



Communications Market Report: Scotland

Research Document

Introduction

This is Ofcom's fourth annual review on Scotland, covering the markets for television, radio and telecommunications, and setting out detailed industry and consumer data. We have had very positive stakeholder feedback on previous reports, and this year we have decided to publish this report with the main UK Communications Market review, to give a consistent and timely picture of the communications market across the UK.

The review aims to provide an overview of the communications market for consumers and stakeholders. It also provides important analytical context for the discussions and decisions taken by government and stakeholders in the public and private sectors.

As with our previous reports, the analysis presented here paints a detailed picture of consumer behaviour, right down to the level of individual cities across the UK. This year, our analysis covers a range of consumer indicators in Aberdeen, Dundee, Glasgow and Edinburgh, in addition to the Highlands and Islands and the Border area.

The research shows that some gaps, in service availability, take-up and use, between Scotland and the rest of the UK are narrowing. However, it also highlights significant differences in these same areas between different parts of Scotland, particularly between rural and urban areas. Our research has also provided us with an opportunity to explore consumers' engagement with new technologies in Scotland. This year we examined the consumption of television content online and found substantial differences in its use across the UK.

We publish these reports to support Ofcom's regulatory goal to research markets constantly and to remain at the forefront of technological understanding; this also fulfils the requirements on Ofcom under section 358 of the Communications Act 2003 to publish an annual factual and statistical report. It also addresses the requirement to undertake and make public our consumer research (as set out in Sections 14 and 15 of the same Act).

The information set out in this report does not represent any proposal or conclusion by Ofcom in respect of the current or future definition of markets and/or the assessment of significant market power for the purposes of the Communications Act 2003, the Competition Act 1998 or other relevant legislation.

As with previous years' reports, the detailed data must be seen in the context in which they are collected. Care must be taken in drawing far-reaching conclusions at a city-based level, since sample sizes are comparatively small. We are publishing additional charts on our website which could not be accommodated in this report.

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Key points: television

- Digital TV take-up in Scotland 91% in 2009, up by six percentage points**
 Digital television take-up rose by six percentage points in the twelve months to Q1 2009, to 91% - the highest among the UK's four nations. The gap between take-up in Scotland and the rest of the UK widened – in Scotland's favour – by one percentage point over the year. By city, take-up ranged from 89% in Dundee to 94% in Aberdeen and 96% in Edinburgh. Digital switchover in the Scottish borders region is now complete; it will extend to the rest of the country in 2010/11 (**page 59**).
- Viewers in Scotland still watching the most TV, but by a smaller margin**
 People in Scotland spent more time watching TV (4.2 hours a day) than anywhere else in the UK (3.8 hours). This was in spite of a 1.2% reduction in hours per head in Scotland, compared to an increase of 0.3% across the UK as a whole (**page 59**).
- The BBC and STV spent £54m originating programmes for viewers in Scotland**
 The BBC and ITV1 spent £54m on new television content for viewers in Scotland during 2008. This amounted to 18% of the UK-wide total spend on content for viewers in a nation, and was down 8% year on year, compared to a 10% reduction across the UK. A further £50m (2.5% of total spend) was spent in Scotland producing programmes that were shown UK-wide (**page 47**).
- The £54m funded 1,743 hours of English language output in 2008 – up by 2.6% year on year**
 The 1,743 hours represented 14% of the UK-wide total hours of nations content, and included 899 hours of news, and 615 hours of non-news/non-current affairs. Total hours rose by 2.6% year-on-year (while UK-wide hours rose by only 0.7%) but they have contracted by 4.5% since 2003 (**page 50**).
- Fewer people in Scotland now watching audio-visual content online...**
 The number of households watching audio-visual content online fell by nine percentage points to 21% in Q1 2009, the lowest in the UK, and behind England (36%), Northern Ireland (33%) and Wales (25%). Take-up varied from 16% in some urban areas to 40% in Aberdeen (**page 39**).
- ...and viewing of catch-up TV is also low**
 7% of people in Scotland had used one of the broadcasters' online TV catch-up services in Q1 2009 (7%). This was well below the UK average of 16%. Take-up was highest in Edinburgh (15%) and lowest in Dundee and Glasgow (8% each) (**page 40**).
- Scotland's nations news bulletins second most popular, measured by hours**
 People in Scotland watched an average of 22 hours per head of nations news bulletins in 2008, unchanged on 2008 and six hours higher than the UK-wide average. STV's early evening news bulletins were most popular with viewers in Scotland (with a 25% share versus 19% across the UK); but the BBC bulletins' share of viewing was one percentage point below the UK-wide average (27% versus 28%) (**page 62**).

