States shall ensure, where practicable and by appropriate means, that broadcasters reserve for European works a majority proportion of their transmission time, excluding the time allotted to news, sports events, games, advertising, teletext services and teleshopping.* The main difference between this and the base for Figure 2-9 is the inclusion of entertainment and factual entertainment (e.g. cooking, gardening, travel) programming. Qualifying programmes under the AVMS Directive definition made up 68.3% of the total transmission hours and 65% of the total viewer hours on all channels studied in a 2007 survey<sup>49</sup>.

As larger markets support the largest number of channels, they will also generate the largest overall volume of national television hours.

Finally, considering the total schedule including fiction and other genres such as entertainment, news and sport, it is probable that the proportion of national programming is larger. Figure 2-10 shows the proportion of total hours that are first run originations (tend to be national), acquisitions (tend to be non-national) and repeats (may include both) for a sample of countries. Ireland and Sweden, the smallest countries in the sample, show the lowest proportion of originated programming, suggesting that the output of their national channels is the least distinctive and most reliant on non-national programming. This is consistent with the pattern for fiction programming discussed above.

<sup>49</sup> Study on the application of measures concerning the promotion of the distribution and production of European works in audiovisual media services (i.e. including television programmes and non-linear services)", Attentional, May 2009 - [http://ec.europa.eu/avpolicy/docs/library/studies/art4\\_5/final\\_report.pdf](http://ec.europa.eu/avpolicy/docs/library/studies/art4_5/final_report.pdf)

Figure 2-10: Proportion of first run originations, acquisitions and repeats by country, 2009<sup>50</sup>



Note: The 'average' figures represent a weighted average of the data illustrated in the chart.  
 Source: Ofcom International Communications Market Report 2010.

### 2.2.5 Relative strength of channels by country

In conclusion, there is variation in the volume, national distinctiveness and funding of the national channels available in each country. The larger national television markets tend to support the largest volume of national channels, the most nationally distinctive programming and the best-funded sector. Table 2-2 lists by country the number of national television channels available, the proportion of programming<sup>51</sup> that is national, and the revenues of the broadcasting sector. On this basis an assessment is made of the overall strength of the set of national and local channels originating in each market.

<sup>50</sup> The data refers to the following channels in each country: UK - BBC 1, BBC 2, ITV 1, Channel 4, Channel 5, S4C Digital; FR – France 2, France 3; DE – ARD 1 (Das Erste), ZDF; IT – RAI1, RAI2, RAI3; PL – TVP1, TVP2; ES RTVE LA1, RTVE LA2; SE – SVT1, SVT2; IE - RTE 1, RTE 2.

<sup>51</sup> Including only feature films, TV films, short films, series, soaps and animation.



Table 2-2: Overall strength of distinctive national television output by country

Country	Number of national channels, 2010 <sup>(1)</sup>	Proportion of fiction hours that are national, 2009 <sup>(2)</sup>	Annual broadcasting sector revenues, 2009 (€m)	Overall strength of distinctive national TV channel output
UK	578	17.9%	14,386	VERY HIGH
FR	230	29.7%	11,145	
IT	423	19.6%	8,674	
DE	235	12.5%	15,043	
ES	171	20.4%	5,729	
NL	110	12.4%	3,047	HIGH
PL	63	-	2,560	
RO	111	-	1,056	
PT	67	-	2,360	
BE	85	3.8%	2,219	
FI	35	9.6%	993	
SE	67	4.3%	1,889	
AT	72	2.7%	1,484	
EL	49	-	1,204	MODERATE
DK	27	4.6%	1,573	
HU	36	-	1,013	
BG	78	-	536	
CZ	49	-	956	
SI	41	-	323	
SK	26	-	749	
IE	11	4.5%	1,098	
LV	27	-	76	LOW
LT	13	-	108	
CY	28	-	126	
MT	32	-	0	
EE	10	-	85	
LU	17	0.0%	39	

**Notes:** (1) Number of channels established nationally that target the national market excluding local channels and windows. (2) Refers to a selection of channels in each country. Data is not available for all countries.

**Source:** Plum Consulting analysis based on data from the European Audiovisual Observatory, Infomedia, Screen Digest, WARC and other broadcasters.

The UK, France, Italy, Germany and Spain have strong and distinctive national channels. The Netherlands, Poland, Romania, Portugal, Belgium, Finland and Sweden have moderately strong national channels, compared to the mean for the EU 27. Austria, Greece, Denmark, Hungary, Bulgaria, the Czech Republic, Slovenia, Slovakia and Ireland have relatively less strong national channels. Latvia, Lithuania, Cyprus, Malta, Estonia and Luxembourg have relatively weak national channels.

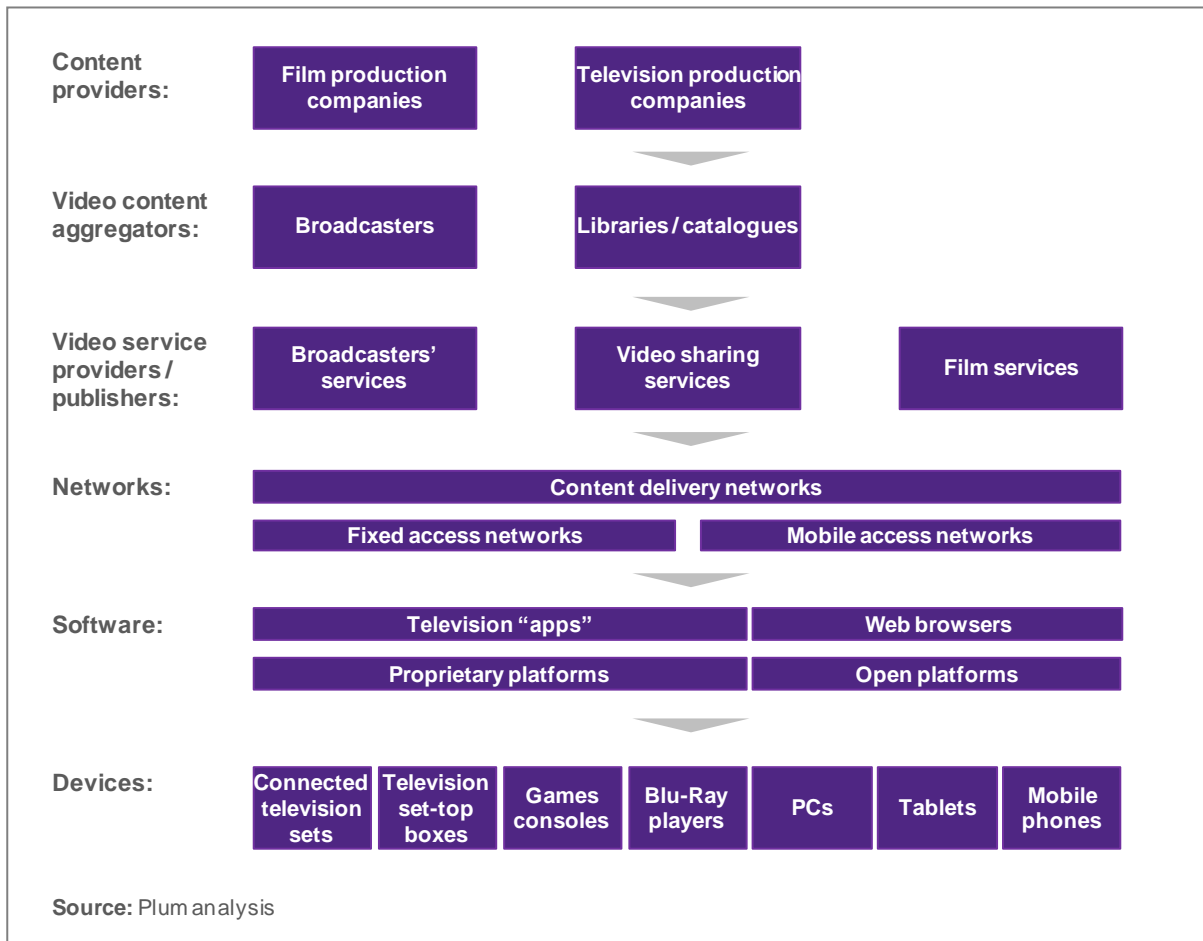
It is possible that these differences in strength of output of national programming will have an influence on the relative levels of demand for these services cross-border.

### 2.3 On-demand and streamed internet video services

Internet-distribution is an attractive model for services of niche appeal, including cross-border audiovisual media services, as fixed infrastructure costs are relatively low. In addition, the global reach of the internet means that these services can be used to target audiences throughout the EU. However, this is dependent on sufficient bandwidth and quality of service to support these services being provided in networks. Furthermore, one-to-one streaming of content over the internet enables flexible pricing models such as pay-per-view, provided that rights are made available to facilitate these models. This may appeal to consumers who wish to occasionally view content from other EU countries. Though the terms of reference of this study relate to *subscription-based* services, pay-per-view is included here for completeness.

On-demand and live streamed internet video services include a range of different activities, which Figure 2-11: shows in relation to the value chain.

Figure 2-11: Activities involved in the internet video value chain, simplified



There is an increasing diversity of devices and software that can be used to access internet-delivered video services. These range from the use of web browsers on PCs and mobile devices<sup>52</sup> to the use of proprietary software on internet-connected television set-top boxes. There is also an increasing provision of internet video services: there were 165 pure online video-on-demand services in June 2010 compared to 159 in December 2008<sup>53</sup>. In addition, there are a large number of services that operate in a hybrid model (online and on other platforms). Overall, the range includes services provided free-to-view, with or without advertising, pay-per-view, or as a subscription service, either standalone or as an add-on to a pay-television or film rental service.

The devices, software and connectivity shown in Figure 2-11: are enablers for access to internet video services, including any potential cross-border services. Therefore the uptake of these enablers will have an impact on the potential demand for cross-border audiovisual media services delivered over the internet. The growth in uptake of these enablers is discussed in Section 2.3.1.

The provision of the internet video services described in Figure 2-11: is relevant to this study in two respects. First, some services or elements of these services are available cross-border. The level of

<sup>52</sup> Services delivered over the internet to mobile handsets are considered in this section as these are a subset of the group of internet video services. Though video services could be delivered to mobile handsets using broadcast transmission this would most likely be terrestrial and therefore unsuitable for cross-border distribution.

<sup>53</sup> Source: OBS. Excludes adult content services, catch-up services and channels on video sharing platforms.

this availability, current and future, will have an impact on the demand for other cross-border services. For example, if consumers are able to access a good selection of free video content originating from another EU Member State over the internet, they may be less willing to pay for similar content provided in a subscription-based satellite service originating from that Member State. Second, any services or elements of services that are not available cross-border could be provided cross-border in future. Both of these aspects are discussed in Section 2.3.2.

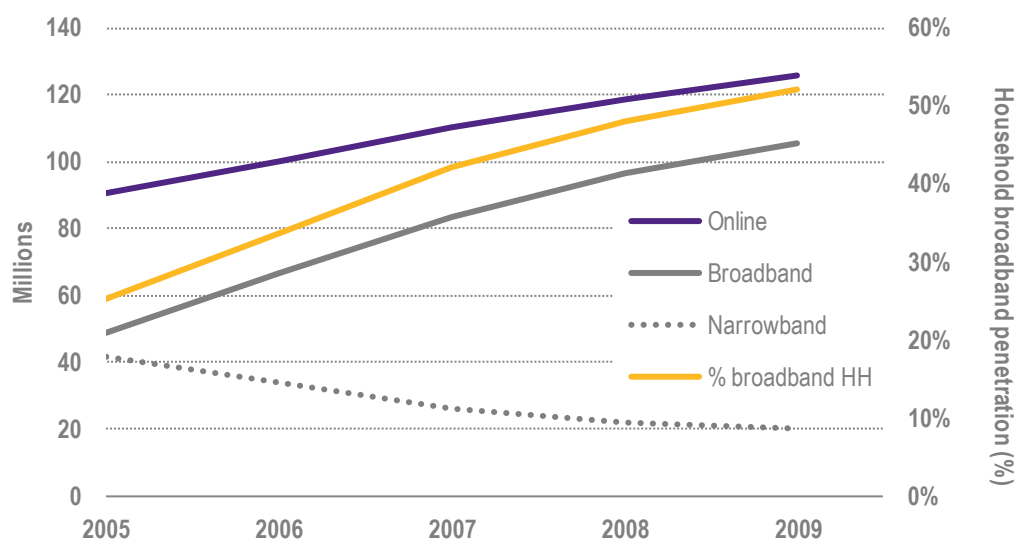
Section 2.3.2 focuses on services that meet the following criteria:

- Services that address the needs of a national market through the inclusion of national content, local language versions of foreign content and an EPG in the local language.
- Services that supply professionally produced content. Services that supply only user-generated content are excluded. However, platforms that are primarily focused on user-generated content (e.g. YouTube) are relevant to the extent that they provide professional content supplied by national broadcasters (e.g. Channel 4 catch-up services are available to UK users of YouTube).
- Services provided under free, pay-per-view and subscription models as all of these services could be provided under a pay model if offered cross-border.

### 2.3.1 Uptake of devices, software and connectivity

There is an increasing penetration of broadband within the EU, enabling internet delivered video services for a larger proportion of households. Figure 2-12: describes the historic growth in broadband penetration in the EU 27. Penetration is likely to increase, though at a decreasing rate, as availability increases and costs decrease.

Figure 2-12: Broadband and narrowband households, EU 27

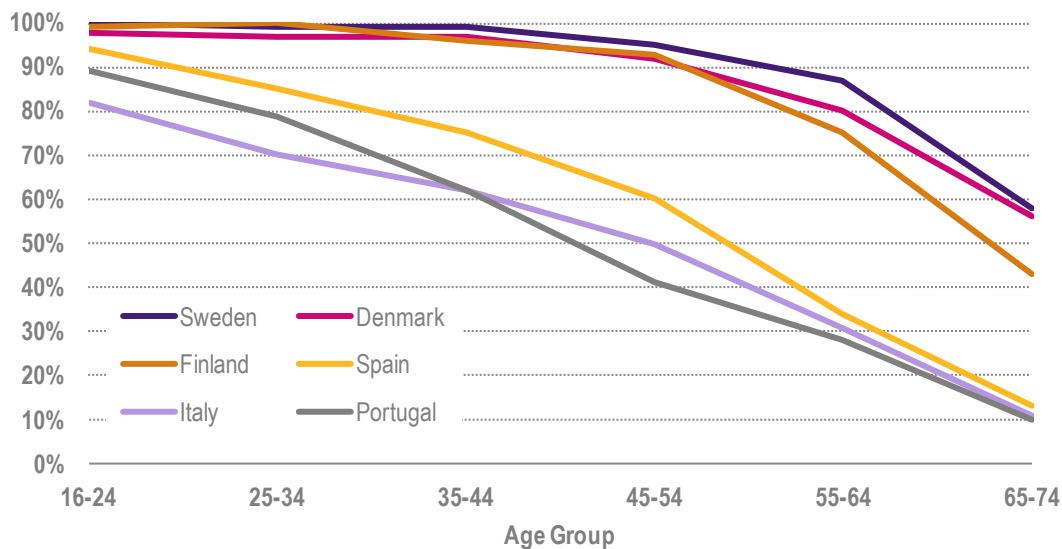


Source: Plum Consulting, Eurostat, Screen Digest.

However, there are significant variations in the uptake and use of the internet by country and age group. Figure 2- shows the variation for a sample of countries. There is generally least use of the

internet among older age groups and people in southern European countries. It is likely that similar variations will be seen in the use of the internet to access video services.

Figure 2-13: Proportion of individuals who used the Internet in the last three months by age, 2010

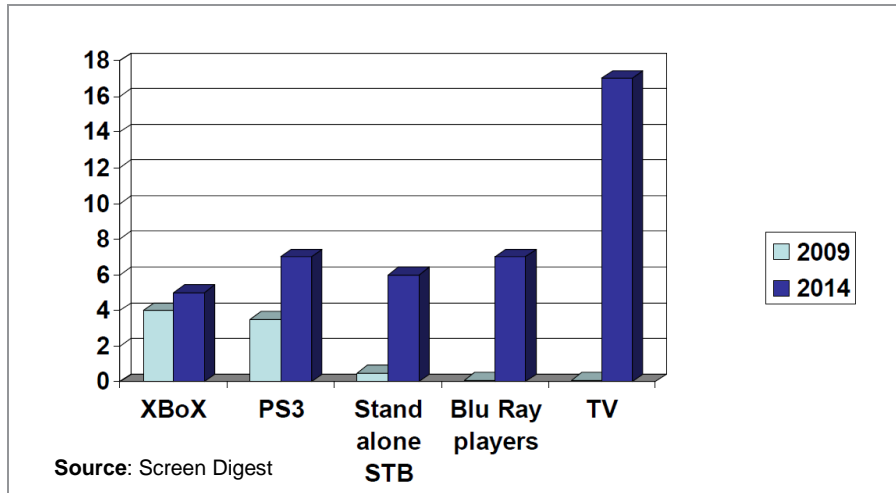


Source: Plum Consulting, Eurostat.

To-date the majority of devices connected to these networks have been PCs, laptops and mobile devices. However, an increasing range of devices are equipped to support internet connections. Of particular relevance to this study is the growth in the number of television sets connect to the internet directly or via other devices (e.g. set-top boxes, games consoles). The reason is that when viewed on the television set internet-delivered video services are able to deliver a similar experience, with respect to display, as more established forms of pay-television.

The number of connected television sets will increase significantly over the coming years. Figure 2-14 describes forecast growth in the number of devices in France, Germany and the UK. Over the mid-to-long term connected television sets will be the main driver of connectivity.

Figure 2-14: Number of devices connecting television sets to the internet, 2009 and 2014 (millions)



There has already been some interest in the idea of using connected television sets to provide services targeted at niche populations, including migrants within the EU. For example, Mediapool (an aggregator of foreign channels for the German market) and Teveo (a technology company) developed 'International TV' content platform based on the HbbTV standard for set-top boxes<sup>54</sup>.

### 2.3.2 Provision of services

This section describes the current and potential future provision of internet-based audiovisual media services, and the availability of these services cross-border within the EU. The analysis excludes user-generated content as this tends to attract lower willingness to pay than professionally produced content. However, platforms that are primarily focused on user-generated content are included to the extent that they provide professionally produced content (e.g. Channel 4 catch-up and library programming is available to UK users of YouTube). The following types of services are discussed in turn:

- Web services provided by national television broadcasters.
- Web services provided by pay-television service providers and other aggregators.
- Localised versions of web services provided by trans-national operators.

The practices of file sharing and internet retransmission of programming and channels are also discussed.

#### Websites of national television broadcasters

In September 2009, the European Audiovisual Observatory published an extensive study into on-demand television<sup>55</sup>. This included a review of the provision of catch-up services in the UK, France, Germany, Italy and Sweden. The market is very fast moving and has changed since the EAO report

<sup>54</sup> [http://www.teveo.de/no\\_cache/en/einzelansicht-medienecho0/news/uid71871-international-hbbtv-platform-from-teveo-and-mediapool/](http://www.teveo.de/no_cache/en/einzelansicht-medienecho0/news/uid71871-international-hbbtv-platform-from-teveo-and-mediapool/)

<sup>55</sup> Vidéo à la demande et télévision de rattrapage en Europe.

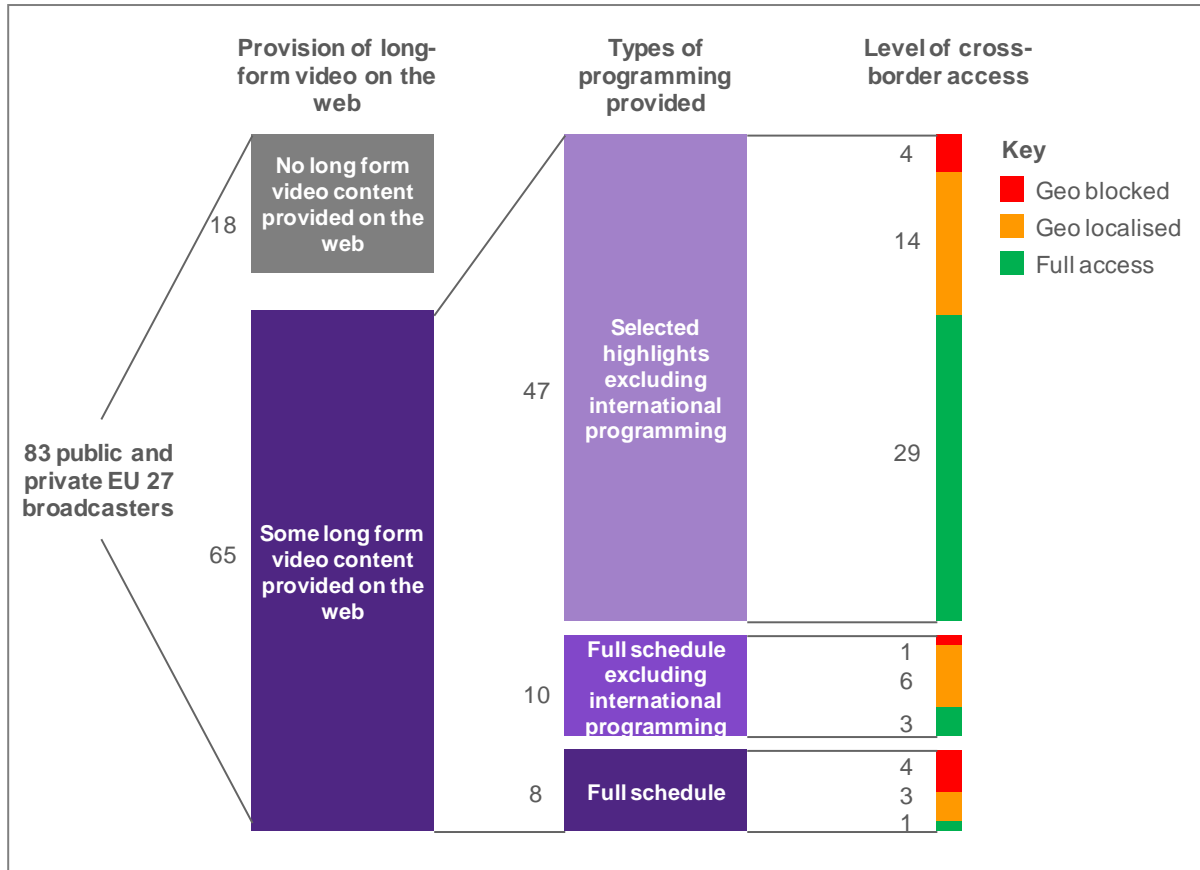
was published, so we undertook a brief survey of broadcasters' websites in order to understand the current provision.

The resources of this project did not allow for an exhaustive analysis of the provision of web-based long-form video services by broadcasters in each country. However, we were able to conduct a short review to develop an approximate "snapshot" of these services by:

- Viewing the websites of the top three domestic broadcasters in each EU country, as measured by television audience share.
- Identifying any on-demand and live streamed long-form video services.
- Scanning the lists of available content to assess the window from which the content comes (catch-up, library), the extent of content provided (full schedule, schedule with exclusions, highlights only).
- Attempting to access selected content from the service to assess the level of geo-localisation. The services were accessed from the UK. It is possible that the level of access provided to UK users differs from the level of access available to users in other EU foreign countries.
- Identifying the business model(s) used by each service: free without advertising, free with advertising, subscription or pay-per-view.

This approach is sufficient to give a broad indication of the present nature of supply of services. However, owing to the sample based nature of the review it is possible that some features of individual services may not have been captured. Figure 2-15: Provision of web-based long-form video services by major broadcasters, May 2011 shows the results of the review.

Figure 2-15: Provision of web-based long-form video services by major broadcasters<sup>56</sup>, May 2011



The main findings of this review are that:

- About three-quarters of the broadcasters reviewed provide some long-form video content on their websites.
- Of these, about two-thirds provide only content from the “catch-up” window (content that was broadcast in the last one to four weeks). About a third offer “catch-up” and some library content.
- 71% of the broadcasters with a service provided only selected highlights from their schedules and excluded international programming, especially US content, international sports and music events. 15% provided access to the broadcast schedule excluding international programming, while 12% provided access to the full schedule. The services offering the most complete set of programming tended to operate in the larger countries (e.g. BBC iPlayer in the UK, RTL Now in Germany and SVT Play in Sweden).

<sup>56</sup> Based on a review of the websites, if any, of the top 3 broadcasters in each country measured by television audience share. The broadcasters covered include: ORF, SAT.1 Österreich, ProSieben Österreich, RTBF (La Une, La Deux). AB3, Één, Canvas, VTM, Kanal 1 (BNT 1), bTV, Nova TV, RIK (1&2), Sigma. ANT1, CT1 & CT2, TV Nova, Prima, ARD, ZDF, RTL, DR1, TV2 Danmark, Kanal 5 Danmark, ETV, Kanal 2. TV3 Estonia, TVE La Primera, Telecinco, Antena 3, YLE1 & YLE2, MTV3, Nelonen, France 2, TF 1, M6, Mega, Antenna 1, Alpha TV, RTL Klub, TV2, M1, RTE One & Two, TV3, RAI Uno, Canale 5, Italia 1, TV3, LNK, LTV, RTL Tele Letzebuerg, TF1, PRO 7, LNT, TV3, Perviy Baltiysky Kanal Latvia, TVM, OneTV, RAI Uno, Nederland 1, SBS 6, RTL, TVP 1 & 2, Polsat, TVN, TVI, RTP1, SIC, PRO TV, Antena 1, Realitatea TV, SVT1, TV4, TV3, Pop TV, TVS 1, Kanal A, TV Markiza, TV Joj, Jednotka (STV 1), BBC, ITV, Channel 4.



- 51% of the broadcasters with a service provided full cross-border access to it: geo-localisation of access to the video content was not used. 35% used geo-localisation to restrict access to certain types of content. Typically, access to US content, international sports and music events is blocked in this way.
- The services that are not geo-localised or blocked are typically those that offer only highlights without international programming. The more developed offers tend to be geo-localised, especially with respect to international programming.
- Overall, consumers are able to access some long-form video content cross-border from broadcasters' websites in most EU countries. However, the selection of content available tends to be less complete than the broadcast schedule, especially with respect to international programming. The types of programming that are available on services, or parts of services, that are not geo-blocked are typically news, documentaries, dramas and some TV films. These tend to be nationally-produced.
- Generally, the larger EU countries have the most developed services, though these are most likely to be geo-localised or blocked. The smallest EU countries tend to have the least developed services.
- The majority of services are free-to-view either with or without advertising. Four websites required payment to view long-form video programming, while three offered a mix of free and paid-for content.
- Live streaming of channels is provided by 10 of the websites reviewed, in seven cases without geo-blocking. Examples include Telecinco and Antena 3<sup>57</sup> from Spain, Realitatea TV from Romania and TVS 1 from Slovenia.

Over time we would expect that the level of provision of catch-up, archive and live streaming services to increase, driven mainly by lower costs for broadcasters in terms of bandwidth and technology. The implication is that consumers are likely to be able to view on the internet some long-form video content from other EU countries. However, this is likely to be limited to nationally-produced content for which broadcasters hold rights, with international programming, especially US films and series, sports and music excluded.

### National pay-television service providers

Many national pay-television service providers are looking to extend the availability of their services to multiple devices including PCs, tablets and smart phones. Where developed, these services tend to be offered as part of existing subscription packages, though in some cases the services are available as standalone propositions. Subscriptions and access to the services are typically available only in the target country.

The project team viewed the websites of a sample of 23 major pay-television service providers across the EU, of which 7 currently provide internet-based services including significant amounts of long-form content. These services have tended to develop first in the larger EU countries and Scandinavia. Examples include:

- In the UK, Sky Player offers live and on-demand access to up to 30 channels from the Sky pay-television service on devices including PCs, games consoles and some television set-top boxes

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<sup>57</sup> <http://www.antena3.com/directo>

(e.g. Fetch TV). The service is free to use for subscribers to Sky's satellite pay-television service, though some films are offered pay-per-view. It is also available to non-subscribers, with subscription prices starting at £15 (about €18 per month). The service is available only to residents of the UK and Ireland<sup>58</sup>.

- In France, Canal+ à la demande provides subscribers to the Canal+ channel with access to on-demand content<sup>59</sup>. The service is available on PCs and on the Xbox games console<sup>60</sup>.
- The Canal Digital GO service provides Canal Digital subscribers with access to films and television channels including Canal+, National Geographic, Discovery Channel and Travel Channel from PCs. The service is free for subscribers with packages including the relevant channels, though some content is pay-per-view<sup>61</sup>.
- Viasat operates the Viaplay service which provides access to the content of the Viasat satellite service in Scandinavia<sup>62</sup> over the internet on devices including PCs, iPhones, Android phones, iPads and internet-connected television sets. Viaplay is available to Viasat subscribers and as standalone "over-the-top" subscription proposition<sup>63</sup>.
- Sky Deutschland provides subscribers to its satellite pay-television service with access to SkyGo, which offers live streaming and on-demand access to some channels on PCs, iPhones and iPads, in addition second television sets<sup>64</sup>. The cost is €12 per month after an initial 30-day free period<sup>65</sup>.
- Cyfrowy Polsat provides subscribers to its satellite pay-television service with access to Video Zone, an online catch-up service that includes up to 20 channels including Polsat Sport, Polsat Jim Jam, Fox and National Geographic Channel<sup>66</sup>.
- In Italy, the Mediaset Premium Net TV<sup>67</sup> service is available to subscribers of the Mediaset Premium pay-television package. It includes access to a variety of on-demand content.

It is probable that the proportion of pay-television operators offering internet-based services will increase over time as they seek to meet consumer demand for access to services across multiple devices and to target additional markets addressable through "over-the-top" provision. All of these services could potentially be offered cross-border within the EU.

### National over-the-top (OTT) video service providers

There are a large number of national internet-based "over the top" video services operating in the EU. These are defined as services that are offered over the internet not by the network operator (as is the case with operators' IPTV services), but by a third-party service provider.

<sup>58</sup> The Channel Islands, and Isle of Man are also included.

<sup>59</sup> <http://canalplusalademande.canal-plus.com/vodpc/accueilEdito/accueilEdito.html>

<sup>60</sup> <http://media.canal-plus.com/file/24/3/161243.pdf>

<sup>61</sup> <http://www.canaldigital.se/Utbud/Parabol/Artiklar/Hyrfilm-On-Demand-via-datorn/>

<sup>62</sup> The service is available in Denmark, Finland, Norway and Sweden.

<sup>63</sup> <http://viaplay.se/>

<sup>64</sup> <http://www.sky.de/web/cms/de/sky-go.jsp>

<sup>65</sup> <http://www.sky.de/web/cms/de/abonnieren-preisinfos.jsp>

<sup>66</sup> [http://www.digitaltveurope.net/news\\_articles/apr\\_11/14\\_apr\\_11/polsat\\_launches\\_online\\_catch-up](http://www.digitaltveurope.net/news_articles/apr_11/14_apr_11/polsat_launches_online_catch-up)

<sup>67</sup> <http://nettv.mediasetpremium.it/>

Most of these services are pay-per-view film and television services, though some services also offer a subscription model. The services are operated by television broadcasters, film distributors and start-ups.

Table 2-3: Examples of “over-the-top” video-on-demand services<sup>68</sup>

Country	Service	Content type	Pricing model
BE	iWatch	Film and television	Pay-per-view
DE	Maxdome	Film	Pay-per-view
FR	UniversCiné	Film (French)	Pay-per-view
UK	Lovefilm	Film and television	Subscription
UK	Blinkbox	Film	Free ad-funded and pay-per-view
UK	SeeSaw	Television	Free ad-funded and pay-per-view

### Localised services of major trans-national operators

Several trans-national operators provide internet-based audiovisual media services that target customers in several countries within the EU. These companies are mainly major international technology and media companies, including Apple, Microsoft, Sony, YouTube and Vivendi. The services available in each country, if any, tend to be localised for the national market and consumers tend not to be able to access or use the versions targeted at other countries. The main services of this type include:

- **YouTube** has developed local versions for the following EU countries: Czech Republic, France, Germany, Ireland, Italy, Netherlands, Poland, Russia, Spain, Sweden and the United Kingdom<sup>69</sup>. These versions are in the national language and include content from national broadcasters and / or producers. For example, the UK version includes catch-up long-form video content from Channel 4. Visitors to YouTube.com from these countries have the choice of the national version of the site or a worldwide version. National versions from other EU countries are not accessible.
- The **Apple iTunes Store** is a digital distribution platform that sells content, including audiovisual material, that can be played on iPods, iPhones, iPads, Apple TV, PCs and Macs. Separate stores were provided in the following EU countries in December 2008: Austria, Belgium, Denmark, Finland, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal, Sweden and the UK. However, television programming was available only in the France, Germany and the UK, and film only in the UK<sup>70</sup>. By 2011 Apple iTunes Film was available in 28 European countries. The catalogues of national iTunes stores can be viewed from any country, though purchase is limited to the national store through a system of filtering based on the location of the customer’s credit card.
- Users of Microsoft Xbox games consoles are able to download pay-per-view film and television programmes (mainly US originated) provided on the **Xbox Live** service in France, Germany, Italy,

<sup>68</sup> Source: Plum Consulting based on analysis presented in Vidéo à la demande et télévision de rattrapage en Europe, European Audiovisual Observatory, 2008.

<sup>69</sup> Vidéo à la demande et télévision de rattrapage en Europe, European Audiovisual Observatory, 2008.

<sup>70</sup> Vidéo à la demande et télévision de rattrapage en Europe, European Audiovisual Observatory, 2008.

Spain and the UK. Users in some markets are also able to access third-party subscription services: Netflix in the US, Sky Player in the UK<sup>71</sup> and Canal+ in France<sup>72</sup>. The system is territorial, with available content filtered according to location. In 2007 Microsoft announced that it would take action against accounts set up illegally for the purpose of downloading content from other regions<sup>73</sup>.

- Vivendi Mobile Entertainment operates the **Zaoza**<sup>74</sup>, an internet-based subscription film and music download service. Zaoza is currently available in France and Germany and accessible on PCs and iPhones, though it intends to extend the service to internet-connected television sets<sup>75</sup>. Different versions of the service are provided in Germany and France.

Therefore, local versions of the services of trans-national operators could potentially be provided to customers in other countries as a cross-border audiovisual media service.

### Internet re-transmission of television channels

Some free-to-view channels are available streamed over the internet by retransmission services such as Zattoo.com, TVcatchup.com, Livestation.com and Filmon.com. However, these services have faced legal and commercial challenges. For example, the major UK broadcasters have brought a copyright case against TVcatchup.com<sup>76</sup>. In Belgium, Zattoo discontinued its service, possibly for commercial reasons relating to licence fees<sup>77</sup>.

Nevertheless, these services continue operating in some countries and there is provision of some channels cross-border. For example, Zattoo.es, the Spanish version of the website, retransmits the Polish national channel TVP as well as Deutsche Welle and France 24 channels which are intended for international distribution.

These services may reduce the potential demand for cross-border audiovisual media services, especially in relation to paying for services that are free to view in the domestic market.

### Internet piracy

There is widespread piracy of copyrighted audiovisual content on the internet. The forms of piracy are varied, ranging from posting copyrighted material on content sharing websites to P2P file sharing, the most common practice. Research compiled by Eurostat<sup>78</sup> found that of individuals who have downloaded audiovisual or music content online in the past three months, 29% reported doing so without paying. Among the 16-24 year old age group this proportion was 60%. However, this research did not distinguish between free and pirated content.

P2P file sharing is facilitated by protocols and programs (e.g. BitTorrent, Gnutella and WinMX) which enable the transfer of files, together with directory sites (e.g. Pirate Bay, Mininova) that index the

<sup>71</sup> <http://www.xbox.com/en-IE/Live/SkyPlayer/Home>

<sup>72</sup> <http://media.canal-plus.com/file/24/3/161243.pdf>

<sup>73</sup> <http://www.Xbox365.com/news.cgi?id=GGiLrdLGGi05051635>

<sup>74</sup> <http://www.zaoza.fr/> and <http://www.zaoza.de/>

<sup>75</sup> Vivendi Universal presentation at the Connected TV Summit, 19 May 2011.

<sup>76</sup> <http://paidcontent.co.uk/article/419-in-online-tv-re-streaming-uks-tvcatchup-dealt-a-legal-blow/>

<sup>77</sup> <http://paidcontent.org/article/419-live-streaming-tv-site-zattoo-stops-belgian-service/>

<sup>78</sup> Source : EUROSTAT Community Survey on ICT usage in households and by individuals (2008 – Version 28.4.2009)

works that are available. There is no technical restriction on the cross-border sharing of files in this way.

With regard to this study, an important question is the level of availability of pirated audiovisual content originating in different countries within the EU and of content adapted to the language of these countries. We found that the majority of audiovisual content listed on directory sites appears to be US originated films and television series. The amount of European content is more limited, but major films and television series tend to be available.

US and non-national European films and television programmes that have been released or broadcast in the local language version tend also to be listed on file sharing directory sites in this language version. In addition, there is a phenomenon of users creating and sharing their own subtitle files<sup>79</sup>. These can be used alongside audiovisual files in the original language version. The study team found that these subtitling files are widely available for major US films and series in a wide range of EU 27 languages. This practice may relate especially to the pirated viewing of US material in the window before professionally translated versions are released in EU countries.

In summary, people resident in an EU Member State other than their country of origin who use illegal file sharing would be able to access popular US and European audiovisual content subtitled and / or dubbed into their mother tongue. They could also access some of the more popular films and television programmes from their country of origin, but probably only a selection of programmes from the schedules of national broadcasters.

The viewing of content and services shared illegally over the internet may reduce the level of demand for legitimate cross-border pay audiovisual media services. However, to some extent the converse may be true. Piracy could be considered a response to the lack of a legitimate offer.

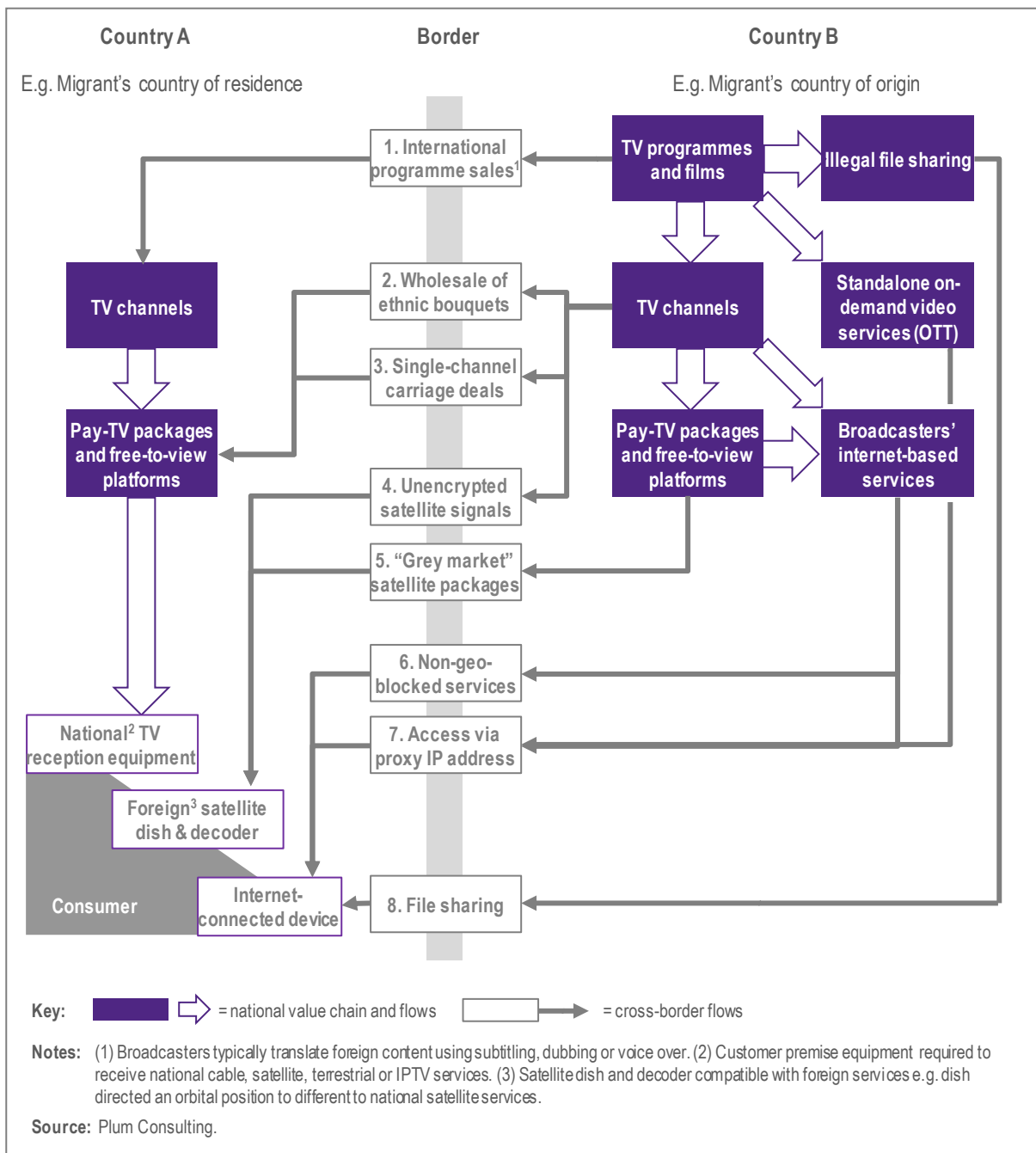
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<sup>79</sup> A subtitle file (most commonly an srt file) is downloaded separately from the video file, it is then placed in the same folder as the video with the same name and certain media players automatically combine the two (other players may need an add on).

### 3 Supply of cross-border content and services

The market and, more especially, public service broadcasters currently supply consumers with some audiovisual content and services from other EU countries. Figure 3-1 shows the variety of ways in which this happens. The following sections explain each of these ways, with the exception of some internet-based services that were covered in Section 2.3.2.

Figure 3-1: Cross-border flow of audiovisual content and services (simplified)



With regard to the extent of this supply, there are overall a large number of individual programmes, channels and audiovisual packages that can be accessed cross-border within the EU. However, this supply is limited to certain countries of origin and destination, to a certain portion of the audiovisual output of countries of origin and to certain distribution platforms or channels in countries of destination. Therefore, the availability of video content from other EU countries depends greatly on which country a consumer is resident in, which country they seek content from and which distribution platform they happen to use. Consistent data is not available to allow us to make a complete quantitative analysis in terms of either hours of content supplied or potential audience. However, Table 3-1 shows makes a highly approximate qualitative comparison of the relative extent of supply by type.

**Table 3-1: Relative extent of cross-border supply of video content by type**

Method of supply	Extent of supply				
	Proportion of countries – by source	Proportion of countries – by destination	Availability within countries supplied <sup>(1)</sup>	Amount of content <sup>(2)</sup>	Type of content
International programme sales					National film, fiction series & documentaries in translation.
Wholesale of ethnic bouquets					Mainly nationally-produced programming (e.g. news, fiction, factual). Relatively low levels of international programming in translation.
Single-channel carriage deals					
Unencrypted satellite signals					
Non-geo blocked internet-based services					
	Key:	= Low	= High		

**Notes:** (1) Availability with respect to the number and geographic reach of the platforms on which the content / service is supplied and any need for specific technology to access the service. (2) Relative number of hours – based on highly approximate comparisons.

**Source:** Plum Consulting analysis.

In large part, the pattern of supply can be explained by the way in which rights are licensed. Premium content such as major (US) films and international sports events, among other content types, have audience appeal in several EU countries. Rights holders tend to license this content on an exclusive basis to different broadcasters in each country (this practice is explained in more detail in Section

7.2.1). In most cases this prevents these broadcasters from distributing their channels cross-border, or in the case of internet-based services from granting cross-border access to those programmes licensed only for the national territory. The channels that are most widely distributed cross-border tend to have relatively high proportions of nationally-produced content and use dubbing as the language transfer practice for international programming.

As a consequence the type of programming that is most widely available cross-border tends to be nationally produced programming, especially programming that has limited mass-market appeal beyond national borders (e.g. news, factual programming of local interest). Rights holders tend not to license this content on a territorial basis. In summary, the current cross-border supply of video content and services includes:

- Foreign programmes that are transmitted by domestic broadcasters (international programme sales). The proportion of non-national EU programming by hours in the schedules of a sample of broadcasters varies from 2% to 35% in the countries for which data is available (see Section 3.1). This programming originates predominantly in the UK, France, Germany, Spain and Italy and tends to be shown in translation.
- Foreign channels that are carried as part of domestic cable, satellite and IPTV packages. The main public service channels from each country are the most widely distributed channels. For example, RAI 1, TVE Internacional and France 24 are each available on at least one platform in 21 countries. Private channels are less widely distributed (on average in 2.2 countries for the major 2 channels from each country). Distribution is by cable retransmission and / or satellite. In the case of the former, and IPTV distribution, availability is limited by the geographic reach of the networks of the relevant providers.
- Unencrypted satellite broadcasting of national channels. Channels that are broadcast unencrypted on satellite can be received in EU countries other than the target market, within the limits of satellite footprints. Examples include ARD, the BBC, RAI and Duna TV. However, in practice it may not be convenient for consumers to set up a specific satellite dish to receive just these services.
- Internet based services. About three-quarters of a sample of the top three broadcasters in each country by audience share provided some long-form video content on their websites<sup>80</sup>. 51% of the broadcasters with a service provided full cross-border access to it: geo-localisation of access to the video content was not used. 35% used geo-localisation to restrict access to certain types of content. Typically, access to international content was blocked, and access to the most well developed services was the most restricted. The low fixed costs of internet distribution are stimulating increasing provision of services that target demand for video content from other EU countries e.g. subscription-based BBC iPlayer global iPad application.
- DVD. Consumers may buy film and television content from other EU countries on DVD.

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<sup>80</sup> Source: Plum Consulting analysis of broadcasters' websites, May 2011.



## 3.1 Broadcast television services

### 3.1.1 Reach of satellite services

Satellite broadcasting transmissions cross many borders. The reach of satellite transmissions determines where current and potential new cross-border services can be received. There is some limitation of coverage owing to the footprint of the satellites used for distribution which excludes, in some cases, peripheral countries. For example, Figure 3-2: shows the footprint of Astra satellite 1KR at orbital position 19.2° East which broadcasts channels from the Canal+ service among others. In this case all mainland EU 27 countries except Cyprus are covered.

Figure 3-2: Footprint of Astra 1KR<sup>81</sup>

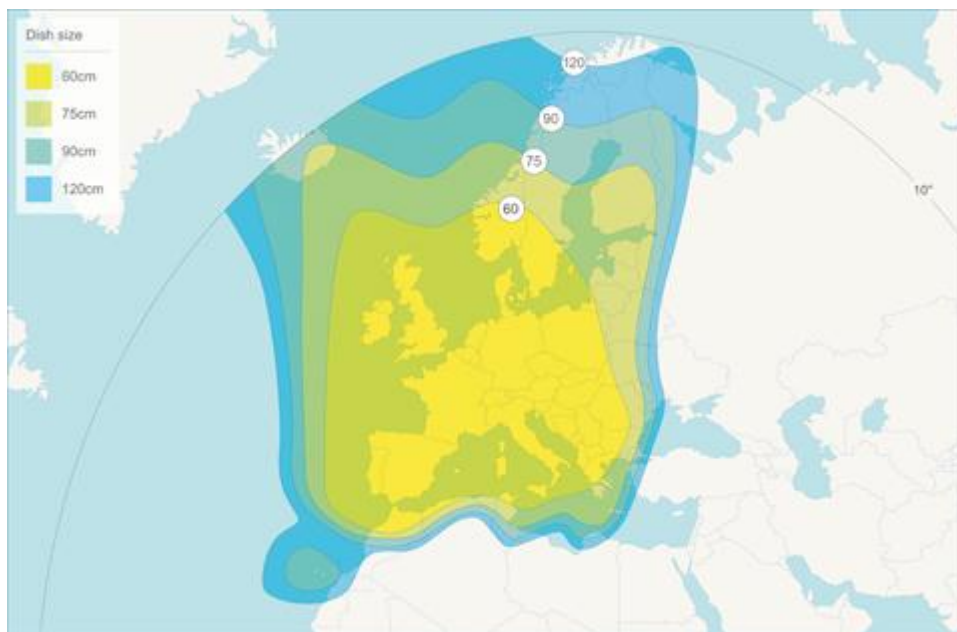


Table 3-2 summarises the coverage of the footprints of the satellites used to broadcast channels included on the main pay- and free-to-view satellite television services in the EU. The coverage refers to countries in which the full set of channels carried on a service can be received using a 120cm diameter satellite dish. Some pay-television services carry channels broadcast from two or more satellites with different footprints. In these cases some, but not all, channels carried on the service may be available in a wider set of countries. Many of the countries listed would also be able to receive signals using a 60cm dish, with 120cm being required mainly at the fringes of the region as shown in Figure 3-2 with respect to Astra 1KR.

The majority of EU 27 satellite pay-television services are available in full in all EU 27 countries or in all countries except Cyprus, which lies at the geographic extreme of the region, with the use of a 120cm dish. Some services targeted at the Nordic and Eastern European regions are available in a smaller set of countries. For example, the full set of channels carried on the Viasat service is not

<sup>81</sup> Source: SES Astra. <http://www.ses-astra.com/business/en/satellite-fleet/satellite-list/astra1kr/index.php>

available in Greece, Bulgaria, Spain, Italy or Ireland. Satellite services originating in the UK have the most limited availability. The full set of channels carried on the Sky and Freesat services is not available in much of southern and eastern European and the Nordic region. This relates mainly to the use by the BBC, ITV and Channel 4 of the Astra 2D satellite, which has a spot beam specifically focused on the UK. Many other channels on the Sky service are available more widely across the EU.

Table 3-2: Reach of reception with a 120cm dish of full<sup>82</sup> satellite pay-TV packages in the EU

<b>All EU 27</b>	<b>All EU 27 except Cyprus</b>	<b>All EU 27 except Finland &amp; Estonia</b>
BE TeleSat numerique	AT ORF Satelit	BG Bulsatcom
BG Total TV Bulgaria	AT Sky Osterreich	RO Dolce
BG Vivacom	AT Austria Sat	
CY Nova	BE TV Vlaanderen	<b>All EU 27 except IE, ES, PT, FI, LV, LT, EL, CY, MT</b>
DE Alles Sehen TV	BE TeleSat numerique	CZ CS Link
EL Nova	BE Mobistar	CZ SkyLink
FR Bis TV	CZ Digi TV	SK Skylink
FR Orange	CZ UPC Direct	
HU Hello HD	DE HD+	<b>All EU 27 except IE, PT, ES, EL, BG, CY, MT</b>
IT Sky Italia	DE Sky Deutschland	DK Viasat
IT TivuSat	ES Digital+	EE Viasat
LU TeleSat Luxembourg	FR Bis TV	FI Viasat
NL Canal Digitaal	FR CanalSat France	LT Viasat
PL Cyfrowy Polsat	FR TNT Sat	LV Viasat
PL Cyfra+	FR Orange	SE Viasat
PL N	FR Fransat	
PL Telewizja na karte	HU Digi TV	<b>All EU 27 except PT, ES, IE, GB, FR, BE, NL, LU, MT, CY</b>
PL Orange Polska	HU UPC Direct	HU T-Home
RO Akta TV	LU TeleSat Luxembourg	RO Boom TV
SI Total TV	NL Canal Digitaal	SK Magio TV
	PT Meo	
	PT TV Cabo	<b>All EU 27 except PT, ES, IT, SI, EL, CY, BG, MT</b>
	RO Digi TV	DK Canal Digital
	SK Digi TV	FI Canal Digital
		SE Canal Digital
		SK UPC Direct
		<b>All EU 27 except PT, SE, FI, EE, LV, LT, PL, SK, HU, RO, BG, EL, CZ, CY, MT, SI</b>
		GB Sky
		GB Freesat
		IE Sky
		IE Freesat

Source: Plum Consulting analysis.

### 3.1.2 Cross border supply of channels pay-television services

There are three ways in which television channels and pay-television services currently cross borders.

- Supply of pay-television services within groups of countries, often neighbours with a common language.
- Unencrypted satellite broadcasting of some national channels.
- Carriage of foreign channels on national pay-television services.

<sup>82</sup> The lists are of countries that can receive the full set of channels on each platform. Individual channels may have a wider reach.

The latter case is likely to be the most significant as it involves the packaging of channels within consumer propositions.

### Supply of pay-television services within groups of countries

Some pay-television services target groups of countries that share a common language. For example, BSkyB which is established in the UK also targets Ireland, while Canal Digital which is established in Norway also targets Sweden, Denmark and Finland. These satellite operators trade via subsidiaries in each country and equip subscribers in each market with different conditional access cards, enabling the operator to differentiate the channels available in each market. Therefore, these services are not truly cross-border as defined in this study. However, these services operate under the same brand in all of their markets and many of the channels carried are the same. This may limit demand for cross-border audiovisual media services within these groups of countries. For example, a Swedish citizen resident in Denmark may have little need for the Swedish version of Canal Digital given that they already have the option of subscribing to the Danish version of Canal Digital, which is very similar.

### Unencrypted satellite broadcasting of national channels

Some national television channels, especially public service channels, are currently available cross-border within the EU. Channels that are broadcast unencrypted on satellite can be received in EU countries other than the target market. Examples include ARD, the BBC<sup>83</sup>, RAI and Duna TV.

However, in practice it may not be convenient for consumers to set up the equipment required to receive these services. The orbital position of the satellite(s) from which each channel is broadcast will not coincide with the position used by the main satellite pay-television service in every other country. In other words, a consumer wishing to receive these channels cross-border would require a dedicated satellite dish. Even in countries where the orbital positions coincide, the public service channel would not have “carriage” on the domestic satellite pay-television service, in which case it would not appear on the EPG. Table 3-3: lists the public service channels broadcast unencrypted and the countries in which signals could be received by satellites oriented at domestic satellite services. In addition, some cable networks may pick up these unencrypted signals and re-transmit them over their networks. This phenomenon is included in Table 3-4.

