OFFICE OF COMMUNICATIONS

The International Communications Market 2007

4 Radio

November 2007

Contents

4.1 Radio market developments

This section examines the characteristics of the radio markets in the UK, France, Germany, Italy, the US, Japan and Canada. In 2006 the UK radio industry generated revenue of around £1.2bn, equivalent to approximately 5% of the world total. By comparison, the US radio market generated around £11.7bn, equivalent to a 47% share of the global radio market. The seven countries included in this study account for around £20bn, or 80% of world radio revenues.

Figure 4.1 Key radio market indicators, 2006

	UK	France	Germany	Italy	USA	Canada	Japan
Total industry revenue	£1.2bn	£1.1bn	£2.3bn	£0.8bn	£11.7bn	£0.9bn	£1.9bn
Revenues per capita	£21	£18	£27	£14	£39	£28	£15
% public funding	53%	56%	80%	55%	0.4%	18%	56%
Number of licensed stations	420	440	330	120	13,000	1,250	300
Listening per head per day	180 mins	175 mins	170 mins	125 mins	165 mins	160 mins	120 mins
Share of top four stations	41%	35%	41%	30%	n/a	n/a	n/a

Source: Ofcom

4.1.1 Digital radio services: development continues

An increasing number of digital radio standards are in development

Digital radio development first began in Germany in 1981, where the first DAB transmissions took place in 1988. Since then, development activity worldwide has resulted in the emergence of a variety of digital radio standards influenced by different industry structures, different funding models and variations in the use of spectrum.

The World DAB Forum (previously the EuroDAB Forum established in 1995) was set up to help coordinate the development of digital audio standards around the world; the organisation now has 120 members from 30 countries. In October 2006 the group was renamed the World DMB (Digital Multimedia Broadcasting) Forum, to reflect its interests across radio, TV and mobile multimedia technologies. In November 2006 the forum announced the adoption of a new digital radio standard known as DAB+. The new format will use higher-quality ‘MPEG Audio Layer 4’ technology and the forum believes this will provide greater spectrum efficiencies, thereby creating increased capacity for more stations and lower transmission costs.

In Europe most digital radio standards have so far been based around the DAB Eureka 147 standard, with the first full DAB radio service launching in the UK in 1995. In the US satellite-based services arrived in the late 1990s followed by HD (‘Hybrid Digital’) Radio, a terrestrial-based audio standard which gained approval in 2002. The Digital Radio Mondiale (DRM) standard for AM digital radio was announced in Geneva in 2003. Meanwhile in Japan a digital terrestrial standard for television and radio broadcasts (ISDB-T) has been available since 2003. More recently the DAB+ standard has been trialled in a number of countries including Germany and France.

The table below summarises the digital radio standards currently available or in development.

Digital radio standards

- **DAB (Digital Audio Broadcasting)** DAB development started in Germany in 1981. The current DAB services are based on the Eureka 147 standard, initially an EU research project beginning in 1987, using the MP2 (MPEG-1 audio layer 2) coding standard. A number of countries were piloting DAB by 1995. In 2006 the World DAB Forum became the World DMB Forum and adopted a new standard, DAB+, using the AAC+ audio codec. Countries trialling DAB+ include France, Germany, Italy, China, India, Australia, New Zealand, Sweden and the Netherlands.

- **DMB (Digital Multimedia Broadcasting)** The two DMB standards include: T-DMB (Terrestrial) and S-DMB (the satellite equivalent). DMB, facilitates the carriage of audio, pictures, video and data, and was developed in South Korea in 2005, where there are now 12 T-DMB and 19 S-DMB audio channels, alongside TV and data channels. S-DMB is used by satellite radio providers XM and Sirius in North America and by MobaHo in Japan. France, Germany and Italy are looking to develop terrestrial DMB services in 2008.

- **DVB-H (Digital Video Broadcasting - Handheld)** a standard developed to provide broadcast services to portable handheld devices. DVB-H technology is based on the DVB-T (Digital Video Broadcasting - Terrestrial) system that is used for digital terrestrial television, with additional features to meet the specific requirements of handheld, battery-powered receivers.

- **DVB-SH (Digital Video Broadcasting – Satellite Handheld)** is a hybrid satellite and terrestrial standard based on DVB-H and SDR (Satellite Digital Radio) standards. DVB-SH incorporates satellite transmissions which are then boosted by a terrestrial repeater network to increase coverage in built-up areas. DVB services began in 2006 in Italy and the US. It is also currently being trialled in China and India, while France and Germany plan to launch services in 2008.

- **HD (Hybrid Digital)** Radio was developed by iBiquity as a proprietary digital radio standard for the US market. DAB development in the US has been partly prevented by the US military's use of the L band spectrum usually allocated to DAB. The HD standard uses IBOC (In-Band-On-Channel) technology to allow the use of existing frequencies to send out a bundled signal incorporating both analogue and digital services. Textual data such as traffic, weather and song titles can also be transmitted. HD has now rolled across the US and is being used in Brazil and trialled in Canada.

- **DRM (Digital Radio Mondiale)**, sometimes described as 'digital AM', was developed as an open standard to provide higher quality digital services over a wider area. Generally using spectrum currently allocated to AM transmissions. Stations coded in DRM are capable of travelling long distances; they can also be transmitted on the same frequency and in tandem with a standard analogue AM radio transmission. A new standard, DRM+, is also being developed which the aim of providing services on the higher frequencies currently used by FM as well as AM. DRM is also capable of transmitting data alongside audio services. Italy, France and Germany are looking to develop DRM services in 2008, and the BBC is also currently trialling DRM in the UK.

- **ISDB (Integrated Services Digital Broadcasting)** A separate standard developed in Japan. Research into producing a fully digital broadcast system began during the early 1980s, which led to the development of the ISDB standard. Japan started terrestrial digital broadcasting using the ISDB-T standard through NHK and commercial broadcasting stations on 1 December 2003.

Digital radio services to increase in 2008

Digital radio services have been developed in each of the seven main nations covered in this report, with so far varying levels of take-up.

The UK was the first country to launch a national DAB digital radio service, DAB set sales passed 5 million in 2007 and home ownership now stands at around 20%. Over 85% of the UK population live in areas covered by both the BBC and the commercial DAB services. 2007 also saw a limited trial of DRM services by the BBC.

Take-up in Germany has been slower than in the UK, partly due to the more splintered nature of the market, with each of the 16 regions having their own broadcasts and in some cases trialling different digital broadcast technologies. DAB was launched in Germany in 1998, since when coverage has reached around 82% of the country. Over 100 DAB stations are currently available, many of which simulcast existing analogue stations. Sales of DAB receivers reached 500,000 in 2007.

The coming year should see further digital radio developments in Germany with the launch of two new national multiplexes, and a number of digital standards being considered, including DAB+, DMB, DVB, and DRM. A coordinated promotion of digital radio by PSB’s and commercial broadcasters is also planned for 2008. Deutsche Telekom won the contract to build Germany’s DVB-H network in October 2007 with the broadcast licence to be announced shortly.