Key points: radio

- **A quarter of adults in Scotland own a DAB radio, compared to 41% nationwide**
26% of adults in Scotland owned a DAB digital radio receiver in Q1 2009. This was similar to ownership in Wales (27%), but below the UK average of 41%. Take-up was generally higher in the larger cities, with Edinburgh the highest at 38%, Glasgow at 31%, and Aberdeen 30%. Urban areas had an average ownership of 27%, compared to 22% in rural areas (**page 70**).
- **Listening via internet, mobile and MP3 lower in Scotland than across the UK**
Over a quarter (27%) of survey respondents in Scotland said they used digital TV to listen to radio channels (the UK average was 30%). Listening online had been tried by 8% of respondents in Scotland, which was lower than in the other nations: England (20%), Northern Ireland (12%), and Wales (9%). Ownership of an MP3 player was lowest in Scotland, at 30%, compared to the UK average of 41%. Listening to radio via a mobile phone was also lowest in Scotland, at 6% (UK average 12%) (**page 71**).
- **BBC spend second lowest for Scotland's radio services,**
BBC expenditure on the national stations for Scotland totalled £38.0m in 2008/09, down by £7.4m (16%) from £45.4m in 2007/08. This took average spend per head to £7.76 in 2008/09, the second lowest in the UK, with spend at £2.72 in England, £11.08 in Wales and £11.16 in Northern Ireland (**page 65**).
- **Commercial radio revenues in Scotland down by 5% in 2008**
Commercial radio stations broadcasting in Scotland generated £41.5m of revenue in 2008, down by £2.2m (5%) on 2007. This took commercial radio revenue per head to £8.48, the second highest among the UK nations, with Northern Ireland at £8.63, England at £7.54, and Wales £6.12 (**page 65**).
- **One in five listen to BBC Radio Scotland / nan Gàidheal**
Almost a million (940,000) adults listened to BBC Radio Scotland/ nan Gàidheal in an average week in 2008. This equates to over one in five (22%) of the population using the national services every week. Total weekly listening hours to BBC Radio Scotland / nan Gàidheal fell by 2.9% in 2008 (**page 69**).
- **12 community stations now serving Scotland**
The number of community radio stations on air increased over the year, with 19 community licences currently awarded in Scotland, 12 of which are now broadcasting to local communities in Aberdeen, Cumbernauld, Edinburgh, Glasgow, Govan, Leith, Midlothian, Orkney, Saltcoats and Adrossan, and St Boswells (**page 72**).

Key points: telecoms

- **Six in ten households in Scotland have a broadband connection**
 The proportion of households in Scotland with a broadband connection increased from 53% in Q1 2008 to 60% in Q1 2009, compared to 68% across the UK as a whole. The gap between (slower) take-up in Scotland and the (faster) UK-wide average doubled over to eight percentage points. The highest take-up of broadband was in Aberdeen (72%) and Edinburgh (72%) and lowest in the Border areas (54%) and Glasgow (39%) (**page 90**).
- **Mobile broadband gains market share**
 7% of households in Scotland had a mobile broadband connection at the end of 2008 – the lowest in the UK. Households in Aberdeen were twice as likely (15%) to have a mobile broadband connection as those in Glasgow (6%). Take-up in England stood at 13%, Wales 11% and 8% in Northern Ireland (**page 90**).
- **More than one in four households in Glasgow are mobile-only**
 With 27% of households using a mobile connection for all their telephony needs, people in Glasgow were more likely to rely solely on their mobile than in any other UK city. Across Scotland as a whole, 15% of households were mobile-only in Q1 2009, slightly higher than in the UK as a whole (12%) and up three percentage points from Q1 2008 (**page 91**).
- **Scotland has the highest number of local exchanges that are not DSL-enabled**
 About 4,200 households in the UK (out of a total of over 25 million) were not connected to an exchange able to provide DSL at the end of 2008, and more than 3,000 of these were in Scotland. In total, 21 BT local exchanges in Scotland (out of the UK total of 28) had not been DSL-enabled by the end of 2008, unchanged from a year previously (**page 79**).
- **LLU broadband availability in Scotland is the lowest among the nations**
 The proportion of households in Scotland connected to an unbundled local exchange was the lowest among the UK nations at the end of 2008, at 70%, although it was three percentage points higher than a year previously. But growth in the previous three years was joint second highest, at 62 percentage points, and the gap between availability in Scotland and across the UK narrowed from 32 pp to just 14 pp (**page 82**).
- **Cable broadband availability second highest both in urban and rural areas**
 In Scotland 46% of urban households and 15% of rural ones were passed by Virgin Media's broadband network, each lower than the UK-wide figure (56% and 22%), but higher than the comparable figures for Wales and Northern Ireland (**page 80**).
- **Making telephone calls using VoIP has grown sharply in rural Scotland**
 VoIP use in Scotland stood at 10% of households in Q1 2009, just behind the UK average of 12%. VoIP use has grown by eight percentage points in rural areas since Q1 2008, to reach 18%, but overall, the gap between use in Scotland and the UK as a whole widened by three percentage points year on year (**page 38**).