**Table 3-3: Unencrypted satellite broadcasting of public service channels within the EU<sup>84</sup>**

Country	Channels broadcast unencrypted	Orbital position(s) used
AT	ORF Europe	19.2°E
BG	BNT Sat	23.5°E / 39.0°E / 45.0°E
CY	RIK Sat	13.0°E / 39.0°E
CZ	ČT24	23.5°E / 0.8°W / 1.0°W

<sup>83</sup> The BBC's public service channels (e.g. BBC 1, BBC 2) are transmitted via Astra 2D at 28.2°E which has a footprint that does not cover most of mainland Europe. Reception using a 60cm dish is possible only in the UK, Ireland, Belgium and Luxembourg.

<sup>84</sup> Source: Analysis of the MAVISE database. Note that different channels from each country may be broadcast from different orbital positions.

Country	Channels broadcast unencrypted	Orbital position(s) used
DE	ARD 1 (Das Erste), ARD EinsExtra, ARD EinsFestival, ARD EinsPlus, ZDF, ZDF Infokanal, ZDF NEO, ZDF Theaterkanal	13.0°E / 19.2°E
DE/FR	ARTE	13.0°E / 19.2°E / 5.0°W
ES	TVE Internacional Europa	13.0°E
FR	France 2, France 3, France 5; France 24 (French)	13.0°E / 19.2°E / 26.0°E / 5.0°W
UK	BBC - portfolio, ITV1, S4C	28.2°E / 27°W
HU	Duna TV, Duna 2 Autónomia, M2	9.0°E / 0.8°W
IT	RAI 1, RAI 2, RAI 3, RAI News	13.0°E
NL	BVN	13.0°E / 19.2°E
PL	TVP Info, TVP Polonia	7.0°E / 13.0°E / 19.2°E
RO	TVR International, TVR Cultural, TVR Info, TVR 3	13.0°E / 16.0°E
SI	TVS1, TVS2, TVS3	13.0°E

### Carriage of foreign channels on national pay-television platforms

Some channels from other EU countries are carried on pay-television platforms. These tend to be public service channels rather than commercial channels. This section provides a summary of the provision by country of origin. For the main channels originating in each country the data provided is the countries in which the channel is carried on one or more television platform. This gives a broad indication of dissemination of channels into other EU countries, but not of the availability of these services within each country. For example, services carried on cable networks are geographically limited to the areas covered by the network, which for some operators may be small.

National broadcasters, especially public service broadcasters, have to varying extents developed distribution in other EU countries. This has been driven by demand from pay-television service providers for these channels and / or by the interest of public service broadcasters in spreading national culture and views within the EU. Table 3-4 shows the extent of carriage of EU public service broadcasters within the EU. In each case, the table shows only the channel(s) from each country that is distributed most widely. Public service broadcasters' portfolio channels tend to be carried less widely.

The pattern of distribution also relates to the rights that broadcasters acquire. The channels that are most widely distributed cross-border tend to have relatively high proportions of nationally-produced content (for which the broadcaster may hold all rights) and use dubbing as the language transfer practice for international programming (this may limit the potential for cross-border distribution of this content to compete for the audiences of the same content distributed in other language versions in other markets). For example, 61% of the hours of fiction broadcast on ARD1 in 2009 were national and 39% foreign programming was most likely dubbed (excluding Austrian programming).

Table 3-4: Cross-border carriage of public service channels within the EU

Country	Channel	Countries in which the channel is carried on one or more television platform	
AT	ORF 2 Europe	8	CZ, HU, SK, SI, NL, BE, BG, LU
BE	Één (VRT)	2	LU, NL
BE	La Une (RTBF1)	2	LU, NL
BG	BNT Sat	3	FR, DE, PT
CY	RIK Sat	2	EL, PL
CZ	ČT24	4	SK, HU, RO, NL
DE	ARD 1 (Das Erste)	13	AT, BE, BG, CZ, DK, FR, HU, LT, LU, NL, SK, SI, SE
DE	ZDF	16	AT, BE, BG, CZ, DK, FI, FR, EL, HU, IT, LT, LU, NL, SK, SI, SE
DE/FR	ARTE	15	AT, BE, BG, CZ, DK, EE, FI, HU, IT, LV, LT, LU, NL, SK, SI
DK	DR1	6	DE, EE, FI, LV, LT, SE
EE	ETV	5	DK, FI, LV, LT, SE
EL	ET1	1	CY
ES	TVE Internacional Europa	21	AT, BE, BG, CZ, DK, EE, FI, FR, DE, EL, IT, HU, LT, LU, MT, NL, PL, PT, SK, SI, SE
FI	YLE TV1	3	DK, EE, SE
FR	France 2	17	BE, BG, DK, EE, FI, DE, HU, LV, LT, LU, MT, NL, RO, SK, SI, ES, SE
FR	France 24 (French)	21	AT, BE, BG, CY, CZ, EE, FI, DE, EL, HU, IT, LV, LU, MT, NL, PL, PT, RO, SK, SI, ES
GB	BBC 1	3	BE, IE, NL
HU	Duna TV	8	AT, CZ, FR, DE, RO, SK, SI, SE
IE	RTÉ 1	1	UK
IT	RAI 1	21	AT, BE, BG, CZ, DK, EE, FI, FR, DE, EL, HU, LV, LT, LU, MT, NL, PT, SK, SI
LT	LTV	4	DK, EE, FI, LV
LU	Chamber TV	1	NL
LV	LTV1	5	DK, EE, FI, LT, SE
MT	TVM	0	-
NL	BVN	9	AT, BE, BG, DE, IT, LU, MT, FR, PL
PL	TVP Polonia	19	AT, BE, BG, CY, CZ, DK, EE, FR, DE, HU, LV, LT, NL, SK, SI, ES, SE
PT	RTP Internacional	10	AT, BE, BG, FR, DE, LT, LU, PL, ES, SE
RO	TVR International	9	AT, BE, BG, FR, DE, IT, LU, PL, PT

Country	Channel	Countries in which the channel is carried on one or more television platform	
SE	SVT1	4	DK, FI, LV, LT
SI	TVS1	2	AT, BG
SK	STV1	3	CZ, HU, RO

Typically channels originating in the larger European countries are carried the most widely, though this depends on the distribution strategy of the broadcaster. Examples of broadcasters' approaches include:

- RAI – in 1989 Italian public service broadcaster RAI became the first in Europe to develop satellite services aimed at audiences outside the home nation. In 2007 a European version of the channel was launched<sup>85</sup>. This followed a change in law in 2001 that allows Italian citizens living abroad to vote in elections in Italy by postal ballot<sup>86</sup>. Now several RAI channels are broadcast unencrypted on satellite and carried widely in the EU.
- RTP – Portuguese public service broadcaster RTP launched the RTP Internacional channel in 1992 to reach out to the large numbers of Portuguese speakers worldwide. 90% of the programming comes from RTP's domestic channels, including football and fiction, with 10% supplied by commercial broadcasters SIC and TVI<sup>87</sup>. The channel is carried by platforms in most countries in which large numbers of Portuguese citizens are resident.
- BBC – the UK's main public service broadcaster takes a less international approach with its main channels. In contracts with producers the BBC acquires "simultaneous relay rights" for Belgium, the Netherlands and Ireland which allow BBC1 and BBC2, for example, to be broadcast in these countries, where relays have been in operation over many years. The BBC treats other EU countries as commercial opportunities, for which it has developed the BBC Entertainment pay channel, for example. The exception is the BBC World channel which is distributed freely by BBC World Service, funded by the UK government.

Private channels are carried much less widely on platforms in other EU countries. Of the top two private channels by audience share in each EU 27 country, with the exception of German channels, no channel is carried in more than six other countries, and the average is 2.2<sup>88</sup>. Carriage tends to be on satellite services in neighbouring countries or on cable or IPTV packages which may have limited reach. German private channels RTL, ProSieben and Sat1 are the exceptions: these are carried on at least one platform in 18, 17 and 18 countries respectively. The full table of carriage by channel is in the appendix.

This lower distribution relative to public service channels is in part explained by the fact that private channels tend to show a higher proportion of international programming than public service channels. They are unlikely to license this content for foreign territories which limits their ability to distribute this content. For many private channels lack of capacity and demand are also limiting factors. Platforms have finite capacity, so they tend to select for carriage the foreign channels with the largest audience appeal. These tend to be the major public service and private channels rather than the "long tail" of channels that attract relatively small audiences.

<sup>85</sup> Jean K. Chalaby, *Transnational Television in Europe: Reconfiguring Global Communications Networks*, 2009.

<sup>86</sup> [http://en.wikipedia.org/wiki/Parliament\\_of\\_Italy](http://en.wikipedia.org/wiki/Parliament_of_Italy)

<sup>87</sup> Jean K. Chalaby, *Transnational Television in Europe: Reconfiguring Global Communications Networks*, 2009.

<sup>88</sup> Source: Plum Consulting analysis of based on the MAVISE database.

In some cases pay-television operators include channels from other EU countries as part of basic packages, while in others these are provided as part of premium tier packages or as standalone premium packages. For example, DR1 and DR2, the main channels of the Danish public service broadcaster Danmarks Radio, are available to Canal Digital subscribers in Sweden and Finland as pay channels<sup>89</sup>.

In addition, private channels, in some cases including premium channels, are carried as add-on packages on pay-television services. Examples include:

- Bouquet Allemand<sup>90</sup> – a package of German channels provided to subscribers of the French IPTV service SFR for an additional fee of €8.90 per month.
- Unity Media, the largest cable operator in Germany offers a package of four Polish channels for €6 per month<sup>91</sup>. Similar packages are provided in other foreign languages.
- Neuf, the French IPTV operator, offers packages of foreign channels including a Portuguese language package of SIC International and TV Record for €5 per month<sup>92</sup>.

### 3.1.3 Audiovisual services targeting migrant populations

There are a small number of subscription-based television channels and packages provided in the EU to target migrant populations with content from their country of origin. These tend to be cater for non-EU migrants and be offered for subscription on domestic cable or satellite services. Therefore, these services are not cross-border by definition, but do meet the same demand that a cross-border service might.

- South Asian channels. Zee TV operates a portfolio of television channels in India and internationally. In Europe it targets the South Asian community with five channels: Zee TV, Zee Cinema, Zee Punjabi, Zee Café and Zing. These channels are carried on the BSkyB satellite platform and Virgin Media cable service in the UK, and on the Hotbird satellite for the rest of Europe. Pricing for the UK market ranges from £6.99 per month for Zee Cinema as a standalone channel to £15.99 for a package of four channels<sup>93</sup>. Sony TV Asia operates three channels targeting the Indian market in Europe: SET, SAB and MAX.
- Tang Media<sup>94</sup> provides a package of 14 Chinese channels via IPTV operators in France including Free, Orange Livebox, SFR Neufbox and Alice.
- Thema<sup>95</sup> distributes foreign channels in France including Le Bouquet Africain, a package targeted at the African community. The monthly fee for the service is €6.90 for 8 or 9 channels or €9.90 for 15 channels.
- Pro TV International is a Romanian service developed for the international market. It is based on programming from CME TV, which operates a portfolio of channels in Romania, for which the

<sup>89</sup> [http://en.wikipedia.org/wiki/Canal\\_Digital](http://en.wikipedia.org/wiki/Canal_Digital)

<sup>90</sup> <http://www.lebouquetallemand.com/>

<sup>91</sup> <http://www.unitymedia.de/produkte/fernsehen/digital-tv-polen.html>

<sup>92</sup> <http://adsl.sfr.fr/neufbox-evolution/television/bouquets-optionnels/#bouquetID316>

<sup>93</sup> [www.zeeuk.com](http://www.zeeuk.com)

<sup>94</sup> <http://www.tangmedia.fr/greatwall/en/index.html>

<sup>95</sup> <http://www.thematv.com/about-us.html>

company owns global rights. The revenue model is 75% from distribution and 25% from local advertising. The channel is distributed on platforms in Austria, Bulgaria, Cyprus, the Czech Republic, Germany, Hungary, Italy, Portugal, Slovakia and Spain and on the internet.<sup>96</sup>

- Mediapool<sup>97</sup> packages channels from 24 countries for the German market.
- MBPA<sup>98</sup> represents some Turkish channels in Benelux, France and Scandinavia.

### 3.1.4 Cross-border supply of programming

Individual films and television programmes are often supplied cross border and broadcast on domestic television services. The proportion of hours of feature films, TV films, short films, series, soaps and animation that are non-national EU varies from 36.8% for public service channels to 27.6% for pay-TV film channels, 17.8% for thematic channels and 15.1% for advertising-funded channels in 2009<sup>99</sup>. The levels of national and non-national EU programming are supported by the quotas imposed by the Audiovisual Media Services Directive<sup>100</sup>.

The source of non-national programming is primarily the UK, France, Germany, Italy and Spain: the market is highly asymmetric. Figure 3-3 shows the proportion of hours of feature films, TV films, short films, series, soaps and animation that are non-national EU, by country, for samples of channels in a selection of countries. There are particularly high proportions of non-national EU programming in countries that are part of larger linguistic markets. For example, a large proportion of programming on Austrian channels is from Germany, while French-speaking Belgium allocates a large share of hours to programming from France.

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<sup>96</sup> Pro TV International: A Successful Model of Cross-Border Distribution.

<sup>97</sup> <http://www.mediapool-content.de/index.htm>

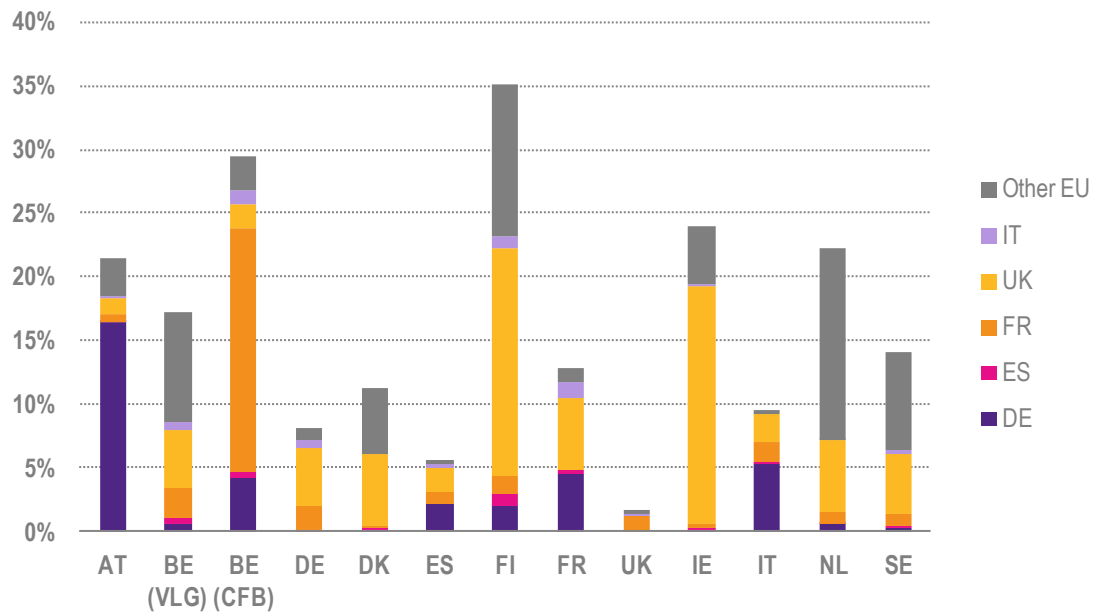
<sup>98</sup> <http://www.mbpa.tv/web/show/home>

<sup>99</sup> Source: European Audiovisual Observatory on Infomedia data. Based on a sample of 137 channels in 15 EU countries.

<sup>100</sup> Article 16 of the Directive requires broadcasters to reserve a majority proportion of their transmission time, excluding the time appointed to news, sports events, games, advertising, teletext services and teleshopping, for European works.  
[http://ec.europa.eu/avpolicy/reg/twvf/promotion/index\\_en.htm](http://ec.europa.eu/avpolicy/reg/twvf/promotion/index_en.htm)



Figure 3-3: Proportion of television hours that are non-national EU for a sample of channels



Source: Plum Consulting analysis based on Infomedia data.

It is possible that the presence of non-national EU programming on the schedules of domestic television channels might decrease the demand for cross-border audiovisual media services originating in the same countries as this programming. This will depend on the language transfer practices used to adapt the programming to the linguistic needs of the local population. Three methods are used within the EU:

- Dubbing - the replacement of the original soundtrack with a soundtrack in another language spoken by voice artists.
- Subtitling – the insertion of a translation as on-screen text, while retaining the original soundtrack.
- Voice-over – this involves reducing the sound level of the language on the original work, and superposing another language typically spoken by one, or at most two, voices. The original language though quiet remains audible.

Each country tends to favour one or other method. Table 3-5 shows which countries use each language transfer practice.

Table 3-5: Language transfer practices by country<sup>101</sup>

Subtitling	Voice over	Dubbing
<ul style="list-style-type: none"> <li>• Belgium (Flemish-speaking)</li> <li>• Cyprus</li> <li>• Denmark</li> <li>• Estonia</li> <li>• Finland</li> <li>• Greece</li> <li>• Ireland</li> <li>• Netherlands</li> <li>• Portugal</li> <li>• Romania</li> <li>• Slovenia</li> <li>• Sweden</li> <li>• UK</li> </ul>	<ul style="list-style-type: none"> <li>• Bulgaria</li> <li>• Poland</li> <li>• Latvia</li> <li>• Lithuania</li> </ul>	<ul style="list-style-type: none"> <li>• Austria</li> <li>• Belgium (French speaking)</li> <li>• Czech Republic</li> <li>• France</li> <li>• Hungary</li> <li>• Italy</li> <li>• Slovakia</li> <li>• Spain</li> </ul>

In some cases a dual-language feed is provided. For example, Sky Deutschland broadcasts films with both German-language (dubbing) and original language soundtracks. Viewers choose which soundtrack to listen to.

The potential effect of non-national EU programming decreasing demand for cross-border services might occur in the subtitling countries and, to a lesser extent, voice-over countries. There is likely to be no effect in dubbing countries, as the original soundtrack on non-national programming is not retained.

In addition, the presence of a high level of US originated programming in subtitling countries may have an impact on demand for cross-border audiovisual media services originating in the UK. This is most likely to be the case for any demand relating to interest in the English language rather than in UK culture.

### 3.2 Internet based services

As described in Section 2.3 there is an increasing provision of on-demand audiovisual media services over the internet to serve domestic markets. Geo-blocking is widely used to limit the access to these services cross-border. This practice involves either the blocking of entire services or of specific content. However, not all services use geo-blocking and some content from other countries is available to consumers.

In addition, internet services are emerging that specifically target consumers who wish to access video content from another EU country. These include the BBC iPlayer subscription-based iPad application and Heimseh, a VOD service targeting German-speakers. It is probable that there will be an increased provision of services of this kind enabled by the decreasing costs in areas such as content delivery.

<sup>101</sup> Source: Study on dubbing and subtitling needs and practices in the European audiovisual industry, Media Consulting Group and Peacefulfish, November 2007.

### Heimseh.tv

Heimseh.tv is an online VOD service targeting German-speakers outside of Germany, Austria and Switzerland. Its services are not accessible from Germany, Austria and Switzerland.

It offers German films, documentaries, drama series and other special interest programmes which are available through streaming or for download in mp4 format. The service can be accessed via a PC and an iPhone application<sup>102</sup>

Registration is free and a variety of payment options are available including monthly and annual subscriptions and pay per view. The service claimed to have several thousand registered users in March 2011<sup>103</sup>.

### BBC iPlayer global iPad application

In July 2011 BBC Worldwide, the commercial arm of the UK public service broadcaster, launched a pilot subscription-based “global” version of the BBC iPlayer service, initially for users in Austria, Belgium, France, Germany, Italy, Luxembourg, Ireland, the Netherlands, Portugal, Spain and Switzerland<sup>104</sup>. In October 2011 the service was extended to Finland, Sweden and Denmark<sup>105</sup>. This service is the only way for consumers in these markets to access the iPlayer as the UK version of iPlayer is geo-blocked to foreign users. The “global” service is available only as an iPad application.

The service offers a range of content in genres including news specials and documentaries, entertainment, drama, comedy, science and nature, family and kids, music and culture and lifestyle. It includes recent and archive material. In that respect it differs from the domestic service which offers only catch-up material. The price of the subscription is €6.99 per month or €49.99 annually.

In October 2011 the BBC claimed to have an “overwhelmingly positive” reaction to the launch, and said that “During this pilot phase we have an exciting vision for what this service could become and will develop it based on feedback from within all markets.”

## 3.3 Other future trends

The Futures Company conducted analysis of future trends and social and attitudinal factors that may affect demand for cross-border pay audiovisual media services, directly or via the demand drivers discussed elsewhere in this report. The full analysis is provided in the appendix. This section provides a brief summary of some of the results relevant to the supply of and audiences for audiovisual media services.

The analysis breaks down trends by supply of audiovisual content and services, platforms and audiences. Some of the trends identified in these areas include:

- Fragmentation of content and (possibly in response to it) the return of “mass event” television (e.g. sports, big entertainment television formats or first run films) which are a vehicle for high-definition television and potentially 3DTV.

<sup>102</sup> <http://itunes.apple.com/us/app/heimsehtv/id414886359?mt=8>

<sup>103</sup> <http://www.rapidtvnews.com/index.php/rtnv-deutsch/nachrichten/online-videothek-fuer-deutsche-im-ausland.html>

<sup>104</sup> [http://www.bbc.co.uk/pressoffice/bbcworldwide/worldwidestories/pressreleases/2011/07\\_july/bbc\\_iplayer\\_global.shtml](http://www.bbc.co.uk/pressoffice/bbcworldwide/worldwidestories/pressreleases/2011/07_july/bbc_iplayer_global.shtml)

<sup>105</sup> <http://www.bbc.co.uk/ariel/15287887>

- Greater individualism and customisation of the television viewing experience enabled by broadband and non-linear viewing.
- The rise of social media.

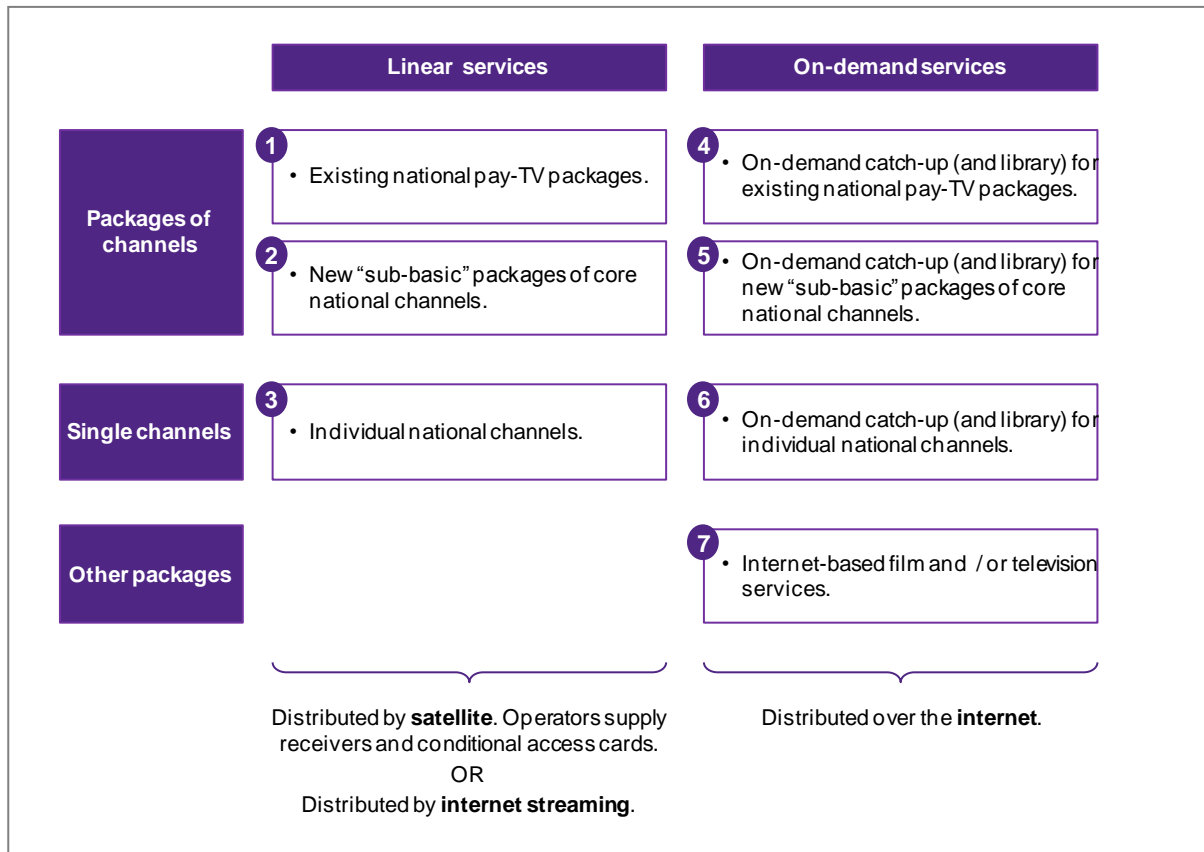
The trend of increasing customisation and individualism provides a favourable context for the growth of potential cross-border services delivered via the internet and services watched on personal devices.

One implication of these findings may be that migrants, for example, may be most interested in “mass event” television from their home countries. In this case the main national free-to-view broadcasters and premium sports channels would drive demand for cross-border services. However, the rise of social media raises the question of whether these migrants would favour event television from their country of origin or their country of residence, especially if they are building social connections in the country of residence.

### 3.4 Potential shape of cross-border services

Figure 3-4 shows the types of subscription-based cross-border audiovisual media services that could be offered in future.

Figure 3-4: Types of subscription-based cross-border AVMS that could be offered in future



From a consumer's point of view propositions 1 and 4, and possibly 2 and 5, could be seen as substitutes for domestic services (i.e. these would be purchased instead of a domestic pay-television service). The other propositions are complementary to domestic services (i.e. these could be purchased in addition to a domestic pay-television service).

The main differences between these cross-border propositions and domestic services would be:

- EPG and navigation in the language of origin of the service.
- Access to national and local channels / content from country of origin, which may include access to exclusive sports.
- Access to international channels / content dubbed or subtitled into the language of origin.

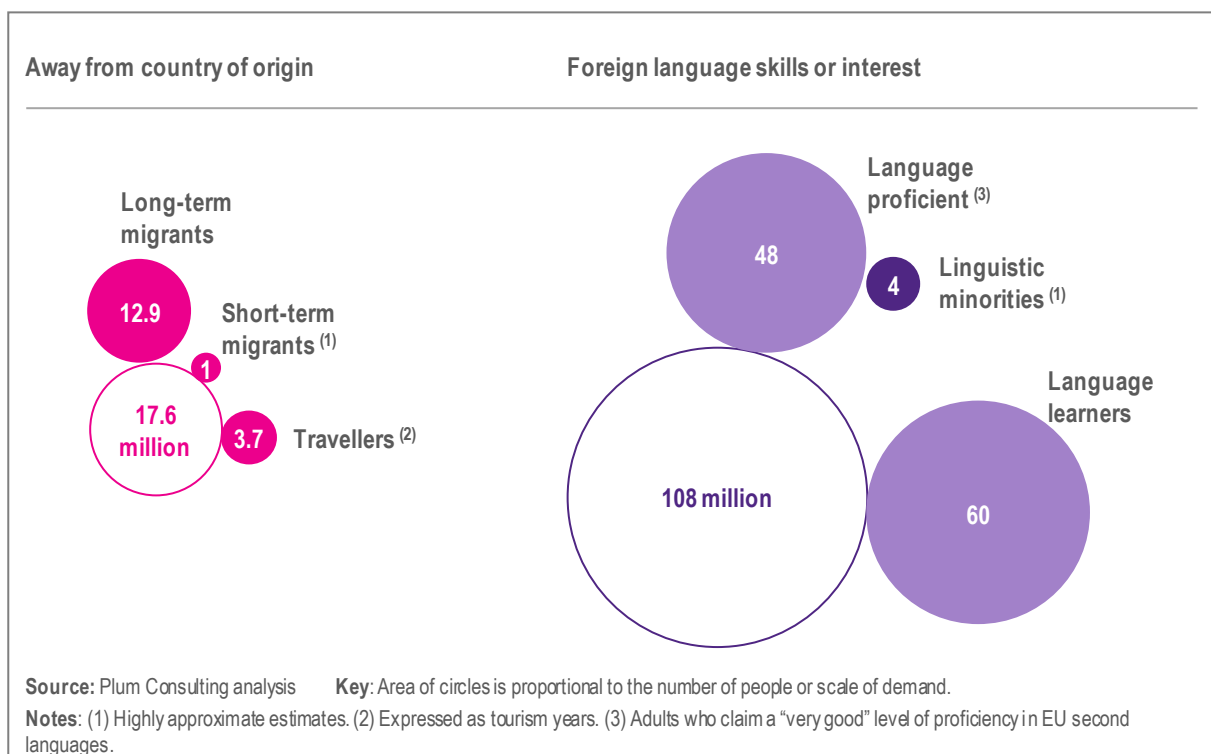
The significance of this difference will depend on the strength of the national channels in the country of origin relative to those in the domestic market being considered. It will be important to explore these types of proposition in the survey, especially the issue of whether consumers are interested in services to use instead of or in addition to domestic pay-television services.

## 4 Populations that may be interested in cross-border AVMS

There are several types of population groups that may be interested in cross-border audiovisual services, including migrant populations, people with proficiency in or learning non-national languages and people travelling within the EU. The size of these groups, their characteristics and the nature of the potential demand for audiovisual services in these groups varies considerably. This section presents data on the size of these groups on a country by country basis, and as far as possible describes the characteristics of these groups. In addition, sports fans who wish to obtain access to premium sports content at a lower price than they can in their domestic market may be interested in cross-border services should these offer lower prices than national services. This group has not been analysed here as demand is highly dependent on the relative pricing strategies of operators, which is difficult to predict. The potential demand with respect to cross-border audiovisual services is explored in detail in Section 6, and commented upon only briefly here.

Figure 4-1 shows the relative scale of these population groups. People with foreign language skills and long-term migrants are the largest relevant population groups, though travellers, linguistic minorities and short-term migrants are also significant. There may be some overlap between these categories, especially between travellers and people with foreign language skills.

Figure 4-1: Relative size of populations that may be interested in cross-border AVMS



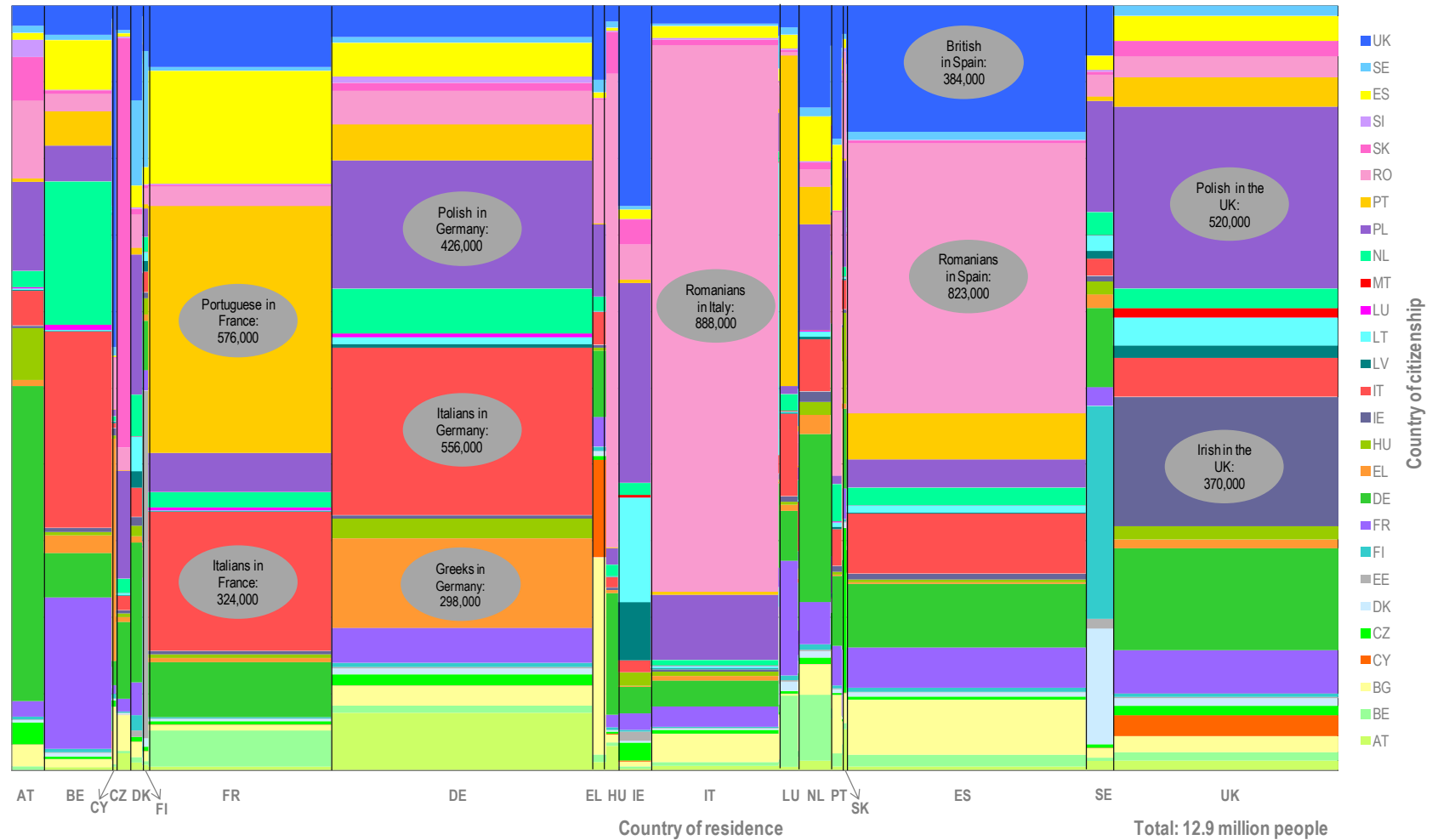
## 4.1 Long-term migrants

Intra-EU migrants are a large population group that may be interested in cross-border audiovisual media services due to language, political and cultural ties to their country of birth or citizenship. There were about 12.9 million EU migrants living in EU Member States other than their country of citizenship in 2008. This section describes the distribution of these populations within the European Union and key features of these groups that may impact on their potential demand for cross-border audiovisual media services.

### 4.1.1 Distribution of migrant populations

Intra-EU migrant populations comprise 702 different groups, defined by country of citizenship / birth and country of residence. There is a high degree of concentration of populations in a small number of groups: 10% of the groups accounted for 83% of migrant populations in 2010. Figure 4-2 illustrates the relative scale of different migrant population groups. The full data set behind this chart is provided in the appendix.

Figure 4-2: Distribution of intra EU migrant populations,



Notes: (1) Area of segments is proportion to the number of people. (2) Too few migrants are resident BG, EE, LV, LT, MT, PL and SI to be visible on this graphic.  
 Source: Plum analysis of data from Eurostat and national statistics agencies.

2010



The distribution of intra-EU migrant populations corresponds to distinct waves of migration within the EU. Recent economic migration from the new Member States to the big five countries accounts for substantial migrant populations, the largest being Romanians in Italy and Spain and Polish in Germany and the UK. There has also been a migration of northern European citizens into southern Europe for retirement, particularly UK and German citizens in Spain. Earlier waves of economic migration led to populations of southern Europeans in northern Europe, the largest groups being Italians and Greeks in Germany, and Portuguese in France. There are also substantial migrant populations in neighbouring states that share the same language, for example Irish in the UK and Austrians in Germany. The top 10 migrant population groups are listed in Table 4-1 below. In addition, there is continuous migration on a smaller scale which has led to the dispersion of populations from each EU country into most others.

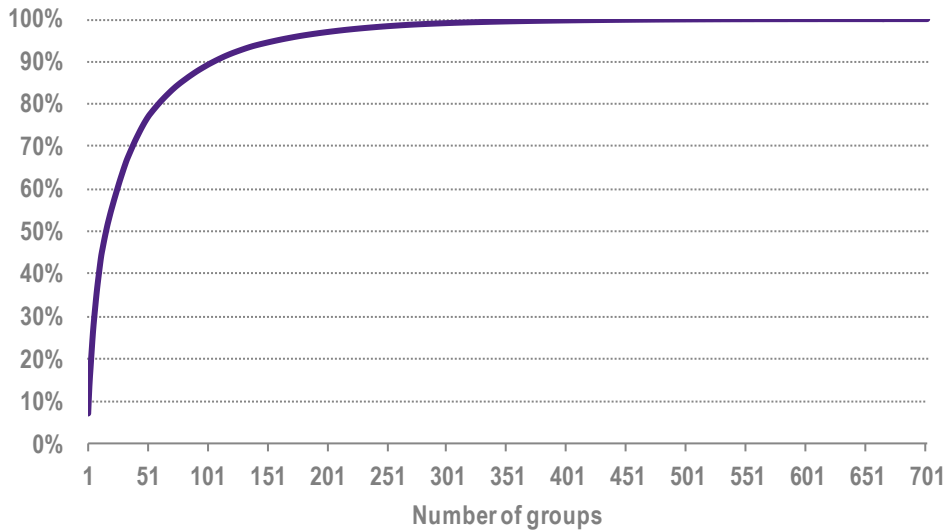
**Table 4-1: Largest 10 intra-EU migrant population groups, 2010**

Country of citizenship	Country of residence	Population (000s)
Romania	Italy	888
Romania	Spain	823
Portugal	France	576
Italy	Germany	556
Poland	United Kingdom	520
Poland	Germany	426
United Kingdom	Spain	384
Ireland	United Kingdom	370
Italy	France	324
Greece	Germany	298

The intra-EU migrant population is relatively concentrated in a small number of large groups. Figure 4-3: shows the cumulative distribution by population group. The 33 groups larger than 100,000 people account for 67% of the total intra-EU migrant population. The 42 groups between 30,000 and 99,999 people in size account for a further 18%. There is a “long tail” of smaller groups which collectively account for 16% of the total.

The concentration of intra-EU migrants is caused in part by the small number of large European economies that have the capacity to accept large numbers of migrants combined with the small number of states that have sufficient populations to generate large-scale emigration to other EU states. In addition, there has been a tendency for migrant populations to cluster in countries with an established population and / or language and cultural similarities rather than to disperse evenly across the European Union.

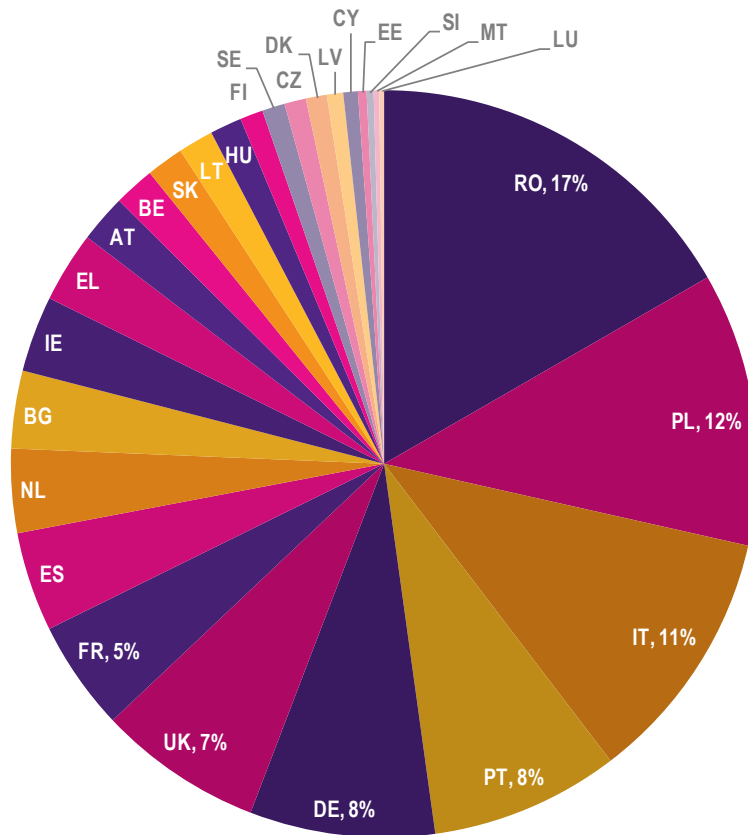
Figure 4-3: Cumulative distribution of intra-EU migrant populations by group



Source: Plum analysis of data from Eurostat and national statistics agencies.

By country of origin the intra-EU migrant populations are concentrated among a small number of countries of citizenship. These include Romania and Poland, the most populous new Member States, the main five EU countries and Portugal. Figure 4-3 shows the proportion of the total intra-EU migrant population originating from each country.

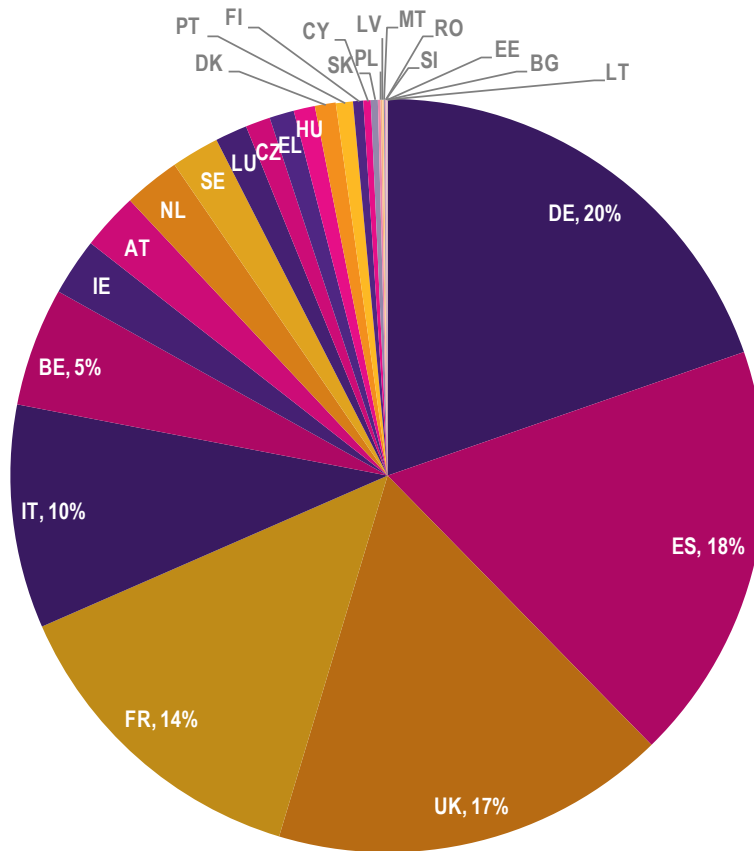
Figure 4-4: Distribution of intra-EU migrant populations by country of citizenship, 2010



Source: Plum analysis of data from Eurostat, INSEE, ONS.

By country of residence there is also a higher level of concentration. The main intra-EU migrant populations are concentrated in the big five countries: Germany, Spain, the UK, France and Italy. Figure 4-4 shows the proportion of the total intra-EU migrant populations resident in each country.

Figure 4-5: Distribution of intra-EU migrant populations by country of residence, 2010



Source: Plum analysis of data from Eurostat, INSEE, ONS.

In addition to intra-EU migrants, non-EU migrant groups may generate demand for cross-border audiovisual media services within the European Union. This demand may be driven by language and cultural ties with EU countries other than the country of residence. Examples of these groups include US citizens living in EU countries other than the UK and Ireland who may be interested in services originating in the UK and Ireland. Similarly Spanish-speaking Latin American migrants may be relevant. For example, in the UK, the South American population (51,000 Brazilians; 23,000 Colombians<sup>106</sup>) might be interested in cross-border services in Portuguese and Spanish.

<sup>106</sup> ONS (2010) Estimated population resident in the UK by foreign country of birth (July 2009 – June 2010).

#### 4.1.2 Definitions, methodology and sources

For the purposes of this study long-term migrants, referred to here as “migrants”, are defined as people who have established their usual place of residence in a destination country, other than their country of citizenship, for 12 months or more.

Citizenship rather than country of birth has been chosen as the available data is more complete. This definition excludes migrants who have adopted the nationality of their country of residence. The size of the latter group may be substantial: in France 1.56 million of 4.31 million immigrants were naturalised French in 1999<sup>107</sup>. However, this included non-EU migrants. In Germany the number of resident Spanish citizens is 194,000 while the number of Spanish-born German residents is 245,000. The gap between Italian citizens (42,302) and Italian-born residents (209,209) is larger. These differences relate to early waves of migration and the proportion of more recent intra-EU migrants that are naturalised may be lower as for them foreign nationality is no longer a barrier to residence. Though the citizenship definition will underestimate the true scale of the migrant population, naturalised citizens are likely to be more integrated into the country of residence so they may have less demand for cross-border AVMS.

The time period of 12 months is comparable to the typical contract periods for audiovisual media service subscriptions, so should capture most of the addressable migrant market.

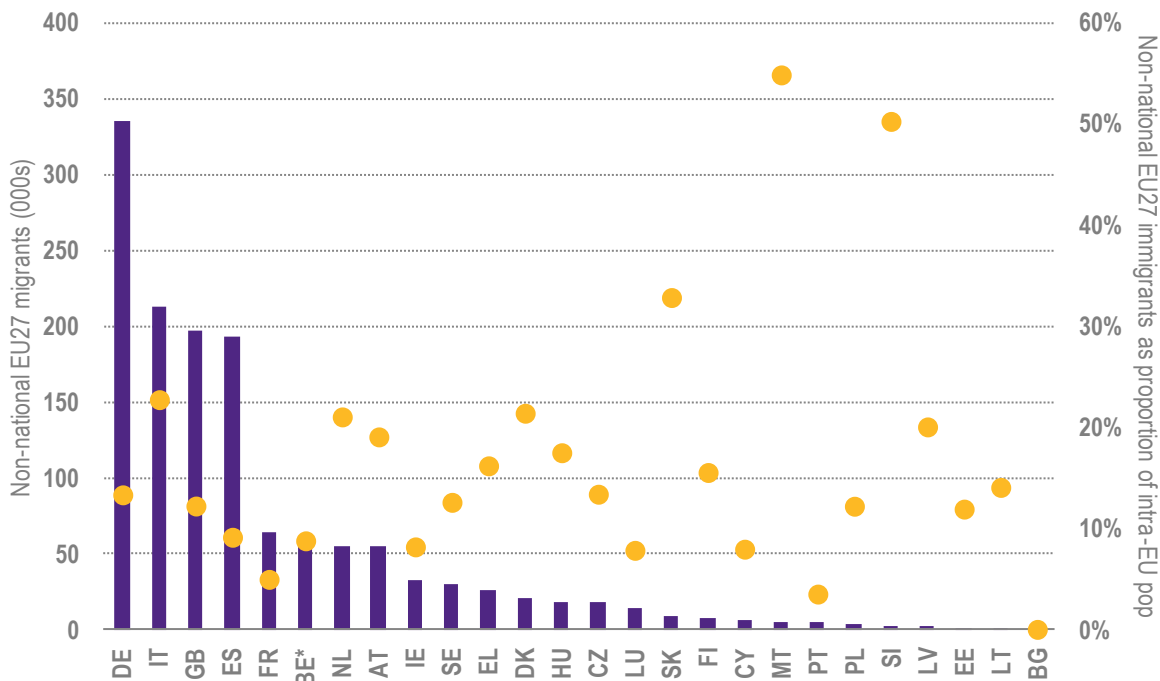
#### 4.1.3 Dynamics of intra-EU migration

The data in Section 4.1.1 presents a static view of the situation. However, migrant populations are by nature highly dynamic. As a proportion of the migrant populations resident in each Member State there is a relatively high level of immigration and, in some cases, emigration: the rate of turnover is high in some countries. Figure 4-5 shows the number of immigrants by country and how this varies as a proportion of the total migrant population resident in these countries.

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<sup>107</sup> Source : Insee, Recensement de la population, 1999.

Figure 4-6: Non-national intra-EU immigrants by country by absolute number and as a percentage of all migrants



Notes: (1) \*All figures are from 2008 except Belgium (2007). (2) Figures for Romania not available.  
Source: Plum Consulting, Eurostat.

#### 4.1.4 Features of migrant populations

The demand for cross-border audiovisual media services among migrant populations will depend on the characteristics of these individuals and their households. Relevant factors include their length of residence, the strength of connections with the country of origin, the family and household situation especially the languages spoken at home, disposable income and demographics (e.g. age, gender).

Data on these factors is not aggregated at European level, but some information is available nationally. The following sections summarise relevant insights gathered from data published by the national statistics agencies of countries with the largest number of migrants (France, Germany, Italy, Spain and the UK).

##### Waves of migration and resultant demographic groups

The intra-EU migrant population consists of individuals and families who have moved country to work, to live with partners or family, to study or to retire. Though many of these moves are part of a continuous “background” migration flow, there have been some notable large-scale migrations that have led to distinct population groups.

- Migrants from the **new Member States**. These populations tend to be young. For example, migrants to Germany from the new Member States of the 2004 enlargement were mainly in the

25-35 age group in 2007 (Deutsches Institut für Wirtschaftsforschung<sup>108</sup>). Romanian workers in Spain were profiled as being typically female, young (56% under 29), medium and highly educated, with no relevant work experience<sup>109</sup>. Immigrants to the UK (EU and non-EU) tend to be younger, better educated and work longer hours than people born in the UK<sup>110</sup>.

- Migrants from **earlier waves of economic migration**. These populations are older with relatively long periods of residence (e.g. tens of years). For example, many intra-EU immigrant populations in France are well established. The median year of arrival is 1957 for Italians, 1960 for Spanish and 1970 for Portuguese; these waves of migration each occurred over roughly 10-year periods. The age of migrants living in France varies by wave of migration. 41% of Spanish and 50% of Italian immigrants living in France were over 65 years old in 2000, compared to an average 17% for the total French population. Portuguese were younger in profile: 70% were 25 to 64 years old. (Les immigrés en France<sup>111</sup>)
- Migrants for **retirement**. Intra-EU migrants in Southern Europe, particularly Spain, tend to be older due to the migration of people for retirement. Overall, intra-EU immigrants to southern Europe are on average older than immigrants to northern Europe<sup>112</sup>. For example, at least half of the non-national EU immigrants to Spain and Portugal are 30 and over (median age) compared to Denmark and Netherlands where the median age of non-national EU immigrants is less than 28<sup>113</sup>. EU migrants resident in Spain had an average age of 50 compared to the national average of 41, and 35 for all migrants (including EU and non-EU) in 2007. Out of the 4.5 million migrants in Spain (including 1.5 million EU and 3 million non-EU), 388,000 were pensioners (Encuesta Nacional de Inmigrantes<sup>114</sup>). Length of residence may, however, be shorter than for retired economic migrants.

Overall, intra-EU migrant populations tend to be on average younger than the populations of their countries of residence. The median age of the total population of all EU Member States was 40.6 on 1 January 2009 compared to 29.3 for EU national immigrants, excluding returning nationals<sup>115</sup>. Migrants may also have lower disposable incomes than the population in general, though it is possible that this reflects their relatively young age. Households in France involving a couple comprising two immigrants had average annual earnings of €20,200 compared to €29,600 for other households in 2001. The disposable incomes of these immigrant households were 20% below the level of other households.<sup>116</sup> Migrants resident in Spain had a higher level of unemployment than Spanish citizens in 2007: 12.3% compared to 7.7%. Those migrants in employment tended to work in the services sector (59%) and the construction sector (24%). There was a particularly high level of employment as

<sup>108</sup> Zuwanderungen aus Mittel- und Osteuropa trotz Arbeitsmarktbarrieren deutlich gestiegen, Deutsches Institut für Wirtschaftsforschung, 2007. [http://www.diw.de/documents/publikationen/73/diw\\_01.c.74408.de/07-44-1.pdf](http://www.diw.de/documents/publikationen/73/diw_01.c.74408.de/07-44-1.pdf)

<sup>109</sup> The Eastern Migration and the Labor Markets in the EU: The Case of Romanian Workers in Spain, Journal of Identity and Migration Studies, 2007. [http://www.e-migration.ro/jims/Vol1\\_no1/Birsan\\_Cucuruzan.pdf](http://www.e-migration.ro/jims/Vol1_no1/Birsan_Cucuruzan.pdf)

<sup>110</sup> The economic characteristics of immigrants and their impact on, supply, The Bank of England, 2006. <http://www.bankofengland.co.uk/publications/quarterlybulletin/qb060401.pdf>

<sup>111</sup> Les immigrés en France, édition 2005. INSEE.

<sup>112</sup> Immigration data describes the flow of people between countries rather than the total resident populations, but may give a good indication of the demographics of these resident populations.

<sup>113</sup> Eurostat (2008). Recent migration trends: citizens of EU-27 Member States become ever more mobile while EY remains attractive to non-EU citizens. [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-08-098/EN/KS-SF-08-098-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-098/EN/KS-SF-08-098-EN.PDF)

<sup>114</sup> Encuesta Nacional de Inmigrantes 2007: una monografía, Instituto Nacional de Estadística, 2009.

<sup>115</sup> Eurostat (2011) *ibid*

<sup>116</sup> Insee-DGI, enquête Revenus fiscaux, 2001.

“workers without qualifications”: 35% of the migrant workforce compared to 10% of Spanish citizens (Encuesta Nacional de Inmigrantes). This suggests a relatively low income for migrants.