France and Italy have seen a similar pattern of development in recent years. DAB services launched initially in the 1990’s in both countries but have since been slower to develop as trials of digital radio platforms have continued. However 2008 should see the adoption of digital radio standards in both Italy and France along with an increased marketing and promotion of digital radio services. In both cases there are plans to launch T-DMB as a digital radio standard, probably to be supplemented by DRM. Coverage of T-DMB at time of launch is estimated to reach around 50% of the population in both France and Italy.

France is also looking to launch DVB-H and S-DMB services in the future and is also considering using the DAB+ format. Italy is looking at the possibility of adopting HD radio using the IBOC (In-Band-On-Channel) format, as used in the US. This is partly due to a shortage of spectrum meaning that not all existing analogue stations can be accommodated on T-DMB. World Space has also received approval from the Italian Ministry of Communications for Italy to be the first European country to receive its satellite radio subscription service, with a planned launch set for late 2008. The service would offer around 40-50 radio channels along with data services.

In Japan, ISDB-T and ISDB-TBS standards were launched in 2003 by NHK and the commercial stations. The expansion of digital radio services may, however, depend on the switch-off of analogue television broadcasts, which is set to be completed by 2011. Meanwhile, satellite mobile audio and video services became available in Japan via *Mobaho!* in 2004 using ISDB technology. This service offers mobile users in Japan access to seven video channels, 30 audio channels and around 60 data services for a monthly fee of £5.

In North America digital radio has seen significant developments over the past year, in both the US and Canada. A key development has been the proposed merger of the two satellite operators XM and Sirius. HD radio was also rolled out across the US in 2007. There are currently around 1200 radio stations broadcasting over HD, many of which are simulcasts of analogue stations. Coverage was estimated to be 80% of the US population at the time of writing, with 500,000 HD receivers sold. Ongoing development of HD radio and DAB have taken place in Canada during 2007. A summary of the digital radio developments in each of the seven countries is illustrated in figure 4.2.

Timeline of digital radio developments

UK	France
1990 Trials of DAB by BBC **1995** BBC launches DAB services **1996** Launch of DAB-IP services, BT Movio and Virgin mobile services **1997** National DAB rollout begins **1999** Digital One begins broadcasting DAB with 69% coverage **2004** 1m sales of DAB receivers **2006** DAB reaches 85% coverage, DAB-IP launches in UK **2007** DAB sales exceed 5 million and 20% DAB take-up, BBC begins DRM trial **2007** Award of second national DAB multiplex to 4 Digital Group	**1997** DAB launched, providing services in Paris, Lyon, Marseilles, Toulouse, Nantes **2004** Communications Bill passed – including licensing of digital broadcasts **2005** Radio France trials DMB and DVB-H. DRM trials by RF and commercial groups **2006** Ministry of Culture and Communications consultation on digital radio. French broadcasters form 'Digital Radio Group' **2006/07** Ongoing trials of DAB+, T-DMB, DRM **2008** Plans to launch T-DMB, in conjunction with DRM and DVB-H and in future S-DMB, also possibly DAB+. Aim to cover 70% of population over 5 years

Germany	Italy
1981 Development of digital radio begins **1988** First DAB transmissions in Europe **1998** DAB launched in Germany **1999** Regular DAB broadcasts begin, on L-Band and VHF **2005** DMB, DVB-H, DVB-T, and DRM being tested in various regions **2006** Launch of commercial T-DMB service over mobile phone **2007** 82% coverage, 500,000 DAB receivers sold, 100+ stations **2008** Plans to re-launch digital radio with two national multiplexes, DAB+, DMB, DVB, and DRM all being considered	**1995** RAI begins DAB broadcasts **1998** Commercial operators start DAB services. Club DAB Italia consortium formed **2004** Media Bill passed – establishing structure for digital radio broadcasts **2007** T-DMB trials, with aim to cover 50% of Italy by end 2007 **2007** World Space announces Italy to have first European radio satellite service in 2008 **2008** Plans to launch T-DMB and DRM, possible trials of HD radio

USA	Canada	Japan
1997 Satellite radio licences awarded to XM and Sirius **2001** Launch of satellite radio via XM **2002** Sirius satellite radio launches FCC approves HD radio **2004** Satellite radio becomes commercial free **2005** HD Radio Alliance formed – a consortium of leading radio broadcasters to promote HD radio. **2007** Satellite subscribers reach 16m **2007** March - FCC approves nationwide roll out of HD radio, 1200 stations broadcasting, 500k receivers sold, approx 80% coverage	**1999** DAB stations launch in Canada in Toronto, Montreal and Vancouver, Ontario and Ottawa added later **2005** CRTC approves XM and Sirius to be launched in Canada. Also approves a terrestrial digital subscription service to be provided by CHUM – to cover mainly urban areas in the south **2005** November launch of XM satellite radio in Canada. December launch of Sirius Canada **2006** 73 DAB stations broadcasting in the main cities, covering 11m people or 35% of the population **2007** Sirius reaches 500k satellite subscribers **2007** Trials of DAB and HD radio ongoing	**1996** Digital broadcasts start using DVB-S **2000** Digital satellite broadcasting using ISDB-S launches **2003** Terrestrial digital broadcasting starts via ISDB-T - NHK and commercial stations **2004** Mobile satellite digital audio / video broadcasting service launched by MobaHo! using ISDB-S **2005** Japanese radio groups form consortium for digital radio services **2005** 10 million subscribers to ISDB-T **2006** Approx 84% coverage for ISDB-T **2006** Launch of digital broadcasting service for mobile devices – 'One Seg' **2007** Almost 19m households receiving satellite services **2011** Target for full coverage of digital TV broadcasts in Japan and analogue switch off

Source: Ofcom

Satellite radio – consolidation in the US and expansion into Europe

Subscription-based satellite radio is well established in the US. Sirius and XM each have a substantial subscriber base, thanks to the combination of radio distribution deals with car manufacturers, advertising-free content, exclusive shows hosted by high profile presenters (such as Howard Stern) and an increasing range of portable satellite receivers.

In 2007 the two companies announced plans to merge. Subject to FCC approval, the combined business would benefit from a subscriber base of over 16 million, and would offer a service giving radio coverage of all the major US sporting events.

Following approval by the Canadian Radio-Television and Telecommunications Commission (CRTC), both operators extended their footprint to include Canada in 2005, and had approaching 800,000 subscribers by October 2007. The two are separate entities from their US counterparts, with majority ownership by Canadian companies, and both of them broadcast Canadian-produced content, in addition to the US service line-up.

World Space satellite radio is the only service to cover Asia and Africa, with two satellites reaching an estimated two-thirds of the world's population. The company's footprint extends to parts of Europe, and a third satellite is planned for launch in 2008, which will allow it to develop subscription services for Western Europe, starting with Italy in 2008. By Q2 2007 World Space had nearly 200,000 subscribers, the majority of whom were in India.