Key points: converging markets

- **Four in ten homes in Scotland took a bundle of services in Q1 2009**
42% of adults in Scotland bought communications services in a bundle from a single provider in Q1 2009 – an increase of four percentage points on 2008; but the gap with the UK-wide figure (46%) grew by three percentage points. Service bundling in Scotland was behind England (48%) but ahead of Northern Ireland (39%) and Wales (35%). Take-up was highest in Dundee, at 65%, and lowest in rural areas (22%) (**page 37**).
- **One in five households in Scotland use social networking sites**
Take-up of social networking has grown by five percentage points in Scotland since 2008, to reach 20%. The gap with the UK-wide average (30%) grew by five percentage points over the period. Take-up was highest in Aberdeen (31%) and lowest in Glasgow (12%) (**page 43**).
- **Just under half of households in Scotland have an advanced games console**
44% of households in Scotland had either a Wii, a PS3, or an Xbox 360 in Q1 2009. This was behind Northern Ireland (51%) and England (45%), but ahead of Wales (36%). Within Scotland, take-up was highest in Aberdeen (52%) and lowest in Glasgow (33%) (**page 35**).
- **Uneven distribution of HD disc sales in Scotland**
In 2008 Blu-ray and HD-DVD disc sales reached 7.9 discs per 100 people in Grampian, 7.4 in Central Scotland, and 5.4 in the Border region. The UK average was 7.2 (**page 36**).