### Household and family composition varies by life stage

The incidence of families among migrant populations increases with age, as it does in the population in general. Migrants from new Member States tend to be single, though the incidence of families appears to be increasing as these migrants age.

- In the UK 39% of Polish migrants in the 2004-2006 post-EU enlargement period were married<sup>117</sup>. In the twelve months to March 2009, 12% of registered workers<sup>118</sup> from A8 countries (new Member States) stated that they had dependants (adults and / or children) living with them in the UK at the time of registration, a figure 4% higher than in the overall period since EU accession<sup>119</sup>. The majority of Polish migrants to the UK are at a stage of their lives where people form partnerships and have children. Indeed, a study found an increase in births to Polish parents in the UK. By 2005 there were 2,098 births to both Polish parents compared to 1,462 to Polish mothers and non-Polish partners<sup>120</sup>
- Of EU migrants to Spain, 30% were married with children, 22% were married without children and 3% married and living separately from their families (Encuesta Nacional de Inmigrantes).
- In France, about 60% of immigrants formed couples prior to immigration, with about 40% having a child before arriving. Both figures increase with the age of the immigrant (Les immigrés en France).

The household conditions of migrant populations appear to be similar to those of the overall population. Studies in Spain and France have dismissed the idea that migrants tend to live in poor quality collective accommodation.

- Most migrants in Spain live in family homes and apartments, with only 0.5% in other forms of accommodation. There were an average of 3 people per intra-EU migrant household (Encuesta Nacional de Inmigrantes).
- In France, 32% immigrant households were in individual houses, 66% in apartments and 2% in other accommodation (e.g. hotel rooms)<sup>121</sup> in 1999<sup>122</sup>. The latter figure is in line with the average for the total population. The proportion of immigrants in collective housing (e.g. travellers' or students' hostels) was in the range 0.2% to 0.4% for immigrants from European countries, compared to 0.2% for non-immigrants. In contrast, there was a much higher incidence of this type of housing for sub-Saharan African (6.1%) and Algerian (5.5%) immigrants. More recent data on the tenure status of households in France suggests that this continues to be the case. More than half of all immigrant households were tenants (29.7% social sector tenants, 23.7%

<sup>117</sup> Source: Labour Force Survey cited in Drinkwater, S, Eade, J and Garapich, M (2006). Poles Apart? EU enlargement and the labour market outcomes of immigrants in the UK. <http://ftp.iza.org/dp2410.pdf>

<sup>118</sup> Registered with the Workforce Registration Scheme, a system aimed to track the workforce from the 'Accession 8' countries. This scheme is voluntary and there are some exemptions so it does not provide a full picture of the migrant populations.

<sup>119</sup> Accession Monitoring Report 2009

<sup>120</sup> Osipovic, D (2007). Household structure of recent Polish migrants in the UK. What it reveals about the dynamics of settlement. Cited in Trevena, P (2009). New Polish migration to the UK: A synthesis of existing evidence. [http://cpc.geodata.soton.ac.uk/publications/New\\_Polish\\_migration\\_to\\_the\\_UK\\_2009\\_p\\_trevena.pdf](http://cpc.geodata.soton.ac.uk/publications/New_Polish_migration_to_the_UK_2009_p_trevena.pdf)

<sup>121</sup> Source : Insee, enquête Logement, 2002.

<sup>122</sup> Source : Insee, Recensement de la population, 1999.



private tenants) and 39.2% owners in 2006<sup>123</sup>. The remaining 7.4% are classified under “other statutes” which includes free accommodation, furnished rooms, houses or precarious property (caravans, mobile homes etc).

In the UK there may be a more significant phenomenon of migrants sharing accommodation. For example, studies on housing experiences of new immigrants reveal that Poles usually live in privately rented accommodation which is often overcrowded and characterised by poor physical conditions<sup>124</sup>. The main reasons include the high living costs in the UK and the fact that social accommodation is not available to the majority of immigrants.

### There is significant integration with national populations

There is a significant degree of integration of migrant populations with local populations through marriage.

- In Spain, 32% of married EU migrants were married to Spanish citizens (Encuesta Nacional de Inmigrantes).
- About one in five migrants to Germany from the new EU member states following 2004 enlargement<sup>125</sup> had a German spouse. 80% of these immigrants were women (Deutsches Institut für Wirtschaftsforschung). Among migrants in Germany significantly higher percentages of Italian, Spanish and Greek migrants have German spouses than Turkish migrants who tended to marry someone of the same nationality<sup>126</sup>. Microcensus files from 1976-2004 show that among male migrants, 44% of Italians, 41% of Spanish and 23% of Greeks have a German wife compared to 9% of Turkish male migrants. Similarly, among female migrants, Italians (21%), Spanish (36%) and Greeks (16%) are more likely than Turks (5%) to have a German husband.
- In 2000 there were 859,000 families in France in which the mother and father were immigrants and 1,823,000 in which one or both parents were immigrants. Therefore, 64% of immigrants living in two-parent families were in immigrant-immigrant families. There were a further 208,000 immigrant single parent families. The proportion of couples involving immigrants that are immigrant-immigrant is lower for EU immigrants than others: Italian (29%), Spanish (32%), Portugal (58%), other EU-15 (25%) and other Europeans 33% in 2000 compared to the total immigrant average (47%) (Les immigrés en France).

Family reasons are a key factor for migration in Europe. About a half of permanent or long-term immigration flows into the EU are family-linked – inflows in 2004 accounted for close to 40% of the permanent immigrant flow in the UK, Denmark, Germany and Portugal, and between 50% and 70% in the Netherlands, Austria, Finland, France, Italy and Sweden.<sup>127</sup> Family-linked migration includes accompanying family members and family reunification.

<sup>123</sup> Source: INSEE Housing Survey 2006 [http://www.insee.fr/fr/themes/tableau.asp?reg\\_id=0&ref\\_id=NATCCI05203](http://www.insee.fr/fr/themes/tableau.asp?reg_id=0&ref_id=NATCCI05203)

<sup>124</sup> See Robinson, D and Reeve, K (2007). Neighbourhood experiences of new immigration. Robinson, D, Reeve, K and Casey, R (2007). The housing pathways of new immigrants. Joseph Rowntree Foundation.

<sup>125</sup> Zuwanderungen aus Mittel- und Osteuropa trotz Arbeitsmarktbarrieren deutlich gestiegen, Deutsches Institut für Wirtschaftsforschung, 2007. [http://www.diw.de/documents/publikationen/73/diw\\_01.c.74408.de/07-44-1.pdf](http://www.diw.de/documents/publikationen/73/diw_01.c.74408.de/07-44-1.pdf)

<sup>126</sup> Kalter, F and Schroedter, JH (2010). Transnational marriage among former labour migrants in Germany. *Journal of family Research*, 22(1): 13-38.

<sup>127</sup> Guardia, ND and Picelmann (2006). Labour migration patterns in Europe: recent trends, future challenges. European Commission Economic Papers No. 256. [http://ec.europa.eu/economy\\_finance/publications/publication644\\_en.pdf](http://ec.europa.eu/economy_finance/publications/publication644_en.pdf)

Nevertheless, most migrants appear to retain active connections with their home countries. For example, in Spain the vast majority of migrants remain in frequent contact with family and friends, the majority weekly or more frequently by telephone (Encuesta Nacional de Inmigrantes).

### The languages spoken at home may be mixed

The level of integration with the local population has an impact on the language skills of immigrants and the language(s) spoken at home. The least integrated migrant populations have the weakest skills in the language of the country of residence.

- The Spanish (Castilian) language skills of migrant pensioners in Spain (intra-EU and others) are much lower than other migrant groups. Only 25% speak the language very well, 36% to a lower degree and 39% not at all compared to 4% for educated immigrants (Encuesta Nacional de Inmigrantes).
- In contrast in France the proportion of immigrants who are proficient in French is high, varying from 80% of Spanish and Italians, to 73% of Portuguese and 76% of those from other European countries in 2003<sup>128</sup>. Nevertheless, this leaves a substantial proportion without proficiency.

The use of the mother tongue in immigrant households appears to diminish over time, and is lower in mixed marriage households, particularly in the presence of children.

- In France, the use of the mother tongue in households decreases with length of stay. 85% of immigrant households in which French was not the exclusive language spoken, practised their mother tongue with family members at home or elsewhere in France in 2003. However, only 62% who arrived in France in 1960 or earlier still practised their mother tongue with family<sup>129</sup>. This may reflect the level of intermarriage with locals of some migrants arriving before 1960.
- Parents in immigrant-immigrant families in France tend to speak to their children principally in French. 66% of Portuguese fathers and 74% of mothers spoke to their children principally in French in 1997. The figures for immigrants from other countries were 55% and 59% respectively<sup>130</sup>.
- Parents in mixed immigrant-French parent families speak to their children almost exclusively in French. 99% of the French parents speak to their children principally in French, compared to 95% of immigrant mothers and 94% of immigrant fathers.

## 4.2 Short-term migrants

Some people visit a country other than their country of origin for an extended period (e.g. longer than one month), but less than the year that qualifies them as long-term migrants. People who are not remunerated during their stay are classed as travellers (see Section 4.3), so there is some overlap of categories. This section considers short-term migration for any reason.

Data about short-term migration is available at European level only for the student population. Data for short-term migrants more generally is available only for a limited set of countries, and is, in some

<sup>128</sup> Source : Enquête Histoire de vie - Construction des identités, INSEE, 2003.

<sup>129</sup> Source : Enquête Histoire de vie - Construction des identités, INSEE, 2003.

<sup>130</sup> Source : ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche, DEP, panel d'élèves du second degré recruté en 1995, enquête Famille.

cases, grouped with data for any non-national making a short-term stay. This data indicates that short-term migrants are a small population group relative to long-term migrants and travellers.

#### 4.2.1 Student populations

There were about 195,000<sup>131</sup> EU students participating in the Erasmus programme in 2009/2010. This programme enables EU students to study at higher education institutions located in an EU country other than their country of origin. The programme accounted for 88% of EU<sup>132</sup> students who studied abroad on exchange programmes in the EU and other European host countries<sup>133</sup>. Therefore, the total number of EU students in higher education studying in other EU countries is likely to be at most about 220,000.

Foreign student populations are more evenly distributed across the EU than the populations of long-term migrants. For example, the new Member States hosted 10% of intra-EU Erasmus students in 2009/2010 compared to only 3% of intra-EU long-term migrants. Full data for the distribution of the student population is included in the Appendix C.

#### 4.2.2 Short-term migrant populations in France, Germany and the UK

National data gives an indication of scale of short-term migrant populations and flows relative to long-term migrant populations. However, the definitions of data provided varies by country, so this data is not comparable. The following section provides available data by country.

In the UK, there were on average about 231,000 short-term migrants with stays of 1 to 12 months, and 106,000 with stays of 3 to 12 months<sup>134</sup> resident in the country at any one time (the “stock”) in 2009. Totalled over the course of the year there were 1.228 million incoming short-term migrants with stays of 1 to 12 months and 237,000 with stays of 3 to 12 months. Of the inflow of migrants with stays of 1 to 12 months, an estimated 85,000 came from Poland, 77,000 from France and 60,000 from Spain. 38% came from EU countries excluding new Member States. Migrants making 3 to 12 month stays tended to come for employment or study, though other reasons predominated among migrants staying for 1 to 12 months. Overall, the stock of short-term migrants from other EU countries is about low relative to the total number of long-term EU migrants resident in the UK: it is equivalent to 10.6% of long-term migrants.

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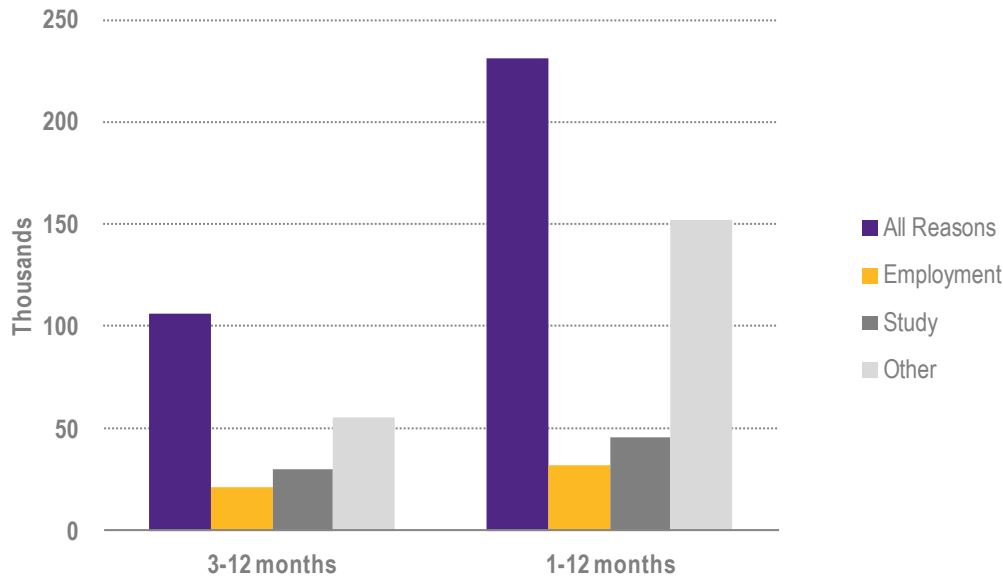
<sup>131</sup> Source: European Commission, Education and Culture Directorate-General, Outgoing and incoming Erasmus student mobility 2009/2010. Excludes Erasmus students originating from or studying in non-EU countries participating in the programme e.g. Turkey.

<sup>132</sup> The ESN Survey 2010 respondents were mainly from EU countries although there were a small percentage of non-EU students (e.g. USA, 0.9%).

<sup>133</sup> Source: 2010 survey by the Erasmus Student Network - [http://www.esn.org/sites/default/files/esnsurvey2010\\_final.pdf](http://www.esn.org/sites/default/files/esnsurvey2010_final.pdf)

<sup>134</sup> Source: Office for National Statistics, Mid-2009 short-term migration estimates for England and Wales. These numbers include all short-term international migration for all reasons.

Figure 4-7: Short-term migration into the UK (England and Wales) by reason of visit, 2009



Source: International Passenger Survey (IPS), Office for National Statistics (UK).

In Germany, the population of foreigners, including EU and non-EU, resident for less than a year at the end of 2007 was 269,000<sup>135</sup>, or 4% of the total population of resident foreigners.

In France, the number of foreign workers who entered the country on work permits of less than a year was 9,898 in 2007, compared to 16,775 on permits longer than a year<sup>136</sup>. However, some of the workers on shorter permits may have extended their stays. In addition, immigrants entering France without work permits are not included in this data.

## 4.3 Travellers

Citizens travelling within the European Union may generate demand for cross-border audiovisual services. Most travellers stay in hotels and rented properties, so they might be interested in services delivered over the internet to portable devices. Smaller numbers of travellers own property in the country that they are visiting so they might be interested in installing equipment to receive subscription-based services (e.g. satellite). This section considers the total number of travellers within the EU and zooms in on those that own property in their country of destination.

### 4.3.1 Numbers of travellers within the EU

Intra-EU tourism, excluding national tourism, accounted for 1.35 billion nights of stays or an equivalent 3.7 million person years in 2009<sup>137</sup>. There were 177 million cross-border trips within the EU and the

<sup>135</sup> Source: Central Register of Foreigners -

<http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/EN/Content/Statistics/Bevoelkerung/AuslaendischeBevoelkerung/Tabellen/Content50/Aufenthaltsdauer,templateld=renderPrint.psm1>

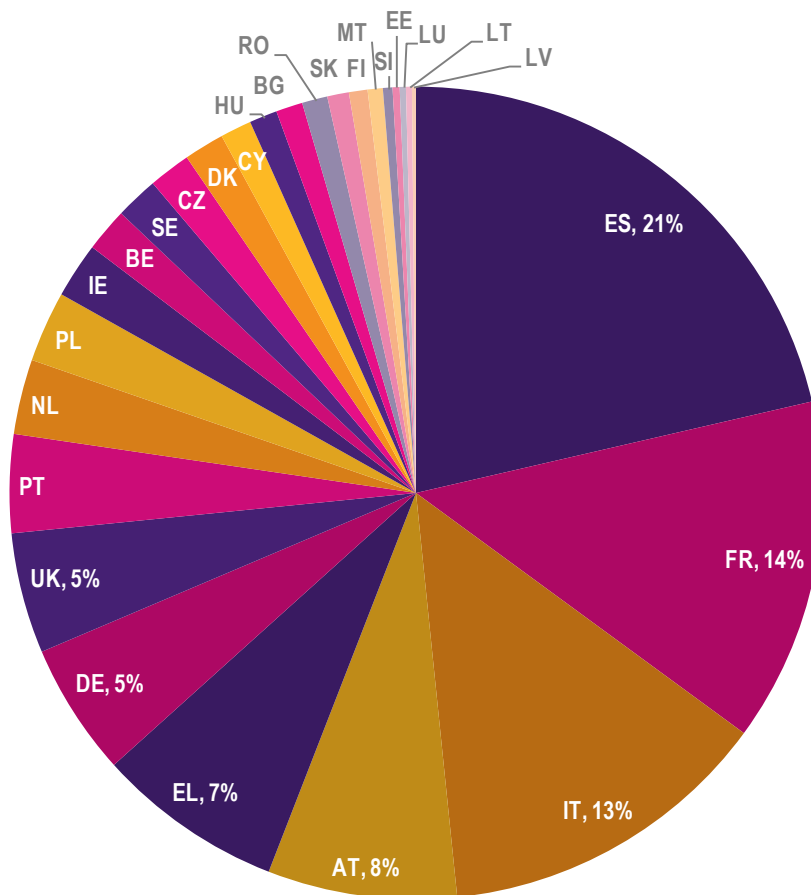
<sup>136</sup> Source: OFII

<sup>137</sup> Analysis of Eurostat data. Excluding visitors from Bulgaria and Malta.

average length of stay was 7.6 days. This data counts visitors defined as 'any person travelling to a place other than that of his/her usual environment for less than twelve months and whose main purpose of trip is other than the exercise of an activity remunerated from within the place visited'<sup>138</sup>. Therefore, there is some overlap with the count of short-term migrants discussed in Section 4.2.

The main destinations for intra-EU travel are Spain, France and Italy which make up almost half of intra-EU tourism nights. Austria, Greece, Germany, the UK and Portugal also generate significant numbers. Together, all these countries account for over three quarters of intra-EU tourism nights. Figure 4-7 shows the proportion of intra-EU tourism nights accounted for by each country of destination.

Figure 4-8: Destination of intra-EU travel by number of tourism nights, 2009

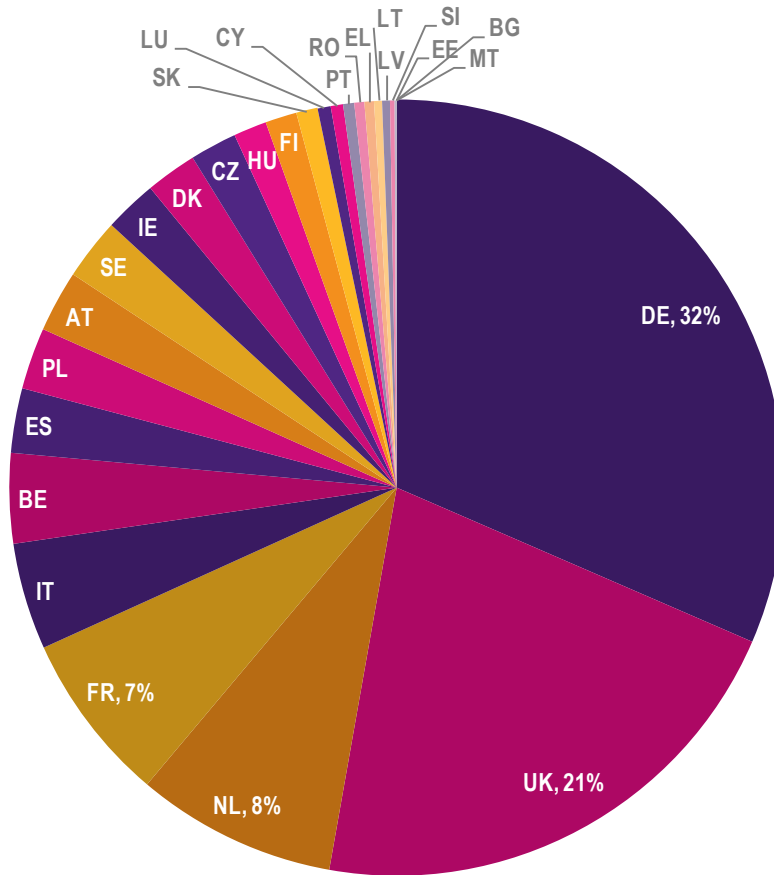


Source: Plum analysis of data from Eurostat

By origin of travellers intra-EU tourism is highly concentrated. Those originating in Germany and the UK generate the majority of intra-EU tourism nights, accounting for 52.8%. The Netherlands, France, Italy and Belgium account for a further 23.7%. Figure 4-8 shows the proportion of intra-EU tourism nights accounted for by each country of origin.

<sup>138</sup> Source: Eurostat - [http://epp.eurostat.ec.europa.eu/cache/ITY\\_SDDS/EN/tour\\_dem\\_esms.htm](http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/tour_dem_esms.htm)

Figure 4-9: Origin of intra-EU travellers by number of tourism nights, 2009



Source: Plum analysis of data from Eurostat

It is probable that a majority of these trips are leisure travel. For example, 67% of trips from the UK to Europe<sup>139</sup> in 2007 were for holidays, 16% visits to friends and relatives, 13% for business and 4% for other purposes<sup>140</sup>. The breakdown for other major European countries such as Germany and France is similar, with holidays making up the bulk of trips<sup>141</sup>.

Regarding place of stay, data from Spain and France indicate that most intra-EU travellers stay in hotels, with smaller numbers staying in rented accommodation, camping or lodging with family or friends.

- In Spain, 61% of tourists stayed in hotels and similar accommodation, 23% in private properties (their own or with family and friends), 9% in rental properties and 6% in other accommodation.

<sup>139</sup> Includes all EU27 Member States plus other central and Eastern Europe countries

<sup>140</sup> ONS International Passenger Survey (IPS)

<sup>141</sup> European Travel Commission – European tourism insights 2007. [http://www.etc-corporate.org/resources/uploads/ETC\\_Tourism\\_Insights\\_2007.pdf](http://www.etc-corporate.org/resources/uploads/ETC_Tourism_Insights_2007.pdf)

- In France (Métropolitaine) 102.9 million nights were spent in campsites compared to 97.5 million nights in hotels during the 2009 tourist season. 188 million nights were spent in hotels during the year as a whole. This data includes all French, intra-EU and other international visitors<sup>142</sup>.

#### 4.3.2 Second home ownership within the EU

There is a significant level of cross-border ownership of second homes in the European Union. These properties may be used as holiday homes, rented or both. Aggregated data is not available at a European level, but some insights can be drawn from data available nationally, especially from countries with a high level of incoming tourism.

- In France there were about 300,000 foreign owners of second homes in 2008. 28% of these owners were from the UK, 14% Italy, 10% Belgium, 8% the Netherlands and 3% Spain<sup>143</sup>.
- In Spain, there were an estimated 117,000 second homes in 2005. Most of the owners of these properties were from the UK, followed by Germany and France.

In addition, large numbers of EU citizens own timeshares in properties in other EU countries or have fractional ownership of these properties. In this model the people buy rights of occupancy in a property, typically in multiples of one week, for either a set period or in perpetuity. Timeshare properties are typically located in resort complexes and managed by service companies. Therefore, timeshare owners are not a direct market for the installation of cross-border audiovisual services that require customer premise equipment. However, timeshare service companies may have demand for such equipment and services.

In 2007, there were 1.5 million timeshare owning households in Europe<sup>144</sup>. By far the largest numbers of timeshares are owned in Spain, followed by the UK and Portugal. The main timeshare owning countries are the UK and Ireland (589,000 timeshares), followed by Germany and Italy. The relatively high level of ownership of timeshares in Spain is reflected in the proportion of tourists who stay in this kind of accommodation: 8.9% of visitors to Spain in 2009 stayed in properties that they own fully or as a timeshare<sup>145</sup>.

## 4.4 Linguistic minorities

The mother tongue of EU citizens is primarily the national language or another regional language. In addition, a small proportion of citizens have a mother tongue that differs from these languages. The distribution of these populations tends to correspond with the patterns of migration noted in Section 4.1.1: these are mainly migrants, both EU and non-EU. However, there is a sub-group that are not migrants but citizens of their country of residence. This may correspond to naturalised citizens or to longer-established populations that retain a distinct linguistic identity. Populations in the latter category occur mainly in border regions, for example Swedish speakers in Finland, Polish speakers in Lithuania and Hungarian speakers in Slovakia and Romania. These groups can account for a

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<sup>142</sup> INSEE Premiere, N° 1296 - Mai 2010. 2009 : une saison très favorable pour les campings, une année difficile pour l'hôtellerie.

<sup>143</sup> [http://www.french-property.com/news/french\\_property\\_market/british\\_second\\_home\\_owners/](http://www.french-property.com/news/french_property_market/british_second_home_owners/)

<sup>144</sup> <http://www.rdo.org/node/391>; <http://www.rciaffiliates.com/europe/industry/facts-figures>

<sup>145</sup> Frontur y Egatur. Año 2009. Instituto de Estudios Turísticos.

significant proportion of the population in their respective countries of residence. Though specific data is not provided at European level for these groups, we estimate that about 4 million EU citizens are members of linguistic minorities. This is based on an analysis of the largest linguistic minority groups and there is uncertainty over the scale of the “long tail” of groups in aggregate.

**Table 4-2: Countries that have large populations who have non-national mother tongue**<sup>146</sup>

Country of residence	Proportion of population whose mother tongue is...	Proportion of population that are migrants from...	Difference in proportion	Difference
Finland	Swedish 5.1%	Sweden 0.16%	4.9%	262,000
Lithuania	Polish 5.3%	Poland 0.02%	5.3%	176,000
Slovakia	Hungarian 8.8%	Hungary 0.09%	8.7%	472,000
Romania	Hungarian 4.8%	Hungary 0.00%	4.8%	1,030,000
France	Spanish 1.3%	Spain 0.43%	0.9%	582,000
Germany	Polish (1.1%)	Poland 0.55%	0.6%	491,000
France	Italian (1.0%)	Italy 0.53%	0.5%	324,000
Germany	Italian (0.9%)	Italy 0.72%	0.2%	164,000
Sweden	Finnish 2.3%	Finland 0.82%	1.5%	140,000

To some extent these populations are served by national broadcasters. The TV services available for citizens whose mother tongue differs from the national language varies greatly depending on their countries of residence. In Finland, Swedish speakers are fairly well served with 51 Swedish language channels (9 free-to-view, 42 pay) available compared to Romania where Hungarian speakers have just two Hungarian language channels, though these are both free to view<sup>147</sup> In addition, some people living in border region may be able to receive terrestrial transmissions from neighbouring countries. Nevertheless, these populations may generate significant demand for cross-border pay audiovisual services.

## 4.5 People with language proficiency or learning a language

There may be language-related demand for cross-border audiovisual media services in relation to three groups. First, small numbers of non-migrant EU citizens have a mother tongue different to the national, and regional, language(s) of their country of residence. They may generate demand for cross-border audiovisual services from countries sharing their mother tongue. Second, much larger numbers of EU citizens are proficient in non-national languages as a second (or further) language. They may want cross-border audiovisual services to help retain language skills, out of interest in other languages / cultures or to obtain a better selection of content than is available in their domestic market. Finally, large numbers of EU citizens are learning languages and may be interested in cross-

<sup>146</sup> Source: Eurostat – Language knowledge (self-reported) (edat\_aes\_I12).

<sup>147</sup> Source: MAVISE database.



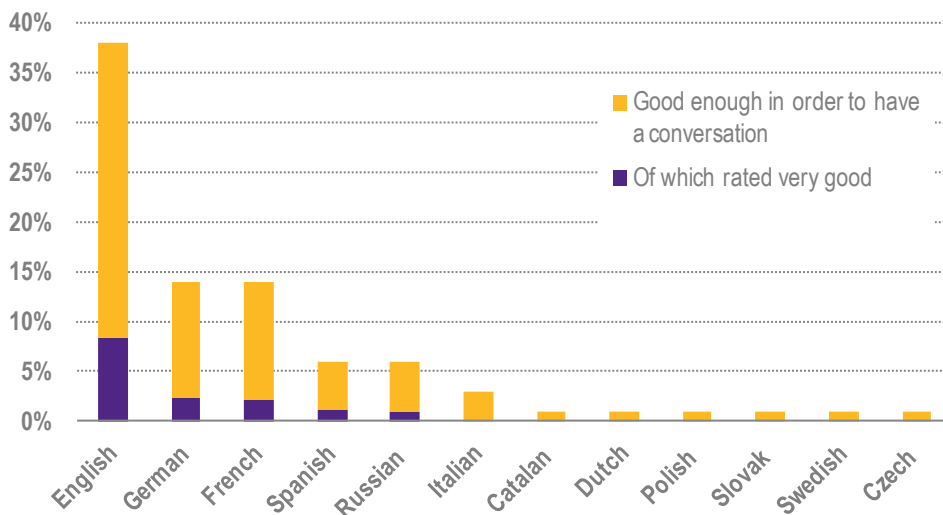
border audiovisual services as a learning aid. This section considers the size and characteristics of each of these groups in turn.

#### 4.5.1 People proficient in second languages

Large numbers of Europeans have proficiency in second and further languages. For the purposes of this study, we are interested in people who have sufficient proficiency for cross-border audiovisual content to be understandable to them, should they wish to watch it. This level is necessarily difficult to define given the range of types of content offered on audiovisual services. Therefore, this section presents data showing the number and / or proportion of people who claim proficiency in different languages, and the number claiming a high level of proficiency.

Overall, 56% of respondents to survey of EU 25 adults in 2005 claimed to be able to speak a second EU language<sup>148</sup> well enough in order to have a conversation (equivalent to 228 million people). There is a very strong weight of English and, to a lesser extent, French, German and Spanish among these second languages. The survey data suggests that about 48 million EU citizens have proficiency in one of these second languages at a level that is claimed to be “very good”, excluding the national languages as a second language. Figure 4-9 shows the incidence of speaking various second language among the EU adult population, and the sub-set with “very good” proficiency for English, German, French, Spanish and Russian only.

Figure 4-10: The proportion of EU adults that speak second languages, 2005

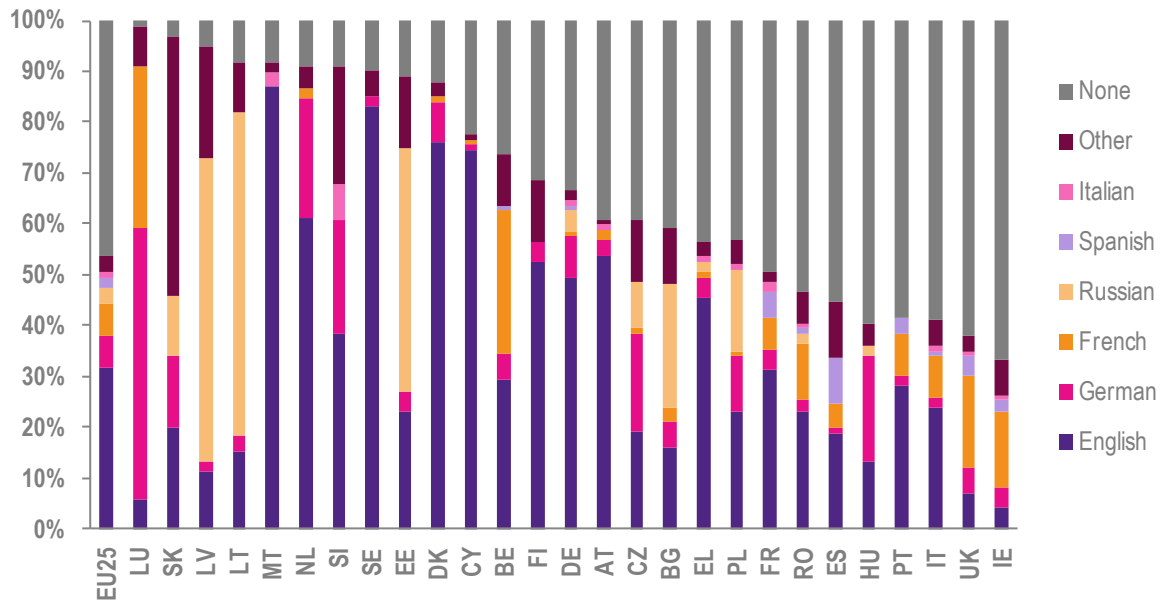


Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

The proficiency in second (and further) languages varies significantly by country. There is an especially high level of language skills in Luxembourg (99% speak a second language well enough to have a conversation), Slovakia (97%), Latvia (95%), Lithuania (92%), Malta (92%), the Netherlands (91%) and Slovenia (91%). Levels are especially low in Ireland (34%), the UK (38%) and Hungary (42%). The mix of second languages also differs by country. Figure 4-10 shows the proportion of adults who speak different second languages, excluding third and further languages, by country.

<sup>148</sup> Excluding the national language(s) of their country of origin

Figure 4-11: Proportion of people with proficiency in second languages by country

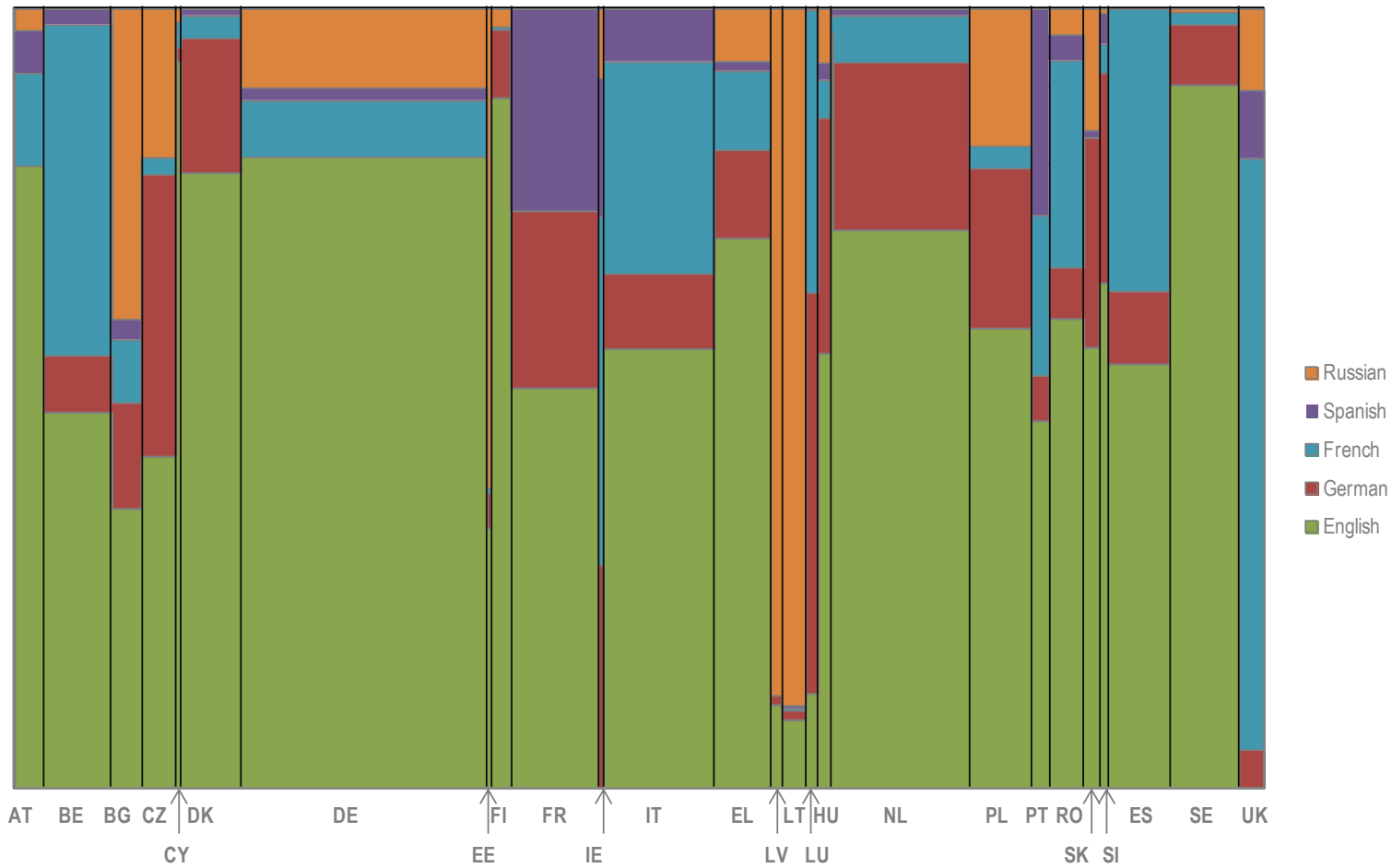


Notes: Includes adults who speak a second language well enough in order to have a conversation. Third and further languages are not included. Russian (non EU) and national languages as a second language are included for comparison.  
 Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

Figure 4-12 shows the population distribution of the sub-set of adults that self reported a “very good” level of proficiency in English, German, French and Spanish. Data for level of proficiency is not available for other languages, though it is probable that these other languages would make up only a small proportion of the total, especially if national languages as second languages are excluded.

English is the language spoken by the majority of adults with a “very good” level of proficiency in a second EU language, with smaller but significant numbers speaking German, French, Spanish and, to a lesser extent, Italian. The population of people with very good skills in a second EU language are largest in Germany, the Netherlands, Italy and France.

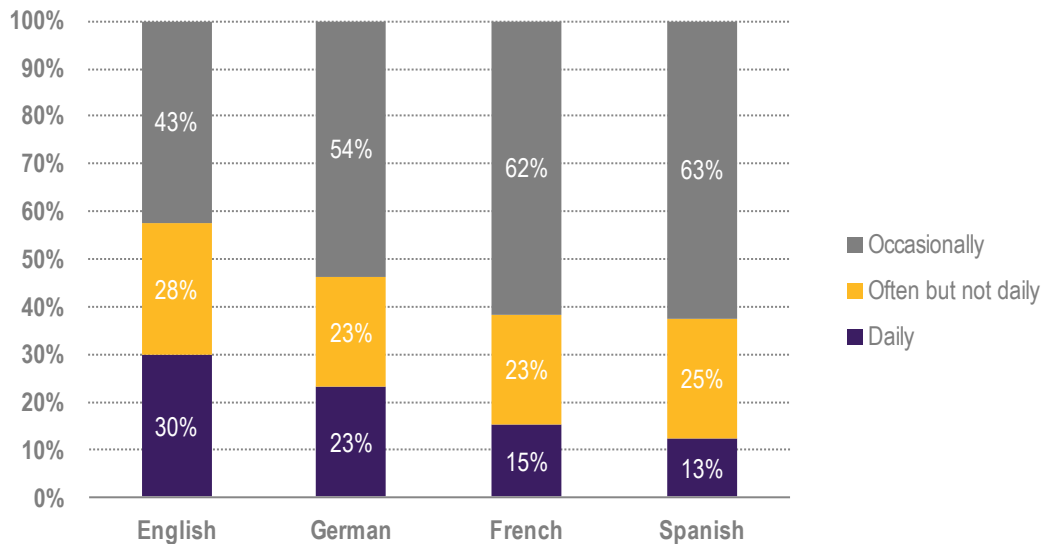
Figure 4-12: Distribution of adults with “very good” second language proficiency, 2005



Note: Area of segments is proportional to number of people.  
 Source: Plum analysis of data from Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

There is a varying frequency of use of second languages. The more popular languages tend to be used the most frequently. Figure 4-11 shows the frequency of use of the main second languages by those who have proficiency (at any level). It is probable that only those that use second languages “daily”, or at least “often”, would possibly be interested in cross-border audiovisual media services.

Figure 4-13: Frequency of use of second languages by language, 2005



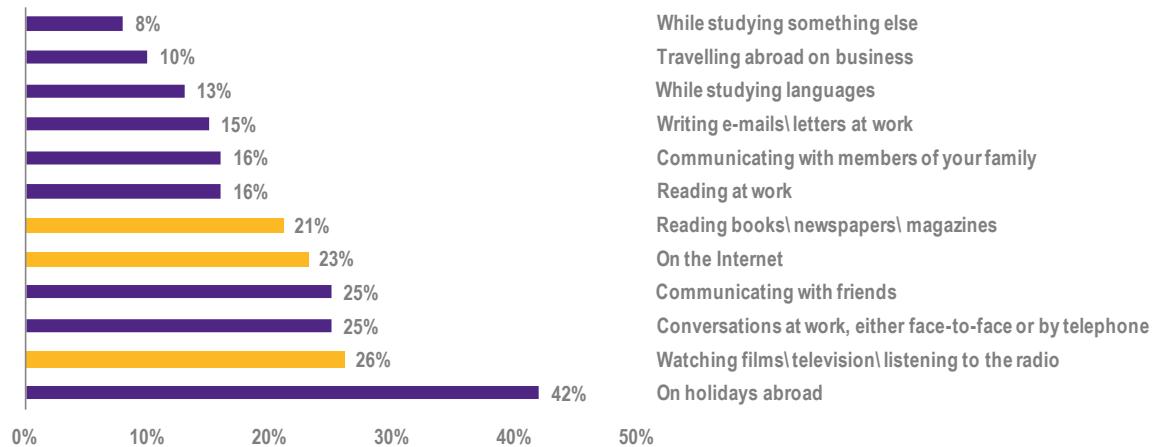
Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

The way that people use their languages is of relevance to this study, especially any behaviour that indicates potential demand for cross-border audiovisual services. Significant proportions of those with proficiency in second languages regularly use these languages in relation to audiovisual or other content. This indicates some level of interest in content in other languages or at least the need to use these languages in order to access content.

People with language proficiency (good enough in order to have a conversation including the “very good” subset) used their skills regularly to watch films and television or listen to the radio (26%), read books, magazines and newspapers (21%) and use the internet (23%) in 2005<sup>149</sup>. Figure 4-14: shows the incidence of different regular uses of second languages among those with proficiency. Content-related uses are highlighted in yellow.

<sup>149</sup> Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (November-December 2005).

Figure 4-14: Regular uses of second languages by people with proficiency, EU 25, 2005



Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

Supply of audiovisual services has an impact on language use in relation to these services. Comparing countries there is a correlation between the level of use of second languages to watch films and television or listen to the radio and the language transfer practices for audiovisual content. In Germany, Austria, Spain, France, Hungary, Italy, the Czech Republic, Slovakia, Switzerland, and French-speaking Belgium dubbing<sup>150</sup> is the predominant practice, while in Bulgaria, Poland, Latvia, and Lithuania voice over<sup>151</sup> tends to be used<sup>152</sup>. As the original language is replaced in these practices, the use of second languages in relation to audiovisual content is relatively low in these countries. In Flemish-speaking Belgium, Cyprus, Denmark, Estonia, Finland, Greece, Ireland, Iceland, Norway, the Netherlands, Portugal, Romania, the UK, Slovenia and Sweden subtitling is the predominant practice<sup>153</sup>. In these countries the use of second languages in relation to audiovisual content is relatively high. Figure 4-13 shows these patterns.

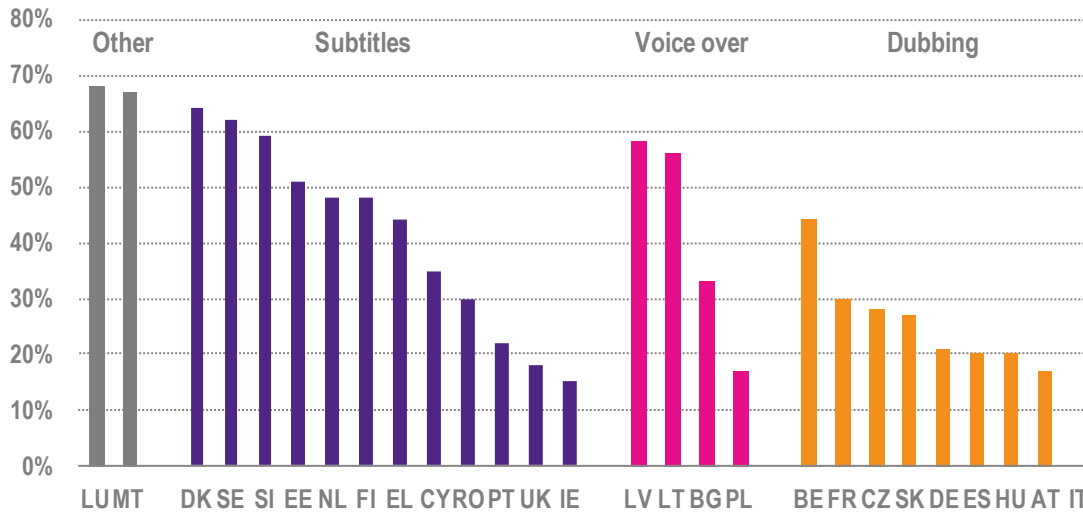
<sup>150</sup> Dubbing is the replacement of the original soundtrack with a soundtrack in another language spoken by voice artists.

<sup>151</sup> Voice-over involves reducing the sound level of the language on the original work, and superposing another language typically spoken by one, or at most two, voices. The original language though quiet remains audible.

<sup>152</sup> Study on dubbing and subtitling needs and practices in the European audiovisual industry, Media Consulting Group / PeacefulFish, 2007.

<sup>153</sup> Regarding other countries, in Estonia one-third of television programmes are broadcast with voice over and two-thirds subtitled, while in Luxembourg the original versions (without language transfer) are broadcast and in Malta the English version is typically broadcast in most cases.

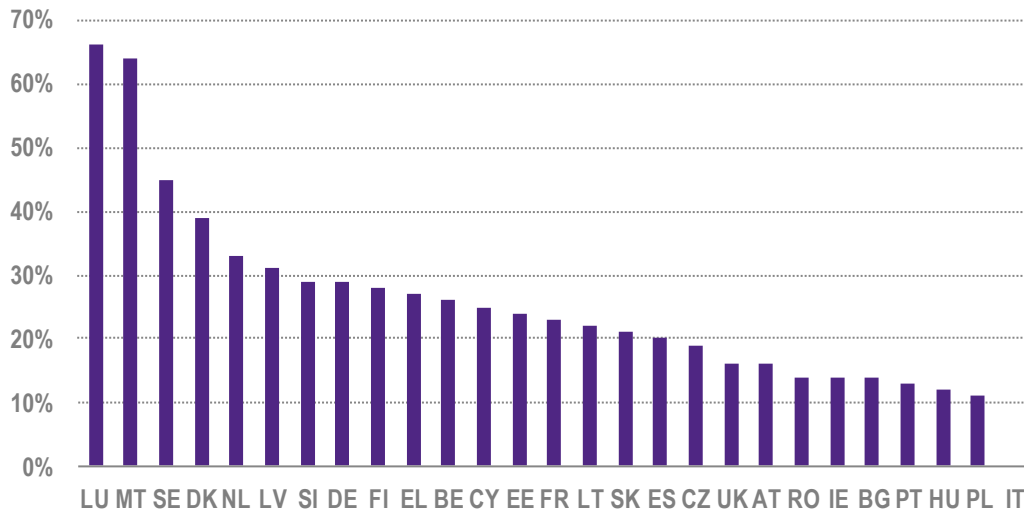
Figure 4-15: Proportion of those proficient using second languages for AV content, 2005



Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

The relative incidence of use of second languages to read books, newspapers and magazines, and to use the internet will not be affected by language transfer practices, though other supply-side factors such as availability, in the case of printed material, may have an effect. Overall, the level of use of second languages in this case appears to be linked to country size: the smaller the country the more likely people are to use their second language to read printed material.

Figure 4-16: Proportion of those proficient using second languages for printed content, 2005



Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

## 4.5.2 People learning languages

There were about 65 million children in the EU 27 learning the 23 official EU languages as foreign languages at primary or secondary level in 2007<sup>154</sup>. In addition, according to Eurobarometer, 12% of Europeans learn a second language in higher education<sup>155</sup>. Estimates of the number of the number of adults learning languages ranges from 2 million (learning informally, EU 27 countries, Eurostat<sup>156</sup>) to 73 million (started learning a new language or improved command of another language in the last two years, Eurobarometer<sup>157</sup>). English is the main language learned; the incidence of learning different languages follows a similar pattern to that of language proficiency in the adult population.

Among children the incidence of learning English is especially high in primary education, with English accounting for 84% of children learning languages, compared to 60% in upper secondary education. Figure 4-15 shows the number of children learning each of the main EU languages. English is the most studied foreign language in all EU Member States at the primary and secondary levels, except English-speaking countries where French is the most studied foreign language, and Luxembourg (German and French). French, German, Spanish and Russian are the other common foreign languages studied. In some countries, other foreign languages are widely taught in schools, for example Dutch in Belgium, Danish in Iceland and Swedish in Finland<sup>158</sup>.

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<sup>154</sup> Source: Eurostat – Students in ISCED 1-3 by modern foreign language studied (educ\_enrlng1). This total is an upper estimate as some children are learning more than one language, leading to double counting.

<sup>155</sup> Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (November-December 2005), p.21.

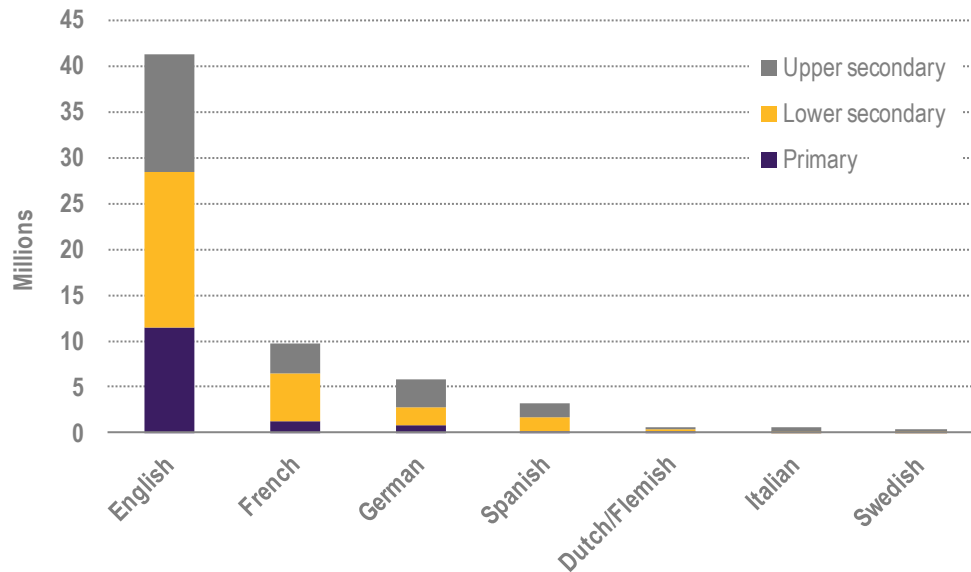
<sup>156</sup> Source: Eurostat – Participation of employed persons in non formal education/training activities (trng\_nfe21). Non formal training is defined as any organised and sustained educational activities that do not fall under the definition of formal education (defined as education provided in schools, colleges, universities and other formal institutions that normally constitutes a continuous “ladder” of full-time education for children and young people). Non-formal education and training are normally short courses catering to all age groups and may take place both within and outside educational institutions. Depending on country contexts, it may cover educational programmes to impart adult literacy, basic education for out of school children, life-skills, work-skills, and general culture.

<sup>157</sup> Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (November-December 2005). The specific question asked in the survey was “Have you started learning a new language or improved your command of another language during the last two years?”

<sup>158</sup> Eurostat (2010). More students study foreign languages in Europe but perceptions of skill levels differ significantly.

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-10-049/EN/KS-SF-10-049-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-10-049/EN/KS-SF-10-049-EN.PDF)

Figure 4-17: Number of children learning EU languages as foreign languages, EU 27



Source: Eurostat - Students in ISCED 1-3 by modern foreign language studied.

Eurobarometer survey results suggest that 18% of adults in the EU, about 73 million people, started learning a language or improved their command of a language in the two years prior to the survey<sup>159</sup>. The survey did not ask how actively these people had been learning, so it is uncertain what proportion might be sufficiently engaged in learning to be potentially interested in cross-border audiovisual services. Similarly, 21% said that they intended to “start learning or improve their language skills over the next coming year”. In contrast, Eurostat found that 1.8 million people in the EU 27 countries participated in non formal education/training activities on foreign languages in 2007<sup>160</sup>.