4.1.2 Listeners embrace new ways of accessing audio content

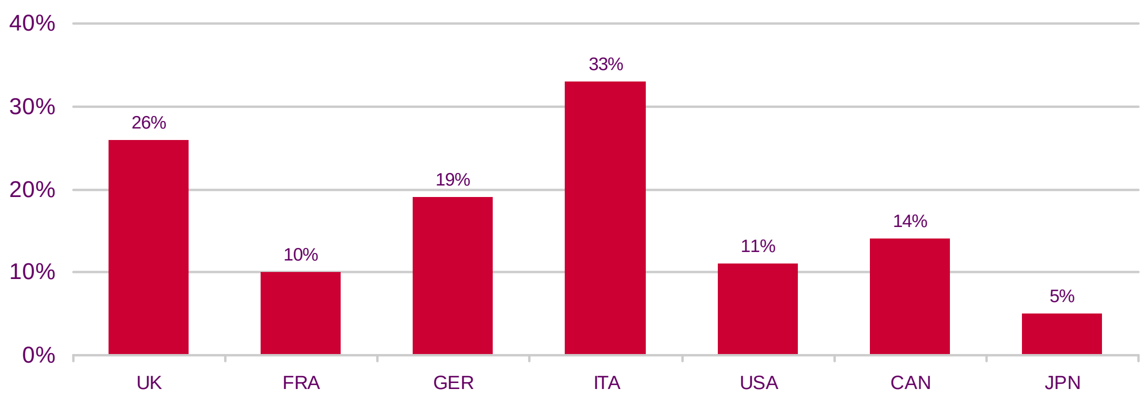
For this report, Ofcom commissioned a quantitative online survey of internet users in the seven main countries under consideration (the UK, France, Germany, Italy, the US, Japan and Canada). The survey looked at the adoption of new media and its effect on media consumption habits.

The survey showed that, as expected, ownership of digital radio varied by nation depending on their level of digital roll-out. It is possible that respondents in countries where digital radio is yet to be fully launched (such as Italy), may have interpreted the term 'digital radio' to mean any radio with a digital display.

In the UK, with one of the most established digital radio markets, 26% of respondents claimed to own and use a digital radio; this compares to 11% of US listeners and 14% in Canada. Increasing take-up of satellite radio in North America, along with the more recent development of HD radio, have led to growth in digital radio in both the US and Canada (Figure 4.2). People in Japan were the least likely to say they owned a digital radio receiver, which may be explained by the fact that there are proportionally fewer digital radio stations available and the lower levels of radio listening in Japan. Television, by contrast, is significantly more popular in terms of average weekly viewing hours in Japan.

Figure 4.2 Devices owned and personally used: digital radio set

Adults with a digital radio set (%)

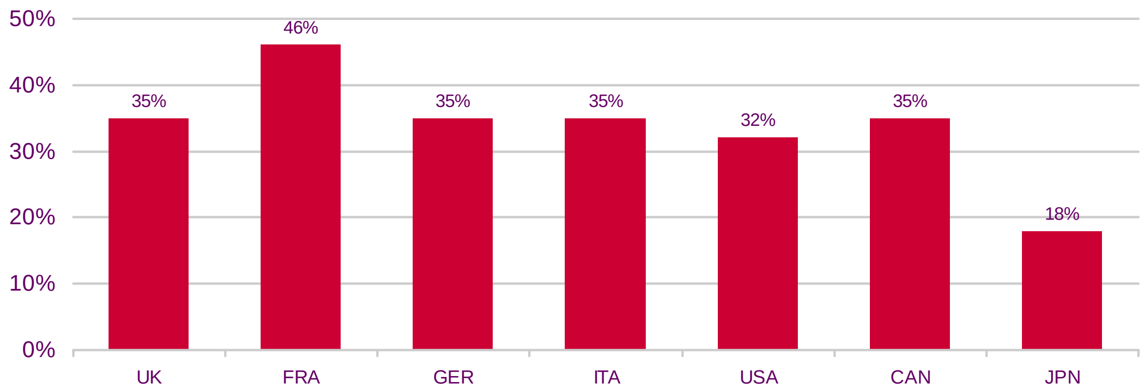


Source: Ofcom research, October 2007

Lower levels of radio listening in Japan are reflected in lower use of the internet to access radio stations online. Less than one in five Japanese respondents claimed to use the internet for this purpose, substantially below the 32% or more found in all other countries. French listeners appeared to be the most enthusiastic, with 46% claiming to listen to internet radio, followed by 35% in each of the UK, Germany, Italy and Canada (Figure 4.3).

Figure 4.3 Use of home internet for radio listening

Adults using internet connection to listen to the radio (%)

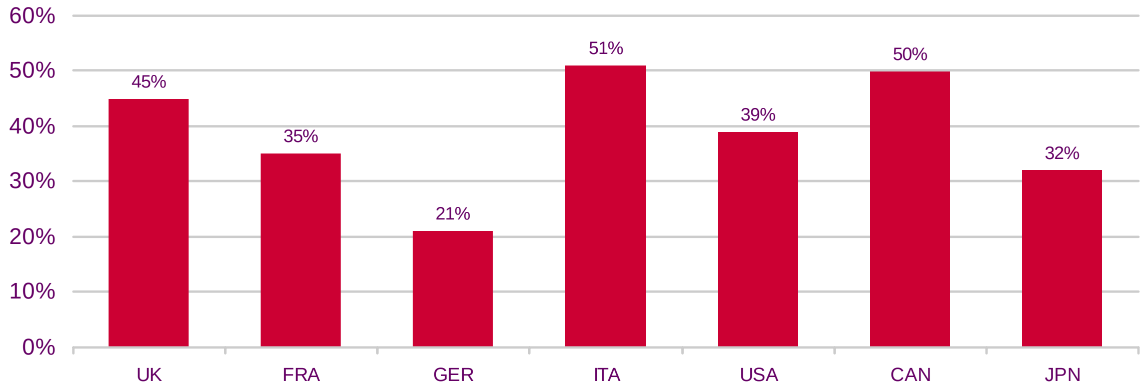


Source: Ofcom research, October 2007

New audio services such as downloads and podcasts have become increasingly popular in all of the nations we examined. Around half of Italians and Canadians surveyed said they used the internet to download audio content, while just under half (45%) made that claim in the UK. These services were less popular in Germany, where one in five claimed to have downloaded audio from the internet (Figure 4.4).

Figure 4.4 Home internet used for listening to or downloading audio content

Adults downloading audio content, music tracks or podcasts (%)