The Communications Market 2009

1 The market in context

1.1 Scotland: setting the scene

1.1.1 Introduction

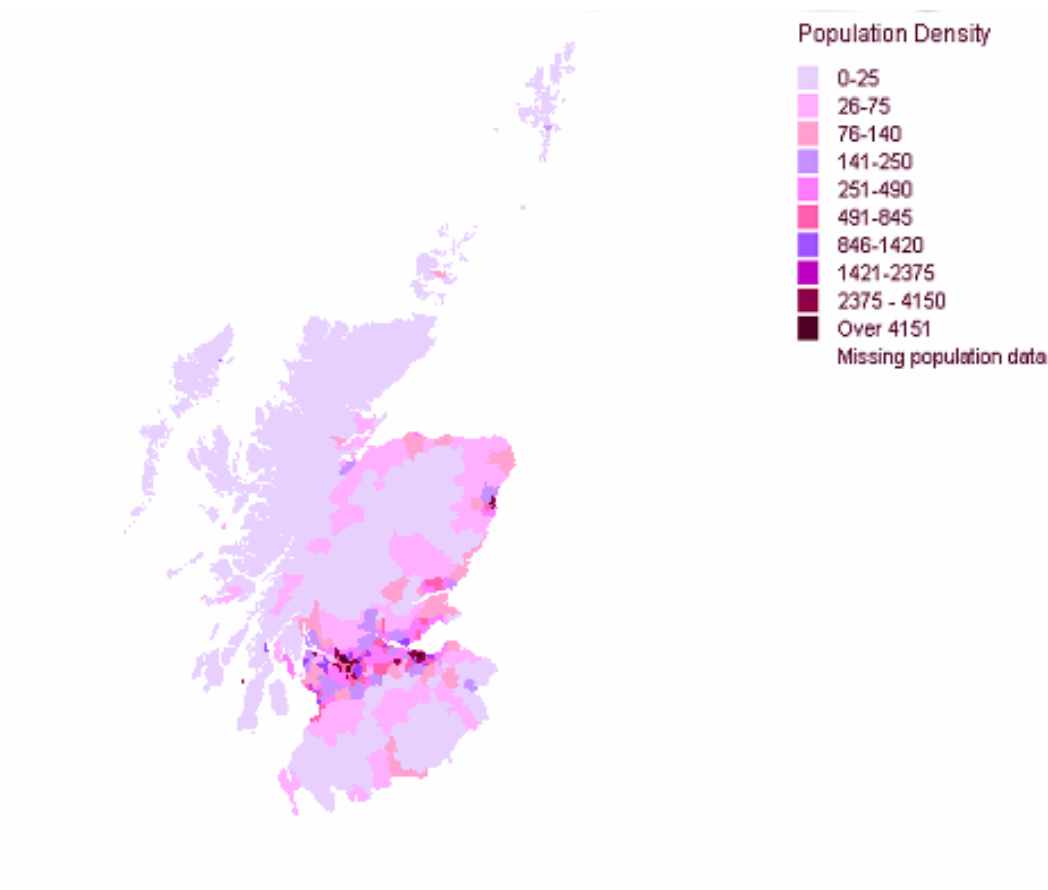
The following sections analyse some of the socio-demographic characteristics that influence communications services across Scotland, including population, socio-economic groups and age, in addition to geography and current political structure. Many of the statistical data in this section are taken from the 2001 Census and, as such, have not changed materially since the 2008 report.

1.1.2 Socio-demographic features

Population

Scotland has a population of 5.1 million, which represents approximately 9% of the UK total. This population comprises 2.2 million homes, and as Figure 1.1 shows, it is primarily concentrated around Edinburgh and Glasgow, and more along the coast than inland (Figure 1.1).

Figure 1.1 Population density map

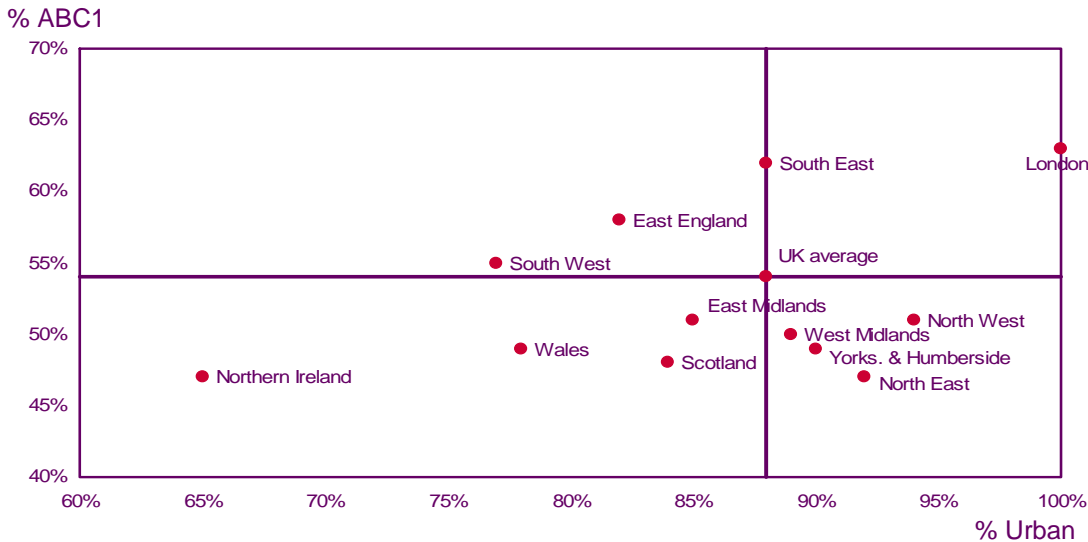


Source: National Statistics website: www.statistics.gov.uk 2001 Census data. Crown copyright material is reproduced with the permission of the Controller Office of Public Sector Information (OPSI).