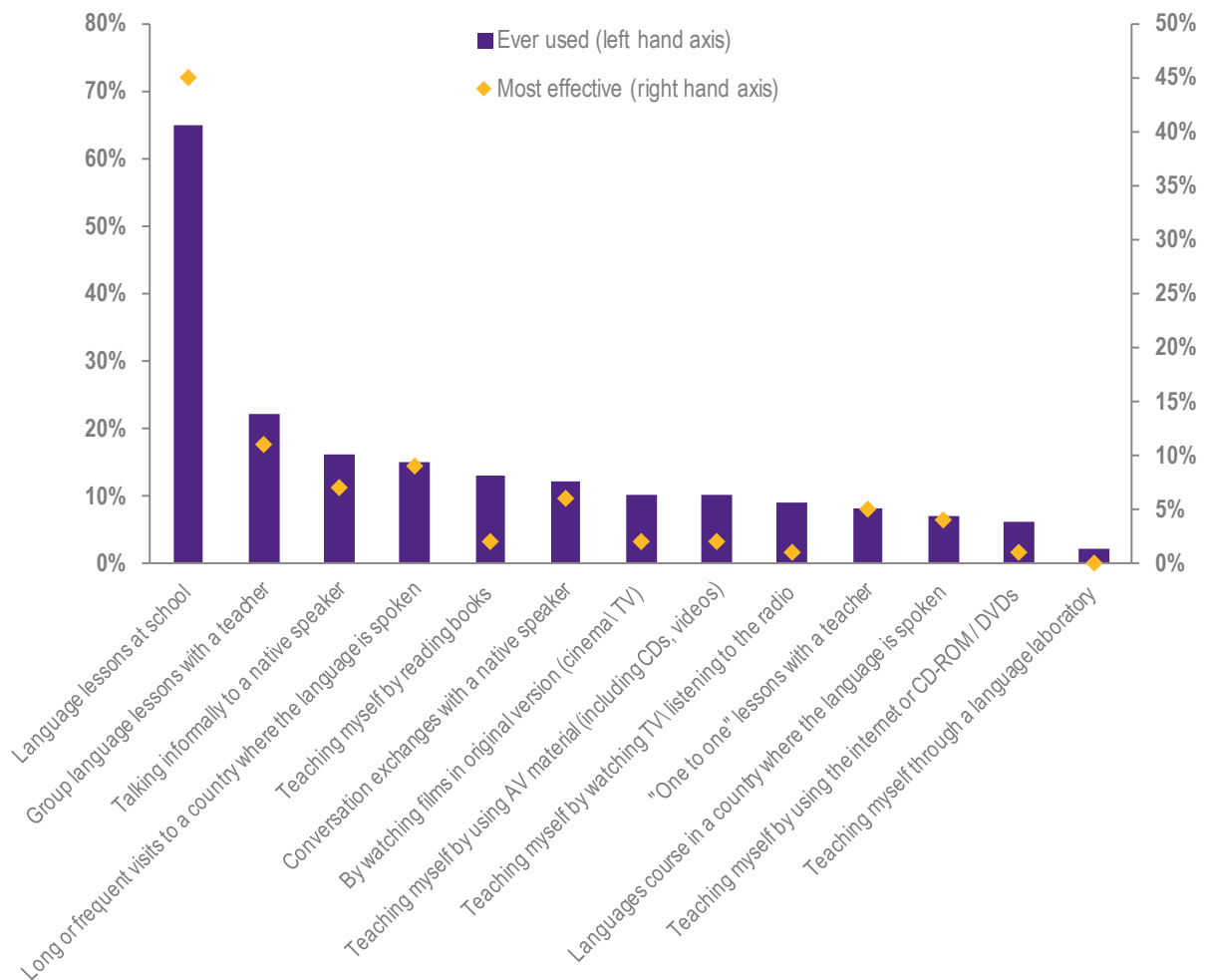
Adults learn languages or improve their skills in a range of ways. Figure 4-16 shows the proportion of adults that had ever used different methods and the proportion that rated each method the most effective. Language lessons at school and group lessons with a teacher had been used by the largest proportion of people. These methods were also rated the most effective. Audiovisual content was also used. 10% of adults, or about 40 million people, learned “By watching films in original version (cinema / TV)” and 9% by “Teaching myself by watching TV / listening to the radio”. However, these methods were rated as most effective by 2% and 1% of people respectively, indicating that these methods are at best complementary to other forms of learning. It is uncertain what proportion of adults currently use audiovisual content to learn languages: it is likely to be significantly lower than the proportion that ever have done so.

<sup>159</sup> Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (November-December 2005).

<sup>160</sup> Source: Eurostat – Participation of employed persons in non formal education/training activities (trng\_nfe21). The reference period for participation in learning activities is 12 months prior to the Adult Education Survey 2007.



Figure 4-18: Methods used by adults to learn languages, 2005



Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

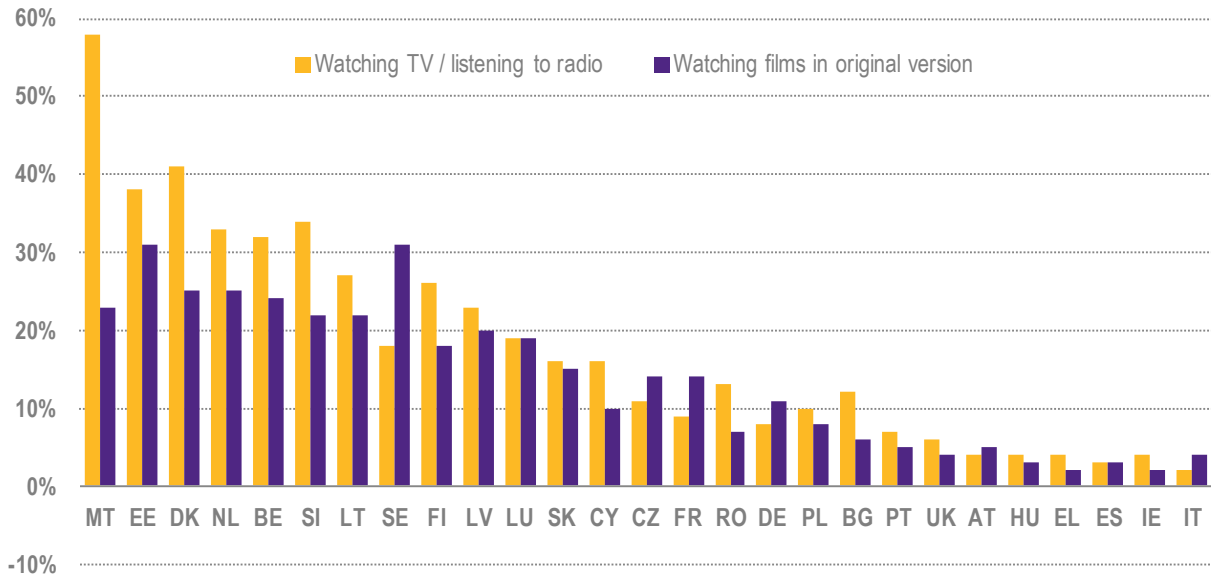
The level of use of audiovisual media to learn languages varies depending on the supply of audiovisual content in foreign languages. It is most common in countries that broadcast foreign language audiovisual content in the original language version (e.g. Malta) or with subtitles (e.g. Estonia, Denmark), and least common in countries that use dubbing (e.g. Italy, Spain). Figure 4-17 shows the proportion of adults who have used audiovisual methods for language learning by country. It may also be that some people are using language learning programmes provided by their domestic broadcaster. For example, in Spain "That's English"<sup>161</sup> – a distance learning programme by Ministry of Education in collaboration with TVE and the BBC – offers this type of television programmes. In Germany "TeleKolleg"<sup>162</sup> – a long-running series produced by Bayerischer Rundfunk for the German ARD network – offers television and radio programmes for English and French learners. In the UK BBC Two Learning Zone<sup>163</sup> offers programmes in major European languages including French, German, Italian and Spanish.

<sup>161</sup> <http://www.thatsenglish.com/>

<sup>162</sup> <http://www.br-online.de/wissen-bildung/telekolleg/>

<sup>163</sup> <http://www.bbc.co.uk/learningzone/langtravel/>

Figure 4-19: Proportion of adults who have ever used AV methods for language learning



Source: Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

A UK paper<sup>164</sup> found that language learners appreciate the authenticity of television and that watching it is more like entertainment than learning. However, as the television set is often shared with other family members it was not always practical for learners to use it for this purpose. Subtitles (on television or DVD) in the target language (not translated) were helpful to learners. We note that these subtitles are found on original broadcasts, not on translated subtitled versions that currently cross borders. However, these may be available on DVDs.

### 4.5.3 Conclusions

In conclusion, people with a good level of proficiency in second EU languages and those learning languages are relatively large population groups: 48 million and 60 million people in the EU respectively. The majority of these have proficiency in or are learning English, with significant, but smaller populations proficient in or learning German, French, Spanish and Italian.

There is some use of these languages in relation to audiovisual content. However, to some extent this may be because foreign-language content is subtitled in some countries such that people have the opportunity to use their second languages to watch it. Similarly, there is some use of audiovisual content in relation to language learning, though this appears to be complementary to other forms of learning.

<sup>164</sup> Fallahkhai, S, Masthoff, J and Pemberton, L (2004). Learning languages from interactive television: language learners reflect on techniques and technologies. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.141.1794&rep=rep1&type=pdf>

## 5 Future trends

The Futures Company conducted analysis of future trends and social and attitudinal factors that may affect demand for cross-border pay audiovisual media services, directly or via the demand drivers discussed elsewhere in this report. This section presents the findings of this work.

### 5.1 Framework for analysis

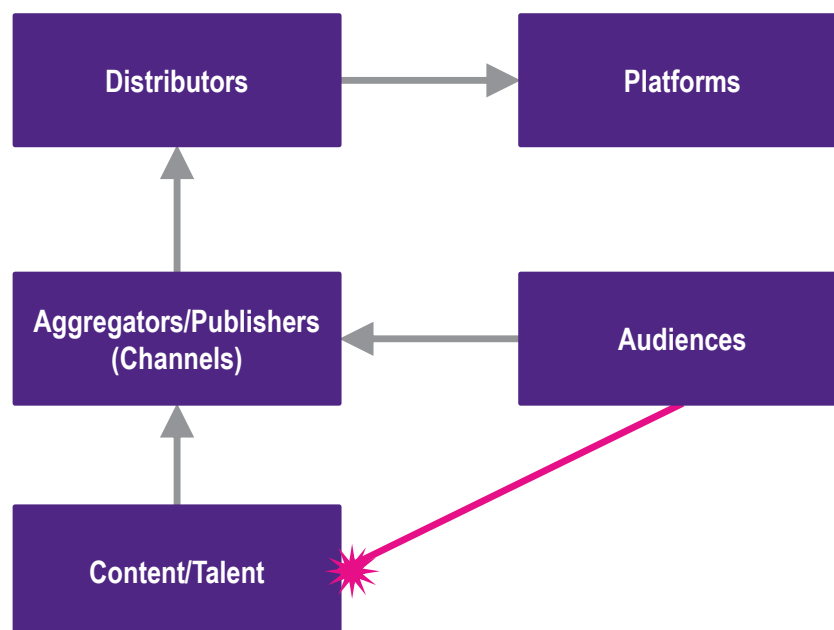
To help identify relevant trends which may shape further research, we have used a model to structure the material relevant to the themes of the study.

The supply side of audio-visual industries can be characterised as falling into three main components: talent/content; producers or aggregators; and distributors. In the television sector this structure is sometimes disguised by the degree of vertical integration and (at least for national terrestrial services) the relative simplicity of distribution. This is a simplification; in practice there is a more complex eco-system of supply, which includes agents, adjacent to content and talent, and packagers in the space between producers and distributors.

The demand side can be characterised as comprising audiences and platforms. Audience demand has an economic, social and cultural component. But reception of an audio-visual product also requires access to a platform, whether this is a television set, a satellite decoder, a computer, or a mobile phone. (In some creative industries markets, such as those for newspapers or books, the platform has traditionally been integrated into the product.)

This market model is shown in Figure 5-1 below.

Figure 5-1: Structure of typical creative industries



Source: The Futures Company, adapted from London Economics and Andrew Curry, "The Next Wave".

## 5.2 Programme supply

The left hand side of Figure 5-1 comprises the programme supply. This is partly influenced by expectations of audience demand, research, and so on. For the purpose of the present study, it would be easy, but wrong, to assume that from a supply perspective the question of supply is largely an issue of distribution (by assuming the most likely programming format is simply the transmission of a channel which is already being broadcast in its host country).

In practice, at a minimum producers/aggregators are likely in some circumstances to tailor programming for a market if they consider that the market is substantial enough; if they consider its needs are visibly different from the audience in the host country; if there are benefits to be had from different promotional strategies; and if there are different commercial opportunities (sponsorship and advertising) in the country which is importing the programming.

Again, it would be possible to assume that content will largely be untouched. But this is likely to depend on platforms, and therefore on audience consumption patterns and expectations. For example, material which is largely transmitted via broadband to a device which is not a television set, will typically benefit from being available in shorter segments than material transmitted for viewing on television sets.

### Summary of relevant trends

The relevant trends in this element of the cross-border television system, we identify the following:

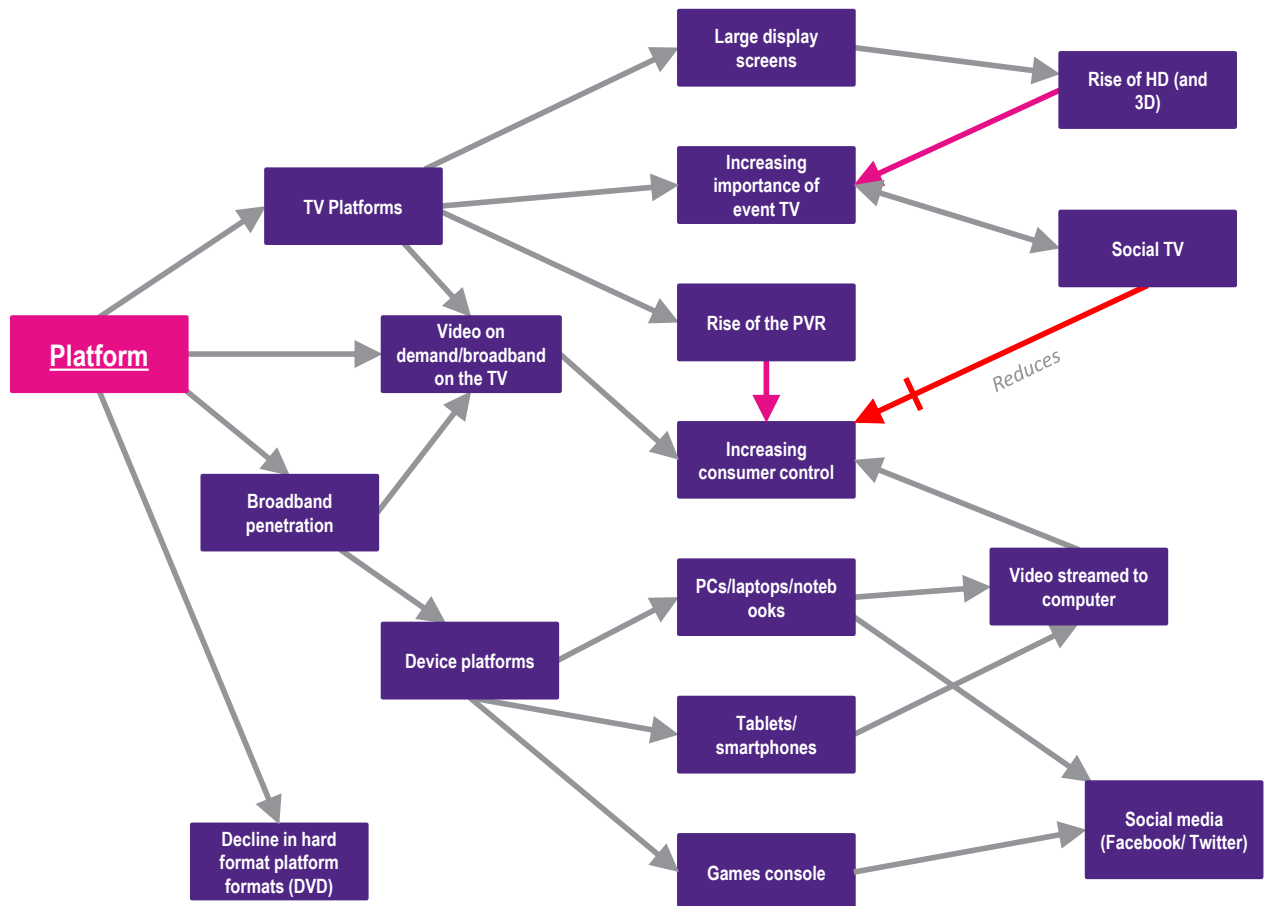
- Fragmentation of content
- Rise of video on demand distribution
- Declining share of programme costs paid for by lead broadcaster
- End of channel scarcity
- Rise of broadband penetration

## 5.3 Platforms

The dominant trends in the platform space pull in the opposite directions. In one set of trends, the rise of broadband creates a substitute for television, increasing user control and fragmentation. This is also reinforced by other digital television platforms, such as the personal video recorder (PVR). Together these create increasing individualisation of schedules.

The second theme is about the extension of television as a social experience into the virtual space, through social media platforms such as Facebook and Twitter, creating a parallel experience to the social consumption of television in the home, and complementing the broadcast schedule. Although the drive towards the big live event is shaped by other trends (such as the fragmentation of the television market), social media acts as an amplifier.

Figure 5-2: Platform trends



Source: The Futures Company

To expand on the trends diagram, the trend towards larger display screens was largely independent of the trend towards high definition (it was created by trends about “the house as display”), but it has helped create demand for high-definition. Similarly, the increasing importance of event TV (whether sports, big entertainment formats, or first run films) was driven by industry trends such as channel fragmentation, but in turn becomes a vehicle which builds demand for HD-TV (and potentially 3D TV) and benefits from that platform.

As summarised above, these trends reinforce the notion of shared viewing, which has never completely disappeared as some media commentators have suggested. Research done for a UK commercial broadcaster by The Futures Company found that the majority of television viewed in households was still watched in the company of at least one other person.

The advent of social media platforms have reinforced this, by creating a double layer of sociability - one virtual, one physical - thereby deepening the experience of the programme and emphasising the importance of being present at the time of transmission. In practice even quite modest television programmes are able to attract a community of the moment while on air.

However, the other set of trends driven specifically by broadband and by the digital PVR platform pull towards greater individualisation. Broadband enables audio visual content to be streamed or screened to a variety of platforms, including computers, tablets, smart screens (allowing for a moderate viewing experience) and games consoles. PVRs allow viewers greater choice and control over viewing by storing programmes on a hard drive attached to the TV, and enabling the viewer to watch them when they choose, and to skip advertising or dull passages. Video on demand services to the television are also enabled by a range of providers, including cable, satellite, and telecoms companies, and also through standalone devices such as Apple TV. These all fragment the viewing experience, already significantly fragmented by increasing channel choice.

Meanwhile, the DVD market remains significant but in decline.

### Summary of relevant trends

- Increasing broadband presentation
- Increasing consumer investment in in-house devices
- Rapid expansion of channel capacity
- Proliferation of digital devices
- Increasing portability of digital devices
- Rise of social media
- Return of mass event television
- Increasing customisation of television viewing experience
- Decline of hard format audio-visual media market
- Rise of Internet-connected televisions
- Development of TV-based video on demand propositions

## 5.4 Audience trends

Audience demand can be thought of as comprising three different aspects:

- Access (do they have a platform which can deliver the service?)
- Payment (will they generate enough revenues for the supplier, directly or indirectly, to make the service viable?)
- Interest (do they have enough interest in the programming to watch it?).

The platform issues have been discussed in the previous section. In this section we will look at trends affecting potential audiences for cross-border TV and their interest levels in it. As the Figure below suggests, this is a fragmented audience: it includes: Migrants (medium term and long-term); Visitors (short-term, business or leisure); Learners; Multi-lingual nationals; Non-native fellow speakers (e.g. Swedish speaking Finns). Much of the relevant language data has been analysed in detail in an earlier sections of this report.

In addition to language issues, it seems likely that some degree of 'cultural openness' may be a requirement for demand for cross-border TV, although this is also inflected strongly by shared regional histories within Europe. (Countries which have a shared history may be interested in each other's television even if they are not generally open.)

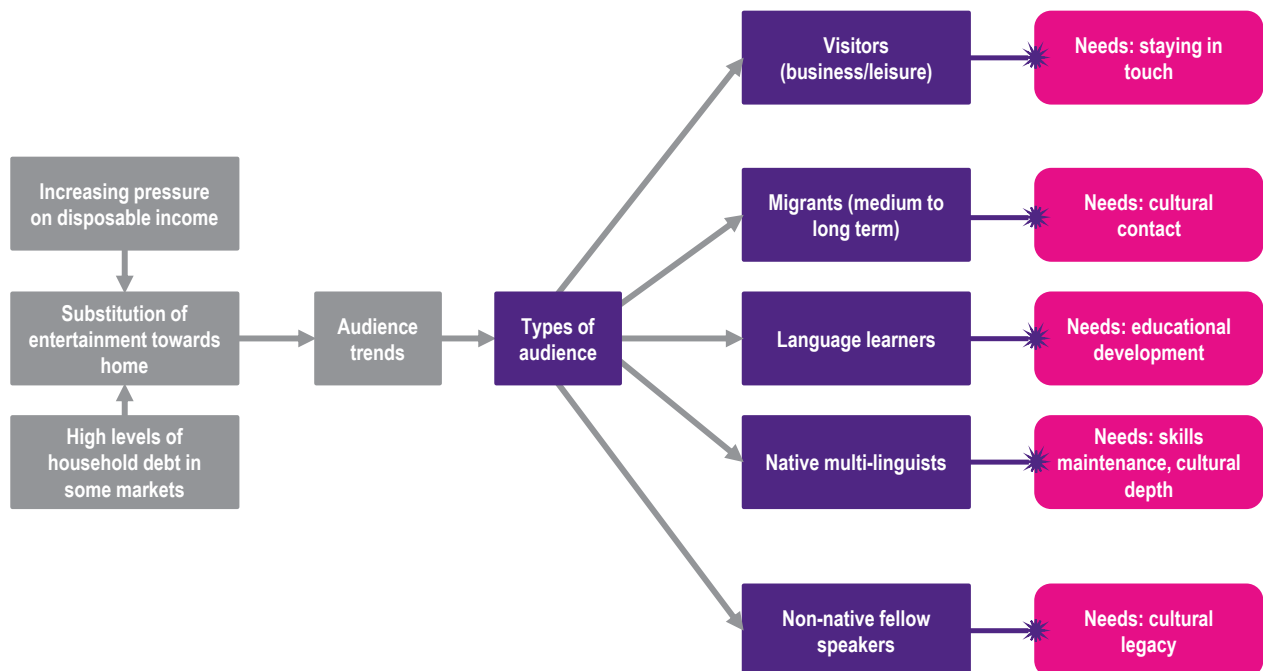
Economic issues are also relevant. At macro level, share of wallet for media consumption tends to be a relatively constant share of per capita income (at 4-5%), although this relationship has been blurred by bundled services in the broadband and mobile spaces. In addition, time spent and demands for in-home entertainment increases in times of economic austerity. This, of course, is likely to increase demand for television consumption in general, without necessarily increasing demand for cross-border TV.

## 5.5 Interest

The third section of demand – levels of interest – is likely to comprise five [four] different audiences. These include:

- Migrants (medium term and long-term)
- Visitors (short-term, business or leisure)
- Learners
- Multi-lingual nationals
- Non-native fellow speakers (e.g. Swedish speaking Finns).

Figure 5-3: Audiences and needs



Source: The Futures Company

The different audience groups – in some cases – break down further, leading to a more granular identification of relevant trends. For example, migrants include economic migrants who are working in another European country, older people who have retired to a different country, and people who are married or have a long term relationship with a national from a different country. However, the underlying needs of each of these sub-groups are consistent and this enables us to assess the strength of interest.

In summary:

- The needs of the visitor (short-term) are to maintain contact while away. This may be more valuable for a business visitor than the leisure visitor (who may prefer to experience the culture of the country they are visiting). There are also other channels to do this, such as online news services.
- The needs of the migrant are to maintain cultural contact with their country of cultural origin. Proxy evidence (e.g. from communities which have a significant proportion of retirees from another country, or from areas with a significant minority community of economic migrants) suggests that this is typically a fairly strong desire.
- The needs of the learner are to develop their education, for economic and cultural reasons. This suggests a reasonable level of interest, although potentially only for a few years.
- The needs of the multi-lingual native are to maintain and refresh linguistic skills levels, and also to deepen their cultural understanding of the country or countries whose language they speak. This is likely to be for both economic and cultural reasons. This suggests a reasonable level of continual interest.
- The needs of the non-native speaker are likely to be determined by the strength of the cultural legacy and identity of the linguistic community which they are part. This is a complex matter. On the face of it, for example, Swedish-speaking Finns may have little more interest in Swedish affairs and culture than Finnish-speaking Finns. An initial hypothesis is that this interest is not strong. But identity is always a complex area. As John Urry notes, “most societies are not nations, let alone nation states” (the huge population of overseas Chinese is an example)<sup>165</sup>. Identity is not ‘either/or’. People are more likely to see their identity as “both/and;” Catalan and Spanish and European.

Indicatively, therefore, for the purposes of hypothesis development, it is possible to construct a summary table which identifies potential size of each of these markets with their potential strength of interest. (More dots signify larger potential.)

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<sup>165</sup> John Urry, *Global complexity*. Polity, 2003.



Table 5-1: Size of potential audience for cross-border TV and strength of interest

Audience type	Size (at EU level)	Strength of interest in cross-border TV
Migrants (medium term and long-term)	••	••••
Visitors (short-term, business or leisure)	••	•
Learners	•••	•••
Multi-lingual nationals	••••	•••
Non-native fellow speakers	•	•

Source: The Futures Company

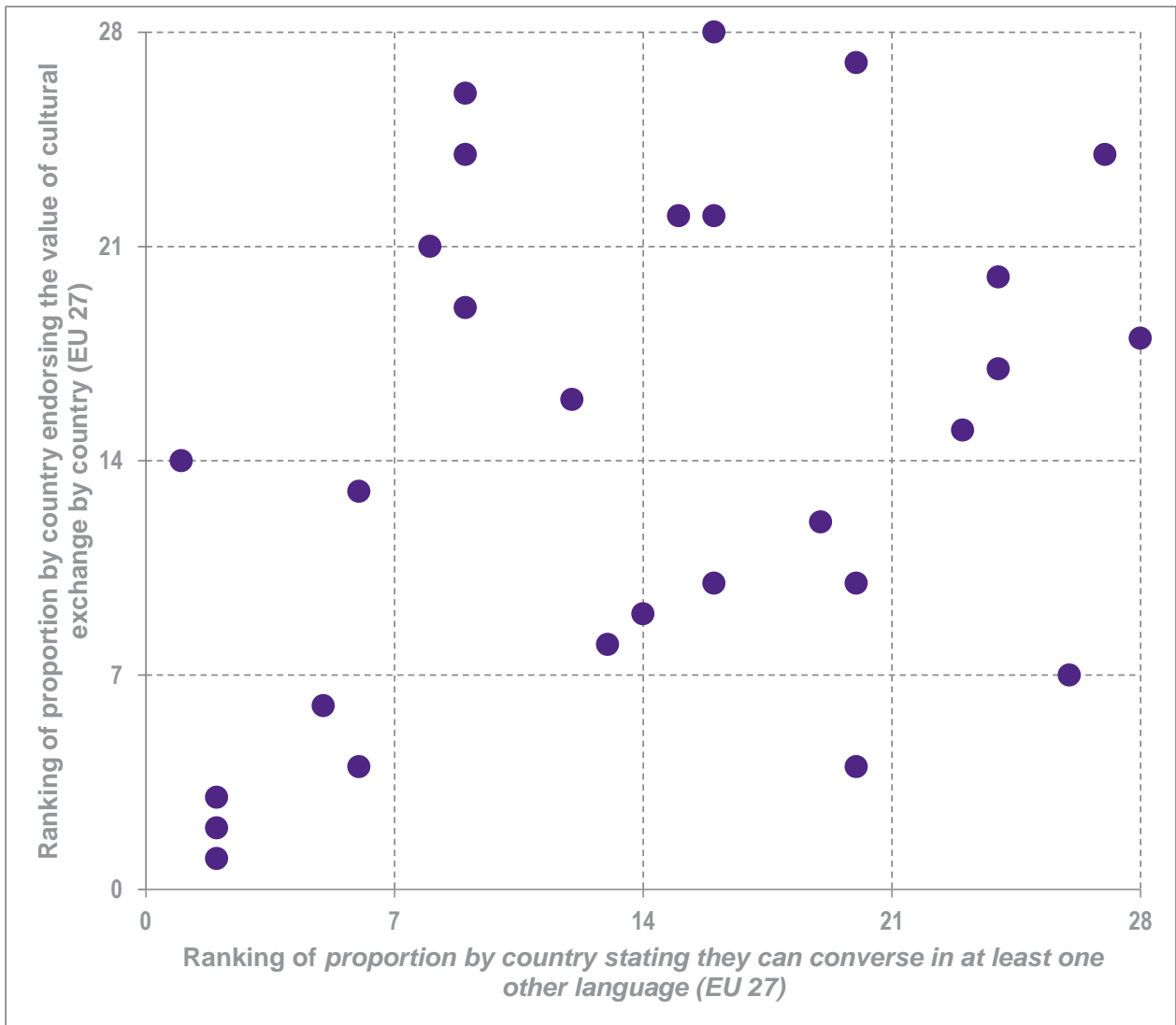
## 5.6 Indicators of cultural openness

At a national level, demand for cross-border TV is likely to be influenced both by linguistic ability and by relative cultural openness. In general cultural openness is a long-term cultural value held by countries. The work of Schwartz suggests that there are relatively stable long-term patterns.

To test for this at this stage, looking at both attitudes and behaviours, we have analysed EU research data from different Eurobarometer reports: one on cultural attitudes within EU countries, and one on language. As an attitudinal proxy, we took the cultural question, “Culture and cultural exchanges should have a very important place in the EU so that citizens from different Member states can learn more from each other and feel more European”, from European Cultural Values. Special Eurobarometer 278, European Commission, 2007. As a behavioural proxy, we used the question on conversational languages spoken from “Europeans and their Languages”, Special Eurobarometer, 2006.

These are tabulated on the next page. Having analysed the data, this suggests that there is a weak overall a correlation between attitudes and behaviours. However, analysis within the data suggests more interesting patterns.

Figure 5-4: Testing for cultural openness in European countries



Source: The Futures Company analysis

Table 5-2: Assessing cultural openness by country

	Culture and cultural exchanges should have a very important place in the EU so that citizens from different Member states can learn more from each other and feel more European <sup>166</sup>	Which languages do you speak well enough in order to be able to have a conversation, excluding your mother tongue? <sup>167</sup>
	Percentage "Totally agree"	At least one language
Cyprus	71%	78%
Malta	55%	92%
Romania	54%	47%
Belgium	53%	74%
Estonia	53%	89%
Germany	52%	67%
Hungary	51%	42%
Poland	51%	57%
Slovakia	51%	97%
Bulgaria	50%	59%
Greece	49%	57%
Luxembourg	49%	99%
Slovenia	49%	91%
The Netherlands	46%	91%
European Union (27)	44%	56%
France	43%	51%
Finland	42%	69%
Denmark	41%	88%
Latvia	41%	95%
Lithuania	41%	92%
Sweden	40%	90%
Portugal	39%	42%
Czech Republic	39%	61%

<sup>166</sup> European Cultural Values. Special Eurobarometer 278, European Commission, 2007.  
[http://ec.europa.eu/culture/pdf/doc958\\_en.pdf](http://ec.europa.eu/culture/pdf/doc958_en.pdf)

<sup>167</sup> Europeans and their languages, Special Eurobarometer. EU, 2006.  
[http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_243\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_243_en.pdf)

	Culture and cultural exchanges should have a very important place in the EU so that citizens from different Member states can learn more from each other and feel more European <sup>166</sup>	Which languages do you speak well enough in order to be able to have a conversation, excluding your mother tongue? <sup>167</sup>
Spain	37%	44%
Ireland	36%	34%
Italy	36%	41%
United Kingdom	36%	38%
Austria	30%	62%

The data show (in the bottom left) a group of countries which ranked low both attitudinally and behaviourally, where – in terms of the general population – there may be relatively low demand for cross-border TV. The five countries in this group are the UK, Ireland, Italy, Spain and Portugal.

At the other end of the spectrum, there is – at the top left, a group of countries which have open attitudes and relative proficiency for languages. There are nine countries in this group: Germany, The Netherlands, Belgium, Luxembourg, Slovakia, Slovenia, Estonia, Cyprus, and Malta. In some of these markets, notably the Benelux countries, there is already some degree of cross-border TV by virtue of the positioning of transmitters relative to national boundaries.

Some of the variations in the analysis reflect the importance of geography, history and culture in patterns of language use. Austria, for example, ranks low attitudinally and high in terms of languages spoken. Greece, in contrast, is in the top half of the ranking attitudinally, but in the bottom half in terms of languages spoken.

The evidence in this section suggests that while language use may be a befitting indicator of likely demand, it would be necessary to understand potential demand at a country by country level.

## 5.7 Age and educational effects

Looking at the cultural values analysis in more detail, and in particular at the questions about networks and behaviours, there is a subset of questions which can be regarded as a good proxy for indicative interest by the national of one country in cross-border TV.

These questions are about whether respondents watch foreign language TV or movies; read foreign language newspapers; read foreign language books; have friends from other European countries; or have relatives or family living in other European countries. In the tables below these are listed by age and education.

**Cross-cultural contact: Analysis by age**

Note: ranked according to percentage point difference (15-24)-(55+)

	15-24	25-39	40-54	55+	Difference: youngest - oldest
Watch foreign language TV/movies	28%	22%	17%	13%	+15
Friends from other European countries	33%	31%	28%	19%	+14
Read foreign language newspapers	13%	11%	9%	6%	+7
Read foreign language books	10%	9%	6%	4%	+6
Family/relatives living in other European country	25%	25%	22%	19%	+6

**Cross-cultural contact: Analysis by education**

Note: ranked according to percentage point difference (20+)-(≤15)

	15	16-19	20+	Still studying	Difference: up to 15-20 and above
Friends from other European countries	14%	23%	41%	38%	+27 points
Watch foreign language TV/movies	8%	14%	30%	34%	+22 points
Read foreign language newspapers	3%	5%	19%	17%	+16 points
Read foreign language books	2%	4%	14%	14%	+12 points
Family/relatives living in other European country	18%	21%	27%	25%	+9 points

Source: European Cultural Values. Special Eurobarometer 278, European Commission, 2007.

Without labouring the analysis of these tables at any length, it is clear that in general interest in other European countries and their culture does correlate clearly with age (inversely) and with education. It may be worth testing further to identify whether the age differences are the result of a cohort effect or a life stage effect, but given other trends it seems a strong hypothesis that this is a cohort effect, and that levels of interest will increase over time.

**Summary of relevant audience trends**

- Declining disposable income (because of economic climate, rising prices) leading to shifts in entertainment habits
- Increasing levels of economic migration between European countries
- Increasing desire and propensity to retire to another country
- Increasing numbers of cross-border relationships

- Increasing education levels
- Increasing expectations of employers for language skills.

## 5.8 In conclusion

Proxies for demand for cross-border TV can be seen in current behaviours in existing markets. These include:

- Migrants working or living in other countries accessing TV channels from their home market via satellite, usually use a freesat dish. This is relatively expensive and time-consuming to set up, which acts as a barrier to uptake. Such groups, for example, include areas with high cross-border retirement, for example in Spain.
- Access to events (e.g. sporting events) in the country of origin or cultural background, via bars or pubs with appropriate receiving equipment
- Distribution of DVDs of films in non-majority languages through minority communities
- As discussed earlier in this report, online access to audio-visual content and other content produced in the country of origin or cultural background.

It should be noted that there are a number of places in Europe where cross-border TV already exists, either through service design or through geographical accident. These include Ireland, where the east coast receives terrestrial channels from the UK and Sky's UK-based satellite service is transmitted to the whole country; areas within Benelux; and, for pay-TV services, areas in retirement communities in Spain.

The UK/Irish case may be extreme, because of the historic, cultural and linguistic ties between the two countries, but it also gives a good proxy for the demand for cross-border TV, which is largely unfettered by language difficulties. In 2009, UK-based channels - BBC1, UTV (commercial free-to-air), S4C (commercial Welsh-language), BBC2, and Sky 1 (pay-TV) – took a market share of 18% in Ireland.

Although the main scope of this research study is quantitative, it seems likely that our understanding of potential behaviours in this market would be reinforced by a component of qualitative research among existing users of cross-border TV, and other cross-border media, to understand more deeply the motivation for uptake and the barriers.

## 6 Consumer demand for cross-border services

Demand for cross-border audiovisual media services among migrant groups and the population more widely has been explored through a mix of online and telephone research with consumers and through a desk-based analysis of indicators of current demand for related services. This section describes the methodology and results of the consumer research that we have undertaken and key insights from the desk-based analysis.

The **online survey of migrant populations** explores the potential demand for cross-border audiovisual media services among a sample of migrants in five countries. The **telephone survey of the general population** was conducted in every EU 27 country and provides contextual data to the online research. As might be expected the base sizes of migrants at country level was very low in the general population survey so country comparison is not possible.

### 6.1 Online survey of migrant populations

The main objective of the online survey was to gather data about migrants' behaviour with respect to watching audiovisual material from other countries, their interest in cross-border services and their willingness to pay for these services.

Targeting this group was the key challenge for the research design, and required a balance between the need to achieve bases of a sufficient size for analysis and the time and budgetary constraints for this component of the project. An online panel approach was adopted as the best possible way to achieve a sufficiently large sample size and this needs to be borne in mind when interpreting the data. Any non-random sample design is by definition not able to be representative of the larger population. However, the data provides insight into the willingness of migrants to pay for subscription-based cross-border audiovisual media services.

#### 6.1.1 Methodology

##### Online fieldwork

Fieldwork took place in September 2011 and was conducted in five EU Member States.

- UK.
- France.
- Spain.
- Sweden.
- Poland.

These countries were selected on the basis of including different types of countries in terms of migration patterns and also based on a feasibility check which was conducted prior to fieldwork with a small sample which indicated that it would be possible to conduct the study with a sufficient number of intra-EU migrants. However, the fieldwork took somewhat longer than anticipated as it was difficult to conduct in Poland.

Due to the relatively low incidence of intra-EU migrants, it was necessary to establish that respondents qualified for the survey and this was done on the basis of the following question:

D1	Were you born in [COUNTRY] or were you born in a different country? (ONE ANSWER ONLY)
1	Born in [COUNTRY]
2	Born in another European country inside the EU
3	Born in another European country outside of the EU
4	Born in a country outside of Europe

Only those who were born in another European country were included in the survey. The incidence levels per country are detailed below.

Country	Completed surveys	Number sent	Ineligible	Incompletes	Incidence <sup>168</sup>
UK	110	5831	2446	359	16%
FR	105	5839	4816	441	10%
ES	107	3903	2478	154	11%
SE	116	3430	1922	90	10%
PL	24	4384	2162	85	5%

### Online recruitment

The online panels we used recruit panellists via a wide range of different types of recruitment to ensure as diverse a panel as possible. These methods include:

- Active recruitment through telephone or face to face.
- Online recruitment using banners on different portals and websites.
- Email recruitment and specific invitations.
- Email recruitment by sending invitations to permission based databases.

Incentivisation is based on a reward system based on points. The number of points is affected by the length of interview. On reaching a certain level, panellists can receive their rewards through different online payment partners. Panellists can choose to receive their rewards in cash sent to their bank accounts or they can shop online with online merchants. Some panels include an option to make payments to a charity. The incentives have been set to encourage long term participation but also to discourage professional respondents who seek to respond to surveys only to obtain payment.

### Online methodology – advantages and drawbacks

The main advantage of the online approach adopted for this study is that it is a timely and cost-effective way of conducting a survey with a relatively large sample size. Given the scarcity of information about the

<sup>168</sup> "Incidence" is the number of completed incomplete surveys divided by the number of completed and incomplete surveys and ineligible.



overall universe of intra-EU migrants, the representativeness of this sample is a less critical factor than it would be with a general population survey. However, a fundamental aspect of online research is that it requires internet access and this is a key bias in the sample of migrants interviewed for this survey. For example, it means that the results probably over-state the proportion of migrants who currently access audiovisual content online.

The other main drawback of an online approach is that the medium does not allow for an in-depth survey in the same way as a face-to-face or telephone approach. Respondent fatigue is a real risk for any online questionnaire and the questionnaire therefore has to be as short as possible to minimise the risk of people quitting the survey part way through. While it would have been desirable to ask more detailed questions about people's usage and behaviours in this area of audiovisual content from other countries, it was necessary that the questionnaire focus exclusively on the key objectives – namely current access, level of interest and willingness to pay.

### 6.1.2 Features of the sample

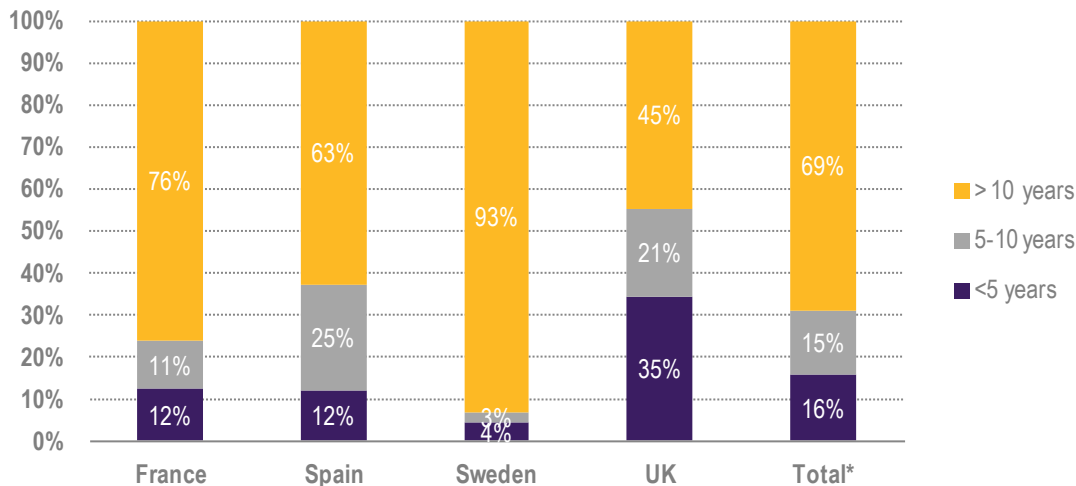
The total sample of migrants in the online survey totalled 462 respondents all of whom qualified as they answered that they currently live in a country other than their country of birth. The sample exceeded 100 in France, Spain, Sweden and the UK, but was only 24 in Poland. Owing to the low sample size in Poland, these respondents have been excluded from comparisons by country of residence, but included in all other charts. Overall, the sample sizes are relatively small so the results, especially when broken down by segment, are subject to a relatively high degree of statistical error.

As there is no accepted demographic profile of the universe of intra-EU migrants we have not attempted to weight the results as there is no reliable universe data to weight the survey data by. Therefore, the sample contains elements of bias which are more likely to reflect the adopted methodology for the research rather than being real characteristics of the overall universe. The key difference is that by necessity all respondents have access to the internet and all speak the language of their host country. In addition, by comparing the sample against indicative data for migrant populations, the sample exhibits the following characteristics:

- High proportion (62%) of respondents that is female. The proportion of women in the sample varies from 49% in Sweden to 69% in the UK.
- High proportion of respondents sharing a mother tongue with the country of residence, ranging from 32% in the UK to 66% in France. In part, this is accounted for by migrants from countries speaking the same language (e.g. Belgians in France). It is also possible that some were born to parents who were migrants and have since returned to their parents' country of origin. However this is mostly because the questionnaire was asked in the language of the country of residence as indicated above.
- Related to this, high / low representation of specific groups: relative to the distribution of intra-EU long-term migrants defined by citizenship: in the French sample the numbers of people born in Belgium and Germany are high, while the numbers born in Italy and Portugal are low. In the Spanish sample, the numbers of people born in France and Germany are high, while Romania and the UK are low. In the Swedish sample the number born in Finland is high (almost half the sample) and Poland is low. In the UK sample, the numbers born in Ireland and Poland are low.
- There is a slightly lower proportion of people originating in new Member States (EU12): 29% compared with 34% for the total population of intra-EU migrants measured by citizenship.

- The sample also includes variation by length of residence. It is uncertain whether this is a feature of migrant populations, a skew in the sample or an element of both. Figure 6-1 shows the length of residence by country of residence. The proportion who have been resident for over 10 year is especially high in Sweden (93%) and France (76%). In contrast, the UK sample includes larger numbers of recent migrants: 35% have been resident for less than five years.

Figure 6-1: Length of residence of respondents by country of residence



Note: \* Includes Poland respondents

Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK

Source: TNS online survey, September 2011

Taken together these factors mean that the results of the survey provide a good indication of the behaviour of migrant populations within the countries in which the survey was conducted, but as with any online survey which has self-selection rather than random selection as the basis of its design, it cannot be taken as representative. As mentioned previously, given the scarcity of reliable data on the overall universe, representativeness is not as important a factor as with a survey of the general population.

Throughout the report we have drawn attention to any results that may be strongly affected by the skew in the sample. For example, the survey may underestimate the level of interest in sports content as this is significantly lower among female respondents than males.

### 6.1.3 Summary of results

The survey found that **85% of migrants currently watch television or video from other EU countries**, using a variety of methods including free-to-air television, subscription channels, foreign satellite packages (the “grey market”) and the internet.

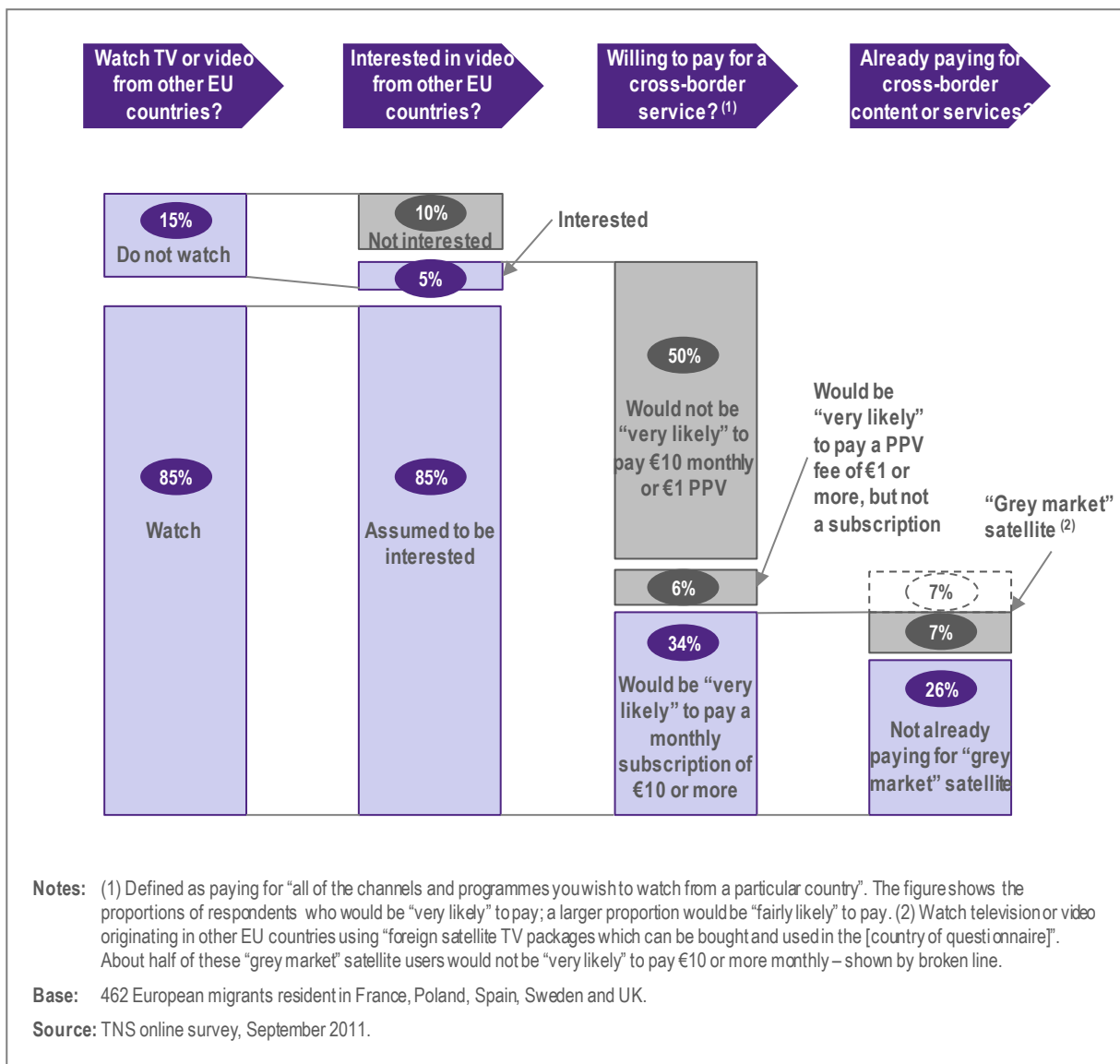
**A further 5% would be interested in watching television or video from other EU countries** were it available over satellite or the internet.

**34% of respondents would be “very likely” to pay a monthly subscription of €10 or more for a cross-border service**, broadly defined, offering all the channels and programmes from a particular country that the respondent would wish to watch. An additional 6% would not be very likely to pay a monthly subscription of €10 or more, but would be very likely to pay €1 or more per content item on a pay-

per-view basis. 7% of respondents would be very likely to pay a monthly subscription of €10 or more, but already pay for foreign satellite subscriptions (the “grey market”). An additional 7% of respondents use “grey market” services, but said that they would not be very likely to pay a monthly subscription of €10 or more. Figure 6-2 summarises these results.

**Willingness to pay for television and video from other EU countries was found to decrease with length of residence.** 17% of respondents living in their country of residence for less than five years would be “very likely” to pay €50 monthly. In comparison, only 4% of among respondents living in their country of residence for ten years or more would be “very likely” to pay €50 monthly. Willingness to pay was also above average for respondents who frequently watch television or video from other EU countries and respondents who regularly stay in other countries for a month or longer or frequently travel abroad. Differences of willingness to pay by country of residence were relatively smaller.

Figure 6-2: Summary of the online survey results



### 6.1.4 Language proficiency

Respondents were asked about their language proficiency and their travel habits as these factors may affect their interest in and willingness to pay for cross-border audiovisual media services.

The language skills of migrants in the sample were generally strong, though some respondents spoke only the language of the country of residence. Any migrants who are not proficient in the language of their country of residence would not have been recruited for the survey, so the relative size of this group is uncertain. The questionnaire also did not distinguish between EU and non-EU languages, so some of the proficiency registered may relate to non-EU languages (e.g. Polish-born migrants living in the UK who are proficient in Russian).

Figure 6-3: shows that 53% of respondents had a mother tongue different to the language of the country of residence. Of respondents whose mother tongue was the same as the language of the questionnaire, 29% were fluent in another language, while 18% were not fluent in any other language. 3% of respondents had a mother tongue different to the language of the questionnaire, but claimed that they were not fluent in any other language. It is possible that the proficiency of these people in their mother tongue has lapsed over time so that they no longer claim proficiency in it.

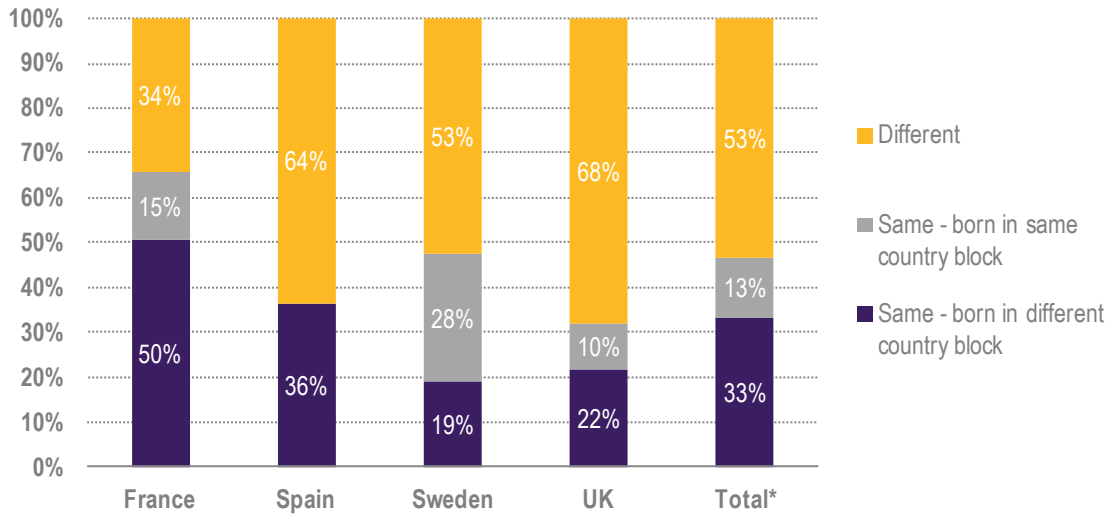
**Figure 6-3: Mother tongue and language fluency**

		Mother tongue relative to language of country of residence	
		Different	Same
Proficiency in any language other than language of country of residence	Not fluent	3%	18%
	Fluent	50%	29%

**Base:** 462 European migrants resident in France, Poland, Spain, Sweden and UK.  
**Source:** TNS online survey, September 2011.

The proportion of respondents with the same mother tongue as their resident country varies by country as is shown on Figure 6-3. There are high proportions of migrants with the same mother tongue in France (66%) and Sweden (47%). However, 15% and 28% respectively were born in countries that have French or Swedish as the national languages or contain linguistic minorities that speak these languages. In addition, some of the respondents born in non-EU European countries may come from countries with a common language (e.g. people born in Switzerland in the French sample).