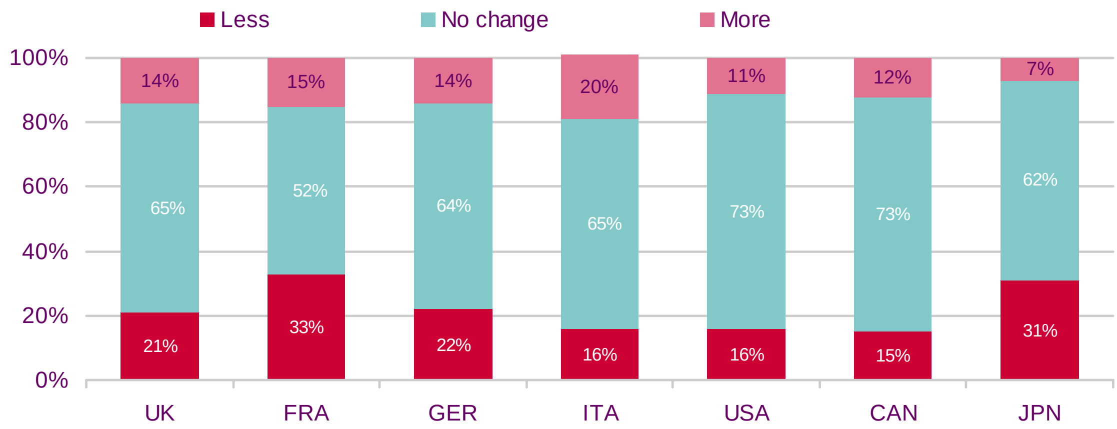
Source: Ofcom research, October 2007

The effect of the internet on radio listening

The respondents to the survey were asked about changes in their media consumption since starting to use the internet. In Japan there appears to have been a pronounced move away from traditional radio, with 31% of web users saying they listened to less offline radio since starting to use the internet, compared to only 7% who said they listened to more. A similar pattern emerged in France, with 33% listening to less offline radio, compared to 15% who listened to more. The UK and Germany saw a comparable trend with 21% and 22% respectively claiming to listen to less radio offline, compared to 14% in both countries who claimed to have increased their offline listening. However, radio fares better than television in this area, as for all countries in the survey other than Japan, there was a higher shift away from watching television since acquiring the internet.

Figure 4.5 Change in offline radio since first using internet

Since you started using the internet, which, if any, of the following activities do you believe you undertake more or less often OFFLINE? Listening to radio. (%)



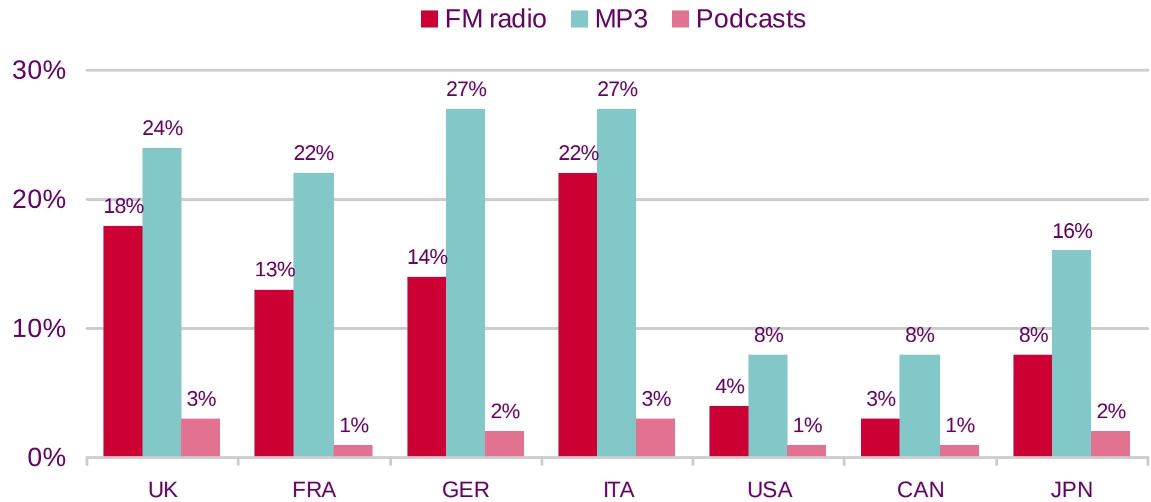
Source: Ofcom research, October 2007

Mobile phones offer increasing audio functionality, with many handsets now incorporating an integrated analogue radio receiver along with an MP3 player. Listening to MP3s on a mobile was increasingly common across most of the countries surveyed, with around a quarter of people in the UK, France, Germany and Italy saying they were using this feature. FM radio listening was also popular in Italy and the UK, with around one in five using this feature. Mobile podcasting was still a niche activity, undertaken by just 1% to 3% of mobile users. Mobile customers in the US and Canada were less likely to use their mobile phones for any of the multimedia activities that the survey explored.

Figure 4.6 Mobile audio service use

Which of the following activities do you use your mobile for: FM radio, MP3, podcasts?

Proportion of mobile users (%)



Source: Ofcom research, October 2007

4.2 The radio industry

4.2.1 Global radio revenues increasing

Commercial revenue an increasing proportion of total revenue in 2006

Global radio industry revenue reached £25bn in 2006, up by 4% or almost £0.9bn on 2005. Commercial revenue (principally advertising and sponsorship) accounted for around 74% (£19bn) of the total, up by £0.8bn or 4% on 2005. Public funding accounted for the remaining 26% (£7bn) and rose by £0.08bn year-on-year.

Commercial revenue growth has continued to outstrip public-funded radio over the past five years, expanding by £4.2bn or 4% per year. This has been driven by the growth in radio advertising in developing markets around the world and by new commercial revenue streams, principally subscription and online radio. In parallel with the television industry, public funding, (including spend by PSB's and government funds allocated for radio services) grew by just 3% per year over the same period, up by £0.8bn over the five-year period.

Figure 4.7 Global radio industry revenues, 2001 - 2006

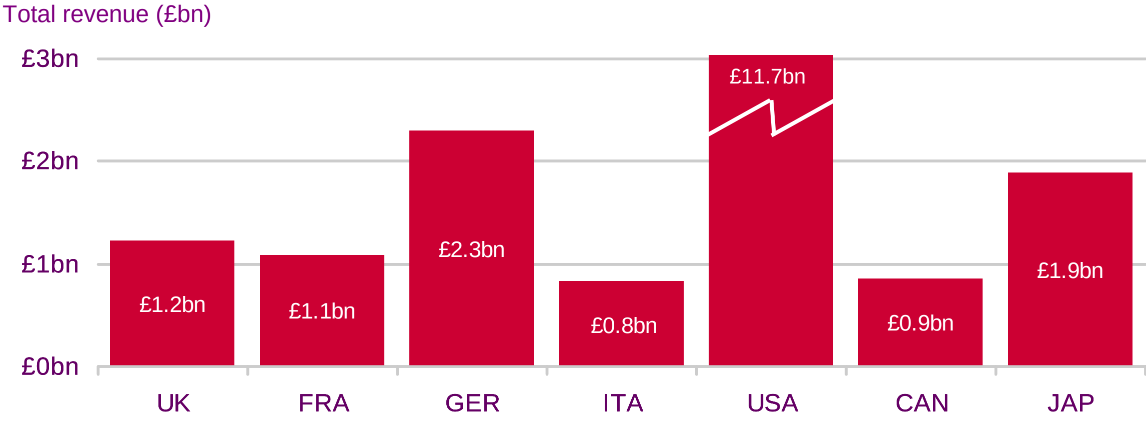
Source: Ofcom analysis based on data taken from PricewaterhouseCoopers Global Entertainment and Media Outlook 2007-2011.
Note: Ofcom has used an exchange rate of $1.84 to the pound. Interpretation of data is solely Ofcom's responsibility

4.2.2 Revenue growth by nation

US the largest radio market in value and still growing

The US radio market is, by a significant margin, the largest in the world, generating income of £11.7bn in 2006. The German market ranked second by value in 2006 at £2.3bn, aided by higher levels of public investment. Radio revenues in Japan and the UK were stable year on year at £1.9bn and £1.2bn respectively, although both were down in real terms, due to increasingly competitive markets and, in particular, the continued growth of internet advertising.

Figure 4.8 Radio industry revenue, 2006

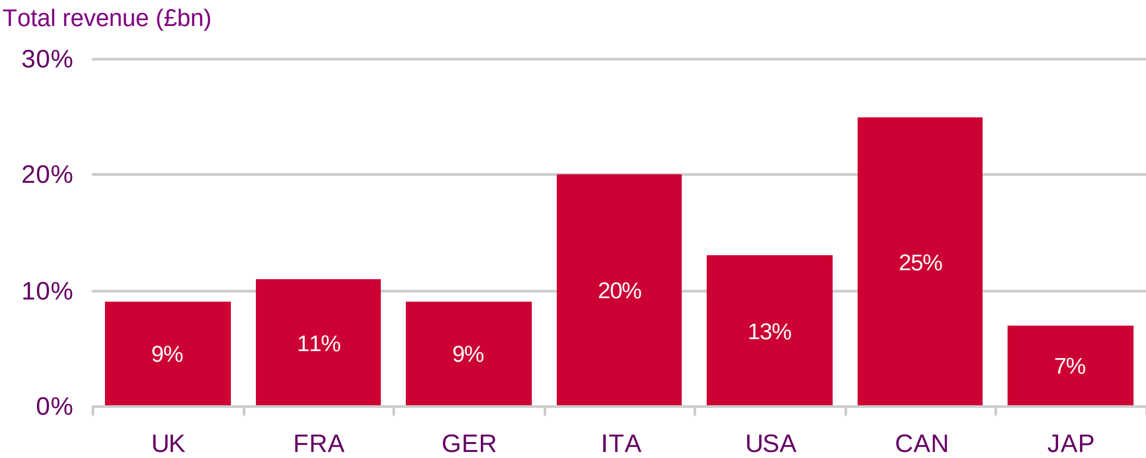


Source: Ofcom analysis based on data taken from PricewaterhouseCoopers Global Entertainment and Media Outlook 2007-2011, CRTC and CPB
Note: Ofcom has used an exchange rate of $1.84 to the pound. Interpretation of data is solely Ofcom's responsibility

The Canadian radio market has grown fastest of all those covered in this report, up by 25% (or 6.25% per year) over the last four years, albeit from a relatively smaller base. Growth has been fuelled by expanding advertising revenue and, more recently, by the launch of satellite-based subscription radio services. Historically, radio in Italy has been less popular than in other countries, but substantial growth at 5% per annum, has been achieved over the last four years, due mostly to an expanding radio advertising market.

Growth also continued in the US, already the largest radio market, up by £1.4bn or 13% over four years. As in the Canadian market, much of this increase can be explained by advertising sales growth and by an expanding base of satellite radio subscribers. The markets in the UK, France, Germany and Japan have all shown growth over four years, ranging from 7% - 11%.

Figure 4.9 Radio industry revenue growth, 2002 - 2006



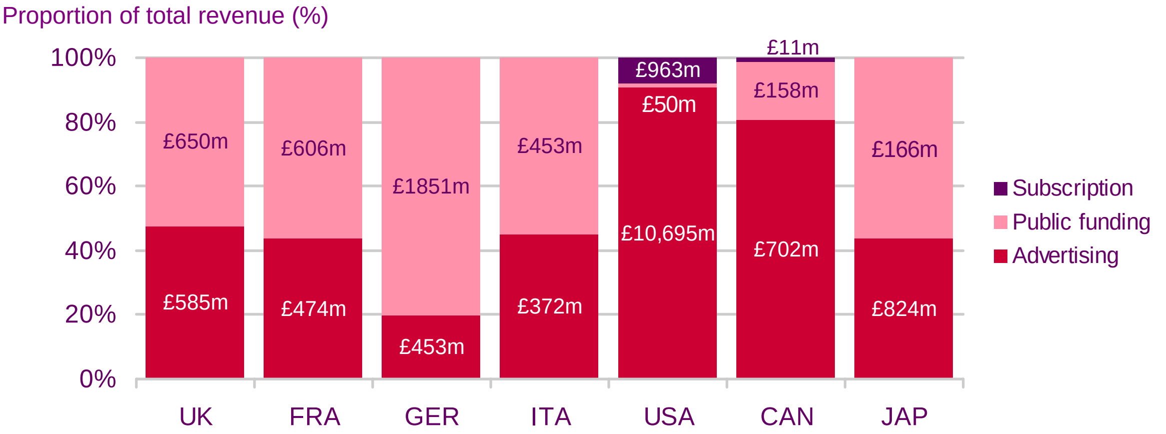
Source: Ofcom analysis based on data taken from PricewaterhouseCoopers Global Entertainment and Media Outlook 2007-2011, CRTC and CPB
Note: Ofcom has used an exchange rate of $1.84 to the pound. Interpretation of data is solely Ofcom's responsibility.

Five markets are predominantly publicly funded

Of the seven markets reviewed in this report, five receive over half of their revenue from public sources. In Germany £1.9bn, or 80% of industry revenue, was generated through public funding in 2006 (via ARD's PSB stations), more than in any of the other nations. This could be a function of the need to provide services for the 16 regions of Germany. Public funding for Radio France, NHK's radio networks in Japan, and stations from RAI in Italy, together accounted for around 55% of total industry revenues, while public funding in the UK accounted for a similar amount at 53%.

In the US there is a smaller level of publicly-funded radio, with around £50m of federal funding allocated by the Corporation of Public Broadcasting (CPB) for public radio services. This is equivalent to around 0.4% of all revenue, with the vast majority (almost £11bn, around 92% of the total) coming from advertisers, while subscriptions now account for around £963m or 8% of revenue. In Canada, an estimated 18% of revenue was drawn from public sources, with CBC Radio Canada spending around £158m on radio services. Advertising revenue in Canada reached around £700 million in 2006. This was the first full year of subscriber revenue for the Canadian industry, which accounted for £11 million of the total.

Figure 4.10 Proportion of radio industry revenue, by source

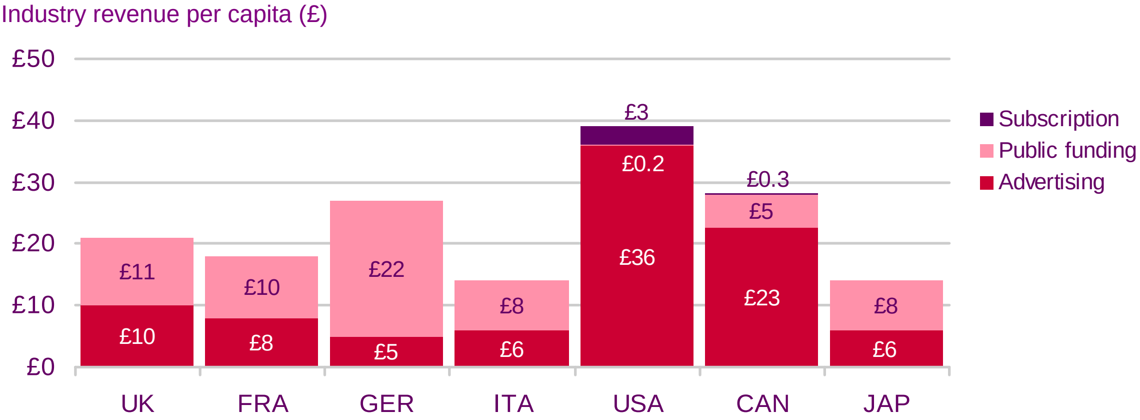


Source: Ofcom analysis based on data taken from PricewaterhouseCoopers Global Entertainment and Media Outlook 2007-2011, CRTC and CPB
Note: Ofcom has used an exchange rate of $1.84 to the pound. Interpretation of data is solely Ofcom's responsibility

US industry generates the highest per capita revenues

The strength of the US radio advertising market resulted in its radio revenues per head being higher than in all of the other countries in this study, at around £39 per person. The markets in Canada and Germany were the next highest, at £28 and £27 per head respectively, but these two markets have a different ratio of private and public funding sources. In Germany £22 was provided by public funding and £5 from advertising, while in Canada £23 came from advertising revenue and £5 from public funding, with an additional smaller element from new subscription radio revenues. At £21 per head the UK was slightly ahead of France (£18 per head), while operators in Japan and Italy each generated £14 per head.