Figure 6-4: Mother tongue by country of residence



Note: \* Includes Poland respondents

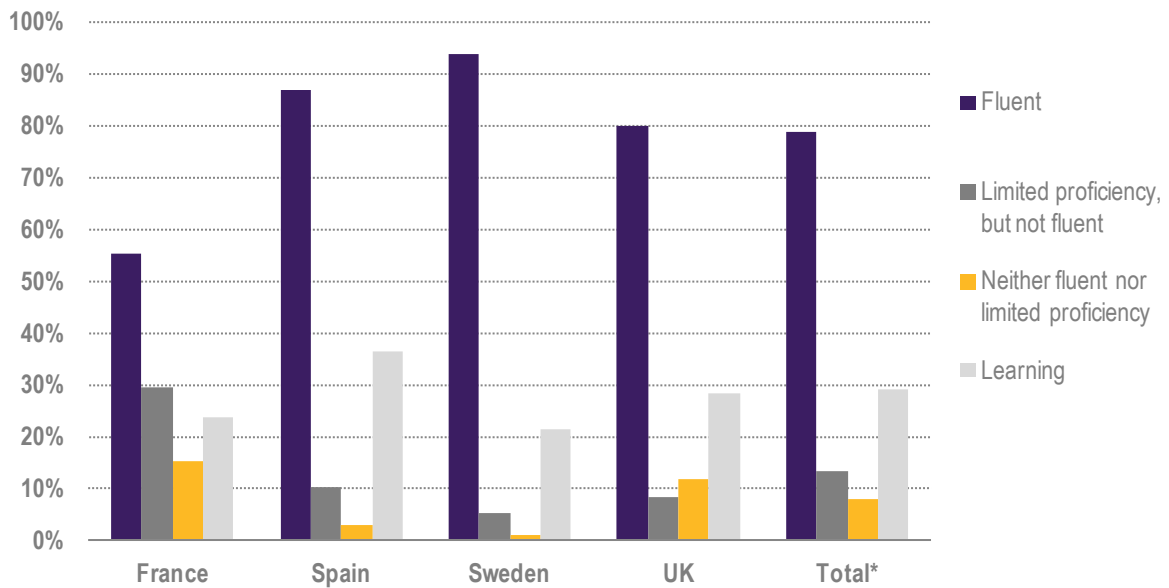
Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK

Source: TNS online survey, September 2011

Overall, the level of foreign language proficiency (relative to language of country of residence) of respondents was high: 79% were fluent in one or more foreign languages, which may include their mother tongue. 53% had limited proficiency in one or more foreign languages, possibly in addition to the language(s) in which there were fluent. 29% were learning one or more foreign languages. Only 8% had no proficiency in any foreign language, of which just under half were born in countries speaking the same language as their country of residence or with borders with it.

Figure 6-5 shows the variation in language proficiency by country of residence. Migrants in Sweden, Spain and the UK have the highest levels of proficiency in foreign languages.

Figure 6-5: Foreign language proficiency by country of residence



Note: \* Includes Poland respondents

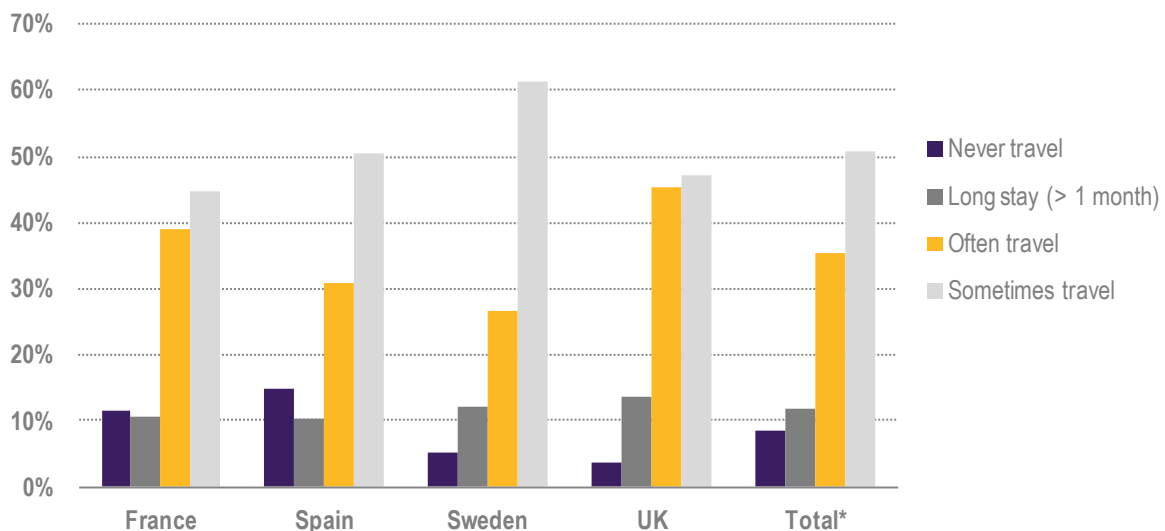
Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK

Source: TNS online survey, September 2011

### 6.1.5 Travel behaviour

The migrants included in the survey reported a relatively high frequency of travelling abroad. Over one in ten (12%) of respondents regularly stay or live in other countries for a month or longer, while 35% often travel to other countries for business or leisure. Half (51%) said that they sometimes travel for business or leisure, while only 8% claim to never travel. This compares to 30% of respondents to the Eurobarometer survey of the general population who had not travelled in the last year (see Section 6.2.2), suggesting that a larger proportion of migrants than the general population travel. Figure 6-6: shows the incidence of travelling abroad by country of residence.

Figure 6-6: Incidence of travelling abroad by country of residence



Note: \* Includes Poland respondents

Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK

Source: TNS online survey, September 2011

### 6.1.6 Current audiences for cross-border content and services

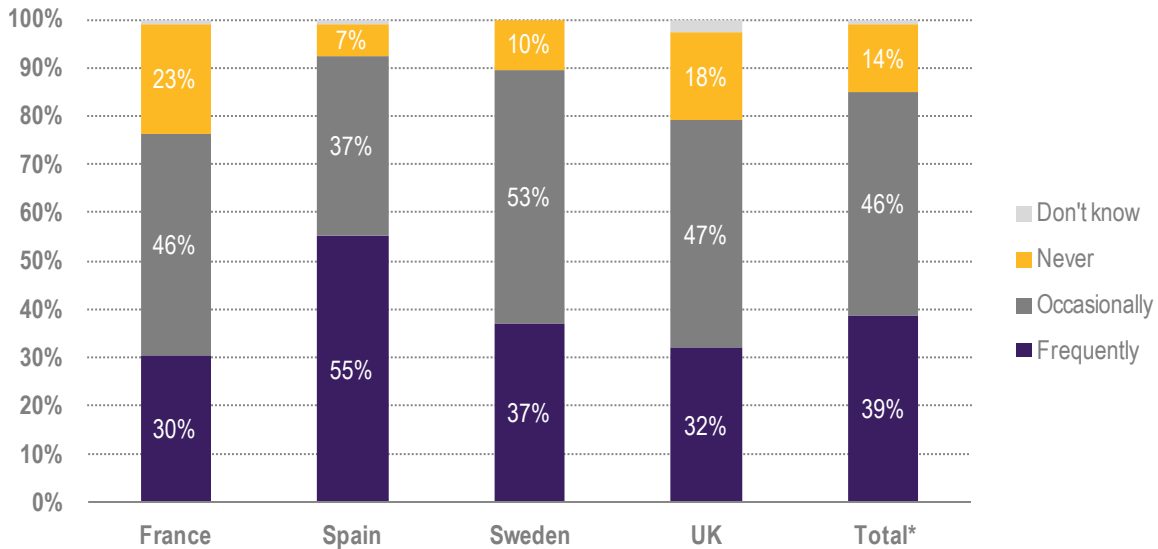
There is a relatively high incidence of watching television or video from other EU countries. Respondents watched in a range of different ways on television and via the internet, using both free and pay services. The pay services mentioned include foreign satellite subscriptions (the “grey market”). About a third of respondents who do not watch television or video from other EU countries, would do so if it was available over satellite or the internet.

#### Watching television or video from other EU countries

Overall, a high proportion of respondents watch television or video that originates from another EU country: 39% watch frequently, 46% occasionally and only 14% of those surveyed say that they never access such content. The questionnaire did not distinguish between television and video originating in respondents’ country of birth and other EU countries. The frequency of watching television or video varies

by country of residence as shown on Figure 6-7. Migrants resident in Spain and Sweden watched foreign video the most frequently and those in the UK and France the least. It is uncertain to what extent these differences relate to supply effects (differences in the amount of programmes and services available from other EU countries) and demand

**Figure 6-7: Frequency of watching television or video originating in other EU countries by country of residence**



Note: \* Includes Poland respondents

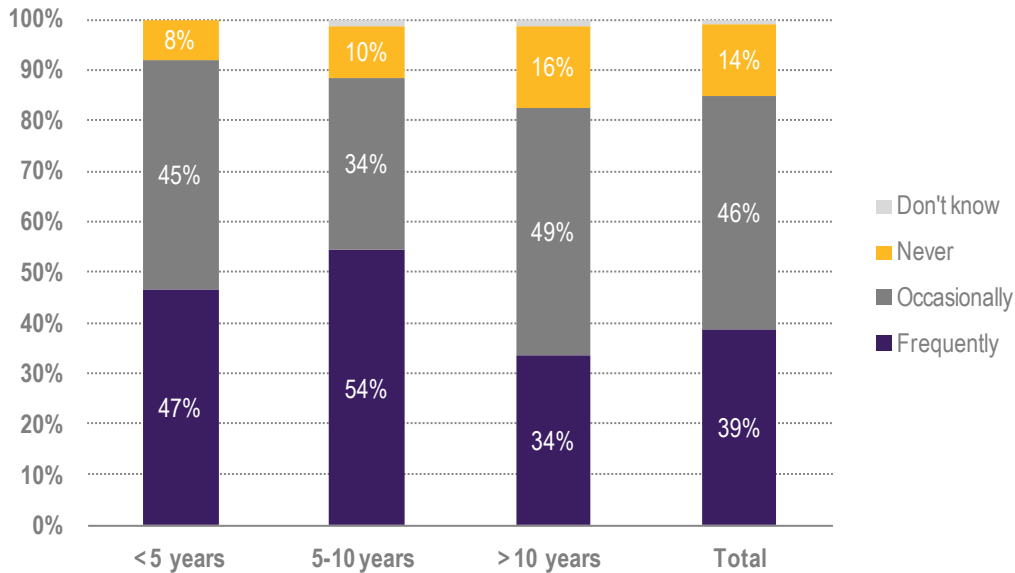
Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK

Source: TNS online survey, September 2011

The frequency of watching television or video that originates in other EU countries was highest for newer migrants – in other words, respondents who said they have lived in their country of residence for the least time. One might assume that the strength of migrants' connection with their home country decreases over time as they become more integrated in their host country. Figure 6-8 shows the variation in frequency with length of residence. Only 8% of migrants resident for five years or less never watch television or video that originates in other EU countries, compared to 16% of migrants resident for 10 years or more.



Figure 6-8: Frequency of watching television or video originating in other EU countries by length of residence



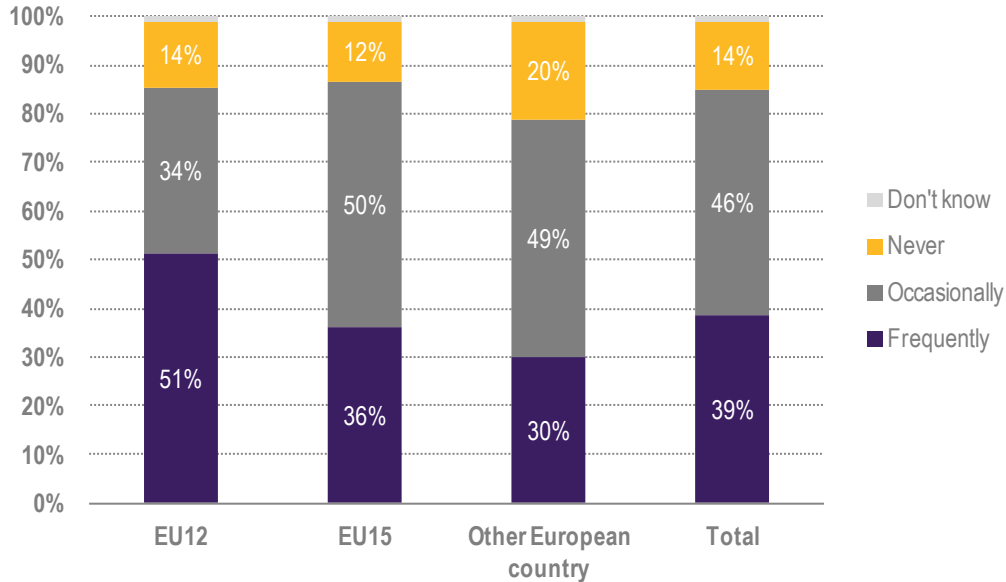
Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK

Source: TNS online survey, September 2011

Respondents who originate from one of the EU 12 countries<sup>169</sup> (newer Member States) watched television or video from other EU countries more frequently than those born in the EU 15. This may be because respondents born in the EU 12 had shorter lengths of residence than those born in the EU 15: 26% respondents born in the EU 12 had lived in their country of residence for less than five years compared to 12% of EU 15 respondents.

<sup>169</sup> EU 12 = Bulgaria, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia. EU 15 = Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the UK.

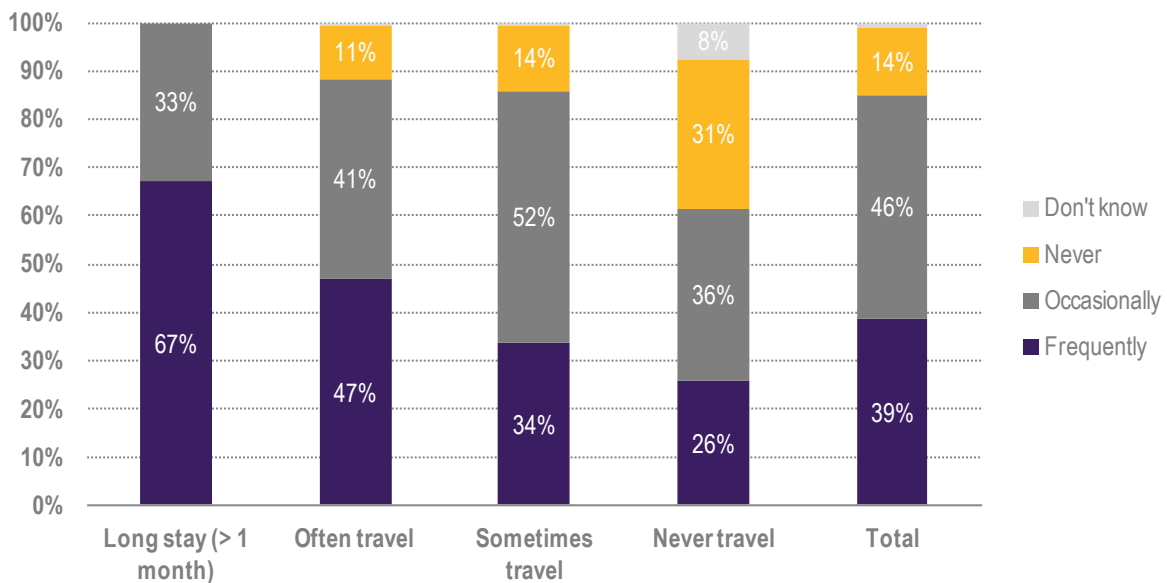
Figure 6-9: Frequency of watching television or video originating in other EU countries by country of birth



Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK  
 Source: TNS online survey, September 2011

Respondents who regularly visited foreign countries were more likely to watch television and video originating from other EU countries than those who travelled infrequently or never. Figure 6-10 shows the frequency of watching by frequency of travel or staying in other countries.

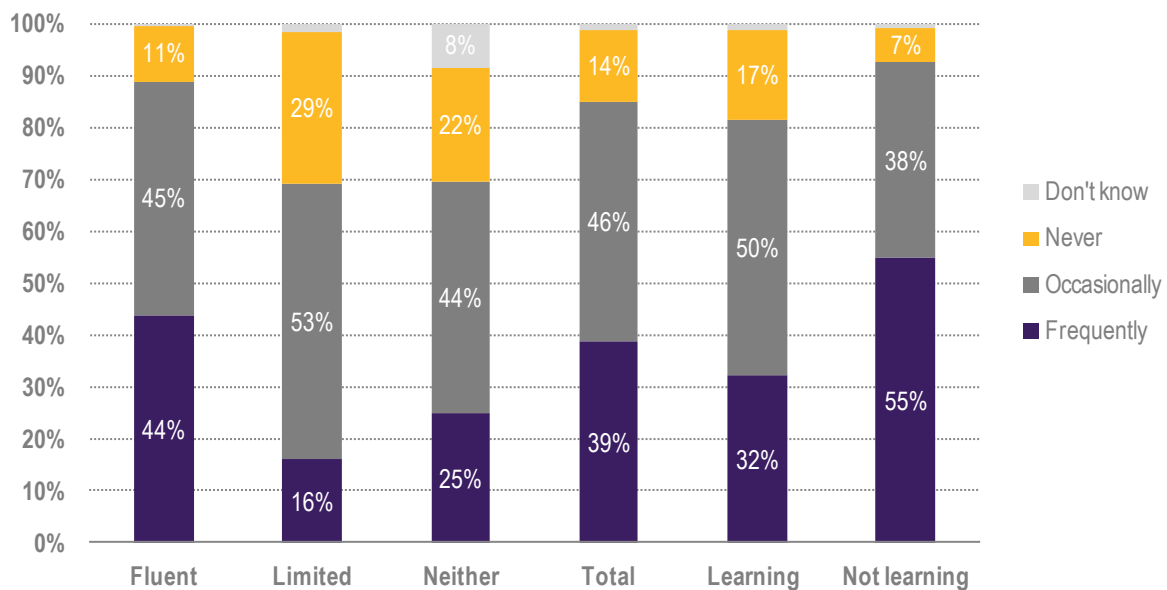
Figure 6-10: Frequency of watching television or video originating in other EU countries by frequency of travel



Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK  
 Source: TNS online survey, September 2011

Similarly, respondents with fluency in languages other than the language of the country of residence were more likely to watch television and video from other EU countries frequently compared with respondents with less language proficiency. Also, respondents who said they were currently learning languages tended to watch more frequently. Figure 6-11 shows the frequency of watching by language proficiency and language learning.

**Figure 6-11: Frequency of watching television or video originating in other EU countries by proficiency in languages other than language of country of residence**

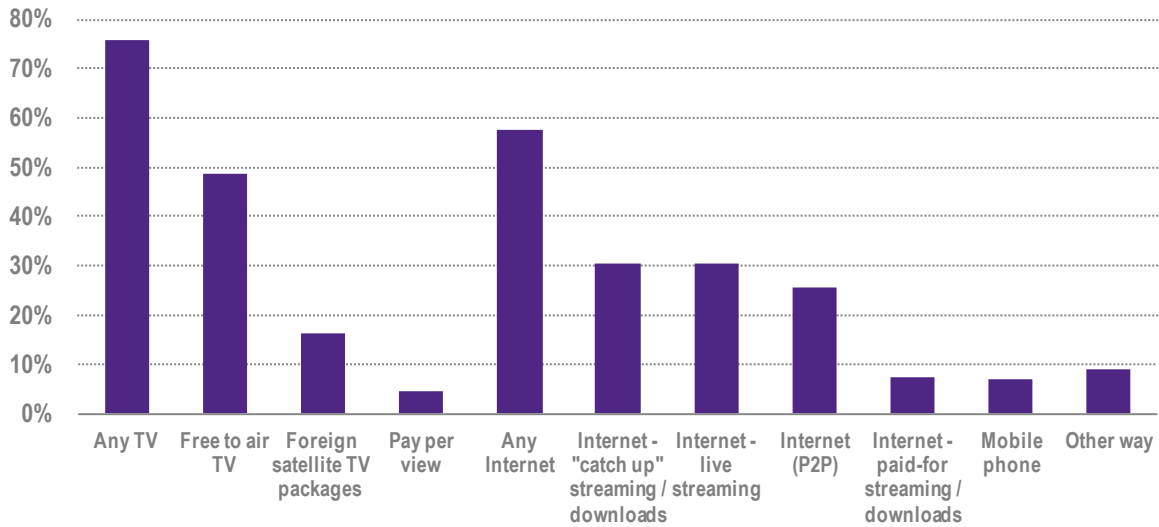


Base: 462 European migrants resident in France, Poland, Spain, Sweden and UK  
Source: TNS online survey, September 2011

### Methods of watching television or video from other EU countries

Respondents who accessed television and video from other countries used a range of methods including television and the internet. Figure 6-12 shows the ways in which respondents watched. Television is the most widely used method (used by 76% of respondents who watched any television or video), of which watching programmes on free-to-air television is the most common (49% of respondents who watched any television or video). The internet was used by 58% of respondents, of which catch-up (31%), live streaming (30%) and free streaming / downloads (26%) were all commonly used.

Figure 6-12: Ways of watching television and video originating in other EU countries

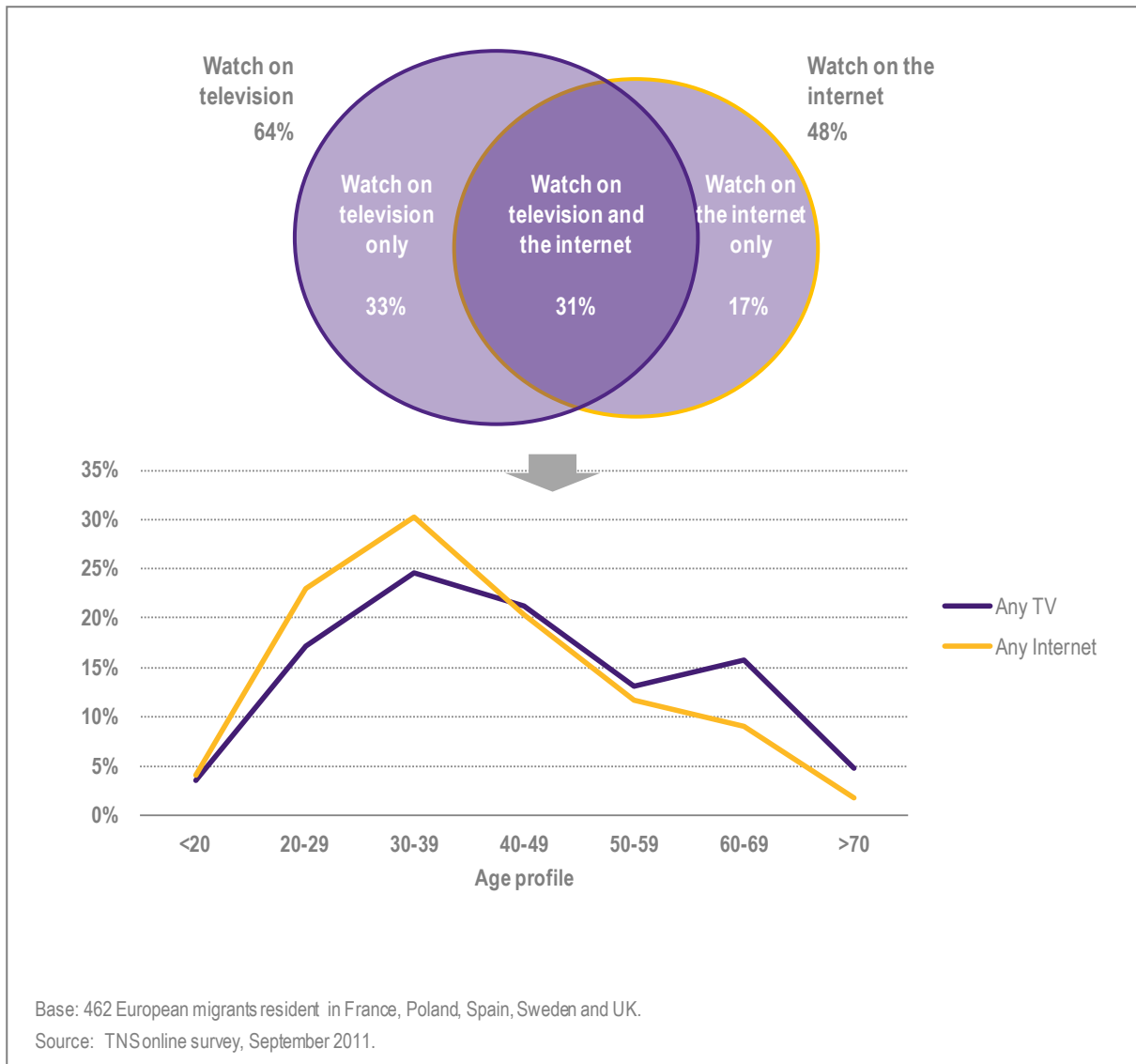


Base: 392 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched any television or video which originates from another EU country .

Source: TNS online survey, September 2011.

There is significant overlap between the groups that watch on television and on the internet. Figure 6-13 shows the overlap and the age profile of each group. The age of those that watch on the internet is slightly younger than those that watch on television, but not dramatically so. Respondents born in EU12 countries were more likely to watch on the internet (73% did) than those born in EU15 countries (52%). Conversely, respondents born in the EU12 countries were less likely to watch on television (65%) than those born in EU15 countries (80%).

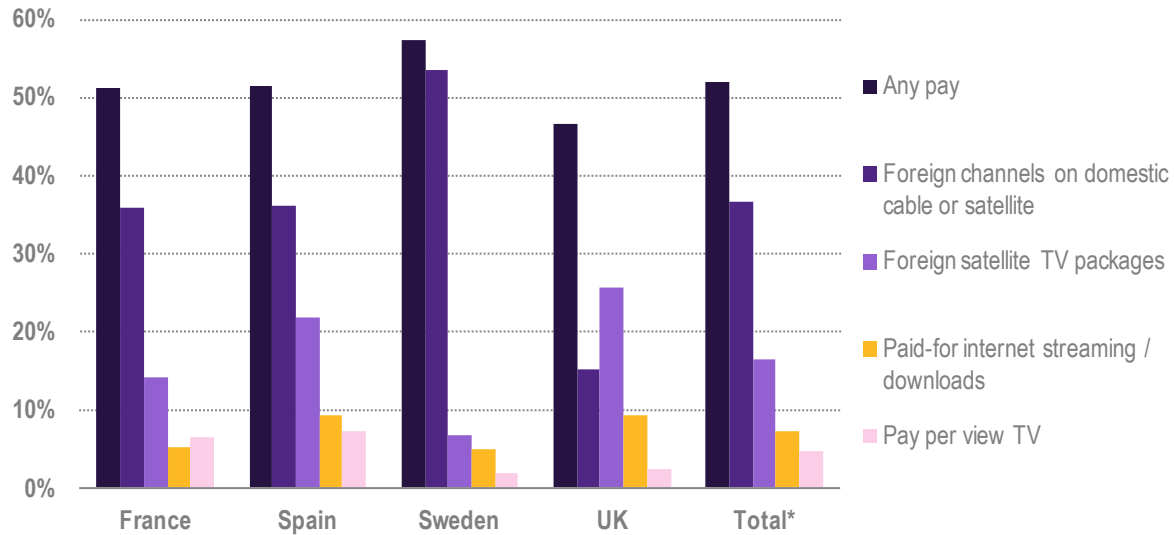
Figure 6-13: Watching video originating in other EU countries on television and the internet



With regard to payment, 48% of respondents watched only for free on television or the internet while 52% in some way paid to access audio-visual content from other countries. Amongst respondents that paid to access this content, the majority watched on foreign channels available for subscription as part of cable or satellite services (37%) and foreign satellite TV packages available in the country of residence (16%). The proportions of respondents paying to watch on the internet (7%) and pay-per-view television (5%) are relatively low. We note that an additional set of respondents may pay for DVDs of content originating from other EU countries. These are a subset of the “other” category on Figure 6-12: .

Figure 6-14 shows the proportion of respondents paying to watch in different ways in each country of residence. There is a significant difference in the relative incidence of watching on foreign subscription channels available on domestic cable or satellite and foreign satellite TV packages (the “grey market”). The highest incidence of the latter are in the UK, while the former are much more common in Sweden.

Figure 6-14: Incidence of paying to watch video originating in other EU countries



Note: \* Includes Poland respondents

Base: 392 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched any television or video from another EU country.

Source: TNS online survey, September 2011.

### Use of “grey market” satellite subscriptions

Respondents who watch television or video originating in other EU countries were asked whether they were using ‘foreign satellite TV packages which can be bought and used in the [country of questionnaire]’; 16% claimed that they did (14% of the total sample). This provides a rough estimate of the uptake of “grey market” satellite subscriptions. However, there is the possibility that some respondents answered yes to this question if they had bought set-top boxes for the reception of free-to-air services originating in other countries.

The proportion of respondents who watched television originating in other EU countries using foreign satellite TV packages varied strongly by country of residence, ranging from 7% in Sweden and 14% in France, to 22% in Spain and 26% in the UK. This may relate to differences in the supply of television from other EU countries through alternative means. Take up was much higher among respondents born in EU 12 countries (26%) than EU 15 countries (12%).

Respondents who had been resident in their host country for the longest were least likely to use foreign satellite TV packages: 13% of respondents living in their country of residence for over ten years, compared to 25% of those living there for five to ten years and 23% of those resident for less than five years.

Respondents fluent in other languages had higher levels of uptake than those without foreign language proficiency. Figure 6-15 shows the proportion of respondents who watched television originating in other EU countries using foreign satellite TV packages by a range of factors.

Figure 6-15: Use of foreign satellite TV packages by a selection of factors



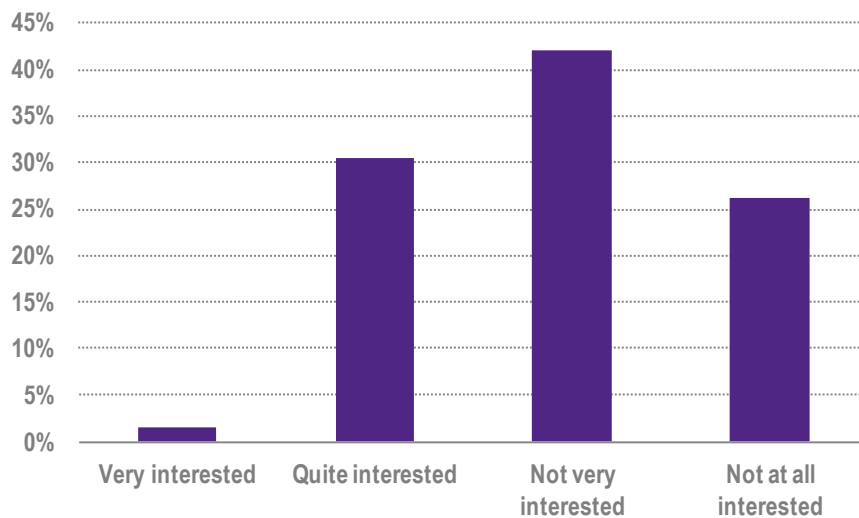
Base: 392 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched any TV or video from another EU country, including country of birth

Source: TNS online survey, September 2011.

### Interest among those who do not currently watch

Three in ten respondents (30%) who do not currently watch television or video from other EU countries would be quite interested in this content if it were available either via a satellite dish or through a broadband internet connection. Only 1% say they would be very interested in such a proposition. Figure 6-16 shows the level of interest.

Figure 6-16: Interest in content from other EU countries among those who do not currently watch it



Base: 70 European migrants resident in France, Poland, Spain, Sweden and UK who do not watch audiovisual content from foreign countries

Source: TNS online survey, September 2011.

The main reasons given by those who expressed an interest, but do not currently watch television or video from other EU countries, included not having a satellite dish, satisfaction with domestic television, not having relevant programmes available and not knowing how to.

For those people who are not interested, do not watch and would not want to watch television and video from other EU countries, the key reasons included satisfaction with domestic television, not having a satellite dish, no programmes of interest available and perceived high expense (in order of decreasing incidence).

### 6.1.7 Types of content of interest

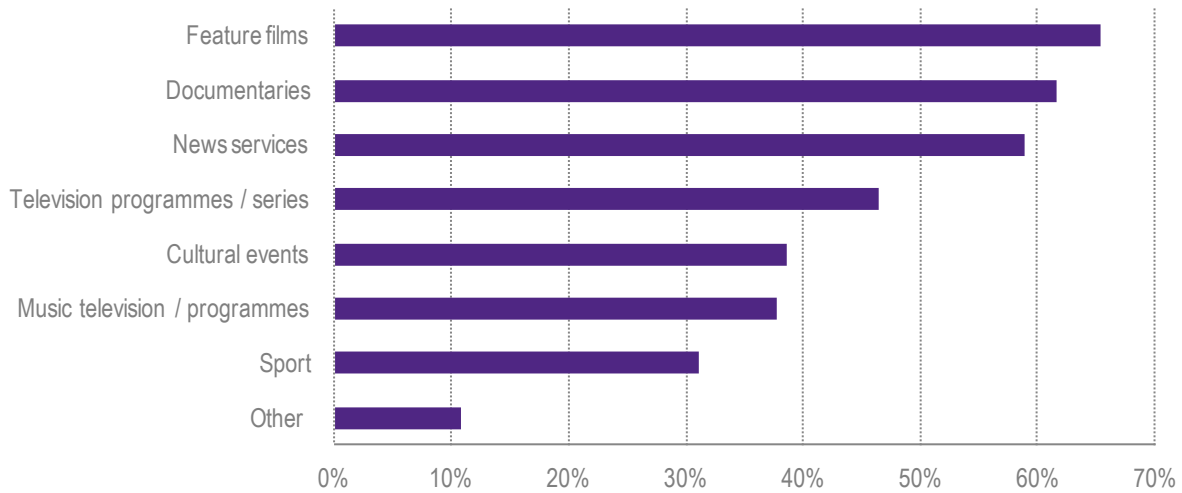
Respondents were interested in a range of genres of content from other EU countries, but the most popular were feature films, documentaries and news. Overall, there was a preference for the television from other EU countries to be subtitled rather than dubbed, or to be shown in its original version.

#### Genre of content

Respondents showed an interest in watching a range of different genres of television or video from other EU countries. The most popular were feature films (65%), documentaries (62%) and news (59%). There was a relatively low interest in sport (31%), though this may be a result of the gender profile of the sample. Analysis by gender showed a huge difference in the level of interest in access to sports-related content - 48% of male respondents were interested in sport compared with 20% of female respondents.



Figure 6-17: Interest in television or video from other EU countries by genre

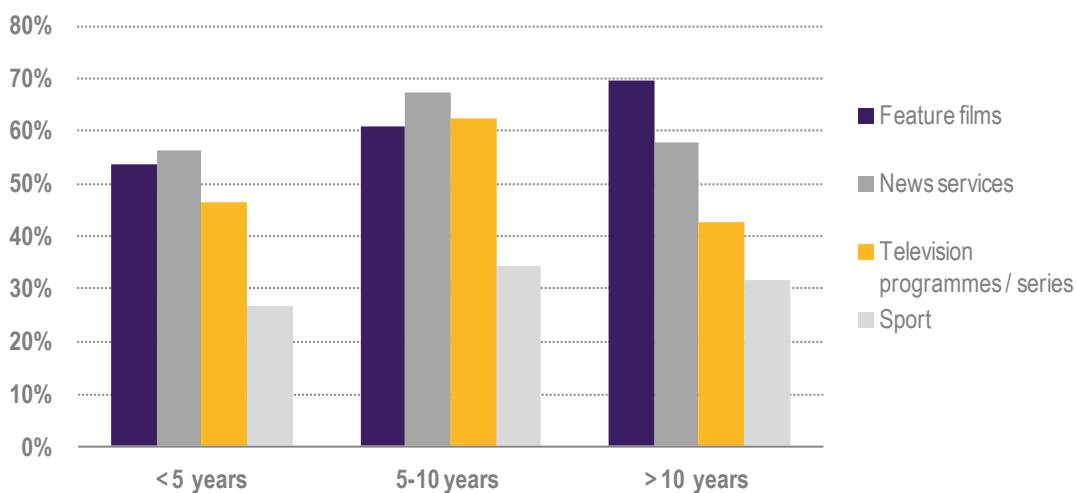


Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

Source: TNS online survey, September 2011.

The pattern of interest did not vary significantly between respondents born in the EU 12 and EU 15 and countries with large and small audiovisual markets. Similarly, there were only minor differences by length of residence. Figure 6-18 shows the levels of interest in key genres by length of residence.

Figure 6-18: Interest in television or video from other EU countries by genre and length of residence



Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

Source: TNS online survey, September 2011.

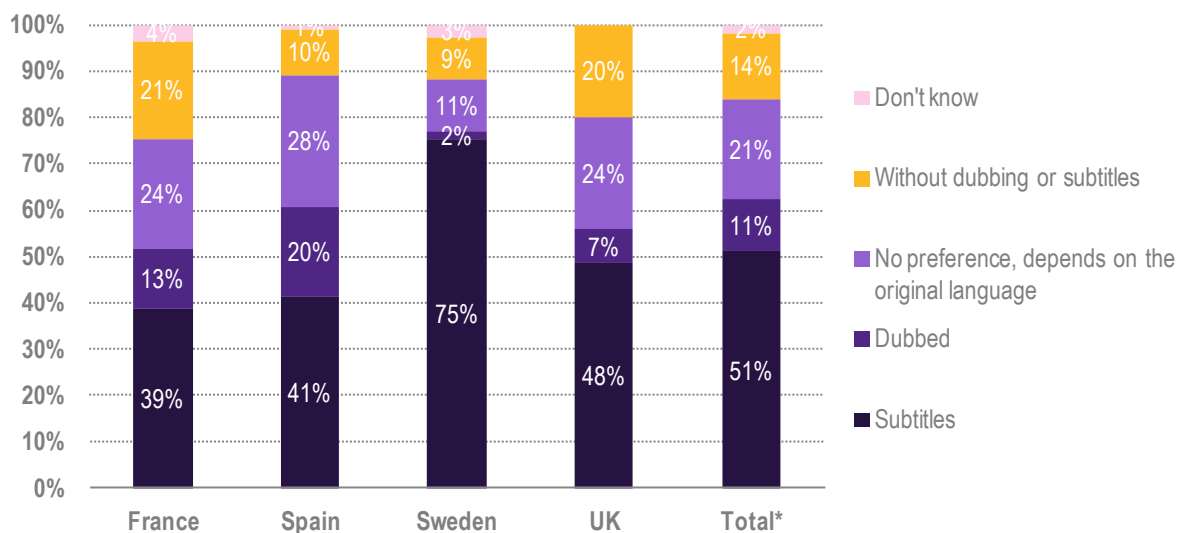
The questionnaire did not specifically probe the level of interest in content available on services in other EU countries, but not originating in those countries (e.g. US films dubbed into French available on services in France) which may generate additional interest.

### Dubbed and subtitled content

Respondents were asked whether they would prefer to watch television or video that originates from another EU country dubbed (the original dialogue is replaced with a translation) or with subtitles (the original dialogue is retained).

Overall, 52% of respondents preferred subtitles, 22% had no preference, 15% would prefer neither and 12% preferred dubbing. Figure 6-19 shows the differences in preference by country of residence. There was a strong preference for subtitled content amongst respondents in Sweden.

Figure 6-19: Preference for dubbing and subtitling by country of residence



Note: \* Includes Poland respondents

Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or are interested in doing so.

Source: TNS online survey, September 2011.

### 6.1.8 Willingness to pay for cross-border content and services

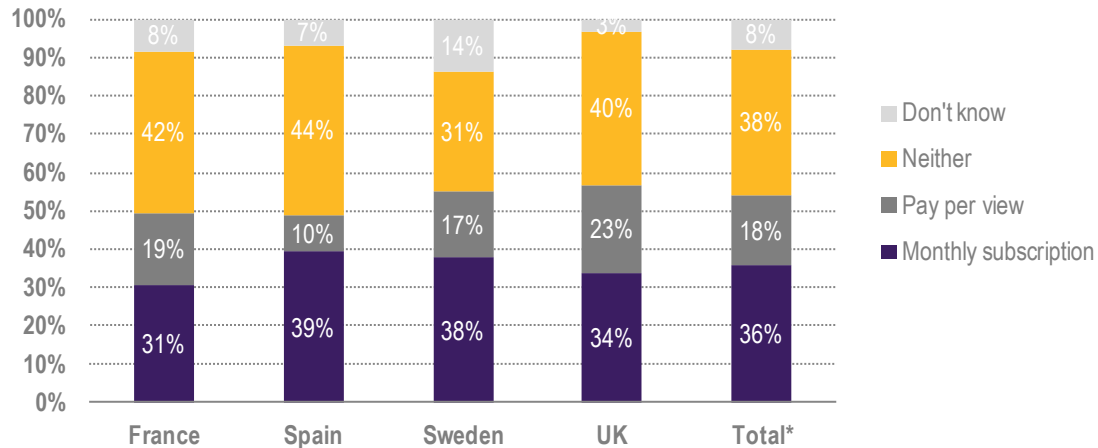
About a third (34%) of all respondents would be “very likely” to pay a monthly subscription of €10 or more for cross-border audiovisual media services from other EU countries, and a further 23% would be “fairly likely” to pay. In addition, 6% would not be “very likely” pay a monthly subscription of €10 or more, but would pay €1 per item on a pay-per-view basis. Willingness to pay varies by a range of factors, of which length of residence shows the strongest influence: the most recently arrived migrants were willing to pay the most to access this content.

#### Preferred method of paying

Respondents who watched television or video from other EU countries or would be interested in doing so were asked their preferred method of payment. Overall, 36% preferred to pay by monthly subscription, 16% preferred pay per view, and 38% would prefer neither payment option. Figure 6-20 shows the

preferred method of paying by country of residence. Subscriptions were preferred to pay per view in all countries, with respondents from the UK showing the highest preference for pay per view (23%).

Figure 6-20: Preferred method of paying for television and video from other EU countries



Note: \* Includes Poland respondents

Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

Source: TNS online survey, September 2011.

### Willingness to pay a monthly subscription

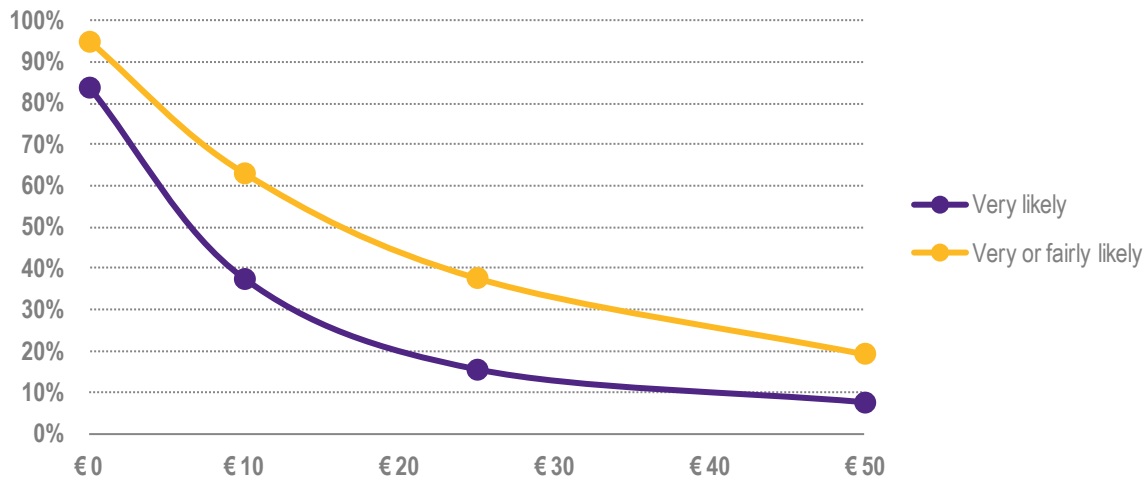
Respondents were asked about their willingness to pay a subscription for a proposition which was defined by the following question.

*If the television or video which originates from another EU country that you personally are interested in watching (e.g. films, sport etc.) was available as a monthly subscription (a set amount each month to watch **all of the channels and programmes you wish to watch from a particular country**) how likely would you be to pay for this if it was....*

The proposition was deliberately defined in non-specific way in relation to the platform used to access audiovisual content. Therefore, the survey captured willingness to pay whether or not the respondent possessed the technical means to receive a cross-border service if provided. In some cases respondents may not have had these means: for example, they might not be able to install a satellite dish (e.g. if they live in apartment buildings with SMATV installations) and / or they may live in an area without access to broadband. In this sense, the survey potentially overestimates the level of demand that is currently achievable.

Overall, 37% of respondents who watch television or video from other EU countries, or interested in doing so, would be “very likely” to pay a monthly subscription of €10 or more. 15% would pay €25 or more and 7% €50. 84% would be very likely to be interested in a free service. Higher proportions of respondents would be “fairly likely” or “very likely” to pay at these price points: 63% would pay €10 or more, 38% would pay €25 or more, 18% would pay €50 while 95% would be interested in a free service. Figure 6-21 compares the willingness to pay a subscription for the “very likely” and “fairly likely” responses.

Figure 6-21: Willingness to pay a subscription for a cross-border service



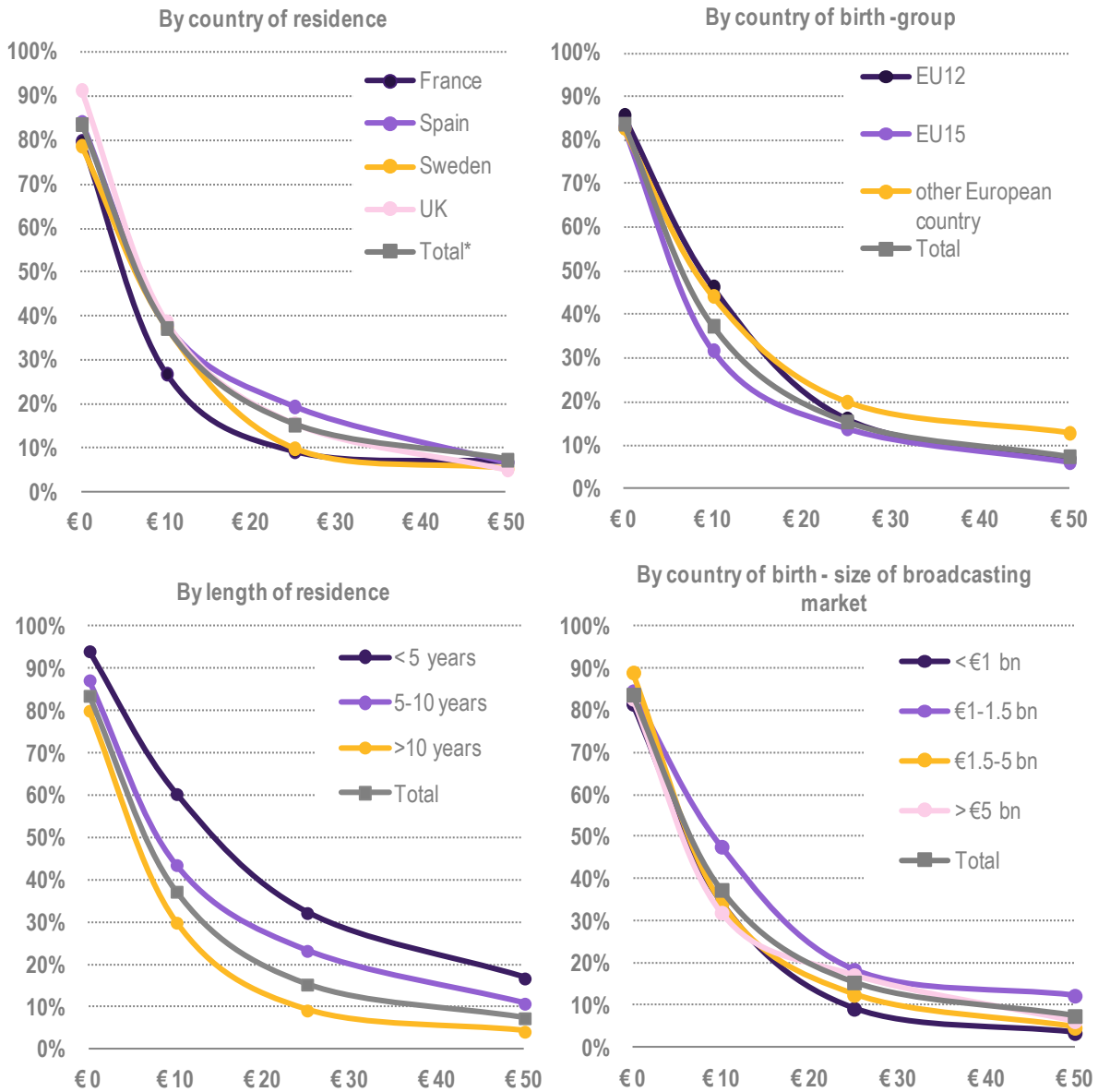
**Note:** The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted.

**Base:** 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

**Source:** TNS online survey, September 2011

An important question for the study is how willingness to pay varies by country of residence and country of birth, and whether there are any indicators that may be used as predictors of behaviour for migrants resident in countries not included in the online survey. Figure 6-22 and Figure 6-23 show how willingness to pay a subscription differs by key demographic variables.

Figure 6-22: Proportion “very likely” to pay a subscription by various factors (1)

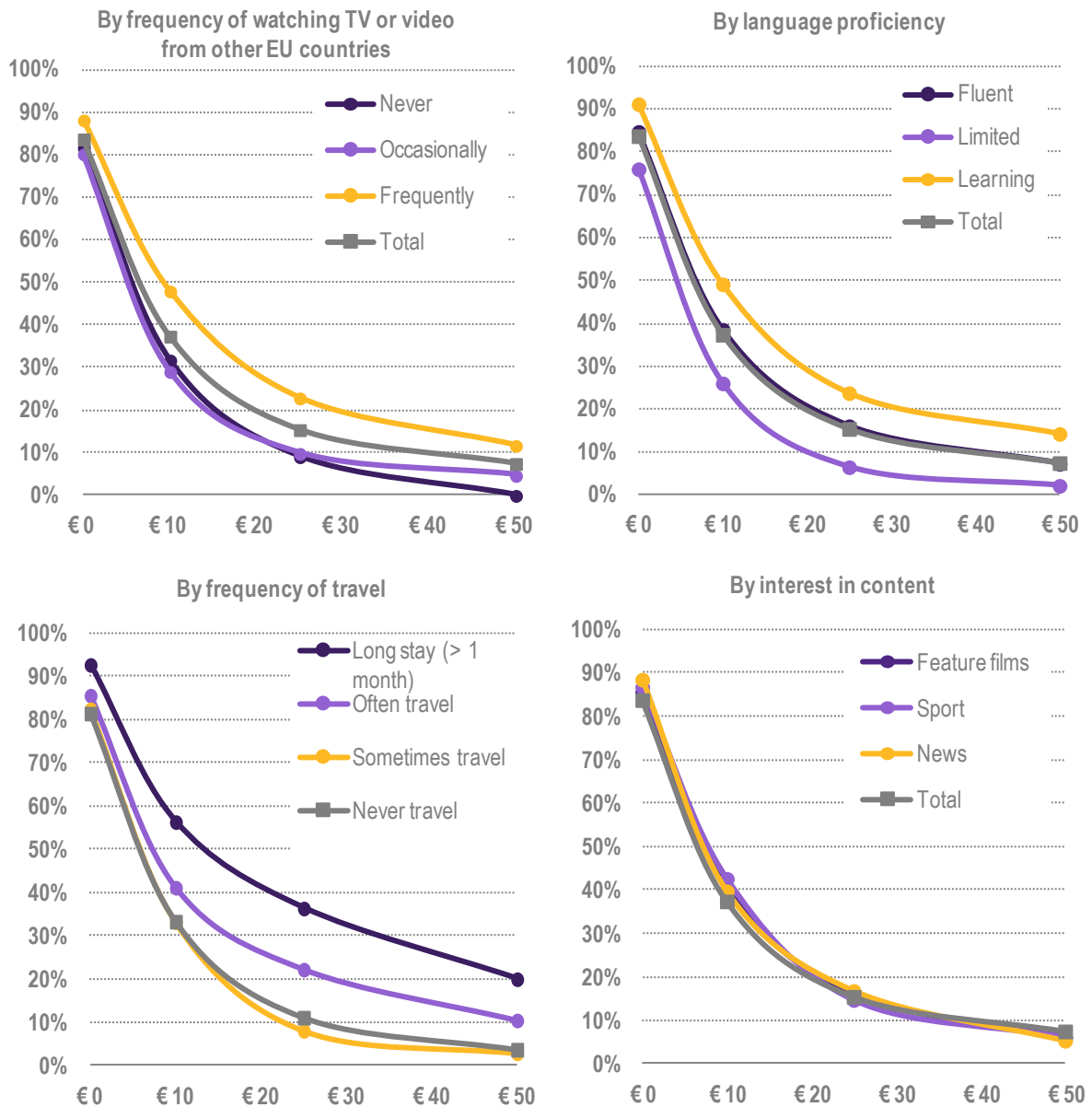


**Notes:** The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted. \* Includes Poland.

**Base:** 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched any TV or video from another EU country or are interested in doing so

**Source:** TNS online survey, September 2011.

Figure 6-23: Proportion “very likely” to pay a subscription by various factors (2)



Note: The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted.

Base: 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched any TV or video from another EU country or are interested in doing so

Source: TNS online survey, September 2011.

In summary, the key patterns include:

- Willingness to pay decreases with length of residence. 17% of respondents living in their country of residence for less than five years would be “very likely” to pay €50 monthly compared with only 4% of respondents living there for ten years or more.
- Willingness to pay is much higher for respondents who frequently watch television or video from other EU countries, and about the same for those who watch occasionally or never.

- Variation by country of birth is less strong. Respondents born in countries with the smallest broadcasting sector revenues (<€1 billion annually) had the lowest willingness to pay and those from the €1 billion to €1.5 billion band the highest (base sizes per country of birth are extremely low so data should be treated with caution). Respondents born in the EU12 and EU15 had similar willingness to pay, except at the €10 per month price point where those born in the EU12 were more likely to pay.
- Respondents who watch television or video from other EU countries on television and on the internet showed similar willingness to pay regardless of the methods that they used to watch.
- Respondents with fluency in a language other than the language of the country of residence showed higher willingness to pay than respondents with limited language proficiency. In addition, respondents learning a language showed above-average willingness to pay.
- Respondents who regularly stay or live in other countries tended to be more willing to pay, while respondents who travel often were also more likely to say they would be willing to pay to access this content.
- Willingness to pay was similar among respondents regardless of their preferred type of content (e.g. feature films, sport and news content).