Figure 4.11 Radio industry revenues per head



Source: Ofcom analysis based on data taken from PricewaterhouseCoopers Global Entertainment and Media Outlook 2007-2011, CRTC and CPB
Note: Ofcom has used an exchange rate of $1.84 to the pound; population figures used in this calculation can be found in the country profiles. Interpretation of data is solely Ofcom's responsibility

4.2.3 Radio's share of total advertising spend

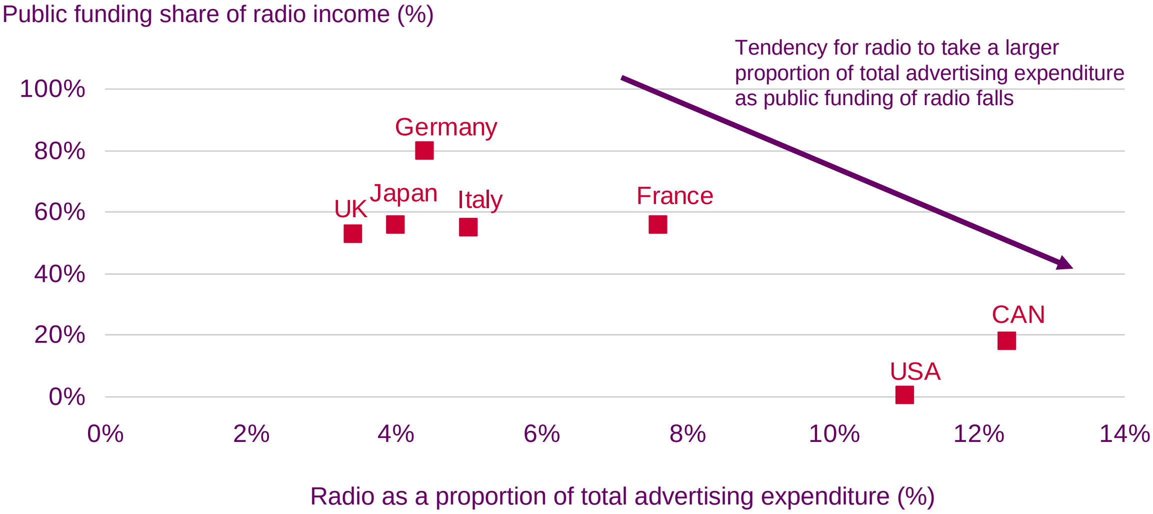
Radio in Canada and US has highest share of all ad revenue

The attractiveness of radio to advertisers varies substantially by country. Canada's radio industry attracts the highest proportion of advertising revenue of all the countries in this report, accounting for 12.4% of total spend. The US industry has also been successful at building a substantial radio advertising market, at 11% share of advertising. France's radio operators attracted 7.6% of all advertising spend in 2006, with the remaining countries in this study taking no more than 5% of total spend.

To some extent this may reflect patterns of public investment in radio by nation. With the exception of France, those countries with a smaller radio advertising market were also those where the level of public sector investment as a proportion of industry revenue was highest (Figure 4.12).

Germany has the highest level of public funding at 80%. At the opposite end of the spectrum, the US industry attracts a smaller amount of public funding (less than 1% of all radio industry revenues). Canada also attracts a lower level of public funding than Japan and the major European territories (an estimated 18% of total revenue).

Figure 4.12 Radio advertising as a proportion of total advertising spend and levels of public funding in 2006



Source: World Advertising Trends 2006, World Advertising Research Centre Ltd, Ofcom analysis, CRTC, CPB

Radio markets generally influenced by a PSB alongside large commercial groups

Five of the seven nations in the study have a radio market which is significantly influenced by a Public Service Broadcaster (PSB). Many PSB radio providers are also television broadcasters, such as the BBC in the UK, NHK in Japan, RAI in Italy, ARD in Germany, and CBC in Canada, although Radio France is a separate body to France Televisions.

In the US, the Corporation for Public Broadcasting (CPB) provides Federal funding for public radio stations, while public radio programme content is provided by organisations such as National Public Radio (NPR). Many public radio stations in the US obtain funding from a variety of sources, including advertising and other commercial revenues, alongside funding from local and central government, local businesses and other benefactors.

Most commercial radio markets are influenced by a number of main groups, with smaller independent stations often providing services for a more localised population or particular section of a community. Figure 4.13 below summarises the main radio operators for each country;

Figure 4.13 Major radio operators and their stations

Country	Operator/investor	Status	Example stations
UK	BBC	Public	BBC Radio 1-5Live, 1Xtra, 6Music, BBC7, 3 x nations, 42 local radio
	GCap	Private	Classic FM, XFM, Choice FM, Gold, Capital Radio
	Emap	Private	Magic. Kiss, Kerrang, Heat, The Hits, Mojo, Smash Hits, Q
	Chrysalis	Private	Galaxy, Heart, LBC, Arrow
France	Radio France	Public	France Inter, France Bleu, France Info, France Musiques, France Culture
	RTL Group	Private	RTL, Fun Radio, RTL2
	NRJ Group	Private	Chérie FM, Nostalgie, NRJ, Rire and Chansons
	Lagardère Active	Private	Europe 1, Virgin, RFM
Germany	ARD	Public	NDR 1, Bayern 1, Eins Live, WDR 4, MDR 1, SWR 4, hr1-4
	RTL	Private	Radio NRW, Antenne Bayern, Radio Hamburg, Radio Regenbogen
	Axel Springer	Private	Radio NRW, Antenne Bayern, Radio Hamburg, Radio RSH
	Hubert Burda Media Holding	Private	Antenne Bayern, Hit-Radio FFH, Hit-Radio Antenne
Italy	RAI	Public	Radio Uno, Radio Due, Radio Tre, Isoradio,Nottumo Italiano
	Eruppo Editoriale L'Espresso	Private	Radio DeeJay, Radio Capital, m2o
	Finelco Holding	Private	RMC Radio, Montecarlo, Radio 105 Network
	Suraci Group	Private	RTL 102.5 HIT Radio
USA	Clear Channel	Private	Owns 700 stations
	Cumulus radio	Private	Owns 344 stations
	CBS radio	Private	Owns 180 stations
	Cox	Private	Owns 80 stations
	NPR	Public	Supplies programming to 860 not for profit radio stations
Canada	CBC Radio	Public	CBC Radio One, Two, Three, Premiere Chaine, Espace Musique
	French Language	Private	Astral Media, Corus Entertainment, Cogeco Inc
	Commercial Network Groups	Private	Astral Media, Corus Entertainment, Rogers Media, CTVglobemedia, Newcap Inc
Japan	NHK	Public	NHK Radio 1 (AM), NHK Radio 2 (AM), NHK-FM
	Japan FM Network	Private	Tokyo FM Broadcasting
	Japan Radio Network	Private	TBS Radio (AM)
	National Radio Network	Private	Nippon Cultural Broadcasting (AM), Nippon Broadcasting System (AM)