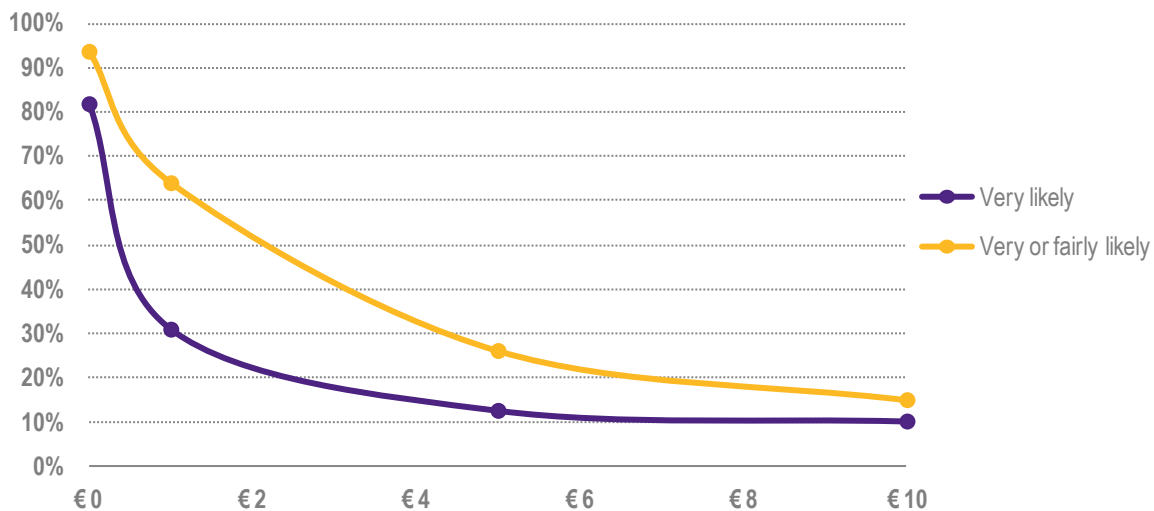
### Willingness to pay-per-view

The survey also asked respondents whether they would pay for cross-border AVMS were these available on a pay-per-view basis.

*If the television or video that you personally are interested in watching from another EU country (e.g. films, sport etc) was available on a pay per view basis (**where you pay for the individual programmes you watch**) how likely would you be to pay for this if was... [PRICE] each time*

Figure 6-24 shows respondents willingness to pay at different price points. Respondents were not asked to distinguish the specific type of content they would pay these prices for or how frequently they might pay for such content. Therefore, these results can be taken only as a broad indication of their willingness to pay at different price points.

Figure 6-24: Willingness to pay for pay-per-view for programmes from other EU countries



**Note:** The price points for respondents in Poland, Sweden and the UK were expressed in the local currency. Owing to rounding of the converted values the equivalent Euro price points may differ slightly from those charted.

**Base:** 414 European migrants resident in France, Poland, Spain, Sweden and UK who have ever watched video from other countries or interested in doing so

**Source:** TNS online survey, September 2011.

There is a large overlap between those willing to pay on a pay-per-view basis and those willing to pay a monthly subscription. 78% of respondents “very likely” to pay €1 or more each time on a pay-per-view basis were also “very likely” to pay a monthly subscription €10 or more. However, 22% of those “very likely” to pay-per-view were not “very likely” to pay a monthly subscription.

### Potential substitution for existing spending

Some of the willingness to pay captured in the survey may substitute for existing spending by respondents on foreign satellite pay-television subscriptions (the “grey market”). The willingness to pay question provided the clarification: ‘This would be separate to any subscriptions you have to [COUNTRY OF RESIDENCE] services such as cable or satellite’. Foreign satellite services were not included in this definition, so we have assumed that respondents declared their willingness to pay as an alternative to rather than an addition to existing subscriptions to foreign satellite services.

Of the 34% of respondents who would be “very likely” to pay a monthly subscription of €10 or more, 22% (or 7% of all respondents) watch television from other EU countries using foreign satellite subscriptions. They were not asked the price paid for these subscriptions. Therefore, there is uncertainty whether the amount that they said that they would be willing to pay for a cross-border service is more or less than they currently pay.

In addition, an anomalous result is that 48% of respondents who watched television or video from other EU countries using a foreign satellite package claimed that they would not be “very likely” to pay €10 or more for television from other EU countries (as defined by the questionnaire). 21% would not be “fairly likely” to pay. It is possible that the difference is accounted for by respondents who interpreted the willingness to pay question as additional to their existing spending on foreign satellite subscriptions; they would not pay more. Another possibility is that these respondents receive foreign satellite television free-to-air.



## 6.2 Eurobarometer telephone survey

To complement the online survey a small number of questions were included on a Eurobarometer telephone survey of the general population in each EU27 country. The survey asked about language proficiency, travel, watching television or video from other EU countries and preferred methods of paying for content from other countries. The sample was drawn from the whole population in each country of which migrants were a small part: 6% of respondents were born in a country other than their country of residence, 4% were born in other European countries. In addition, a small proportion of respondents who were born in their country of residence may live in households with migrants e.g. if their partners are migrants. Overall, the results are not directly comparable with the results of the online survey of migrants, but do give some useful insights into relative behaviours by country.

### 6.2.1 Methodology and sample

Between the 6th and 8th of September 2011, TNS carried out the telephone survey as part of a Flash Eurobarometer. This telephone survey covers the population of the respective nationalities of the European Union Member States, resident in each of the 27 Member States and aged 15 years and over. It was also conducted in Norway. The survey covers the national population of citizens (in these countries) as well as the population of citizens of all the European Union Member States that are residents in these countries and have a sufficient command of the national languages to answer the questionnaire.

All interviews were carried using the TNS e-Call centre (our centralized CATI system). In every country respondents were called both on fixed lines and mobile phones. The basic sample design applied in all states is multi-stage random (probability). In each household, the respondent was drawn at random following the "last birthday rule".

#### Sample design

TNS have developed their own RDD sample generation capabilities based on using contact telephone numbers from responders to random probability or random location face-to-face surveys, such as Eurobarometer, as seed numbers. The approach works because the seed number identifies a working block of telephone numbers and reduces the volume of numbers generated that will be ineffective. The seed numbers are stratified by NUTS2 region and urbanisation to approximate a geographically representative sample. From each seed number the required sample of numbers are generated by randomly replacing the last two digits. The sample is then screened against business databases in order to exclude as many of these numbers as possible before going into field.

### 6.2.2 Language proficiency and travel

Respondents were asked about their language proficiency and their frequency of travel. This may influence their frequency of watching audiovisual content and services from other EU countries.

#### Language proficiency

Overall, 5% of respondents in the EU 27 countries had a mother tongue different from the language of the questionnaire (language of the country of residence). 45% were fluent in another language, 71% had

limited proficiency in another language, and 14% were learning another language. This includes EU and non-EU languages. This result is broadly consistent with the results of a previous Eurobarometer survey that asked about language proficiency – see Section 4.5.1.

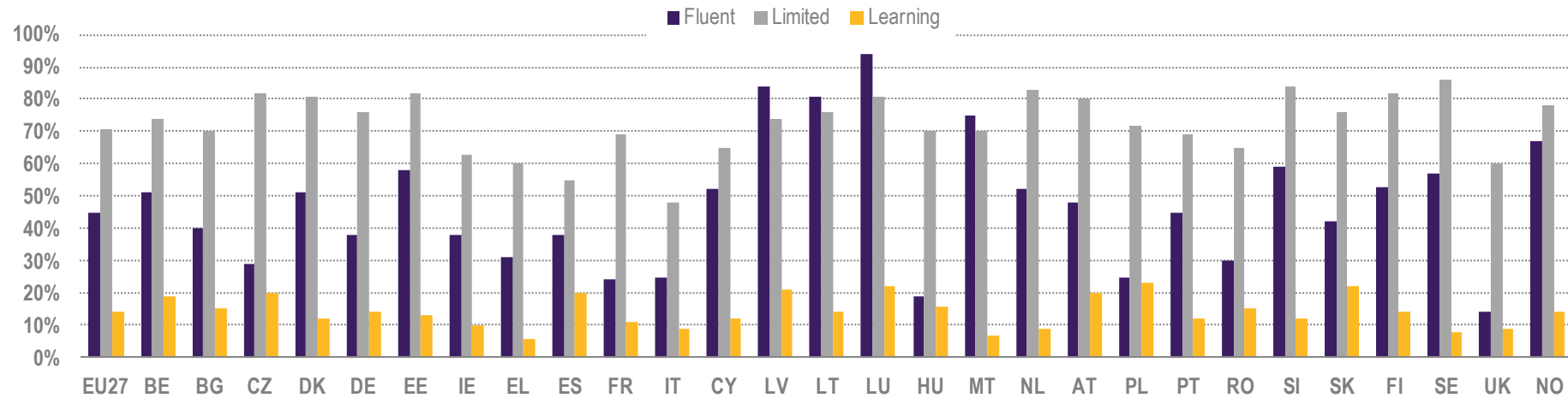
There are significant variations in language proficiency by country of residence. For example, the proportion of respondents who were fluent in a language other than the language of the questionnaire ranged from 14% in the UK to 94% in Luxembourg. Figure 6-25 shows the level of language proficiency by country.

### Frequency of travel

The survey asked respondents how many times during 2010 they travelled away from home for a minimum of one night. The question did not distinguish travel to other EU countries from domestic travel, so the results are not directly comparable with the results of the online survey. However, they do give an indication of the relative mobility of respondents in different countries.

Overall, the average respondent made 7.3 trips during 2010. This ranged from 3.0 trips in Malta to 11.8 trips in Slovakia. Figure 6-26 shows the average number of trips made by respondents from each country.

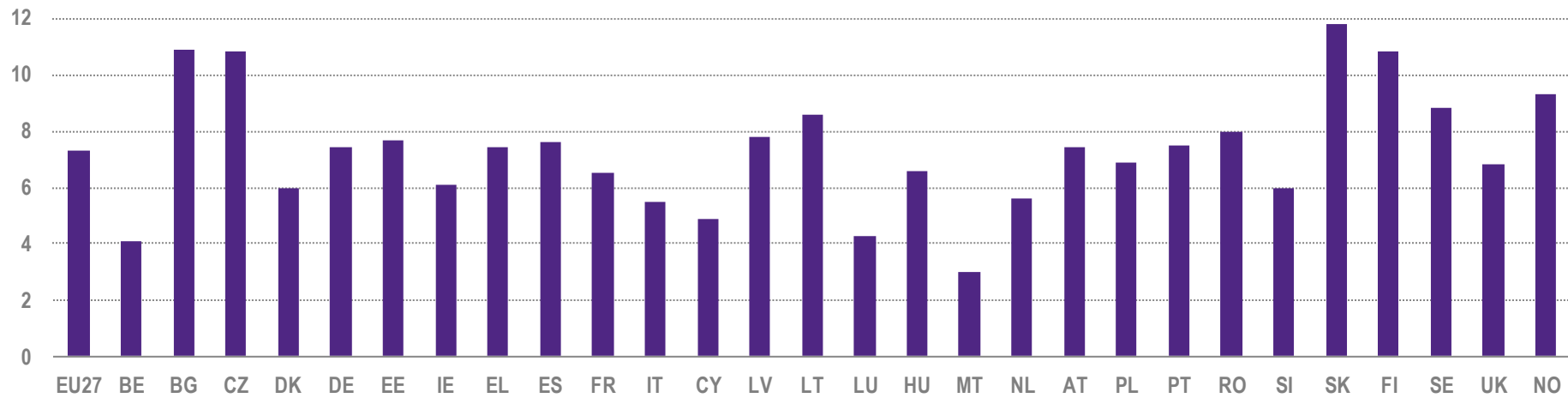
Figure 6-25: Foreign language proficiency by country, EU 27 and Norway



Base: 13,140 adults in the EU and Norway.

Source: Flash Eurobarometer survey, September 2011.

Figure 6-26: Average number of trips made in 2010 , EU 27 and Norway



Base: 13,140 adults in the EU and Norway.

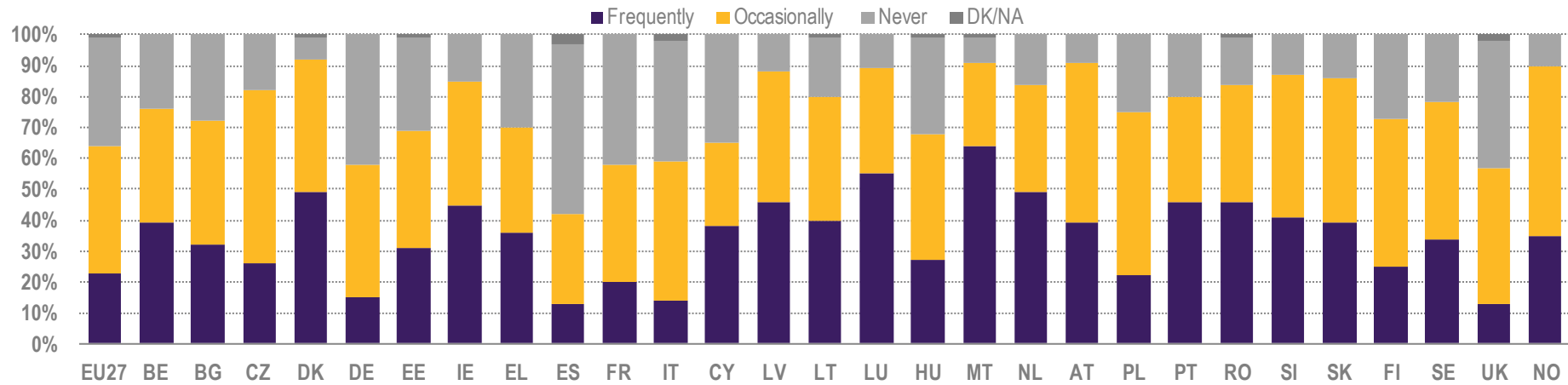
Source: Flash Eurobarometer survey, September 2011

### 6.2.3 Frequency of watching television or video originating in other EU countries

About a quarter (23%) of respondents frequently watched television or video originating in other EU countries, 41% occasionally and 35% never. The proportion who watched frequently ranged from 13% in the UK and 14% in Italy to 64% in Malta. Figure 6-26 shows the frequency of watching by country. The question did not distinguish by method of watching or language of programming. Therefore, watching television programmes originating in other EU countries shown in translation on free-to-air television, for example, is included.

The frequency of watching television or video originating in other EU countries varies by a range of factors. Figure 6-28 shows differences in frequency by some key demographic factors. Respondents born in other European countries watched slightly more frequently than those born in the same country. Respondents with fluency or limited proficiency or learning another language watched much more frequently than those who did not have these language skills or interest. The more frequent travellers were more likely to access this content more frequently than the non-travellers. Finally, on average younger respondents watched more frequently than older respondents.

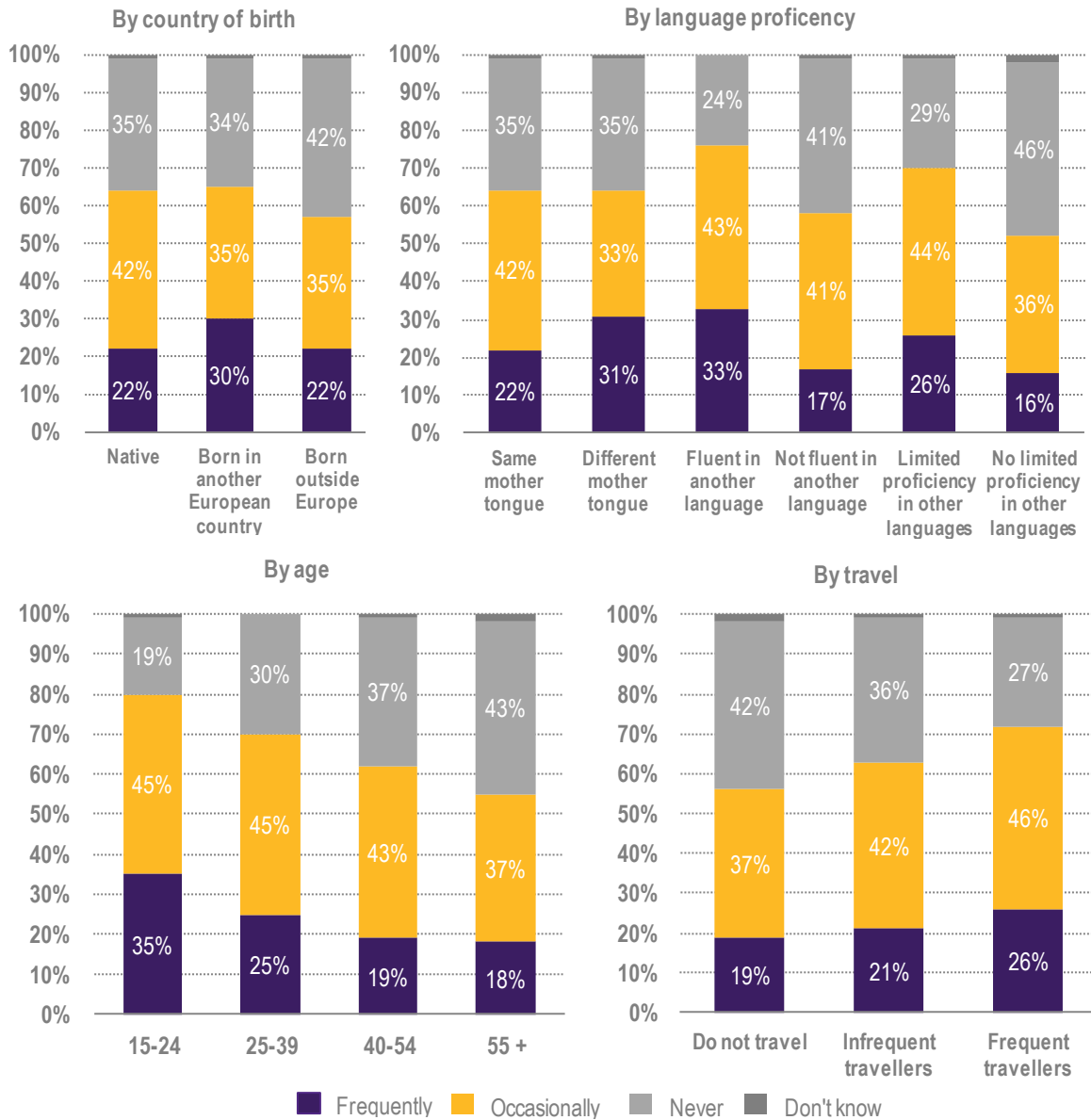
Figure 6-27: Frequency of watching television of video originating in other EU countries, by EU 27 country



Base: 13,140 adults in the EU and Norway.

Source: Flash Eurobarometer survey, September 2011.

Figure 6-28: Frequency of watching television of video originating in other EU countries, by factor



Base: 13,140 adults in the EU and Norway.

Source: Flash Eurobarometer survey, September 2011.

### 6.2.4 Interest among those who do not currently watch

Respondents who did not watch television or video from other EU countries were asked whether they would be interested in this content were it available either via a satellite dish or through a broadband internet connection. The result gives an indication of potential new audiences for television or video from other EU countries.

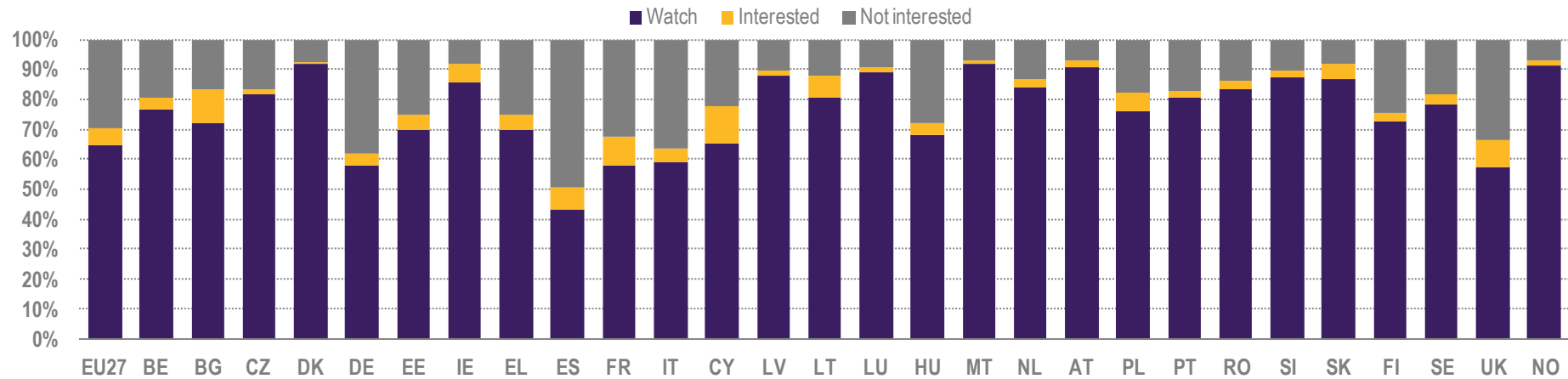
Overall, 16% of respondents who said they do not currently watch television or video from other EU countries said they would be either “very” or “fairly” interested.

Figure 6-28 shows the proportion of respondents in each country that currently watch, do not watch but would be interested and do not watch and would not be interested. The proportion of respondents who do not currently watch but would be interested varies greatly by Member State - from 6% in Denmark to 41% in Ireland.

It is possible that these variations relate to the relative supply of television from other EU countries in each country. For example, 35% of respondents in Cyprus who do not watch, would be interested in doing so. The country is situated outside the footprint of many EU satellite pay-television services and has a small broadcasting market, so there may be limited availability of television from other EU countries.



Figure 6-29: Interest in television and video from other EU countries among those who do not watch it



Base: 13,140 adults in the EU and Norway.

Source: Flash Eurobarometer survey, September 2011.

The survey also shows some interesting differences between the viewing behaviour and interests of people in different EU countries. Figure 6-30 shows the proportion of people who watch television or video from other EU countries compared to the proportion of those who do not watch but would be interested. The quadrants of the chart highlight the countries with especially high or low values relative to the EU 27 average.

The proportion of people who watch television or video from other EU countries is below the EU 27 average in the largest five countries. Of these, the proportion of people in Germany, Italy and Spain who do not watch television or video from other EU countries who would be interested in this content is below the EU 27 average. In France and the UK this proportion is above the EU 27 average. These differences are not easily explained by differences in the levels of supply of programmes from other EU countries. For example, France has a higher proportion of television hours that are non-national EU in a sample of channels the Germany, Italy, Spain and the UK (see Figure 3-3). It is possible that people who would be interested in watching television and video from other EU countries do not currently do so because the type of programming currently available from other EU countries is not of interest to them or it is not scheduled at their convenience. The survey did not cover these topics.

The Czech Republic, Denmark, Latvia, Malta and Sweden are among a larger set of countries in which the proportion of people who watch television or video from other EU countries is above average, but the proportion of people who do not watch television or video from other EU countries who would be interested in this content is below average. It is possible that people in these countries who are interested in television from other EU countries are already well-served and those who do not watch are mainly not interested.

In Bulgaria, Cyprus, Ireland, Lithuania, Poland and Slovakia especially, though also in some other countries, the proportions of people who watch television or video from other EU countries and the proportion of people who do not watch television or video from other EU countries who would be interested in this content are both above the EU average. Again it is uncertain why there is an especially high interest in television from other EU countries among people who do not currently watch it in these countries.

Figure 6-30: Proportion of people who watch television or video from other EU countries compared to the proportion of those who do not watch but would be interested



Note: "High" / "Low" state of quadrants is relative to the average of the EU 27.

Base: 13,140 adults in the EU and Norway.

Source: Flash Eurobarometer survey, September 2011.

### 6.2.5 Preferred method of paying

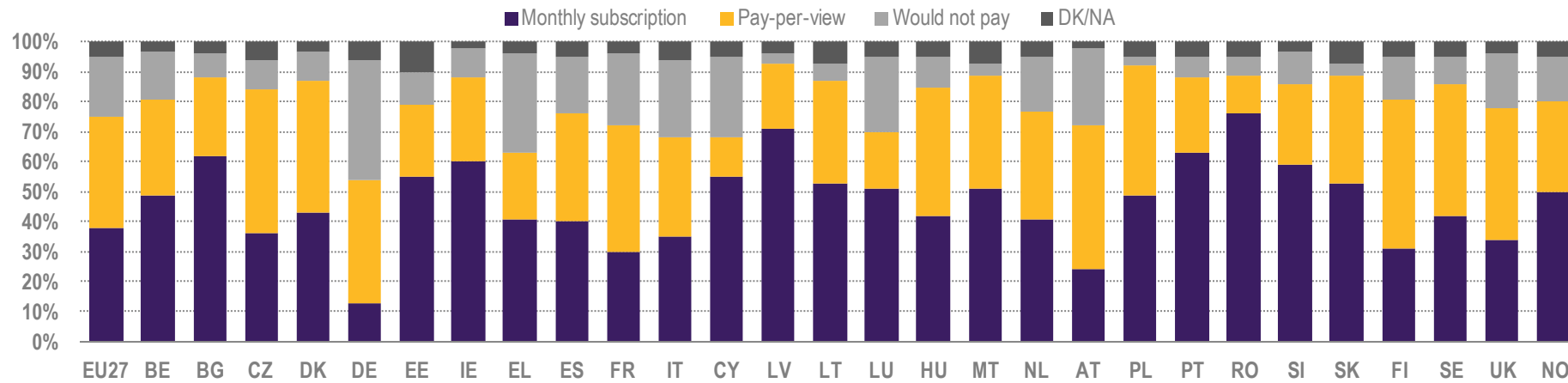
Respondents who watch television from other EU countries or would be interested in doing so were asked whether they would prefer to pay for television or video from other EU countries by monthly subscription, pay-per-view or not at all. The telephone survey did not go into detailed questioning about specific price points so the results only indicate a broad preference with regard to payment. However, the proportion of respondents who were not willing to pay may set a ceiling.

Overall, 38% of respondents would prefer to pay a monthly subscription, 37% pay per view, 20% would not pay, while 5% did not know or did not answer. Figure 6-31 shows the preferred way of paying by country. The proportion of respondents who would not pay ranges from 3% in Latvia and Poland to 40% in

Germany. The preference for a monthly subscription or pay-per-view among respondents who would pay also varies by country. The proportion of respondents who prefer to pay a monthly subscription ranges from 13% in Germany to 76% in Romania.

Compared to the average of 20% the proportion of people unwilling to pay is low among respondents who live in large families (e.g. 13% in families of four or more), are still in education (10%), have a mother tongue different from the language of their country of residence (12%) and are currently learning another language (14%). This suggests that these groups may be more likely than average to pay, but does not indicate how much they would be willing to pay.

Figure 6-31: Preferred way of paying for television or video from other EU countries by country

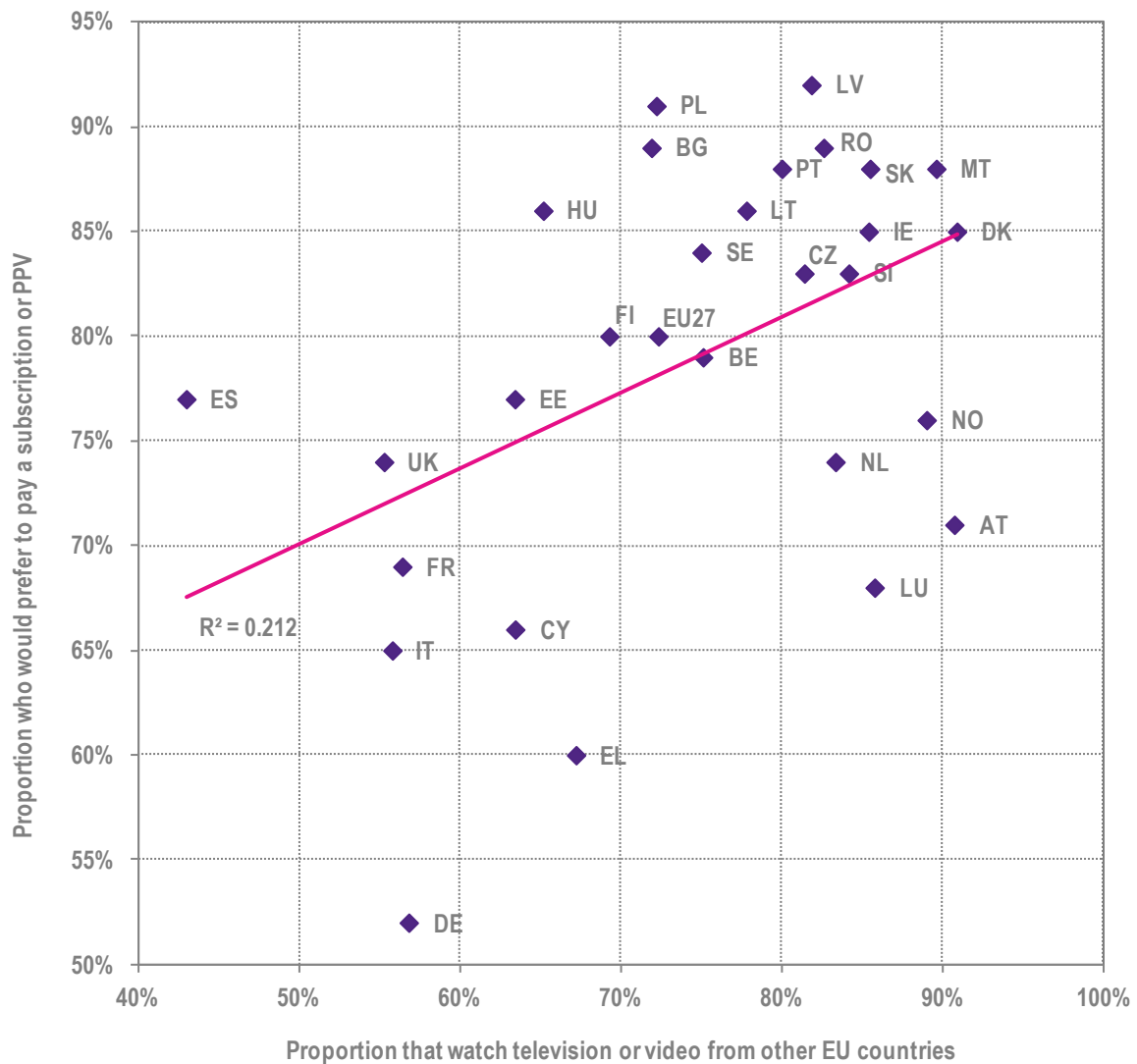


Base: 9,184 adults in the EU and Norway who have ever watched any TV or video from another EU country or are interested in doing so.

Source: Flash Eurobarometer survey, September 2011.

The proportion of people who would prefer to pay by monthly subscription or by pay-per-view could be considered an indicator of possible willingness to pay. We found that there is a weak correlation between this proportion and the proportion of people who watch television or video from other EU countries. Figure 6-32 shows this correlation. On average, the higher the proportion of people who watch television or video from other EU countries the higher the proportion who would prefer to pay by monthly subscription or by pay-per-view (i.e. would not refuse to pay).

Figure 6-32: Correlation between watching television and radio from other EU countries and preferred method of paying for this television and video



Base: 13,140 adults in the EU and Norway.

Source: Flash Eurobarometer survey, September 2011.

## 6.2.6 Conclusion

Overall, the Eurobarometer survey results show that there is a high incidence of watching television or video from other EU countries, though this includes programming shown in translation. There is a low level of interest in television or video from other EU countries among those who do not currently watch it, but this varies by country. It is possible that respondents in countries with a limited supply of such content at present register the greatest interest in it. Respondents with fluency in a foreign language and respondents who travel frequently watch television or video from other EU countries the most frequently.

The data is inconclusive with regard to whether non-migrants who have fluency in other languages or who travel frequently would be willing to pay for television or video from other EU countries in the sense of a cross-border proposition as defined in this study. However, data does suggest that a substantial proportion of the general population in some countries (e.g. Germany) are unwilling to pay for television or video from other EU countries. There is a correlation between the proportion of people who would prefer to pay by monthly subscription or by pay-per-view (i.e. those who are not unwilling to pay) and the proportion of people who watch television or video from other EU countries.

The Eurobarometer survey also shows strong differences between countries in the viewing of television and video from other EU countries, interest in this content among people who do not currently watch it and in preferred method of payment. Findings include a low proportion of people watching television or video from other EU countries in the five largest EU countries (France, Germany, Italy, Spain and the UK). The proportion of people who do not currently watch television or video from other EU countries who would be interested in watching it is especially high in Bulgaria, Cyprus, Ireland, Lithuania, Poland and Slovakia. The proportion of people who would prefer to pay for television and video from other EU countries by subscription or pay-per-view is especially low in Germany, Greece, Italy. People in these countries are likely to be most resistant to paying for cross-border audiovisual media services. These results relate to the general population and not to migrants, who make up a small subset of these populations.

## 6.3 Other indicators of demand

There are several indicators that provide indirect insights into the potential demand for cross-border audiovisual media services. These include the uptake of audiovisual media services targeting migrant populations and cross-border use of content websites. In relation to demand from the populations of language learners and travellers, the size of the language learning market and audiovisual services sold to travellers provide some insight. The following section presents data from desk-based research into these indicators.

### 6.3.1 Audiovisual services targeting migrant populations

Penetration of their target population groups by audiovisual services aimed at migrant populations is up to about 30% in the specific cases for which data is available. These rates have been achieved with relatively limited distribution. This is consistent with the levels of willingness to pay found in the online survey. Data for other services is not available, but the presence of these commercial propositions indicates that there is consumer demand.

- Tang Media<sup>170</sup> provides a package of 14 Chinese channels via IPTV operators in France including Free, Orange Livebox, SFR Neufbox and Alice. The company has 20,000 subscribers in France<sup>171</sup> for the package priced at €8.88 per month. In 2007, there were 72,000 Chinese nationals in France<sup>172</sup>, so the penetration of the service is 28% of population, or higher as a proportion of households.
- Thema<sup>173</sup> distributes foreign channels in France including Le Bouquet Africain, a package targeted at the African community, that has 100,000 subscribers<sup>174</sup>. This figure represents about 30% the immigrants from those countries<sup>175</sup> where the channels in the bouquet are established. The monthly fee for the service is €6.90 for 8 or 9 channels or €9.90 for 15 channels.
- Zee TV has about 150,000 subscribers across Europe<sup>176</sup>, and a monthly reach of 983,000 individuals in 2011<sup>177</sup>. Pricing for the UK market ranges from £6.99 per month for Zee Cinema as a standalone channel to £15.99 for a package of four channels<sup>178</sup>. The majority of the target audience is likely to be in the UK where there are about 1.3 million residents born in India, Pakistan and Bangladesh in 2010 (ONS) so the penetration rate for this service is of the order of 10%. Counting competing services such as Sony TV Asia for which data is not available penetration is likely to be much higher. The value of broadcasting to the 30 million ethnic Indians outside of India has been estimated at €147m annually<sup>179</sup>.

### 6.3.2 Pay-TV penetration and pricing

There are significant differences between EU countries in the penetration of pay-television services. This indicates that there may be inherent differences in willingness to pay for audiovisual services by country. This section describes these differences, possible reasons for them, and potential implications for willingness to pay.

Consumers pay for audiovisual services in three ways:

- Licence fees to public service broadcasters. As these fees are compulsory they do not give any indication of willingness to pay for audiovisual media services in the sense being considered in this project.
- “Utility” type cable services. In some countries (e.g. the Netherlands, Germany) consumers pay for connection to the cable network which provides a selection of “free” non-premium channels.
- Premium pay-television services. Pay-TV service providers charge for a selection of premium channels.

<sup>170</sup> <http://www.tangmedia.fr/greatwall/en/index.html>

<sup>171</sup> [http://www.digitalveurope.net/feature/16\\_feb\\_11/minority\\_report](http://www.digitalveurope.net/feature/16_feb_11/minority_report)

<sup>172</sup> Source: INSEE

<sup>173</sup> <http://www.thematv.com/about-us.html>

<sup>174</sup> <http://www.thematv.com/news.html>

<sup>175</sup> The package consists of 16 channels from Mali, Senegal, Cameroon, Congo, Cote d'Ivoire, Burkina Faso, Benin, Guinea, Gabon and Togo. There are about 322,000 nationals from the above countries in France according to the 2007 INSEE Census.

<sup>176</sup> Jean K. Chalaby, *Transnational Television in Europe: Reconfiguring Global Communications Networks*, 2009.

<sup>177</sup> [www.digitalmediasales.co.uk/our\\_clients/mems/zee\\_tv.html](http://www.digitalmediasales.co.uk/our_clients/mems/zee_tv.html)

<sup>178</sup> [www.zeeuk.com](http://www.zeeuk.com)

<sup>179</sup> Source: Media Partners Asia. [http://www.digitalveurope.net/feature/16\\_feb\\_11/minority\\_report](http://www.digitalveurope.net/feature/16_feb_11/minority_report)



In addition, they may pay for the equipment required to access audiovisual services or this equipment may be supplied by the service provider under a rental model.

The penetration of premium pay-television services and “utility” type cable services differs significantly by country. Figure 2-2 (page 29) showed the variation in the penetration of different distribution media. The majority of satellite and IPTV services are pay-television. Cable services may be “utility” type services in which consumers pay for connection and access to a selection of free-to-view channels, or true premium services in which consumers pay for a package of pay-television channels. Digital terrestrial services tend to be offered for free, though pay “add-on” services have developed in some countries (e.g. TopUpTV in the UK, and Gol TV in Spain).

There are several factors that influence the uptake of pay-television services including:

- The strength of supply of free television services.
- The strength of content offered exclusively on pay services, especially rights to key sports.
- Related to the above, consumers’ expectations of whether television content is free or pay.

The latter point might lead to a lower level of willingness to pay for cross-border content among people living in countries with less tradition of paying for audiovisual media services (e.g. Germany). However, the scale of this effect is uncertain as migrants, for example, may not have absorbed the culture of not paying or may distinguish payment for cross-border services from payment for domestic services. This is an area that may require further investigation in the primary research.

### 6.3.3 Newspapers and magazines

Newspapers and magazines are often available for sale in EU markets other than the domestic market, either in original version or as an international edition. These publications are typically sold at a premium to the price in the domestic market. This suggests some willingness to pay for content supplied cross-border within the EU, and a distance premium attached to this content.

Circulation data is not available at a sufficiently granular level to allow analysis of specific cross border flows, though this analysis is possible to some extent for the websites of these newspapers (see Section 6.3.4). Total overseas circulation data is disclosed for UK newspapers, and varies from 1.0% of total circulation for The Sun to 69.6% for the Financial Times, but is otherwise in the range 1.4% to 12.9%. Non-EU English-speaking countries including the US, Canada and Australia may make up for a substantial proportion of this overseas circulation.

### 6.3.4 Content websites

The geographical distribution of usage of content websites, including newspaper, magazine and television channel sites, provides a useful indication of the level of interest in cross-border content. These websites tend to be advertising or licence fee funded and free to use. Therefore these indications are of general interest in the content rather than willingness to pay for it. Though some newspaper sites charge for access (e.g. in Germany the Berliner Morgenpost and the Hamburger Abendblatt both started charging online readers in 2010 while in France Le Monde has been charging €6 per month for access to archives, newsletters and interactive services since 2002) data is not available with respect to cross-border subscriptions.

We have collected web audience data from the Alexa<sup>180</sup> service. The “traffic” metric used by Alexa is a combined measure of reach (proportional to number of unique users) and page views (amount of usage). There are limits to the accuracy of this data owing to the way that the Alexa panel is constituted<sup>181</sup>. Nevertheless, this data provides a rough indication of the relative distribution of audiences by country.

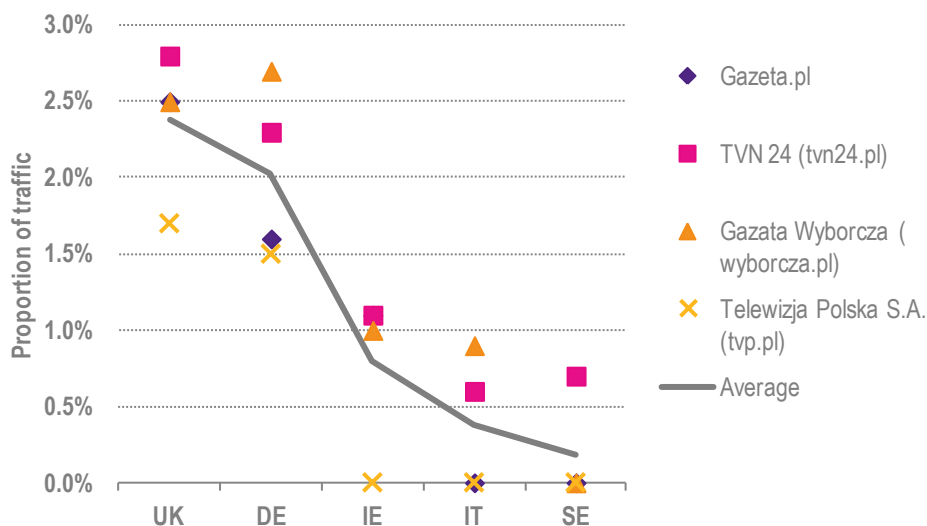
There is, as expected, a link between the distribution of audiences for content websites and the location of migrant populations and those with language proficiency, and the destination of travellers. The project team has not attempted to analyse any correlations statistically, but has made graphical comparisons of distribution patterns. The conclusion is that citizens located outside their country of origin generate the most web traffic: there is a strong match between the location of migrant populations and travellers (expressed as tourism years) and the distribution of traffic for web content sites. Non-citizens with good language skills generate additional demand, but per-capita this may be of the order 20 times less than demand generated by migrants and travellers.

There follow examples of the distribution of audiences for web content sites compared to the distribution of migrant populations, travellers and those with language proficiency for Polish, UK and German sites.

### Polish website audiences

The highest ranking<sup>182</sup> Polish content websites are Gazeta.pl (news and information), TVN24.pl (commercial television news), wyborcza.pl (Gazeta Wyborcza newspaper) and tvp.pl (Telewizja Polska, the public service television broadcaster). Internet users in the UK and Germany generate the largest EU cross-border traffic for these sites, followed by Ireland, Italy and Sweden. Figure 6-29 shows the distribution of traffic by site.

Figure 6-33: Distribution of cross-border EU traffic of Polish content websites, April 2011



Source: Alexa.com traffic rankings (accessed 8 April 2011)

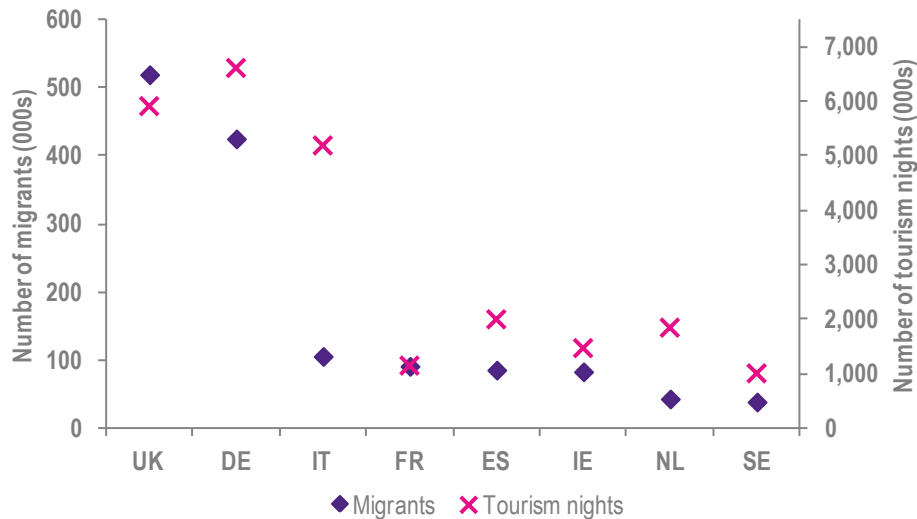
<sup>180</sup> www.alexa.com

<sup>181</sup> Alexa generates web traffic data based on a set of web users who have installed the Alexa toolbar. This set may not be a representative sample of the global internet population, leading to the potential for over- and under-estimates. The traffic data is likely to be the most accurate for the sites that attract the most traffic. www.alexa.com/help/traffic-learn-more

<sup>182</sup> According to Alexa.com traffic rankings (accessed April 8, 2011).

The distribution of migrant populations, and tourism nights, is similar: the UK and Germany account for the largest numbers. However, Ireland accounts for a disproportionately high share of web traffic relative to the number of Polish migrants living in Ireland. Similarly, France and Spain are disproportionately low. The reasons are unknown, but might relate to the profile of Polish migrants present in each country (e.g. Polish migrants in Ireland may be more likely to have access to the internet than those in France).

Figure 6-34: Distribution of Polish migrants and tourism nights by EU country



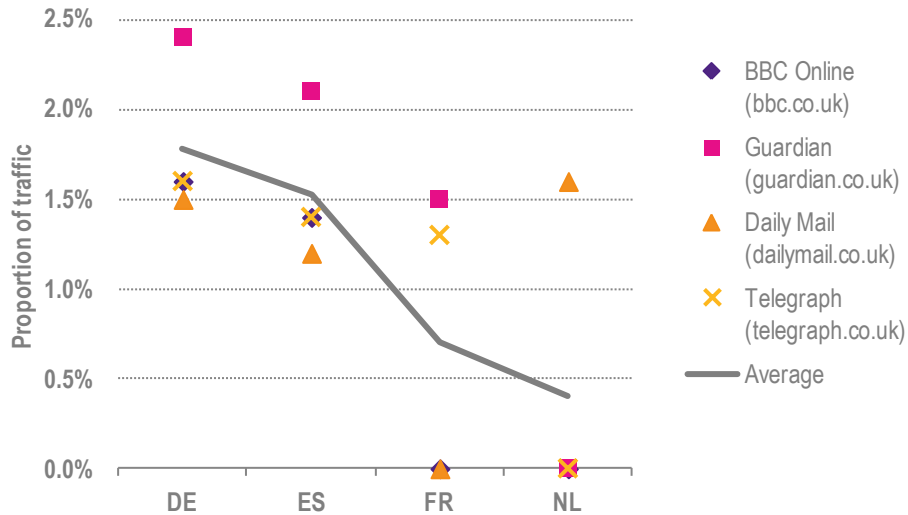
Source: Eurostat

### UK website audiences

The highest ranking<sup>183</sup> UK content websites are [bbc.co.uk](http://bbc.co.uk) (public service broadcaster), [guardian.co.uk](http://guardian.co.uk) (The Guardian newspaper), [dailymail.co.uk](http://dailymail.co.uk) (The Daily Mail newspaper) and [telegraph.co.uk](http://telegraph.co.uk) (The Telegraph newspaper). These websites generate a large proportion of their traffic from foreign users, especially users based in the US, Canada, India and Australia. Within the EU, the largest proportion of traffic comes from Germany, Spain, France and, to a lesser extent, the Netherlands. Figure 6-35 shows the distribution of cross-border EU web traffic to these sites by country.

<sup>183</sup> According to Alexa.com traffic rankings (accessed April 8, 2011).

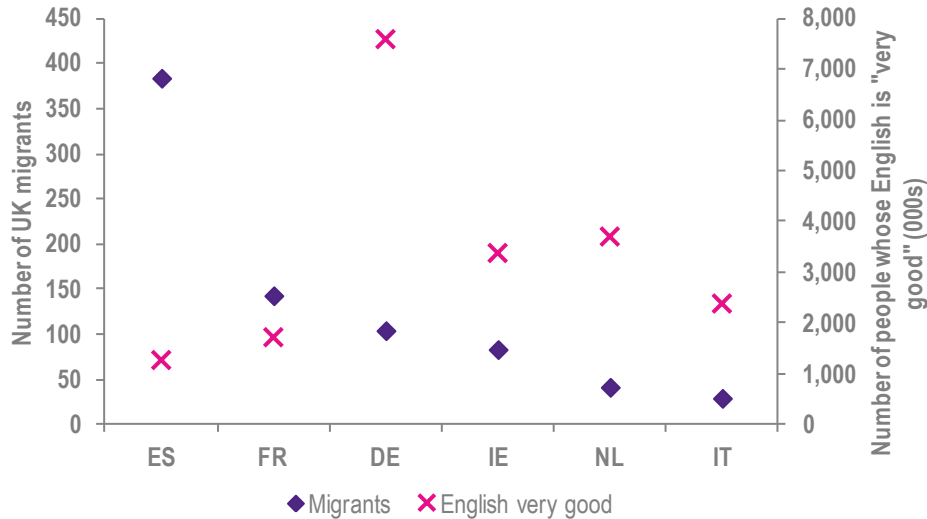
Figure 6-35: Distribution of cross-border EU traffic of UK content websites, April 2011



Source: Alexa.com traffic rankings (accessed 8 April 2011).

The distribution of traffic for UK content websites cannot be fully explained by the distribution of UK migrants within the EU. In particular, Germany accounts for the largest proportion of traffic of any EU country, but there are nearly four times more UK migrants living in Spain than Germany. It is likely that the difference in traffic is generated by German citizens with English language skills. There are 7.6 million adults in Germany who claim to have a “very good” level of English compared to 1.3 million in Spain. As a rough guide, the observed ranking of traffic by country can be achieved by assuming that, per-capita, migrants generate 20 times more traffic than those with very good English language skills. The relative total traffic generated by each country could therefore be estimated by adding the number of migrants and one twentieth of the number of those with very good English language skills. This is roughly equivalent to adding the height of the markers in Figure 6-36 as the axes differ in scale by approximately 20 times.

Figure 6-36: Distribution of UK migrants and those with very good English language skills by EU country

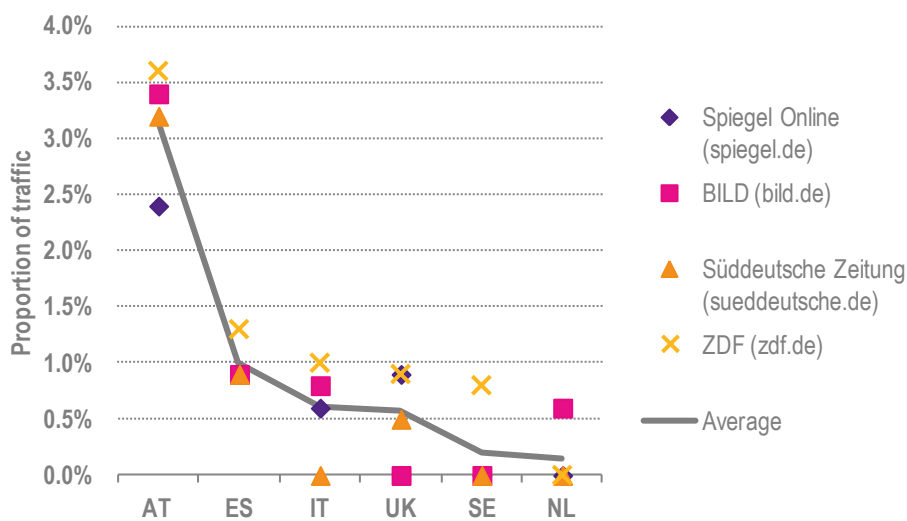


Source: ONS; Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

### German website audiences

The highest ranking newspaper websites in Germany are sites of the newspapers Spiegel, Bild and Süddeutsche Zeitung, while the highest rating public service television broadcaster is ZDF. Internet users in the Austria, Spain, Italy and the UK generate the largest EU cross-border traffic for these sites. Figure 6-37 shows the distribution of traffic by site.

Figure 6-37: Distribution of cross-border EU traffic of German content websites, April 2011

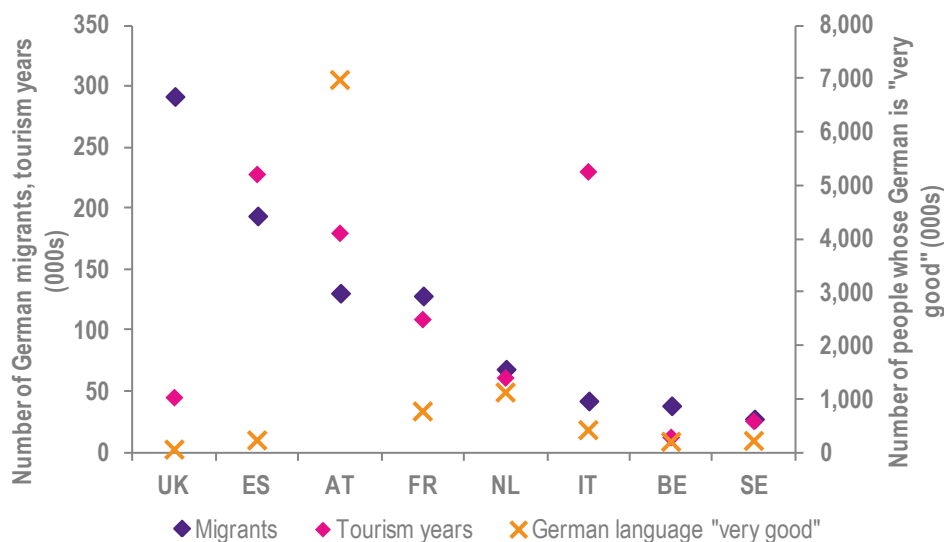


Source: Alexa.com traffic rankings (accessed 8 April 2011)

Figure 6-37 shows the distribution of German migrants, German tourism years and people whose German is very good. Again, the distribution of migrants does not fully account for the patterns in web traffic. For

example, more German migrants live in the UK than any other EU country, but Austria, Spain and Italy account for more web traffic to German content sites. The large proportion of traffic generated by Austria can be accounted for by the linguistic and cultural similarities between Germany and Austria. The fact that Spain and Italy generate more web traffic to German sites than the UK is unlikely to be due to language proficiency as the numbers with very good German in all three countries are relatively low. Therefore, it is likely that the large number of German travellers to Spain and Italy accounts for the high level of web traffic that these countries generate. German tourism nights in Spain generated an equivalent 228,000 years and nights in Italy an equivalent 230,000 years. As a rough guide, the observed rankings can be achieved by assuming that a tourism year generates equivalent web traffic to a migrant. The absence of France from the web traffic data is an anomaly as France accounts for larger numbers of migrants and traveller years than the Netherlands and Sweden. This may be explained by potential differences between the type of migrants and travellers in each country.

Figure 6-38: Distribution of German migrants and those with very good German language skills by EU country



Source: Eurostat; Europeans and their languages, Special Eurobarometer 243/Wave 64.3 (Nov-Dec 2005).

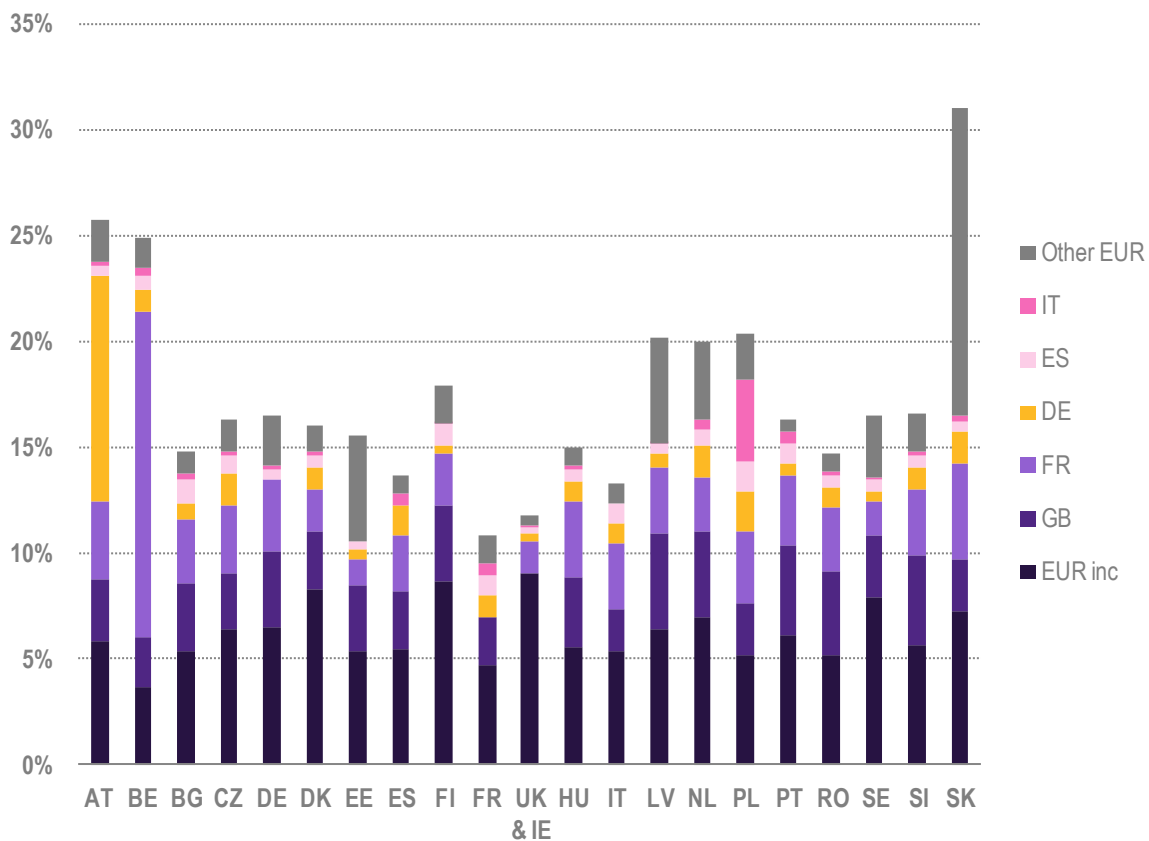
### 6.3.5 Cinema audiences

The proportion of cinema admissions that are to non-national EU films gives insight into the relative popularity of film (mainly fiction, documentaries and animation) from different EU countries. Films are a key part of many audiovisual media services, and that demand for films in the pay-television rights window is often driven by performance in cinema exhibition. Therefore, the levels of admissions to non-national EU films has some relevance to potential demand for cross-border audiovisual media services. However, these films are typically exhibited in a language version tailored to the country of exhibition, either subtitled, dubbed or with voice over.

Figure 6-39 Figure 6-38 shows by country the proportion of cinema admissions that are to films produced in each of the main EU countries. Overall, US films (not shown) accounted for 64% of admissions in the

EU 27 countries in 2008<sup>184</sup>. Films from the UK are the most popular of EU produced films, especially when films made with US inward investment are counted, which are chiefly produced in the UK. French films are also relatively popular, followed by German, Spanish and Italian films. Admission patterns vary by country, with high share achieved by films from countries with the same language e.g. French films in Belgium. The high share of the main five countries is explained by the relatively large scale of the film production sectors in these countries: together they accounted for 63% of the films produced in the EU 27 in 2008. France produced 196 films in 2008, Spain 150, Germany 151 and the UK 75<sup>185</sup>.

Figure 6-39: Proportion of non-national EU films in cinema admissions, 2006-2008



**Note:** Based on the average of 2006, 2007 and provisional 2008 data. EUR inc refers to films produced in Europe, chiefly in the UK, and benefiting from US inward investment. BE and DE figures based on incomplete data. BE, EE, HU and LV includes first-release films only. The nationality of a film produced as a co-production is assigned here as being that of the majority co-production country and not necessarily on the basis of recognition of the co-production under international co-production treaties.  
**Source:** OBS / Lumiere

<sup>184</sup> Source: OBS / Lumiere, provisional data.

<sup>185</sup> Source: OBS provisional data.

## 7 Economic potential of cross-border services

This section analyses the economic potential of cross-border subscription based audiovisual media services: the potential demand and willingness to pay for such services and the nature of the costs of supply.

It uses evidence reported in previous sections to determine overall consumer demand and willingness to pay, then considers the cost to service providers of meeting this demand. Finally, it concludes with an assessment of the economic potential of cross-border subscription based audiovisual media services.

This analysis is made in the context of the current market situation as regards business models. We do, however, comment on potential changes in economic potential owing to trends in costs and possible changes in practice in licensing rights following the ruling of the European Court of Justice in the FAPL case.

### 7.1 Potential demand for cross-border services

We have combined the results of the consumer surveys with the analysis of population groups to estimate, by quantitative modelling, the potential willingness to pay among intra-EU migrants for subscription-based cross-border audiovisual media services. As with any estimate, we have made a number of assumptions which, together with potential statistical error in the survey, introduce uncertainty into the result.

Nevertheless, the exercise provides a good indication of the order-of-magnitude value of demand. The headline result is **potential willingness to pay of between €760 million and €1,610 million annually in the EU**. This compares to a total EU pay-television market size of €28.6 billion<sup>186</sup>, television advertising spend of €27.3bn and public income to television and radio of €23.3bn<sup>187</sup> in 2009. The willingness to pay is fragmented between a large number of population groups, and the value of any one population group is typically low: the median is €45,000 annually.

We do not have the data required to estimate the potential willingness to pay generated by linguistic minorities, other non-migrants with language proficiency, language learners or travellers in the way that we have done for migrants. However, in section 7.1.3 we have commented on the possible scale of demand from these groups relative to migrants.

#### 7.1.1 Methodology and assumptions

We developed a model that segments the market of intra-EU migrants into a 27 x 27 matrix of country of origin x country of residence. Within this matrix we modelled the flow from population of intra-EU migrants to number of households containing intra-EU migrants, number of migrant households that would pay €10 or more monthly for cross-border AVMS to the potential annual spending on cross-border AVMS of these households. Figure 7-1 shows the model flow and the key inputs to the model. The results are figures for the potential number of subscribers to cross-border AVMS and their annual spending for all 729 country-by-country groups.

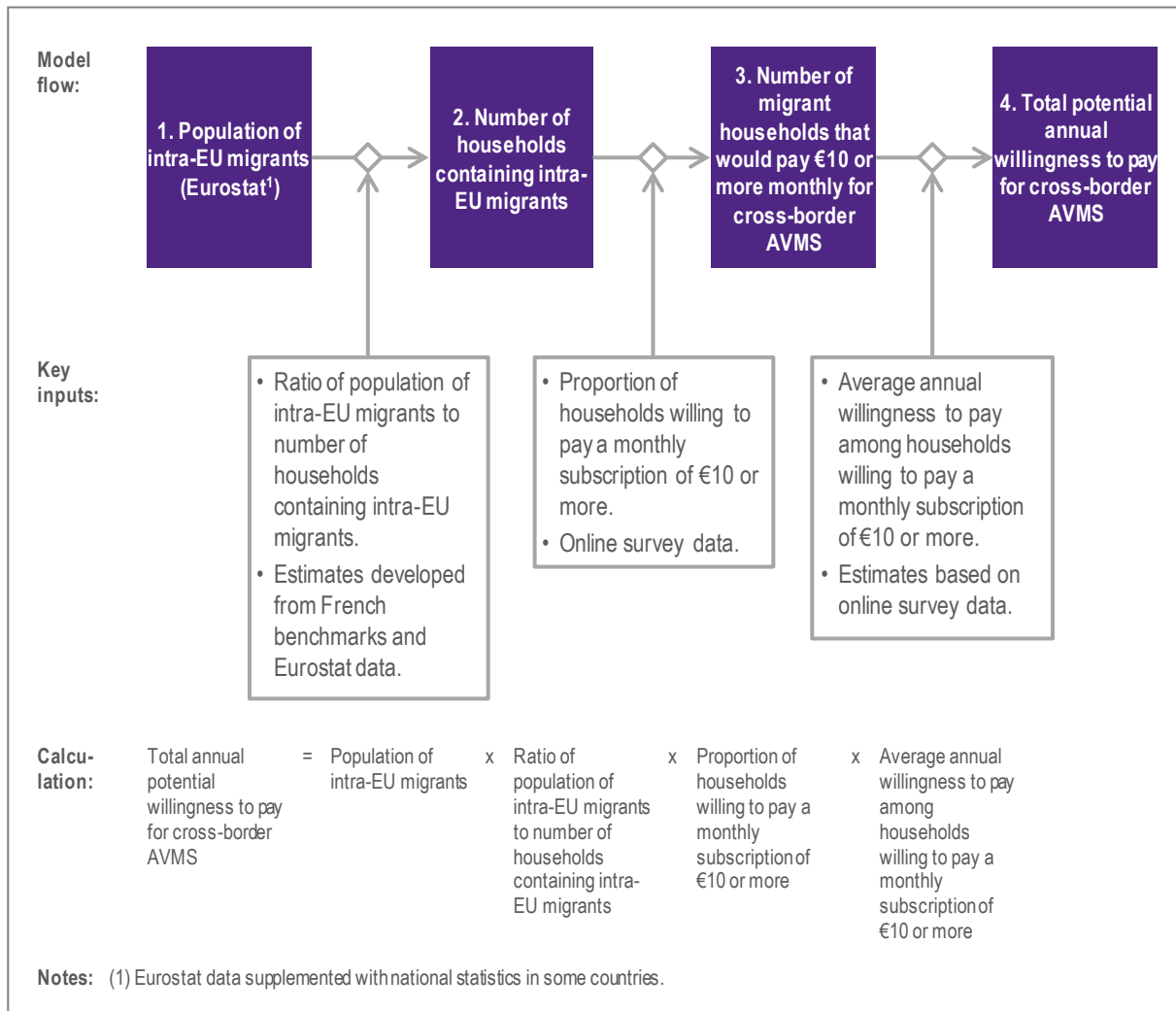
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<sup>186</sup> Source: Screen Digest

<sup>187</sup> Source: European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data.



Figure 7-1: Modelling methodology



The model necessarily involved a number of assumptions. The following list describes these assumptions and their potential impact on the results.

- The model assumes that subscription-based cross-border audiovisual media services are household purchases as tends to be the case for satellite subscriptions: only one subscription would be purchased per household. However, it is possible that purchases may become more individual in future as consumers increasingly use personal devices (e.g. iPads) for audiovisual consumption.
- Owing to a lack of detailed recent data the ratio of migrant populations to households is based on a benchmark for France of 1.34 developed from analysis of a detailed study of migrant populations in France conducted in 1999. The value relates to the relative proportions of migrants living in households with other migrants, with nationals of the country of residence or alone. These values will have changed since 1999 and may differ by country.
- The ratio was adjusted for other countries based on the relative household size, calculated from Eurostat data. This assumes that the difference in ratio of migrant populations to households scales with average household size i.e. that migrants behave like the general population with regard to relative household size by country.

- The model assumes that all migrant-migrant households consist of two migrants from the same country of origin. This avoids double counting by country of origin in the matrix of results. In reality a small proportion (e.g. 9% in France<sup>188</sup>) of migrant-migrant households consist of migrants from different countries of origin.
- The model assumes that €10 per month is a reasonable cut-off: that operators would not seek to develop cross-border services at lower price points. This is broadly consistent with current market practice with regard to satellite pay-television subscriptions. However, some packages of television channels aimed at migrants retail at slightly lower price points, though these are not cross-border services as defined in this study. Similarly, it is assumed that operators would offer an entry-level package at the €10 price point. There is a degree of uncertainty over whether an entry-level proposition at this price would be available from all countries.
- The use of the online survey data for willingness to pay assumes that respondents internalised household decision making when claiming their likelihood to pay for services. In other words their claimed willingness to pay is viewed in the context of their household's needs and finances rather than their individual situation.
- The model assumes that the proportion of migrant households willing to pay and the average amount that they are willing to pay is the same in all groups (country of residence x country of origin). The online survey data did not reveal any strong differences by country of residence (between France, Spain, Sweden and the UK) or by country of birth (grouped by EU12/EU15 and size of broadcasting market). The sample was too small to identify willingness to pay by individual country of birth. Though the Eurobarometer survey identified differences in preferred method of payment and the proportion who would not be willing to pay, it did not provide data
- The willingness to pay estimates reflect respondents' stated intentions in response to a hypothetical situation in which a new service was made available using a contingent valuation approach. It is well known that this results in a potential bias in the responses as users do not face real budget constraints or search costs - possibly leading to an upward bias in the response<sup>189</sup>. Although one review of empirical studies found that contingent valuation produces, on average, willingness to pay values just below those of revealed preference techniques, where the latter use data from actual consumer choices<sup>190</sup>.

We have not attempted to adjust the data to compensate for any of these assumptions as the relative size of these effects is uncertain and there are compensating positive and negative effects when taken as a whole. In addition, the results need to be qualified regarding definitions and other factors.

- The results refer to willingness to pay. It is uncertain whether operators would be efficient in extracting the full willingness to pay expressed by respondents to the online survey. In other words, we do not know whether operators would provide consumers willing to pay €25 monthly with a premium package at this price, and provide consumers willing to pay only €10 with a basic package at this price. Pay-television providers operate tiered pricing models of this sort in their domestic markets, but the efficiency of these models is uncertain.

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<sup>188</sup> Source: Insee, Recensement de la population, 1999.

<sup>189</sup> For a review of survey methods and their pros and cons see "Review of stated preference and willingness to pay methods", Accent April 2010 for the UK Competition Commission. [http://www.competition-commission.org.uk/our\\_role/analysis/summary\\_and\\_report\\_combined.pdf](http://www.competition-commission.org.uk/our_role/analysis/summary_and_report_combined.pdf)

<sup>190</sup> Economic valuation with stated preference techniques, D Pearce and E Ozdemiroglu, Department for Transport, local government and regions, March 2002 <http://www.communities.gov.uk/documents/corporate/pdf/146871.pdf>

- The results show the potential demand among households that do not currently have foreign satellite subscriptions ( “grey market”) and those households with foreign satellite subscriptions that claimed a willingness to pay. It is possible that some demand from some households with foreign satellite subscriptions has been omitted owing to respondents interpreting the willingness to pay question as incremental to existing spend rather than substitutive for it.
- The results include some demand that is already met, either by foreign satellite subscriptions or foreign channels available for subscription on domestic cable and satellite services. The incremental new demand may be lower than the results suggest. This is discussed in more detail in Section 7.1.2.
- The results include potential demand from people who might not currently have the technical capability to receive services. For example, they may live outside the footprint of the relevant satellite or lack the ability to install a satellite dish (e.g. people living in apartment blocks with SMATV installations). They may also lack a sufficiently fast broadband connection to access services over the internet instead of satellite or not have a connected television set that would enable them to watch these services on their main television set. In future the proportion of people without broadband access will decrease, and the penetration of connected television will increase, but there may remain a significant number unable to receive cross-border services if offered by satellite or over the internet.

On balance, these factors are likely to mean that the willingness to pay estimates are larger than the actual potential revenue of cross-border services were these to be offered under present market conditions.

## 7.1.2 Key findings

### Total willingness to pay of intra-EU migrants

Total willingness to pay among intra-EU migrants for subscription-based cross-border audiovisual media services is estimated to be in the range €760 million to €1,610 million annually, based on the proportion of online survey respondents who were “very likely” and “fairly likely” to pay respectively. We believe that the lower figure is likely to be the more accurate reflection of willingness to pay owing to the possibility that survey respondents’ claimed willingness to pay is higher than the probable actual value, and other factors.

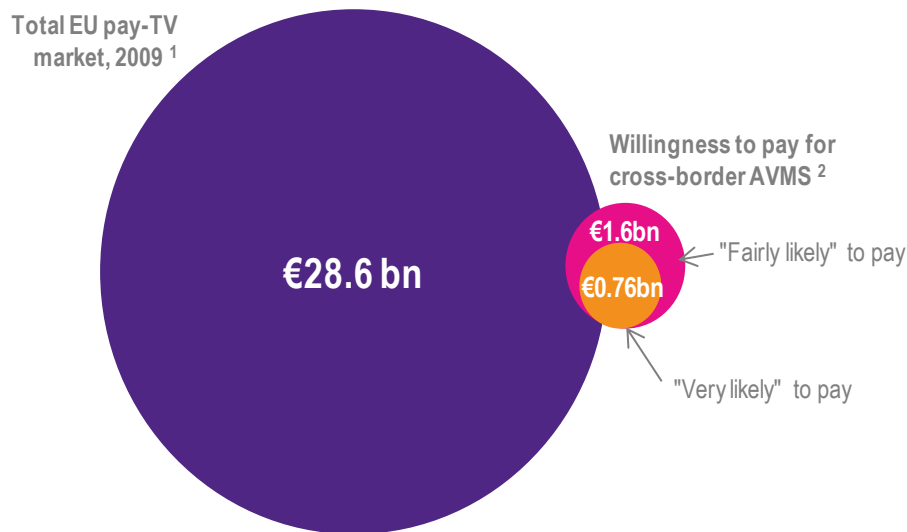
To put these figures in context, total pay-television market revenues in the EU were €28.6 billion in 2009<sup>191</sup>. Therefore, the potential willingness to pay for subscription-based cross-border audiovisual media services is equivalent to 3% to 6% of this market value. For comparison, total EU television advertising spend was €27.3bn in 2009, while public income to television and radio was €23.3bn<sup>192</sup>. Figure 7-2 compares the value of these markets and visualises the possible overlap in terms of demand already met by “grey market” subscriptions.

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<sup>191</sup> Source: Screen Digest

<sup>192</sup> Source: European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data.

**Figure 7-2: Potential willingness to pay for subscription-based cross-border AVMS among intra-EU migrants, compared to the total EU market**



**For comparison, in 2009:**

- Total EU television advertising spend = €27.3bn<sup>3</sup>
- Total EU public income = €23.3bn<sup>4</sup>

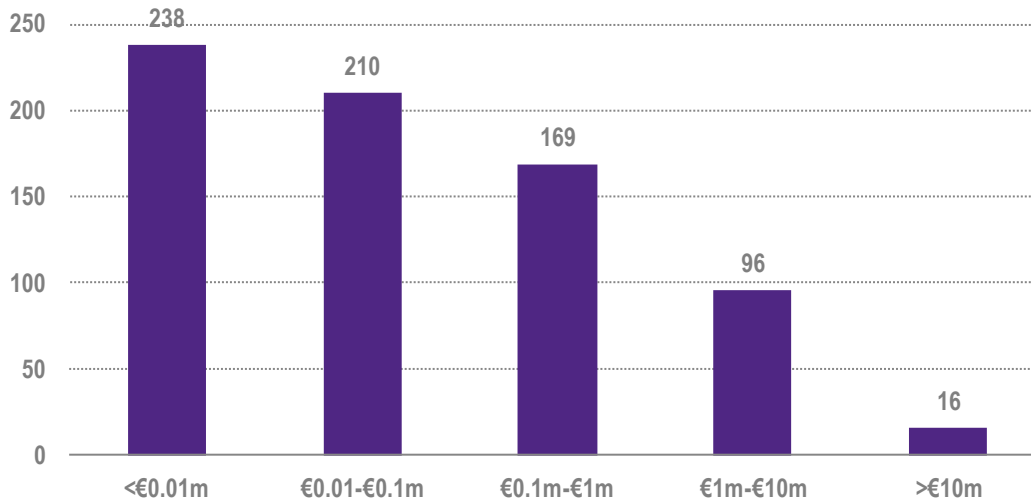
**Source:** (1) Screen Digest. (2) Plum Consulting analysis. (3) European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data. (4) European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data. Includes income of public radio.

**Notes:** Area of circles is proportional to market size. The overlap of circles represents potential demand that may already be met by the market. Demand for free-to-view cross-border AVMS is out of scope of this study. Total television advertising spend data is included for comparison only.

### Segmentation of willingness to pay by country of origin and country of residence

The vast majority of the 702 market segments (by country of residence x country of origin) account for relatively low willingness to pay. 64% of these segments have willingness to pay of under €100,000 annually. Figure 7-3 shows the distribution of segments by size of willingness to pay. Full data for willingness to pay by country of origin and country of residence for all EU27 countries is provided in Appendix D.

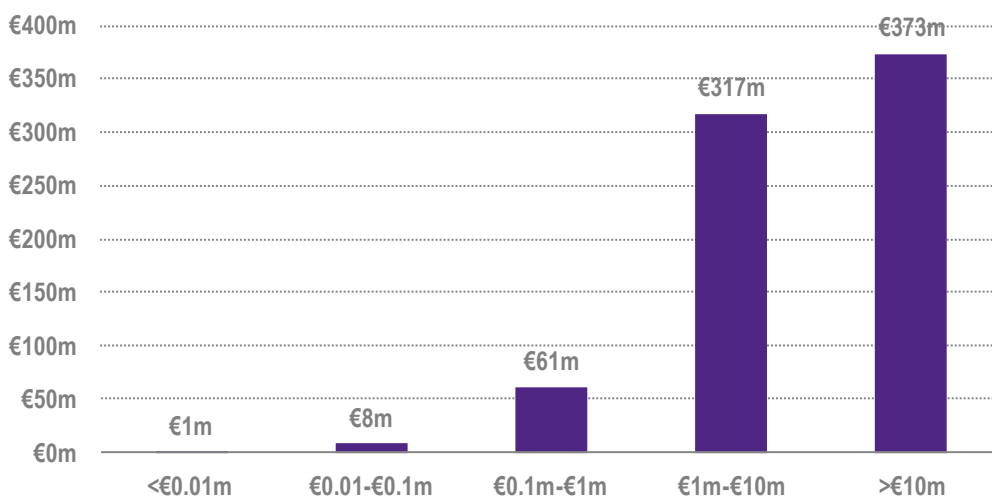
Figure 7-3: Potential EU willingness to pay for subscription-based cross-border AVMS: number of market segments by size of potential willingness to pay in each segment



Source: (1) Plum Consulting analysis.

By value, the willingness to pay is concentrated in a small number of market segments. The 16 segments larger than €10m account for 49% of willingness to pay. Figure 7-4 shows the distribution of willingness to pay by size of market segment.

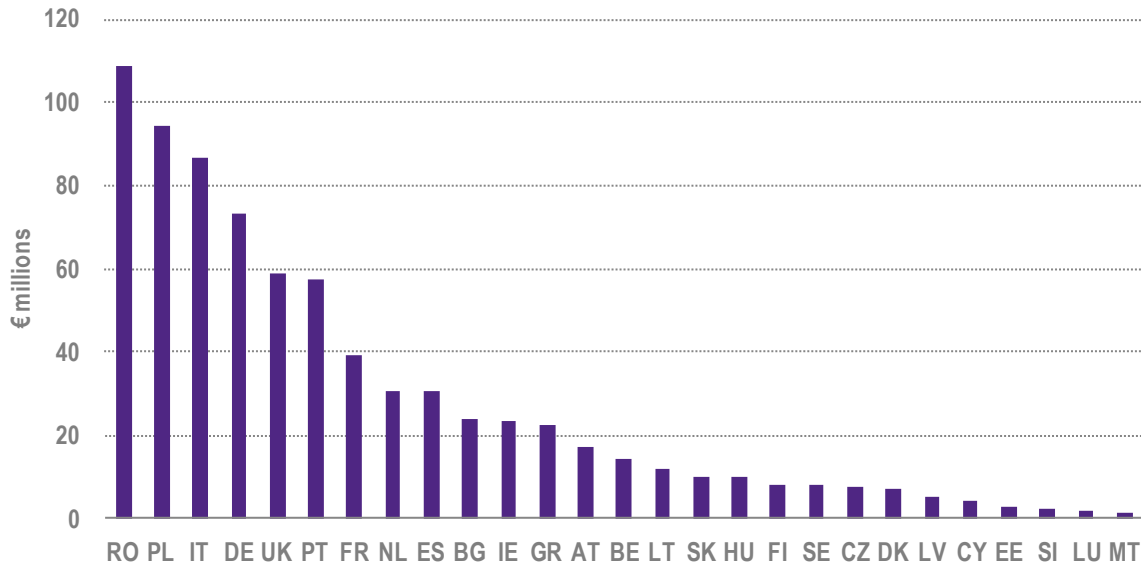
Figure 7-4: Potential EU willingness to pay for subscription-based cross-border AVMS: value of market segments by size of potential willingness to pay in each segment



Source: (1) Plum Consulting analysis.

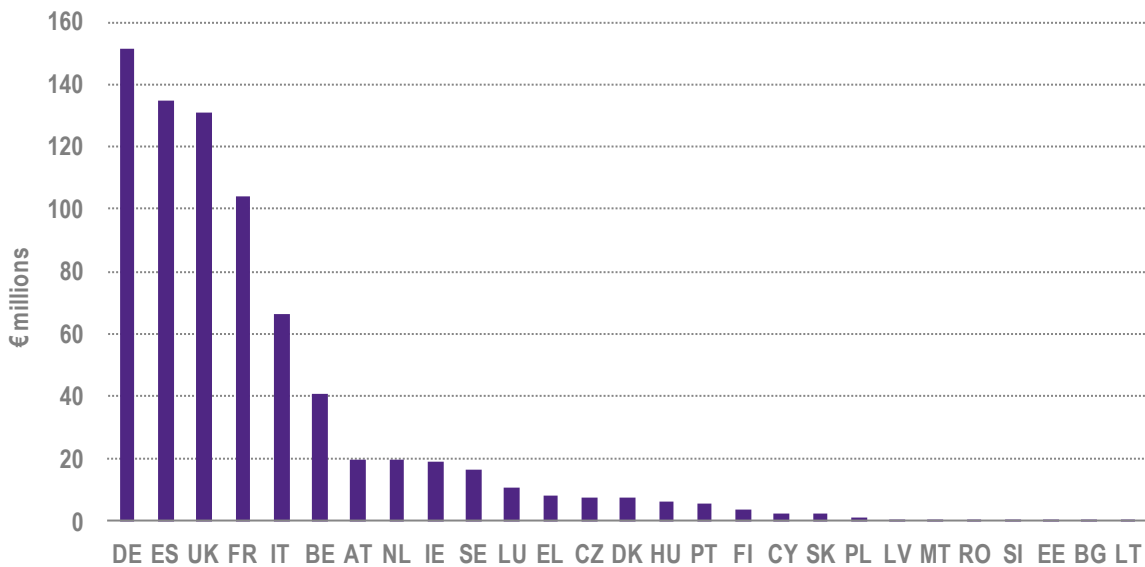
Willingness to pay is also concentrated in terms of country of origin. The largest five countries of origin (Romania, Poland, Italy, Germany and the UK) account for 56% of willingness to pay. Figure 7-5 shows the distribution of willingness to pay by country of origin.

Figure 7-5: Willingness to pay for cross-border AVMS by country of origin



Similarly, willingness to pay is concentrated by country of residence. The five countries with largest willingness to pay (Germany, Spain, the UK, France and Italy) account for 77% of the total willingness to pay. Figure 7-6 shows the distribution of willingness to pay by country of residence.

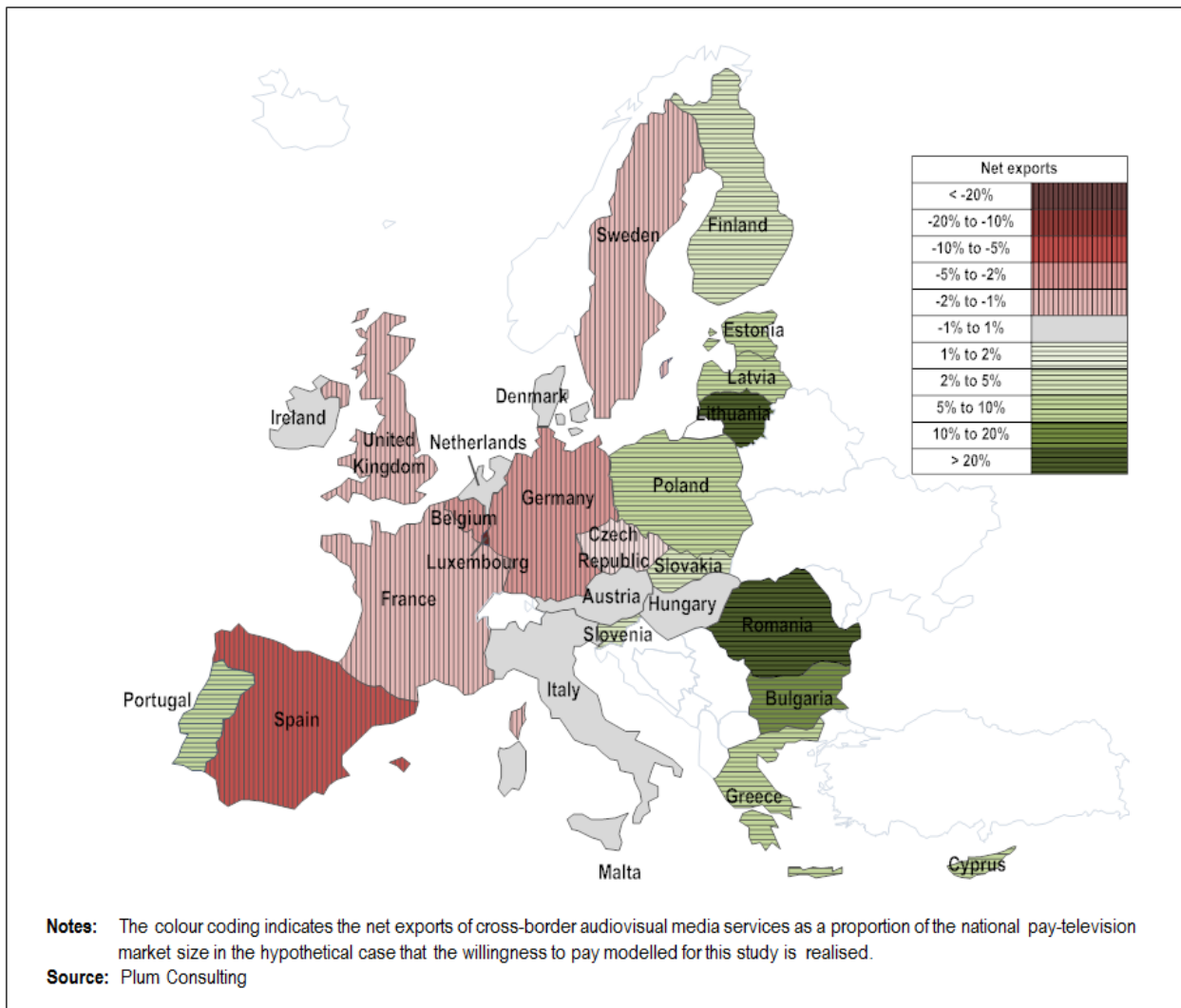
Figure 7-6: Willingness to pay for cross-border AVMS by country of residence



In the hypothetical situation in which this willingness to pay is realised, some countries would become net exporters of cross-border audiovisual media services and others importers. Figure 7-7 shows the net exports of each country expressed as a percentage of the total pay-television market size in that country. These results relate only to the balance of trade in cross-border audiovisual media services as defined in this study. The contribution of programme sales, wholesale of television channels, rights and any other sales are not included.

Many new Member States, Finland, Greece and Portugal would become net exporters, while many western European countries, especially Spain, Belgium, Germany, Sweden and the UK would become importers of cross-border audiovisual media services. Overall, this corresponds with the patterns of migration within the EU: the potential net exporters of audiovisual media services are the net “exporters” of migrants.

**Figure 7-7: Hypothetical intra-EU exports of cross-border AVMS as a proportion of national pay-TV market size**



### 7.1.3 Potential demand from nationals

We do not have the data required to estimate the potential willingness to pay generated by linguistic minorities, other non-migrants with language proficiency, language learners or travellers in the way that we have done for migrants. However, we have used some basic assumptions and hypotheses to develop a very approximate view of the possible scale of willingness to pay among these groups relative to migrants. There is a very high degree of uncertainty about these results, but they suggest that total

willingness to pay for cross-border audiovisual media services generated by migrants is likely to be higher than willingness to pay generated by other population groups.

### Travellers

The Eurobarometer survey found that 26% of people who travel frequently watch television or video from other EU countries frequently, compared to 19% of those who do not travel. The research did not distinguish between viewing that takes place in people's country of residence and the foreign countries that they visit. Nevertheless, this research suggests that frequent travellers may be more interested than the average consumer in television and video from other EU countries.

The remaining question is whether travellers would pay a subscription to receive television and video from their country of residence. Only a relatively small number of travellers have a permanent base in the countries that they travel to (about 417,000 have second homes in France and Spain – see section 4.3.2) so relatively few travellers would have a place to install the equipment required to receive a satellite pay television service. In addition, it seems unlikely that any significant proportion of people who have holiday homes would pay a monthly subscription (as required by most satellite pay television services) to receive a service year-round when they are not resident for much of the year.

It seems more plausible that any demand from travellers would be met by internet-based services delivered to personal devices (e.g. tablet computers, mobile handsets). For example, it is possible that pay-television operators could offer "roaming" versions of their services: for an additional fee, domestic subscribers could take their service with them while travelling abroad.

Though demand for this type of service is unknown, a highly approximate estimate can be made in the possible case in which consumers are interested and willing to pay. The following specific assumptions are the basis for this estimate:

- 20% of travellers would be willing to pay for television and video services from their country of residence while travelling abroad.
- The average subscription would be shared between two travellers. When travelling for leisure people tend to travel as a family or other group.
- As subscribers would already be paying for a subscription at home, they would pay only a "distance premium" to receive the service while abroad. Their willingness to pay is highly uncertain, but as an upper limit we estimate €5 per week (the equivalent of about €20 monthly).

Naturally, all of these assumptions are highly uncertain and alternative views are valid.

The result would be an annual average of 370,000 paying subscribers paying €120 each, which equates to a total willingness to pay of about **€90 million annually**. Given the high degree of uncertainty about this estimate, we are able to conclude only that it is possible that demand would be of the order of magnitude €100m annually.

### Language learners and language proficient

The Eurobarometer survey found that 33% of respondents who are fluent in another language watch television or video from other EU countries frequently, compared to 17% of those who are not fluent. 21% of respondents with fluency in another language, but do not currently watch television or video from another EU country, would be interested in watching this content if it were available. This compares to



14% of those who are not fluent and do not current watch television or video from another EU country. This suggests that people with language proficiency may be more interested than the average consumer in television and video from other EU countries. The findings regarding people who are learning languages was similar – they may be more interested than the average consumer in television and video from other EU countries.

However, it is highly uncertain what proportion of language learners and people with language proficiency would be willing to pay for television and video from other EU countries and how much they would be willing to pay. The analysis of website traffic in section 6.3.4 found that the observed usage patterns would be explained if per-capita, migrants generated 20 times more traffic than those with very good language skills. This result relates to free content, so it is not valid for the case of subscriptions that we are considering. However, if taken as an upper limit of interest, it suggests that demand from the 108 million people who are learning other EU languages or have a “very good” level of proficiency in other EU languages would be no more than demand from 5.4 million migrants. This would amount to between €320 million and €670 million annually.

In practice it is likely that willingness to pay would be significantly lower than these figures for a variety of reasons including:

- Any interest that language learners and people with language proficiency have in television and video from other EU countries is likely to be in addition to interest in national television services. The exception might be countries where pay-television services are not strongly nationally distinctive, in which case foreign services may be an attractive option for people with good language proficiency. If people are already paying a subscription for national television services, then they might have limited budget left to spend on additional audiovisual services.
- If the per-capita interest in television and video from other EU countries is relatively low, as the website traffic data suggests, then this interest may, in most cases, be met by the current supply of free-to-view television and internet-based services. The proportion of language learners and people with language proficiency interested in additional pay services may be low.

Overall, we are not able to draw any firm conclusions about the willingness to pay for cross-border audiovisual media services among language learners and people with language proficiency. However, it is possible that total willingness to pay among this group is significantly lower than it is among intra-EU migrants.

## 7.2 Cost of provision of cross-border services

The provision of cross-border subscription based audiovisual media services would involve set-up and operational costs and possibly rights costs. This section comments on these costs qualitatively with reference to data where available. Quantitative modelling of costs was not within our terms of reference. By process of elimination, the qualitative analysis provides a broad indication of which types of service could be economic to provide.

With regard to the rights costs, on 4 October 2011 the European Court of Justice ruled in two connected cases: C-403/08 and C-429/08<sup>193</sup>. The Judgement will impact on the way that some rights are licensed in relation to satellite pay-television services. However, it is uncertain how market practice will develop with regard to these licences and to what extent this will impact the costs of providing cross-border services.

<sup>193</sup> <http://curia.europa.eu/jcms/upload/docs/application/pdf/2011-10/cp110102en.pdf>

Our approach is to describe the rights costs under market practice prior to the ruling, and to comment on possible changes to these costs as a result of the ruling.

Our analysis of set-up, operational and rights costs is based on publicly available information and the views of a small number of pay-television operators and other broadcasters that were interviewed for this study. These interviews were used to cross-check our views and were not intended to be an open consultation or to provide representation of the whole industry.

The list below summarises our findings. As there is a large number of different types of service, we have not attempted to draw conclusions regarding the costs in every permutation. Instead we have commented on costs that are likely to be limiting factors: costs that may be prohibitive given the potential order-of-magnitude of revenues potentially available from these services. The key conclusions are that:

- Under current market practice in which rights are licensed on a territorially exclusive basis, cross-border services which include internationally premium content<sup>194</sup> are unlikely to have affordable<sup>195</sup> rights costs (assuming that these services target niche groups such as migrants and not the mass market in foreign territories).
- It is possible that the ruling of the European Court of Justice will lead changes in the way that rights are licensed for satellite broadcasting. These changes might enable satellite services that include internationally premium content to provide their services cross-border with affordable licence costs (e.g. by permitting passive sales cross-border). However, outcomes are highly uncertain.
- Services that do not include internationally premium content could be provided cross-border with lower rights costs. However, few existing linear services exclude all internationally premium content and consumer demand for these services may be low.
- Set-up and operational costs relating to technology are affordable for existing satellite services, but are likely to be prohibitively high for newly formed satellite services or the extension of existing satellite services beyond their current footprints.
- Set-up and operational costs relating to technology are affordable for existing internet-based services. Internet technology and market developments, especially cloud-based business-to-business services, may make these costs increasingly affordable for newly formed internet based services
- Satellite and internet based services would have costs of doing business in other country including costs relating to contract law, compliance and payment. These costs are not specific to audiovisual media services. We do not have the data to estimate the possible scale of these costs.

These findings are consistent with our observations about the current state of cross-border provision of audiovisual media services. Our conclusions are based on the assumption that existing services, satellite and internet-based, are profitable or have the potential to be profitable in their domestic markets.

## 7.2.1 Rights availability and costs

In order to offer an audiovisual media service cross-border, the service provider would need to ensure that copyright or other rights are obtained for all content carried on the service for all the territories into which

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<sup>194</sup> By internationally premium content” we mean content that significant numbers of consumers in the mass market in several countries are willing to pay for and / or watch on advertising funded channels.

<sup>195</sup> By “affordable” we mean that the cost is below the level of potential revenues from a particular service. In other words, that this service could be economic to provide.

the service would be offered. In practice, this requires rights to be obtained throughout the supply chain including all channels and all programmes included in these channels' schedules.

The rest of this section analyses the cost of these rights first under market practice as was common before the ruling of European Court of Justice. Then it considers any potential changes as a consequence of the ruling.

Throughout the analysis the cost being considered is the cost of obtaining rights or licences to allow an audiovisual service to be offered cross-border into another EU territory or territories. Analysis relating to the economics of these services assumes that cross-border services would target niche groups in foreign territories (e.g. migrants, people with language proficiency) and not compete with domestic services for the mass market in these territories or be wholesaled to third parties targeting the mass market.

## Cost of copyright under current market practice

### *Current rights frameworks and market practice*

The Satellite and Cable Directive<sup>196</sup> provides for authors, with respect to **satellite broadcasting**, a single "communication to the public by satellite" right that arises in the country of uplink. In principle, therefore, satellite broadcasters need only clear this authors' right in a single territory for reception of the relevant broadcast in all territories within the EU, so no additional rights need to be obtained to cover provision of services cross-border within the EU. However, in practice some contracts formed between rights holders and satellite broadcasters include territorial restrictions relating to conditional access (e.g. terms limiting the cross-border sale of satellite decoders). This allows rights holders to partition the satellite market by country of reception and form contracts with satellite broadcasters that are in effect territorially exclusive.

To-date content with international appeal, especially sports and films, has tended to be licensed in this way on an exclusive territorial basis. This suggests that for rights holders territorial sales are currently the best way to monetise their rights. The EU broadcasters that we spoke to took the view that the way in which foreign rights are currently exploited is optimal.

The consequence is that any satellite broadcaster wishing to provide its service cross-border within the EU would need to lift certain territorial restrictions in its contracts with rights holders: in effect to obtain additional licences for foreign territories. It is the potential cost of these licences that is analysed in the section below.

The Satellite and Cable Directive provides a different regime for **cable retransmission**: a system of compulsory collective management of cable retransmission rights. Copyright collecting societies represent the various rights holders, streamlining the process of clearing rights for the cable operators. Broadcasters are exempt from the collective regime and may exercise their own rights, including rights transferred to them. Though cable services are not the subject of this report, the cable regime provides an interesting contrast to the situation with internet-based audiovisual media services.

**Internet-based audiovisual media services** are not covered by the Satellite and Cable Directive. It is the exclusive right of the rights holder to decide whether, when and where to grant those rights: there is no compulsory collective management regime.

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<sup>196</sup> Council Directive 93/83/EEC of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission. [http://eur-lex.europa.eu/smartapi/cgi/sga\\_doc?smartapi!celexplus!prod!DocNumber&lg=en&type\\_doc=Directive&an\\_doc=1993&nu\\_doc=83](http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=Directive&an_doc=1993&nu_doc=83)

### *Pricing of rights and licences for foreign territories*

The availability and cost of rights or licences for foreign territories is determined by demand in the market. The situation differs significantly between the type of content as follows (in simplification and generalisation):

- i. Rights for **US films and television works and international sporting events** (e.g. Olympics, World Cup football) tend to be licensed exclusively to different broadcasters in each EU territory or to trans-national broadcasters that target multiple EU territories. These rights are widely exploited.
- ii. Rights to some **EU national sporting events (e.g. UK FA Premier League), films and television works** are licensed to broadcasters in other EU territories. The pattern of exploitation is highly asymmetric, with works from the largest EU audiovisual markets, especially the UK, licensed widely within the EU and works from smaller audiovisual markets (e.g. Lithuania) licensed much less widely, if at all.
- iii. Rights to **other national EU sporting events and audiovisual works**. It is likely that the majority of national content (by hours) is not licensed in other EU territories. Data is not available for the proportion of content from different EU countries that is distributed in other EU territories, though data from the UK provides an example. There were 293,518 hours of first run originations in the UK in 2010<sup>197</sup> (new programming commissioned for UK television). In contrast 20,185 hours of UK programming was broadcast by channels in 12 other EU countries in 2009<sup>198</sup>. There may be some double counting in the latter figure: some programmes are likely to have been distributed in more than one country. Therefore 6.9%, the ratio of the two figures, represents an upper limit on the proportion of first run originations by hours that are broadcast in other EU countries. It is probable that the actual figure is well below 5%.

The cost of rights for foreign territories will relate to the consumer demand for this content, in translation, from audiences in these territories. By demand, we mean the number of consumers willing to pay for the content or to watch the content on free-to-view advertising funded channels. This demand determines the retail and wholesale revenues of the service providers / packagers that may acquire rights. Levels of demand and costs will vary significantly by type of content.

The use of conditional access in satellite broadcasting allows satellite pay-television operators to determine accurately the number of subscribers that are capable of receiving different packages. Therefore, rights holders could, if they chose to, price licences to foreign territories on a per-subscriber basis. However, forming licences with cross-border service providers in this way would prejudice the exclusive territorial licences granted to broadcasters in foreign territories. In other words, this practice is inconsistent with the predominant method of exclusive territorial licensing and tends not to occur..

Internationally premium content - type (i) above - typically appeals to a mass market. The mass market in each territory is generally orders of magnitude larger, in terms of number of people, than the market of migrants, and others, that a cross-border service would address. Therefore, the acquisition of content rights and / or licences in category (i) would make economic sense for a provider of cross-border services only if consumers of these services are willing to pay orders of magnitude more for the content than

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<sup>197</sup> Source: Ofcom Communications Market Review, 2011. Includes the genres of entertainment, sports, films factual, children's, news, leisure and music only.

<sup>198</sup> Source: European Audiovisual Observatory Yearbook 2010. Includes only AT, BE, DE, DK, ES, FI, FR, IE, IT, LU, NL, SE and the genres of feature films, TV films, short films, series and soaps and animation (except animation feature film).

equivalent consumers in the mass market: otherwise, the price would be prohibitively high<sup>199</sup>. The call out box below illustrates this logic with the example of the cost of rights for a French pay-television service providing a service cross-border into Germany and Austria.

#### **Example of the economics a French pay-TV service offered in Germany and Austria**

The following example illustrates the approximate economics of the cross-border provision of a satellite pay-television service in the case in which content is licensed on an exclusive territorial basis. The example is of an existing French satellite pay-television package (e.g. Canal+) offered to users in Germany and Austria. The package consists of a large number of television channels including sports and film channels.

The potential market for the service consists primarily of the 123,000 French citizens living in Germany and Austria. The model developed for this study shows that total potential willingness to pay for cross-border services among this group would be about €7.8 million annually (“very likely” to pay).

The operator of the cross-border service would need to acquire licences to all French television programmes and US films that appear in the schedules of channels included in its package, among other content licences. Some of this content is already licensed to broadcasters targeting the German and Austrian markets. To obtain these licences the provider of cross border services would need to offer a higher price than the current German and Austrian licensees when these licences come up for negotiation.

To give one example, film rights for pay-television in Germany and Austria were estimated to be worth about €200 million in 2006<sup>200</sup>, of which a major proportion will relate to US films. Sky Deutschland currently licenses the satellite pay-TV film rights of the major US studios on an exclusive basis<sup>201</sup>. The price it pays for these rights is not disclosed, but the 2006 figure gives an approximate indication of order of magnitude.

The provider of the cross-border service would also need to obtain licences for other content. For example, some French television programmes are currently licensed in Germany and Austria. The total value of programme sales from France to Germany and Austria was €13.7 million in 2008<sup>202</sup>. It is uncertain how this value splits by distribution platform and whether these licenses are exclusive, but again this figure gives an indication of the order of magnitude of costs.

Therefore, the overall cost of the licences required to provide the cross-border service is likely to be counted in €100 millions. This is well in excess of the potential revenue from these services.

This result is valid for the case of exclusive territorial licensing of content, the current market practice. In the hypothetical case in which content is licensed on a non-territorially exclusive basis the economics would differ. The operator of the cross-border service would not have to acquire additional licences for the Germany and Austria. However, the cost of non-exclusive licences for the cross-border service relative to a service targeting only France would be higher, in recognition of the larger overall audience that this service would address. The incremental difference would most likely relate to the size of the subscriber base to the service in Germany and Austria, not the total size of the German and Austrian market.

<sup>199</sup> The cost would be prohibitive only for providers of cross-border services targeting migrants and / or other niche markets. The cost would not be prohibitive for providers of services targeting the mass market as evidenced by the market for these rights and licences among such operators.

<sup>200</sup> Summary profiles of pay TV in France, Germany, Italy, Spain, Sweden and United States. Value Partners report for Ofcom, Dec 2007. [http://stakeholders.ofcom.org.uk/binaries/consultations/market\\_invest\\_paytv/annexes/annex9.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/market_invest_paytv/annexes/annex9.pdf)

<sup>201</sup> Source: Pay TV Film Rights. Screen Digest for the Competition Commission, November 2011. Note that this may exclude Paramount which licences to Lovefilm exclusive video-on-demand streaming rights during the first pay-TV window.

<sup>202</sup> Source : CNC-TV France International-INA.

That these types of rights would not be economic to acquire is sufficient to show that the cross-border provision of any channel that carries this content, and any pay-television services that carry these channels, would not be economic. In practice this means that all major pay-television platforms and most general entertainment channels would not be economic if offered cross border: these tend to include some internationally premium content.

The same logic applies to content of type (ii) which would not be economic to acquire for cross-border provision into countries in which this content finds a mass market. This type of content might not find a mass market in all countries within the EU, such that it would be economic to acquire for cross-border services in some markets.

By definition content of type (iii) is not currently licensed in foreign markets, therefore the cost of acquiring foreign rights would be low. However, the demand for this kind of content would be low relative to demand for content of types (i) and (ii) – though the online survey did not provide a conclusive result in this respect. The survey found that migrants had relatively strong interest in film, news and documentaries, among other genres (i.e. premium and non-premium content) from other EU countries. The survey did not ask about willingness to pay by type of content.

Furthermore, few current national services carry only content from type (iii). Therefore, in most cases, cross-border services using only this content would need to be newly formed. This would involve set up and operational costs, which are discussed in the next section.

#### *Rights / licences as a “limiting factor” by type of audiovisual service*

The previous section showed that rights / licences for internationally premium content – type (i) - are likely to be uneconomic to acquire for cross-border services. The impact will vary by type of service. There are multiple possible models for subscription-based cross-border audiovisual media services. The key distinction with regard to rights / licence costs is between existing services in their entirety, pared down versions of existing services, and newly-formed services. Figure 7-8 shows examples of these types of service.

- Existing satellite services in their entirety would require licences for foreign territories for all the channels carried on the services, which in turn would require licences for foreign territories for all the programmes on these channels.
- Existing internet services in their entirety would require rights for foreign territories for all programmes provided cross-border.
- Pared down versions of existing services would carry only some content from the “parent” service, which would be selected on the basis of the availability and cost of rights, among other factors.
- Newly-formed services could be formulated to make use of only available and affordable rights.

Therefore, the fact that some , mainly internationally premium, content is uneconomic to licence for foreign markets acts as a barrier to cross-border distribution of mainly existing services. Pared down versions of existing services or newly formed services could be made up of content which can be licensed economically for foreign markets.

Figure 7-8: Types of subscription based cross-border AVMS that could be offered in future

	Satellite	Internet
Existing services	<ul style="list-style-type: none"> <li>Existing national pay-TV packages.</li> <li>New “sub-basic” packages of core national channels.</li> <li>Individual national channels.</li> </ul>	<ul style="list-style-type: none"> <li>On-demand streaming or catch-up (or library) for all content on existing national pay-TV packages.</li> </ul>
Pared-down versions of existing services	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>	<ul style="list-style-type: none"> <li>On-demand streaming or catch-up (or library) for existing national pay-TV packages and channels – with some content excluded.</li> </ul>
Newly-formed services	<ul style="list-style-type: none"> <li>New channels that aggregate national content for cross-border markets.</li> </ul>	<ul style="list-style-type: none"> <li>New on-demand services that aggregate national content for cross-border markets.</li> </ul>

### Transaction costs

In addition there are transaction costs relating to the acquisition and clearance of rights or licences. These costs may be substantial as, for example, channels seeking cross-border provision would need to introduce new contracts with any third-party content producers or rights holders. In addition, contracts between channels and platforms may need to be adapted to reflect the cross-border reach of these platforms. As the incentives for cross-border distribution are not aligned between channels and platforms, there may also need to be a renegotiation of carriage agreements, possibly with platforms in foreign markets paying carriage fees to channels even if these channels are free-to-view in their domestic market.

Transaction costs may be higher for internet distribution than satellite distribution as this does not benefit from the single “communication to the public” right that the Satellite and Cable Directive provides for satellite broadcasting. In other words, service providers have to clear rights for each territory.