Source: Ofcom

4.3 The radio listener

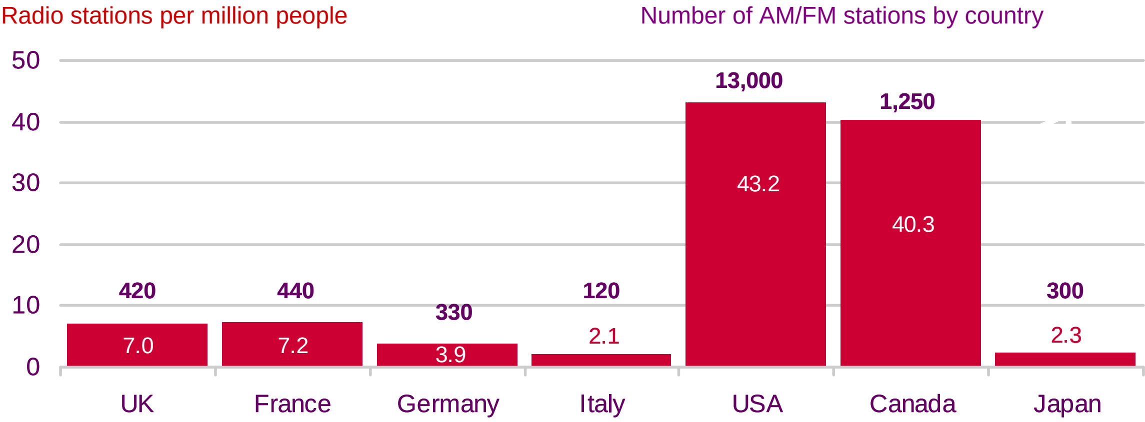
4.3.1 Station availability

There are more licensed radio stations in the US than in any other country

The US and Canada lead the way when it comes to the number of stations on air. In the US there are an estimated 13,000 licensed operators, equating to around 43 stations per million of population. The number in Canada is also substantial, at around 1,250 stations, equivalent to around 40 stations per million people. This contrasts with the Japanese market, where there are 300 stations on air, or 2.3 per million.

Among European countries, the UK, France and Germany have each licensed between 300 and 400 stations. However, it is worth noting that station availability does not always equate to station choice; as the figures below draw no distinction between local and nationally available networks. In the US, for example, there are no nationally available terrestrial radio networks (although the satellite services cover the whole country).

Figure 4.14 Number of broadcast-based local and national radio stations per head

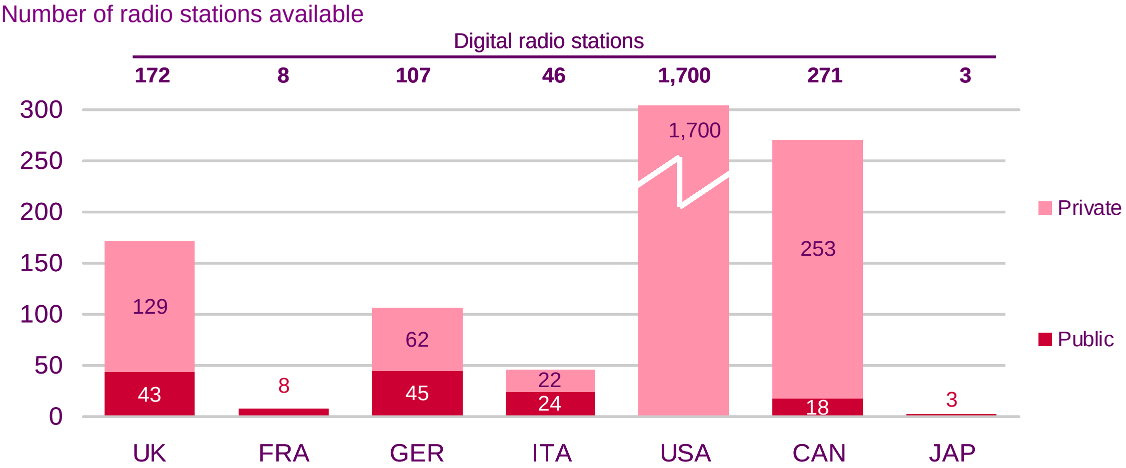


Source: Ofcom, AMR International Ltd, FCC, CRTC

In the European countries where DAB services are broadcast, there is substantial variation in the number of stations available. The relatively mature UK DAB platform carries 172 digital stations, although many of these are regional services and are therefore only available to part of the population via local multiplexes. Germany has 107 digital radio channels (including many regional services) while the Italian platform supports 46 services. Radio France currently provides the DAB services in France.

Sirius and XM in the US offer access to over 200 stations, many of which are available to all listeners regardless of location. There are also 1500 stations now broadcasting via HD radio with a further 3000 committed to do so in the future. Canadian listeners have access to 195 satellite radio channels through Sirius (110 channels) and XM (85 channels), alongside 76 stations broadcasting using DAB. DAB coverage is currently mainly available to people living in the Canada's southern cities.

Figure 4.15 Radio stations available over digital radio platforms



Source: Ofcom, National regulators and PSBs
Note: Excludes internet-only stations

Many countries broadcast international radio services

In many nations public radio operators also fund international radio services around the world. The services aim to serve ex-patriot communities and also to provide a national voice on world affairs.

The reach of these services can be substantial; for example The Voice of America (VoA) serves an audience of 94 million people around the world. Editorial remits are often designed to maximise global appeal by providing news and information across many territories and by broadcasting in local languages. VoA carries content in 44 languages, followed closely by the 43 languages offered by China Radio International. The BBC World Service broadcasts in 33 languages, with international services also provided by France, Germany, Italy, Canada and Japan.