### Potential impact of the European Court of Justice ruling

On 4 October 2011 the European Court of Justice issued its Judgement in cases C-403/08 and C-429/08: Football Association Premier League and Others v QC Leisure and Others; Karen Murphy v Media Protection Services Ltd<sup>203</sup>. These cases arose from the use by certain pubs in the UK, Karen Murphy is

<sup>203</sup> <http://curia.europa.eu/jcms/upload/docs/application/pdf/2011-10/cp110102en.pdf>

the landlady of one, of foreign decoder cards, issued by a Greek broadcaster to subscribers resident in Greece, to access Premier League matches. The pubs bought a card and a decoder box from a dealer at prices lower than those of Sky, the holder of the broadcasting rights in the UK.

The ruling covered matters regarding free movement, competition and copyright. In relation to the licensing of copyright the ruling stated that 'a system of exclusive licences is also contrary to European Union competition law if the licence agreements prohibit the supply of decoder cards to television viewers who wish to watch the broadcasts outside the Member State for which the licence is granted'. Therefore, the ruling limits the use of restricted sales of decoders and conditional access cards to partition the EU on a territorial basis. At the same time, however, the Court does not impose requirements to grant pan-European licences on rights holders or to buy pan European licences on broadcasters.

The applicability of the ruling is limited in terms of distribution platforms as it is grounded in the rights clearance system applicable to satellite broadcasting services. In addition, the aspects of the ruling relating to licensing are grounded in consideration of sports content rather than audiovisual works (e.g. films). Even in these areas of applicability it is possible that alternative mechanisms will be employed in future to achieve some degree of exclusivity in contracts between rights holders and broadcasters. Olswang commented that<sup>204</sup>:

*We consider that there are a number of contractual mechanisms which rights-holders may wish to employ to seek to maintain a degree of exclusivity, and these are likely to be tested in the courts over the coming years. Many will try to employ the long-standing distinction between preventing active sales and marketing and banning passive, unsolicited sales, the former being generally acceptable under EU competition law.*

In addition, it is possible that rights holders could attempt to partition the market by language, as segmentation by language largely correlates with segmentation by territory. The result in either case would be a porous partitioning of the EU by territory. Market practice relating to any new licensing models remains to be seen.

Some possible outcomes and implications are described below. These are intended to be illustrative as other outcomes are also possible and there is a high degree of uncertainty concerning future developments.

- Current contracts between rights holders and satellite broadcasters are adjusted to remove territorial restrictions. If this happened then these contracts would in effect become non-exclusive. It is possible that the pricing of these contracts could be made proportional to the overall number of subscribers to relevant packages, which the ruling observes can be counted to a high degree of precision owing to the use of conditional access systems. Under this model broadcasters would pay rights holders the same or similar price per subscriber in different territories. The scalable nature of licence costs in this model would mean that satellite broadcasters would be able to develop cross-border services economically.
- In licences with satellite operators, rights holders attempt to use contractual terms that forbid active cross-border sales in order to maintain a degree of territorial exclusivity. Under this model passive sales cross-border by satellite operators would not require any additional licence from the rights holder so there would be no incremental licence cost relating to these cross-border sales. However, were satellite operators to actively sell cross-border services then they would encounter the same

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<sup>204</sup> Olswang, FAPL and Pub Landlady Both Lose in ECJ Fight - So Who Wins?, October 2011 - <http://www.olswang.com/newsarticle.asp?sid=123&aid=3597>



very high (relative to potential revenue) licensing costs of internationally premium content as discussed in the previous section.

Therefore, it is possible that the *incremental* cost of rights or licences for the provision of cross-border services by satellite operators might not be prohibitive in the way that it is under the current market practice of exclusive territorial licensing enforced by conditional access. However, we note that this possibility relates to the *incremental* cost of rights or licences required for cross-border distribution relative to the cost of rights held for distribution to domestic customers (if distinguishable). The absolute cost of rights would remain high: meaning that rights holders would not price significantly lower overall.

### 7.2.2 Set-up and operational costs

The following sections discuss the set-up and operational costs of cross-border audiovisual media services, focusing on technology costs. These are analysed first for satellite-distributed services then for internet distributed services. In addition, there are marketing costs and costs of doing business in each additional country relating to contract law, compliance and payment. These are considered separately.

The set-up and operational costs of cross-border audiovisual media services depend primarily on whether these services already exist, or are planned, as domestic services or are new. The incremental costs associated with providing existing services cross-border vary, but are generally low relative to the costs already incurred. In contrast, newly-formed services involve set-up costs which may be substantial and operational costs that would not be shared with a domestic service.

There are also differences by distribution mechanism. The incremental costs of satellite transmission are zero for territories within existing satellite footprints, but may be prohibitively high elsewhere. The cost of internet distribution may be similar for serving cross-border customers as domestic customers. The following sections describe the costs under each distribution model.

#### Satellite distributed services

The provision of cross-border services by satellite involves several areas of cost, which will differ according to the type of service and the channel to market. The following are the main areas of incremental<sup>205</sup> cost for an existing channel or package:

- Satellite capacity
- Set-top box and dish installation
- Set-top box and conditional access card distribution

Newly formed satellite services would also have administrative costs and operational costs such as payout.

The cost of leasing satellite transponder capacity is high and roughly scales with the number of channels. For example, the UK satellite service BSkyB had 'transmission, technology and fixed network costs' of £374 million in 2010<sup>206</sup>, of which a large part is the cost of satellite transponders and related facilities, but excludes the transmission costs of third-party channels on the platform (e.g. BBC and ITV channels).

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<sup>205</sup> Incremental costs are any costs incurred in serving a customer cross-border compared to serving a customer in the domestic market.

<sup>206</sup> BSkyB annual report, 2010 - [http://corporate.sky.com/documents/pdf/publications/2010/Annual\\_Report\\_2010](http://corporate.sky.com/documents/pdf/publications/2010/Annual_Report_2010)

BSkyB distributes 160 standard definition and 40 high definition channels. Therefore, the cost of offering entire satellite pay-television packages (typically over 100 channels) into countries not covered by the current satellite footprints would be prohibitive. This would restrict services of this kind to countries within the existing satellite footprints. Table 3-2: described the extent of these footprints.

As costs approximately scale with the number of channels these would be lower for services consisting of smaller packages of channels (e.g. 10-20 channels) and single-channel services, but possibly still prohibitive (order of €1m per standard definition channel).

The other costs involved depend to a large extent on the channel to market chosen by the pay-television service provider. The lowest-cost channel to market is distance selling in which subscriptions are sold remotely via the service provider's website or call centre, set-top boxes and conditional access cards are distributed via mail / delivery service and customers self-install the equipment. Customer service would be provided via the service provider's website or call centre. Service providers that we interviewed believed that this model would be most economic to serve niche cross-border markets as it would involve the lowest incremental costs (e.g. minor adjustments to websites, setting up international logistics). However, customers in cross-border markets would receive a lower level of customer service than customers in the domestic market which could be inconsistent with service providers' brands. Therefore, this approach might not be supported in practice.

The alternative model is to set up a network of local dealers in each country into which the service is offered. In this model the dealers would sell subscriptions, install equipment and possibly provide customer service. This model would involve higher costs including the set-up and management of the dealer network and the incentives provided to dealers. Service providers that we interviewed believed that this model would be most suitable to serve mass-markets and would not be justified by the relatively small size of most cross-border markets.

Costs would be higher for newly-formed satellite services as these would require the provision of new decoders and conditional access cards to enable reception.

### OTT services

The delivery of cross-border services "over the top" via the internet to PCs, connected television sets or other devices involves a different set of costs to satellite services. Internet distribution of long-form video content is relatively new and is evolving fast, especially with respect to costs which are decreasing. Therefore, the costs described in this section are indicative and we have commented on any trends that may have a significant impact on future costs. Costs vary by type of service, but in general involve:

- Website and / or application design and build
- Website and / or application operation
- Content delivery networks

Some cross-border services could be based on existing services targeted at national markets. In these cases the set up costs related to website and / or application design and build would be relatively low: existing websites and applications could be reused.

The cost of launching new services, as would be the case for services specifically designed for cross-border distribution, is decreasing. Cloud-based service providers such as Brightcove enable video

websites to be set up from \$99 (€72<sup>207</sup>) per month for a limited amount of content and bandwidth<sup>208</sup>. This is an entry-level service, and the provision of large selections of content to large audiences would cost substantially more. However, the example shows that barriers to entry are low.

Some of the pay-television operators and television channels interviewed for this project believed that set-up and operational costs for OTT services would be high if undertaken by an operator, with set-up costs of the order of €1 million. The assumption is that these services would be built bespoke to the operators' requirements rather than using cloud-based services such as Brightcove. There may also be operational costs in relation to content delivery networks (CDNs) to ensure quality of service, though the service providers that we interviewed generally believed that CDNs would not be a major additional cost for cross-border services relative to national services. In addition, CDNs are not a necessity.

### Marketing and other costs of doing business

Marketing and other costs of doing business with customers in foreign territories (e.g. billing, contract law) scale with the number of territories concerned. This differs from set-up and operational costs relating to technology that often can be shared across the territories that a cross-border service targets.

Marketing costs would vary depending on the type of service and the strategy of the service provider. The provision of existing satellite pay-television services, or internet based versions of these, cross-border would benefit from some of the domestic marketing of service providers (e.g. websites) and word of mouth. Therefore, these services would gain some customers without incremental marketing on the part of the service provider, as is the case in the "grey market". However, to reach a larger number of customers would require additional costs to cover internet and press advertising, for example, in each territory.

Marketing costs would be higher in the case of newly-formed services as consumers would need to be educated about these propositions. The marketing costs in these cases could be substantial.

Industry participants interviewed for this study believed that there would also be regulatory costs involved with the cross-border provision of satellite services. For example, in distance selling subscriptions service providers would need to comply with a different set of e-commerce regulations in each Member State. Similarly, there would be administrative costs relating to contracts and billing for each target country.

In the course of the study we were not able to obtain data that would have enabled us to estimate a minimum per-territory cost relating to marketing and other costs of doing business cross-border.

## 7.3 Conclusions regarding economic potential

Total willingness to pay among intra-EU migrants for subscription-based cross-border audiovisual media services is estimated to be in the range €760 million to €1,610 million annually, based on the proportion of online survey respondents who were "very likely" and "fairly likely" to pay respectively. This compares to a total EU pay-television market size of €28.6 billion<sup>209</sup>, television advertising spend of €27.3bn and public income to television and radio of €23.3bn<sup>210</sup> in 2009. The willingness to pay is concentrated among a relatively small number of countries of origin and residence: the five largest countries of origin account for

<sup>207</sup> Using exchange rate of €1 = \$1.37. Source: [www.oanda.com](http://www.oanda.com), 20 October 2011.

<sup>208</sup> Source: <http://www.brightcove.com/en/online-video-platform/editions-and-pricing>, October 2011

<sup>209</sup> Source: Screen Digest

<sup>210</sup> Source: European Audiovisual Observatory on the basis of European Audiovisual Observatory, Screen Digest and Warc data.

56% of willingness to pay. There are a large number of countries of origin and groups that account for very low levels of willingness to pay: the median willingness to pay by country of origin is €16 million annually (“very likely”).

There may be additional willingness to pay among nationals who have language proficiency or who travel to other EU countries. We do not have the data required to estimate the potential willingness to pay generated by linguistic minorities, other non-migrants with language proficiency, language learners or travellers in the way that we have done for migrants. However, highly approximate estimates based on a number of assumptions suggest that total willingness to pay for cross-border audiovisual media services generated by migrants is higher than willingness to pay generated by other population groups. There is a very high degree of uncertainty about these results.

In practice, the economic potential of these services may be more modest as not all consumers will have the technical means to receive the services (e.g. unable to install a DTH satellite dish, no broadband), though this effect may decrease in future as broadband penetration increases. In addition, there may be some substitution for existing spend on “grey market” satellite services and subscriptions to national pay-television packages that carry channels from other EU countries.

With regard to costs, key findings include:

- Under current market practice in which rights are licensed on a territorially exclusive basis, cross-border services which include internationally premium content<sup>211</sup> are unlikely to have affordable<sup>212</sup> rights costs (assuming that these services target niche groups such as migrants and not the mass market in foreign territories).
- It is possible that the ruling of the European Court of Justice will lead changes in the way that rights are licensed for satellite broadcasting. These changes might enable satellite services that include internationally premium content to provide their services cross-border with affordable licence costs (e.g. by permitting passive sales cross-border). However, outcomes are highly uncertain.
- Services that do not include internationally premium content could be provided cross-border with lower rights costs. However, few existing linear services exclude all internationally premium content and consumer demand for these services may be low.
- Set-up and operational costs relating to technology are affordable for existing satellite services, but are likely to be prohibitively high for newly formed satellite services or the extension of existing satellite services beyond their current footprints.
- Set-up and operational costs relating to technology are affordable for existing internet-based services. Internet technology and market developments, especially cloud-based business-to-business services, may make these costs increasingly affordable for newly formed internet based services
- Satellite and internet based services would have costs of doing business in other country including costs relating to contract law, compliance and payment. These costs are not specific to audiovisual media services. We do not have the data to estimate the possible scale of these costs.

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<sup>211</sup> By “internationally premium content” we mean content that significant numbers of consumers in the mass market are willing to pay for and / or watch on advertising funded channels.

<sup>212</sup> By “affordable” we mean that the cost is below the level of potential revenues from a particular service. In other words, that this service could be economic to provide.

These findings are consistent with our observations about the current state of cross-border provision of audiovisual media services. Therefore, under the system of exclusive territorial sales of rights few cross-border services as defined in this study would be viable and only a small proportion of the willingness to pay identified in this report would be economic to serve. This is consistent with the current market provision.

In future, it is possible that the impact of the ECJ ruling and the internet technology and market developments will change the economics of offering cross-border services, such that a larger proportion of the willingness to pay becomes economic to serve.

## Appendix A: Carriage of major private channels on platforms in other EU countries

Country	Broadcaster	Channel	Countries in which carried on one or more platforms	Number of countries in which carried on one or more platform
AT	SAT.1 Österreich	SAT.1 Österreich	BE, BG, NL	3
AT	ProSieben Österreich	ProSieben Österreich	BE, BG, NL	3
BE (CFB)	Belgium Television	AB4	FR, LU	2
BE (VLG)	Vlaamse Media Maatschappij	VTM	LU	1
BE (VLG)	Vlaamse Media Maatschappij	2BE	LU	1
BG	bTV	bTV	FR	1
BG	Nova TV	Nova TV	None	0
CY	Sigma	Sigma	None	0
CY	ANT1	ANT1 TV	None	0
CZ	TV Nova	TV Nova	HU, RO, SK	3
CZ	Prima	Prima TV	HU, RO, SK	3
DE	RTL	RTL Television	AT, BE, BG, CZ, DK, EE, FI, FR, HU, LV, LT, LU, NL, PL, PT, RO, SK, SI, SE	18
DE	ProSieben	ProSieben	AT, BE, BG, CZ, DK, EE, FI, FR, HU, LV, LT, LU, NL, PL, PT, RO, SK, SI	17
DE	Sat.1	Sat.1	AT, BE, BG, CZ, DK, EE, FI, FR, HU, LV, LT, LU, NL, PL, PT, RO, SK, SI	18
DK	SBS	6'eren	SE, FI	2
DK	Bravad Production	dk4	SE, FI	2
EE	Kanal 2	Kanal 2	DK, FI, LV, LT, SE	5
EE	TV3 Estonia	TV3 Estonia	DK, FI, LV, LT, SE	5
ES	Telecinco	Telecinco	None	0
ES	Antena 3	Antena 3	None	0
FI	MTV3	MTV3	DK, SE	2

FI	Nelonen	Nelonen	DK, SE	2
FR	TF1	TF1	BE, LU	2
FR	M6	M6	FR, HU, LU, PT	4
GR	Mega	Mega	CY	1
GR	Alpha TV	Alpha TV	CY	1
HU	Magyar RTL	RTL Klub	CZ, RO, SK	3
HU	MTM-SBS	TV2	CZ, RO, SK	3
IE	TV3	TV3	UK	1
IE	Setanta Sport	Setanta Ireland	None	0
IT	RTI	Canale 5	BE, LU, MT, PL	4
IT	RTI	Italia 1	BE, LU, MT, PL	4
LT	UAB	TV3	EE, LV, SE, DK, FI	5
LT	UAB	LNK	EE, LV, SE, DK, FI	5
LU	CLT-UFA	RTL Tele Letzebuerg	BE, NL	2
LV	LNT	LNT	EE, LT, SE, DK, FI	5
LV	TV3	TV3	EE, LT, SE, DK, FI	5
LV	Pirmais Baltijas Kanals Sia	Perviy Baltiysky Kanal Latvia	EE, LT, SE, DK, FI	5
MT	One TV	One TV	None	0
MT	Media.link Communicatio ns	Net TV	None	0
NL	SBS	SBS 6	None	0
NL	SBS	Net 5	None	0
NL	CLT-UFA	RTL 4	LU	1
PL	Telewizja Polsat	Polsat	CZ, SK, SE	3
PL	TVN	TVN	CZ, DE	2
PT	TVI	TVI	None	0
PT	SIC	SIC	None	0
RO	PRO TV	Pro TV	CZ, HU, SK	3
RO	TV Antena 1	Antena 1	CZ, HU, SK	3
RO	Realitatea Media	Realitatea TV	CZ, HU, SK	3
SE	TV4	TV4	DK, SE, EE, LV, LT, FI	6

SI	Pop TV	Pop TV	BU	1
SI	Kanal A	Kanal A	BU	1
SK	TV Markiza	TV Markiza	CZ, HU, RO	3
SK	Mac TV	Joj TV	CZ, HU, RO	3
UK	ITV	ITV1	BE, IE, LU, NL	4
UK	Channel 4	Channel 4	IE	1

**Source:** Plum Consulting on the basis of the MAVISE database



## Appendix B: Migrant populations

### B.1 Detailed migrant population data

Table B-1: Number of intra-EU migrants by country of residence and citizenship (or birth)

Country of residence	Citizenship/country of birth																								From	To	
	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI			ES
AT		1548	9015	115	9078	1000	236	1148	6447	130684	2535	21527	896	14337	461	651	553	57	6676	36879	1564	32341	18065	7187	2774	2884	8337
BE	2523		6753	231	2086	3160	586	2992	130568	38370	15182	2917	3406	169027	687	1005	4380	252	123454	30768	29802	15310	3001	559	42712	4399	25126
BG	32	12		136	199	10	4	10	74	307	1574	88	5	111	13	11	0	2	16	551	4	183	80	9	22	19	60
CY	177	131	3096		340	85	15	249	462	1307	11929	173	390	243	82	47	6	16	243	355	33	2720	68	9	78	459	18315
CZ	2992	447	6402	73		288	81	221	2278	13786	861	652	545	2558	147	432	17	21	2507	19273	143	4095	73442	252	565	566	4359
DK	1132	818	2321	34	709		958	2316	4947	21114	941	1586	1306	4381	2521	5234	34	55	6253	21119	1052	5076	848	204	3280	12828	14297
EE	10	4	12	0	2	39		926	21	147	4	8	11	21	1412	1105	0	0	23	76	0	2	0	0	11	137	56
FI	387	265	721	31	312	621	25510		1508	3628	462	1198	408	1507	802	655	17	17	1079	2078	327	1170	248	74	1242	8506	3333
FR	7990	84248	13286	865	7452	5687	682	3156		128440	9429	8600	7805	323809	1702	1985	7013	427	35225	91062	576084	46399	3494	2482	262883	8493	142949
DE	189871	24653	66238	916	36378	20283	4422	13719	116295		297668	65443	10513	556145	12699	22812	12796	466	148518	425608	120663	112230	26419	21279	111684	18642	104175
EL	1424	1332	35104	17426	677	854	54	726	5285	11806		538	472	5825	37	121	39	40	2519	12831	250	21994	332	54	956	2203	13206
HU	3705	536	1211	144	311	192	71	406	1922	18703	463		359	1598	67	86	30	16	1739	2515	178	72781	6424	173	438	937	2427
IE	552	966	1991	467	7431	734	3861	714	6850	11081	362	5543		4961	24264	43492	35	1121	4984	83012	1557	14651	10379	233	3889	1434	83255
IT	6784	6097	46026	268	6009	2343	928	1793	32956	42302	7436	6868	3128		2020	4141	308	838	8651	105608	5467	887763	8675	3057	19094	3604	29184
LV	78	56	570	4	125	263	979	248	248	1072	21	30	71	235		3714	3	9	131	491	52	301	50	10	155	412	384
LT	27	32	123	1	19	166	87	90	118	472	16	6	31	135	436		1	2	60	531	8	13	10	6	58	90	131
LU	746	16500	446	33	571	2195	340	1078	26562	11580	1409	688	1227	19065	304	337		190	3787	1834	76586	887	460	334	3161	1667	5031
MT	143	61	763	2	69	133	2	58	265	511	44	107	182	526	9	23	0		208	138	18	249	89	29	57	402	4100
NL	3784	26877	12340	162	2602	2646	547	2197	17184	68356	7781	5294	4186	21097	1143	2126	333	157		43083	15364	7118	2844	562	18132	3571	41422
PL	976	201	1122	25	682	269	25	79	705	4446	861	448	73	672	62	521	8	1	480		51	266	334	23	169	1334	764
PT	445	1609	7202	11	223	468	111	354	4883	8614	157	352	707	4500	311	558	130	22	4577	1042		32457	197	49	8060	746	16375
RO	119	85	181	0	17	20	1	5	523	709	1571	268	19	1781	0	0	0	0	132	57	20		25	3	92	81	332
SK	2064	316	1515	30	8346	279	41	122	1554	4038	257	4602	161	1464	76	115	10	15	475	5369	123	5424		195	438	256	1432
SI	380	45	770	0	135	24	14	21	184	742	13	156	21	736	10	29	1	4	113	180	26	195	356		54	58	353
ES	10840	35800	167849	196	9082	13036	1478	12354	122697	194023	4723	8365	17412	182535	3399	22075	667	230	53490	85513	141167	823111	8058	1267		24330	384146
SE	3158	1147	3252	201	1212	40272	3389	74050	6494	27527	4732	4525	1872	5861	2781	5484	41	85	7932	38587	1630	7661	1047	644	4902		17332
UK	27000	24000	46000	60000	27000	22000	3577	9714	124000	292000	25000	38000	369740	111000	36000	80000	553	27000	56000	520000	85000	61000	44000	0	71000	29000	

Table B-2: Proportion of national populations that are intra-EU migrants by country of citizenship (or birth)

		Citizenship/country of birth																											
		AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	EL	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	Total
Country of residence	AT		0.02%	0.12%	0.00%	0.12%	0.01%	0.00%	0.01%	0.08%	1.68%	0.03%	0.28%	0.01%	0.18%	0.01%	0.01%	0.01%	0.00%	0.09%	0.47%	0.02%	0.41%	0.23%	0.09%	0.04%	0.04%	0.11%	100%
	BE	0.02%		0.07%	0.00%	0.02%	0.03%	0.01%	0.03%	1.26%	0.37%	0.15%	0.03%	0.03%	1.63%	0.01%	0.01%	0.04%	0.00%	1.19%	0.30%	0.29%	0.15%	0.03%	0.01%	0.41%	0.04%	0.24%	100%
	BG	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
	CY	0.03%	0.02%	0.48%		0.05%	0.01%	0.00%	0.04%	0.07%	0.20%	1.86%	0.03%	0.06%	0.04%	0.01%	0.01%	0.00%	0.00%	0.04%	0.06%	0.01%	0.42%	0.01%	0.00%	0.01%	0.07%	2.85%	100%
	CZ	0.03%	0.00%	0.06%	0.00%		0.00%	0.00%	0.00%	0.02%	0.13%	0.01%	0.01%	0.01%	0.03%	0.00%	0.00%	0.00%	0.00%	0.02%	0.19%	0.00%	0.04%	0.72%	0.00%	0.01%	0.01%	0.04%	100%
	DK	0.02%	0.02%	0.04%	0.00%	0.01%		0.02%	0.04%	0.09%	0.40%	0.02%	0.03%	0.02%	0.08%	0.05%	0.10%	0.00%	0.00%	0.12%	0.40%	0.02%	0.10%	0.02%	0.00%	0.06%	0.24%	0.27%	100%
	EE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.08%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.13%	0.10%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	100%
	FI	0.01%	0.01%	0.01%	0.00%	0.01%	0.01%	0.49%		0.03%	0.07%	0.01%	0.02%	0.01%	0.03%	0.02%	0.01%	0.00%	0.00%	0.02%	0.04%	0.01%	0.02%	0.00%	0.00%	0.02%	0.16%	0.06%	100%
	FR	0.01%	0.14%	0.02%	0.00%	0.01%	0.01%	0.00%	0.01%		0.21%	0.02%	0.01%	0.01%	0.53%	0.00%	0.00%	0.01%	0.00%	0.06%	0.15%	0.94%	0.08%	0.01%	0.00%	0.43%	0.01%	0.23%	100%
	DE	0.25%	0.03%	0.09%	0.00%	0.05%	0.03%	0.01%	0.02%	0.15%		0.39%	0.08%	0.01%	0.72%	0.02%	0.03%	0.02%	0.00%	0.19%	0.55%	0.16%	0.15%	0.03%	0.03%	0.14%	0.02%	0.13%	100%
	EL	0.01%	0.01%	0.34%	0.17%	0.01%	0.01%	0.00%	0.01%	0.05%	0.11%		0.01%	0.00%	0.06%	0.00%	0.00%	0.00%	0.00%	0.02%	0.12%	0.00%	0.21%	0.00%	0.00%	0.01%	0.02%	0.13%	100%
	HU	0.04%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.19%	0.00%		0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.02%	0.03%	0.00%	0.73%	0.06%	0.00%	0.00%	0.01%	0.02%	100%
	IE	0.01%	0.02%	0.05%	0.01%	0.17%	0.02%	0.09%	0.02%	0.16%	0.26%	0.01%	0.13%		0.11%	0.56%	1.00%	0.00%	0.03%	0.12%	1.92%	0.04%	0.34%	0.24%	0.01%	0.09%	0.03%	1.92%	100%
	IT	0.01%	0.01%	0.08%	0.00%	0.01%	0.00%	0.00%	0.00%	0.06%	0.07%	0.01%	0.01%	0.01%		0.00%	0.01%	0.00%	0.00%	0.02%	0.18%	0.01%	1.55%	0.02%	0.01%	0.03%	0.01%	0.05%	100%
	LV	0.00%	0.00%	0.03%	0.00%	0.01%	0.01%	0.05%	0.01%	0.01%	0.06%	0.00%	0.00%	0.00%	0.01%		0.20%	0.00%	0.00%	0.01%	0.03%	0.00%	0.02%	0.00%	0.00%	0.01%	0.02%	0.02%	100%
	LT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
	LU	0.16%	3.63%	0.10%	0.01%	0.13%	0.48%	0.07%	0.24%	5.84%	2.55%	0.31%	0.15%	0.27%	4.19%	0.07%	0.07%		0.04%	0.83%	0.40%	16.8%	0.19%	0.10%	0.07%	0.69%	0.37%	1.11%	100%
	MT	0.04%	0.02%	0.19%	0.00%	0.02%	0.03%	0.00%	0.01%	0.07%	0.13%	0.01%	0.03%	0.05%	0.13%	0.00%	0.01%	0.00%		0.05%	0.03%	0.00%	0.06%	0.02%	0.01%	0.01%	0.10%	1.02%	100%
	NL	0.02%	0.17%	0.08%	0.00%	0.02%	0.02%	0.00%	0.01%	0.11%	0.42%	0.05%	0.03%	0.03%	0.13%	0.01%	0.01%	0.00%	0.00%		0.27%	0.10%	0.04%	0.02%	0.00%	0.11%	0.02%	0.26%	100%
	PL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100%
PT	0.00%	0.02%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.08%	0.00%	0.00%	0.01%	0.04%	0.00%	0.01%	0.00%	0.00%	0.04%	0.01%		0.32%	0.00%	0.00%	0.08%	0.01%	0.16%	100%	
RO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	100%	
SK	0.04%	0.01%	0.03%	0.00%	0.15%	0.01%	0.00%	0.00%	0.03%	0.07%	0.00%	0.09%	0.00%	0.03%	0.00%	0.00%	0.00%	0.00%	0.01%	0.10%	0.00%	0.10%		0.00%	0.01%	0.00%	0.03%	100%	
SI	0.02%	0.00%	0.04%	0.00%	0.01%	0.00%	0.00%	0.00%	0.01%	0.04%	0.00%	0.01%	0.00%	0.04%	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.01%	0.02%		0.00%	0.00%	0.02%	100%	
ES	0.03%	0.08%	0.39%	0.00%	0.02%	0.03%	0.00%	0.03%	0.29%	0.45%	0.01%	0.02%	0.04%	0.43%	0.01%	0.05%	0.00%	0.00%	0.13%	0.20%	0.33%	1.93%	0.02%	0.00%		0.06%	0.90%	100%	
SE	0.04%	0.01%	0.04%	0.00%	0.01%	0.45%	0.04%	0.82%	0.07%	0.31%	0.05%	0.05%	0.02%	0.07%	0.03%	0.06%	0.00%	0.00%	0.09%	0.43%	0.02%	0.09%	0.01%	0.01%	0.05%		0.19%	100%	
UK	0.05%	0.04%	0.08%	0.10%	0.05%	0.04%	0.01%	0.02%	0.21%	0.51%	0.04%	0.07%	0.64%	0.19%	0.06%	0.14%	0.00%	0.05%	0.10%	0.90%	0.15%	0.11%	0.08%	0.00%	0.12%	0.05%		100%	

From	To
0%	0.10%
0.1%	0.50%
0.50%	1.00%
1.00%	2.00%
2.00%	5.00%
5% or more	

Table B-3: Top 100 intra-EU migrant groups by country of residence and citizenship (or birth)

Country of citizenship (or birth)	Country of residence	Number of people	Year
Romania	Italy	887,763	2010
Romania	Spain	823,111	2010
Portugal	France	576,084	2007
Italy	Germany	556,145	2010
Poland	United Kingdom	520,000	2010
Poland	Germany	425,608	2010
Ireland	United Kingdom	398,000	2010
United Kingdom	Spain	384,146	2010
Italy	France	323,809	2007
Greece	Germany	297,668	2010
Germany	United Kingdom	292,000	2010
Spain	France	262,883	2007
Germany	Spain	194,023	2010
Austria	Germany	189,871	2010
Italy	Spain	182,535	2010
Italy	Belgium	169,027	2008
Bulgaria	Spain	167,849	2010
Netherlands	Germany	148,518	2010
United Kingdom	France	142,949	2007
Portugal	Spain	141,167	2010
Germany	Austria	130,684	2009
France	Belgium	130,568	2008
Germany	France	128,440	2007
France	United Kingdom	124,000	2010
Netherlands	Belgium	123,454	2008
France	Spain	122,697	2010
Portugal	Germany	120,663	2010
France	Germany	116,295	2010
Romania	Germany	112,230	2010
Spain	Germany	111,684	2010

Country of citizenship (or birth)	Country of residence	Number of people	Year
Italy	United Kingdom	111,000	2010
Poland	Italy	105,608	2010
United Kingdom	Germany	104,175	2010
Poland	France	91,062	2007
Poland	Spain	85,513	2010
Portugal	United Kingdom	85,000	2010
Belgium	France	84,248	2007
United Kingdom	Ireland	83,255	2010
Poland	Ireland	83,012	2010
Lithuania	United Kingdom	80,000	2010
Portugal	Luxembourg	76,586	2008
Finland	Sweden	74,050	2010
Slovakia	Czech Republic	73,442	2010
Romania	Hungary	72,781	2010
Spain	United Kingdom	71,000	2010
Germany	Netherlands	68,356	2010
Bulgaria	Germany	66,238	2010
Hungary	Germany	65,443	2010
Romania	United Kingdom	61,000	2010
Cyprus	United Kingdom	60,000	2010
Netherlands	United Kingdom	56,000	2010
Netherlands	Spain	53,490	2010
Romania	France	46,399	2007
Bulgaria	Italy	46,026	2010
Bulgaria	United Kingdom	46,000	2010
Slovakia	United Kingdom	44,000	2010
Lithuania	Ireland	43,492	2010
Poland	Netherlands	43,083	2010
Spain	Belgium	42,712	2008
Germany	Italy	42,302	2010
United Kingdom	Netherlands	41,422	2010
Denmark	Sweden	40,272	2010

Country of citizenship (or birth)	Country of residence	Number of people	Year
Poland	Sweden	38,587	2010
Germany	Belgium	38,370	2008
Hungary	United Kingdom	38,000	2010
Poland	Austria	36,879	2009
Czech Republic	Germany	36,378	2010
Latvia	United Kingdom	36,000	2010
Belgium	Spain	35,800	2010
Netherlands	France	35,225	2007
Bulgaria	Greece	35,104	2001
France	Italy	32,956	2010
Romania	Portugal	32,457	2010
Romania	Austria	32,341	2009
Poland	Belgium	30,768	2008
Portugal	Belgium	29,802	2008
United Kingdom	Italy	29,184	2010
Sweden	United Kingdom	29,000	2010
Germany	Sweden	27,527	2010
Czech Republic	United Kingdom	27,000	2010
Malta	United Kingdom	27,000	2010
Austria	United Kingdom	27,000	2010
Belgium	Netherlands	26,877	2010
France	Luxembourg	26,562	2008
Slovakia	Germany	26,419	2010
Estonia	Finland	25,510	2010
United Kingdom	Belgium	25,126	2008
Greece	United Kingdom	25,000	2010
Belgium	Germany	24,653	2010
Sweden	Spain	24,330	2010
Latvia	Ireland	24,264	2010
Belgium	United Kingdom	24,000	2010
Lithuania	Germany	22,812	2010
Lithuania	Spain	22,075	2010

Country of citizenship (or birth)	Country of residence	Number of people	Year
Denmark	United Kingdom	22,000	2010
Romania	Greece	21,994	2001
Hungary	Austria	21,527	2009
Slovenia	Germany	21,279	2010
Poland	Denmark	21,119	2010
Germany	Denmark	21,114	2010

## B.2 Source of migrant population data

Eurostat is the primary source of the migrant population statistics presented in this study. Eurostat data are provided by the national statistical institutes of the Member States, the majority of which base their statistics on data available from population registers, registers of foreigners or other similar administrative databases. The date of the data for each country of residence differs; we have used the most recent Eurostat data available in each case. For a small number of countries the latest available Eurostat data pre-dates the 2004 and / or 2007 waves of accession, so we have sought more up-to-date information from the relevant national statistics institutes. For example, the 2005 data for the UK included in the Eurostat database has been replaced by 2010 data from the UK Office of National Statistics. The source of data by country of residence is listed in Table B-4.

Both data supplied by Member States and estimates produced by Eurostat may include systematic coverage errors such as exclusion of some categories of immigrants (temporary migrants for longer than one year, students, asylum seekers, etc.) or inclusion of migrants who settle in the country for less than one year. In addition, there are limitations to the definition of migrants. It will capture people who hold citizenship of a country other than their country of residence, but migrated at an early age. These people may have more linguistic and cultural affinity with their country of residence than their country of citizenship.

**Table B-4: Source and date of migration data by country of residence**

Country of residence	Year	Population statistic used	Source	Notes
Austria	2009	Citizenship	Eurostat	
Belgium	2008	Citizenship	Eurostat	
Bulgaria	2009	Citizenship	Eurostat	
Cyprus	2002	Citizenship	Eurostat	
Czech Republic	2010	Citizenship	Eurostat	
Denmark	2010	Citizenship	Eurostat	

Country of residence	Year	Population statistic used	Source	Notes
Estonia	2000	Citizenship	Eurostat	More recent population data, segmented by ethnic nationality, is available from Statistics Estonia's database. This has not been used as it does not cover all EU-27 countries.
Finland	2010	Citizenship	Eurostat	INSEE's data was used as it is more recent than Eurostat (2005).
France	2007	Nationality	INSEE 2007 Census	
Germany	2010	Citizenship	Eurostat	
Greece	2001	Citizenship	Eurostat	
Hungary	2010	Citizenship	Eurostat	
Ireland	2010	Citizenship	Eurostat	
Italy	2010	Citizenship	Eurostat	
Latvia	2010	Citizenship	Eurostat	
Lithuania	2008	Citizenship	Eurostat	
Luxembourg	2008	Citizenship	Eurostat	
Malta	2008	Citizenship	Eurostat	
Netherlands	2010	Citizenship	Eurostat	
Poland	2010	Citizenship	Eurostat	
Portugal	2010	Citizenship	Eurostat	
Romania	2009	Citizenship	Eurostat	
Slovakia	2010	Citizenship	Eurostat	
Slovenia	2010	Citizenship	Eurostat	
Spain	2010	Citizenship	Eurostat	
Sweden	2010	Citizenship	Eurostat	
United Kingdom	2010	Country of birth (all EU-27 except Estonia, Luxembourg, Slovenia, Finland)	ONS; Eurostat	ONS statistics, which report country of birth not citizenship, are used as these are much more recent than Eurostat (2005). However, Estonia, Luxembourg, Slovenia, Finland are not included in these data.
United Kingdom	2005	Citizenship (Estonia, Luxembourg, Slovenia, Finland)	Eurostat	This data is used as ONS statistics for these countries are not published.

## Appendix C: Distribution of student population

		Host country																												
		BE	BG	CZ	DK	DE	EE	GR	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK			FI	SE	UK
Country of the home institution	BE		9	89	194	391	19	42	1516	1033	156	454	6	8	18	76	78	50	465	109	98	298	36	33	3	228	276	472	6157	BE
	BG	84		70	32	350	8	63	123	184	14	117	3	2	13	0	33	2	76	76	97	60	25	22	26	22	27	92	1621	BG
	CZ	241	22		215	909	35	157	601	701	78	245	15	10	62	0	41	21	241	352	144	290	5	143	93	326	214	532	5693	CZ
	DK	52	25	37		363	10	19	292	263	46	116	13	13	35	1	31	22	151	69	36	46	12	9	5	28	52	490	2236	DK
	DE	534	48	431	833		93	201	5883	4987	1015	1664	18	83	116	52	425	74	1024	697	676	463	107	80	61	1102	2397	3976	27040	DE
	EE	28	4	26	34	85		39	109	70	5	59	16	8	4	0	20	5	49	45	10	52	0	2	6	118	42	63	899	EE
	GR	145	10	191	75	416	5		508	477	12	257	70	1	16	0	41	2	144	92	89	148	10	8	18	111	116	149	3111	GR
	ES	1626	103	611	817	3312	49	355		4199	861	7063	49	70	127	11	276	76	1286	532	1312	1832	193	160	137	884	1057	3489	30487	ES
	FR	867	75	537	938	3256	104	362	6828		1554	1805	25	63	152	101	348	185	1106	436	656	368	298	118	108	1029	1750	6238	29307	FR
	IE	69	7	38	64	251	3	4	391	514		99	4	4	2	34	5	28	121	55	12	28	0	5	1	32	97	238	2106	IE
	IT	796	21	192	465	2030	75	189	7191	3275	352		23	35	92	9	180	129	685	348	363	1022	139	43	39	466	599	1758	20516	IT
	CY	24	0	0	5	2	1	58	33	6	4	15		0	0	0	0	4	6	0	6	0	0	0	0	4	6	35	209	CY
	LV	60	14	24	100	228	40	161	162	120	1	84	15		70	1	13	9	67	45	62	79	1	17	25	94	83	87	1662	LV
	LT	96	25	98	223	286	30	67	201	193	26	169	53	52		3	63	24	99	90	146	208	14	58	41	191	146	152	2754	LT
	LU	41	1	3	2	212	0	1	15	95	4	9	0	0	0		4	0	7	14	4	25	0	0	0	5	8	15	465	LU
	HU	216	16	62	96	930	22	61	344	358	49	359	8	4	28	3		7	268	242	124	131	53	30	28	221	101	202	3963	HU
	MT	8	0	2	7	4	0	3	8	14	10	53	0	0	0	0	3		7	0	3	2	0	0	0	10	5	50	189	MT
	NL	512	11	68	265	783	16	55	1350	654	178	365	1	13	24	1	111	24		151	85	183	16	18	9	328	655	1192	7068	NL
	AT	93	5	85	187	763	25	39	837	580	134	390	4	6	22	2	48	22	229		61	121	25	32	20	279	394	453	4856	AT
	PL	468	121	516	577	2129	54	487	2164	1226	127	1208	62	71	122	2	233	57	456	293		922	66	167	219	390	332	782	13251	PL
	PT	225	25	318	88	177	23	49	1367	299	22	894	2	14	124	5	117	3	199	72	520		143	97	50	130	124	201	5288	PT
	RO	162	0	23	85	532	2	205	460	1094	16	363	12	2	22	1	144	16	76	88	81	182		12	17	31	32	160	3818	RO
	SI	36	4	73	34	192	6	12	259	78	4	56	0	2	11	0	9	3	57	93	39	163	1		22	37	33	83	1307	SI
	SK	77	10	346	48	292	3	49	213	201	14	103	2	6	26	1	53	15	45	105	110	99	3	40		99	41	84	2085	SK
FI	177	9	155	76	715	51	76	680	457	117	174	26	8	18	2	106	21	357	250	41	109	5	47	18		167	590	4452	FI	
SE	84	3	51	67	368	1	26	350	552	73	178	1	3	6	1	32	6	284	133	37	52	4	8	4	11		538	2873	SE	
UK	242	6	146	199	1668	23	57	2689	3838	134	868	24	7	28	6	27	61	461	257	80	112	8	14	18	230	313		11516	UK	
Total	6963	574	4192	5726	20644	698	2837	34574	25468	5006	17167	452	485	1138	312	2441	862	7964	4650	4886	7001	1164	1163	968	6406	9067	22121	194929		

Source: Erasmus statistics, European Commission, Education and Culture Directorate- General, 2011



## Appendix D: Demand and willingness to pay

Figure D-1: Estimated number of households that include one or more intra-EU migrant that would pay €10 or more monthly for a cross-border audiovisual media service (very likely to pay)

Country of residence	Country of origin																										Total	
	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	ES	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	
AT	0	380	1,952	23	2,202	243	56	279	1,612	36,465	563	4,688	192	3,406	101	156	130	11	1,702	8,964	334	6,426	3,365	1,633	597	701	2,093	<b>78,277</b>
BE	629	0	1,462	47	506	768	139	727	32,651	10,706	3,371	635	732	40,160	151	242	1,030	49	31,482	7,479	6,363	3,042	559	127	9,189	1,069	6,309	<b>159,624</b>
BG	8	3	0	28	48	2	1	2	19	86	350	19	1	26	3	3	0	0	4	134	1	36	15	2	5	5	15	<b>815</b>
CY	44	32	670	0	82	21	4	61	116	365	2,649	38	84	58	18	11	1	3	62	86	7	540	13	2	17	112	4,599	<b>9,693</b>
CZ	746	110	1,386	15	0	70	19	54	570	3,847	191	142	117	608	32	104	4	4	639	4,685	31	814	13,681	57	122	138	1,094	<b>29,279</b>
DK	282	201	503	7	172	0	228	563	1,237	5,891	209	345	281	1,041	554	1,258	8	11	1,595	5,133	225	1,009	158	46	706	3,118	3,590	<b>28,369</b>
EE	2	1	3	0	0	9	0	225	5	41	1	2	2	5	310	266	0	0	6	18	0	0	0	0	2	33	14	<b>948</b>
FI	96	65	156	6	76	151	6,065	0	377	1,012	103	261	88	358	176	157	4	3	275	505	70	232	46	17	267	2,068	837	<b>13,472</b>
FR	1,991	20,697	2,877	176	1,807	1,382	162	767	0	35,839	2,094	1,873	1,677	76,936	374	477	1,650	83	8,983	22,134	122,999	9,220	651	564	56,556	2,064	35,892	<b>409,924</b>
DE	47,323	6,056	14,345	187	8,823	4,930	1,051	3,335	29,081	0	66,098	14,251	2,259	132,138	2,789	5,484	3,010	90	37,873	103,451	25,763	22,301	4,922	4,833	24,027	4,531	26,156	<b>595,109</b>
ES	355	327	7,602	3,550	164	208	13	176	1,322	3,294	0	117	101	1,384	8	29	9	8	642	3,119	53	4,370	62	12	206	535	3,316	<b>30,984</b>
HU	923	132	262	29	75	47	17	99	481	5,219	103	0	77	380	15	21	7	3	443	611	38	14,462	1,197	39	94	228	609	<b>25,611</b>
IE	138	237	431	95	1,802	178	918	174	1,713	3,092	80	1,207	0	1,179	5,329	10,455	8	217	1,271	20,177	332	2,911	1,933	53	837	349	20,904	<b>76,021</b>
IT	1,691	1,498	9,968	55	1,457	570	221	436	8,241	11,804	1,651	1,496	672	0	444	995	72	162	2,206	25,670	1,167	176,408	1,616	694	4,108	876	7,328	<b>261,504</b>
LV	19	14	123	1	30	64	233	60	62	299	5	7	15	56	0	893	1	2	33	119	11	60	9	2	33	100	96	<b>2,349</b>
LT	7	8	27	0	5	40	21	22	30	132	4	1	7	32	96	0	0	0	15	129	2	3	2	1	12	22	33	<b>649</b>
LU	186	4,054	97	7	138	534	81	262	6,642	3,231	313	150	264	4,530	67	81	0	37	966	446	16,352	176	86	76	680	405	1,263	<b>41,121</b>
MT	36	15	165	0	17	32	0	14	66	143	10	23	39	125	2	6	0	0	53	34	4	49	17	7	12	98	1,029	<b>1,996</b>
NL	943	6,603	2,672	33	631	643	130	534	4,297	19,073	1,728	1,153	899	5,013	251	511	78	30	0	10,472	3,280	1,414	530	128	3,901	868	10,400	<b>76,217</b>
PL	243	49	243	5	165	65	6	19	176	1,241	191	98	16	160	14	125	2	0	122	0	11	53	62	5	36	324	192	<b>3,625</b>
PT	111	395	1,560	2	54	114	26	86	1,221	2,404	35	77	152	1,069	68	134	31	4	1,167	253	0	6,450	37	11	1,734	181	4,111	<b>21,487</b>
RO	30	21	39	0	4	5	0	1	131	198	349	58	4	423	0	0	0	0	34	14	4	0	5	1	20	20	83	<b>1,443</b>
SK	514	78	328	6	2,024	68	10	30	389	1,127	57	1,002	35	348	17	28	2	3	121	1,305	26	1,078	0	44	94	62	360	<b>9,155</b>
SI	95	11	167	0	33	6	3	5	46	207	3	34	5	175	2	7	0	1	29	44	6	39	66	0	12	14	89	<b>1,097</b>
ES	2,702	8,795	36,350	40	2,203	3,169	351	3,003	30,682	54,138	1,049	1,822	3,741	43,370	746	5,307	157	44	13,640	20,785	30,140	163,561	1,501	288	0	5,914	96,451	<b>529,949</b>
SE	787	282	704	41	294	9,789	806	17,999	1,624	7,681	1,051	985	402	1,393	611	1,318	10	16	2,023	9,379	348	1,522	195	146	1,055	0	4,352	<b>64,812</b>
UK	6,729	5,896	9,962	12,224	6,549	5,347	850	2,361	31,008	81,477	5,551	8,275	79,436	26,373	7,906	19,232	130	5,218	14,280	126,395	18,148	12,121	8,197	0	15,275	7,049	0	<b>515,992</b>
<b>Total</b>	<b>66,631</b>	<b>55,960</b>	<b>94,056</b>	<b>16,578</b>	<b>29,364</b>	<b>28,455</b>	<b>11,412</b>	<b>31,294</b>	<b>153,798</b>	<b>289,010</b>	<b>87,807</b>	<b>38,758</b>	<b>91,297</b>	<b>340,745</b>	<b>20,083</b>	<b>47,300</b>	<b>6,346</b>	<b>6,000</b>	<b>119,668</b>	<b>371,543</b>	<b>225,714</b>	<b>428,300</b>	<b>38,924</b>	<b>8,789</b>	<b>119,595</b>	<b>30,884</b>	<b>231,214</b>	<b>2,989,524</b>

Figure D-2: Intra-EU migrants' estimated willingness to pay for cross-border audiovisual media services, € (000s) (very likely to pay)

Country of residence	Country of origin																										Total	
	AT	BE	BG	CY	CZ	DK	EE	FI	FR	DE	ES	HU	IE	IT	LV	LT	LU	MT	NL	PL	PT	RO	SK	SI	ES	SE	UK	Total
AT	0	97	497	6	560	62	14	71	410	9,274	143	1,192	49	866	26	40	33	3	433	2,280	85	1,634	856	415	152	178	532	19,908
BE	160	0	372	12	129	195	35	185	8,304	2,723	857	162	186	10,214	38	61	262	12	8,006	1,902	1,618	774	142	32	2,337	272	1,604	40,596
BG	2	1	0	7	12	1	0	1	5	22	89	5	0	7	1	1	0	0	1	34	0	9	4	1	1	1	4	207
CY	11	8	171	0	21	5	1	15	29	93	674	10	21	15	5	3	0	1	16	22	2	137	3	1	4	28	1,170	2,465
CZ	190	28	353	4	0	18	5	14	145	978	49	36	30	155	8	26	1	1	163	1,191	8	207	3,479	15	31	35	278	7,446
DK	72	51	128	2	44	0	58	143	315	1,498	53	88	71	265	141	320	2	3	406	1,306	57	257	40	12	179	793	913	7,215
EE	1	0	1	0	0	2	0	57	1	10	0	0	1	1	79	68	0	0	1	5	0	0	0	0	1	8	4	241
FI	25	17	40	2	19	38	1,542	0	96	257	26	66	22	91	45	40	1	1	70	128	18	59	12	4	68	526	213	3,426
FR	506	5,264	732	45	460	352	41	195	0	9,115	532	476	426	19,567	95	121	420	21	2,284	5,629	31,281	2,345	166	143	14,383	525	9,128	104,253
DE	12,035	1,540	3,648	47	2,244	1,254	267	848	7,396	0	16,810	3,624	574	33,606	709	1,395	766	23	9,632	26,310	6,552	5,672	1,252	1,229	6,111	1,152	6,652	151,350
ES	90	83	1,933	903	42	53	3	45	336	838	0	30	26	352	2	7	2	2	163	793	14	1,112	16	3	52	136	843	7,880
HU	235	33	67	7	19	12	4	25	122	1,327	26	0	20	97	4	5	2	1	113	155	10	3,678	304	10	24	58	155	6,514
IE	35	60	110	24	458	45	233	44	436	786	20	307	0	300	1,355	2,659	2	55	323	5,132	85	740	492	13	213	89	5,316	19,334
IT	430	381	2,535	14	371	145	56	111	2,096	3,002	420	380	171	0	113	253	18	41	561	6,528	297	44,865	411	177	1,045	223	1,864	66,506
LV	5	3	31	0	8	16	59	15	16	76	1	2	4	14	0	227	0	0	8	30	3	15	2	1	8	25	25	597
LT	2	2	7	0	1	10	5	6	8	33	1	0	2	8	24	0	0	0	4	33	0	1	0	0	3	6	8	165
LU	47	1,031	25	2	35	136	21	67	1,689	822	80	38	67	1,152	17	21	0	9	246	113	4,159	45	22	19	173	103	321	10,458
MT	9	4	42	0	4	8	0	4	17	36	2	6	10	32	1	1	0	0	13	9	1	13	4	2	3	25	262	508
NL	240	1,679	680	8	161	164	33	136	1,093	4,851	439	293	229	1,275	64	130	20	8	0	2,663	834	360	135	32	992	221	2,645	19,384
PL	62	13	62	1	42	17	2	5	45	316	49	25	4	41	3	32	0	0	31	0	3	13	16	1	9	82	49	922
PT	28	101	397	1	14	29	7	22	311	611	9	19	39	272	17	34	8	1	297	64	0	1,640	9	3	441	46	1,046	5,465
RO	8	5	10	0	1	1	0	0	33	50	89	15	1	108	0	0	0	0	9	4	1	0	1	0	5	5	21	367
SK	131	20	83	2	515	17	2	8	99	287	15	255	9	88	4	7	1	1	31	332	7	274	0	11	24	16	91	2,328
SI	24	3	42	0	8	1	1	1	12	53	1	9	1	44	1	2	0	0	7	11	1	10	17	0	3	4	23	279
ES	687	2,237	9,245	10	560	806	89	764	7,803	13,769	267	463	951	11,030	190	1,350	40	11	3,469	5,286	7,665	41,597	382	73	0	1,504	24,530	134,778
SE	200	72	179	10	75	2,490	205	4,578	413	1,953	267	251	102	354	155	335	2	4	514	2,385	89	387	50	37	268	0	1,107	16,483
UK	1,711	1,499	2,534	3,109	1,665	1,360	216	600	7,886	20,721	1,412	2,105	20,202	6,707	2,011	4,891	33	1,327	3,632	32,145	4,615	3,083	2,085	0	3,885	1,793	0	131,228
<b>Total</b>	<b>16,946</b>	<b>14,232</b>	<b>23,921</b>	<b>4,216</b>	<b>7,468</b>	<b>7,237</b>	<b>2,902</b>	<b>7,959</b>	<b>39,114</b>	<b>73,502</b>	<b>22,331</b>	<b>9,857</b>	<b>23,219</b>	<b>86,659</b>	<b>5,107</b>	<b>12,030</b>	<b>1,614</b>	<b>1,526</b>	<b>30,434</b>	<b>94,492</b>	<b>57,404</b>	<b>108,926</b>	<b>9,899</b>	<b>2,235</b>	<b>30,416</b>	<b>7,854</b>	<b>58,803</b>	<b>760,304</b>