Figure 4.16 Overseas radio services, 2006

Country	International service	Number of languages
UK	BBC World Service	33
France	Radio France International (RFI)	18
Germany	DW (Deutsche Welle) Radio	29
Italy	Radio RAI International	26
USA	Voice of America	44
Canada	Radio Canada International	9
Japan	NHK World Radio Japan	22
Russia	Voice of Russia	16
India	All India Radio	27
China	China Radio International (CRI)	43

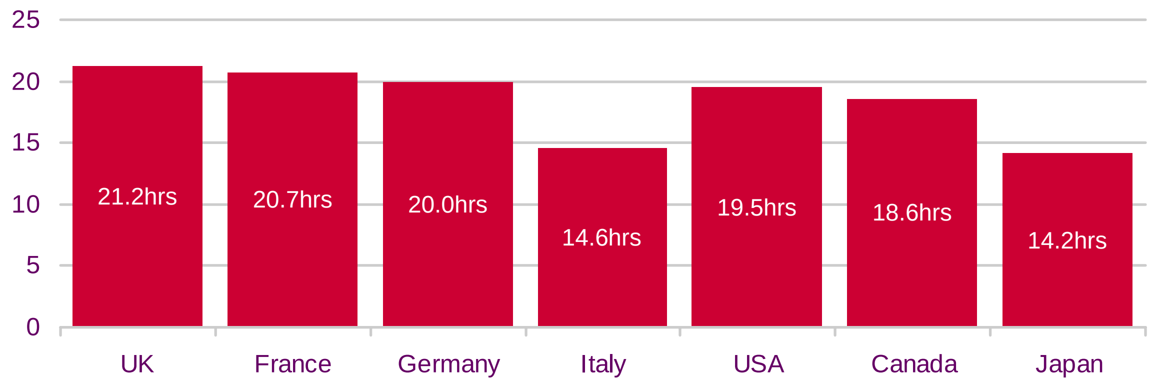
Source: Ofcom

4.3.2 Radio listening

Leading radio nations listen for around 20 hours per week

Average radio-listening data were not available for all of our core countries in 2006, but for completeness we show latest available figures for 2005 or 2006 in Figure 4.17. This shows that average listening is slightly higher in the UK at over 21 hours per week, followed closely by France, Germany and the US at around 20 hours per week each week. Despite the number of stations on offer, radio is slightly less popular in Canada, at under nineteen hours per week, and substantially less popular in Italy and Japan, with around 14 hours weekly.

Figure 4.17 Weekly listening hours, 2005/06
Average hours per head

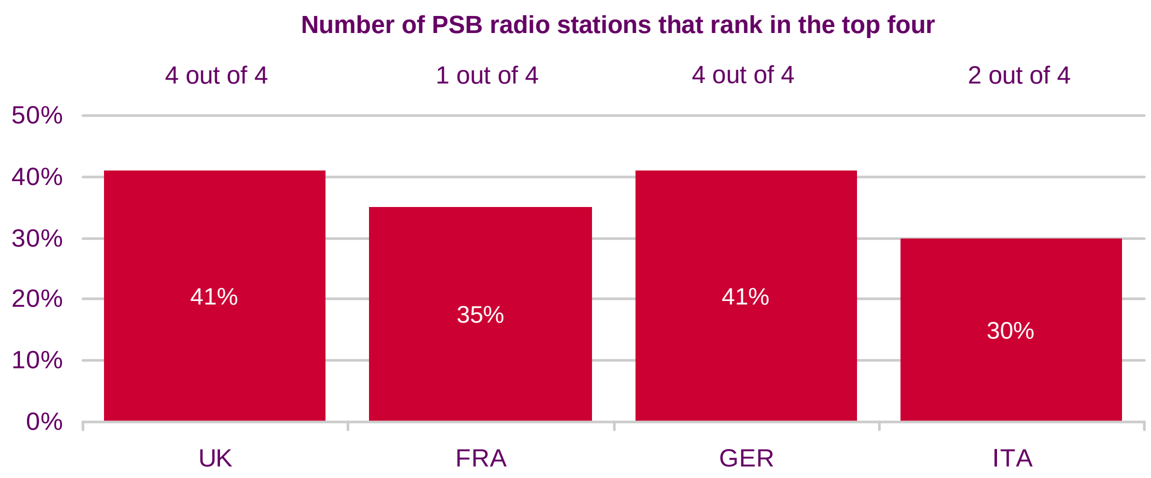


Source: RAJAR, AMR International Ltd, Mediametrie, CRTC, NHK

Listening concentrated among fewer stations in Europe

Listeners in the UK and Germany tend to concentrate their listening among a smaller number of stations; the four leading stations attract 41% of listener hours in both cases and the strength of public service broadcasters was shown by their taking all of the top four spots in the UK and Germany. French and Italian listeners tend to listen to a wider range of services, with the top four stations accounting for around a third of all listener hours. By comparison, commercial stations in France accounted for three of the leading four stations, with two commercial stations in the top four in Italy.

Figure 4.18 Top four stations: listening share



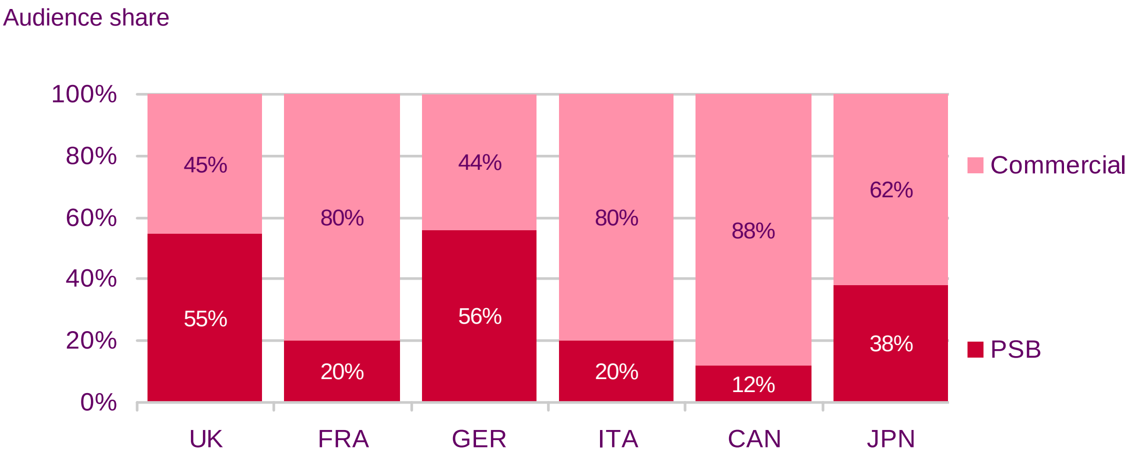
Source: RAJAR, CSA, RAI, ARD

4.3.3 PSB radio's share of hours highest in UK and Germany

The number of PSB radio networks appearing in the top four reflects the overall share of listening taken by PSBs, with the BBC in the UK and ARD's radio networks in Germany attracting 55% and 56% respectively of all listener hours in 2006. Japan's NHK radio stations held a 38% share in the same year, and Canada's CBC's stations attracted a share of around 12% of all listener hours. While French stations from Radio-Canada (SRC) have a 16.7% share in francophone Canada.

In the US an exact measurement of public radio programming share was not available. However, according to media research from Arbitron Inc, public radio reached 11.2% of the US population on a weekly basis in 2006. The National Public Radio (NPR) organisation provides public radio programme content for around 860 independent stations in the US, reaching an estimated audience of 26 million per week in 2007, almost 9% of the population. Overall there are an estimated 1,700 public radio stations operating in the US, with around 700 of these funded by the Corporation for Public Broadcasting (CPB). This means that around 13% of radio stations in the US are non-profit public radio stations.

Figure 4.19 Share of PSB listening, 2006



Source: RAJAR, CSA, ARD, RAI, CRTC, NHK