Figure 1.2 illustrates the distribution of the UK population according to the proportion of ABC1s and the percentage of the population living in urban areas. Scotland has a higher

proportion of C2DEs (52%) than the UK average of 45%, and proportionally more people living in rural locations – 16%, above the UK average of 12% (although lower than either Wales or Northern Ireland). ‘Rural’ areas are defined as settlements with fewer than 2,000 people and less than ten miles from a larger settlement. More than a quarter (27%) of Scotland’s population live in the four main cities of Edinburgh, Glasgow, Dundee and Aberdeen.

Figure 1.2 Geographic and socio-economic profile of the UK

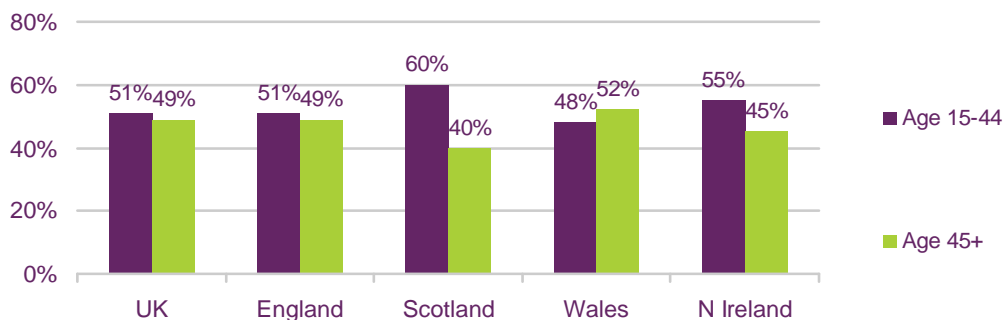


Source: Indicative analysis based on Business Geographics Urban Indicator and Office of National Statistics, Census 2001. National Statistics website: www.statistics.gov.uk. Crown copyright material is reproduced with the permission of the Controller Controller Office of Public Sector Information (OPSI).

Age profile

The population in Scotland has a relatively large proportion of adults aged 15-44 compared to the UK average (Figure 1.3). The south of Scotland (Dumfries and Galloway, and the Scottish Borders) has an unusually high percentage of over-65s – around 20% of the total population. Age can be related to take-up of some new communications services, so the age profile should be considered when comparing use of communications services in different geographic areas.

Figure 1.3 Age profiles across the UK's nations



Source: Office of National Statistics, Census 2001

Language and culture

An estimated 92,000 people in Scotland, approximately 2% of the population in Scotland, say they have some Gaelic language ability¹, with these being predominantly concentrated in the Eilean Siar, Highland and Argyll and Bute areas, with pockets of Gaelic speakers in the major cities. Other dialects include Lallans (the term given to the variety of Scots spoken in the Lowlands), and Doric – a name once given to any rural dialect, but now applied only to that from the north-east of Scotland in Aberdeenshire.

Scottish broadcasting seeks to reflect Scotland's traditionally strong sense of identity, both at a national level and within the strong regional identities around the country.

Income

Figure 1.4 illustrates the average weekly gross income and expenditure of a household in Scotland in the calendar year 2007. These figures have been updated from our 2008 publication to reflect the revisions made by the Office of National Statistics, published in 2009.

Both weekly household income and expenditure in Scotland (£602 and £429 respectively) are lower than the UK average (£647 and £454). Nineteen per cent of adults in Scotland, around 960,000 people, live in low-income households. This may adversely affect take-up of some communications services and, as a result, also affect the economic viability of providing services to these areas.

Figure 1.4 Average weekly household income and expenditure



Source:

Office of National Statistics, *Family Spending: 2008 edition*.
National Statistics website: www.statistics.gov.uk Crown copyright material is reproduced with the permission of the Controller of HMSO

Employment

Scotland had an unemployment rate of 6.6% (176,000 people), compared to 7.2% in the UK (2,261,000 people) for the period Feb-Apr 2009.²

1.1.3 Geography

The landscape and topography of Scotland, particularly in the Highlands and Islands, affect television, radio and mobile phone coverage in these areas. The central and north west Highlands, which feature the highest peaks in the UK, can pose particular difficulties for

¹ Scotland's Census 2001 – Gaelic report

² Scottish Parliament Information Centre (SPICe), 17 June, Unemployment Briefing

communications providers, although initiatives are ongoing to improve and extend quality and quantity of service. Areas in the south of the country also face many of the same problems as those in the north.

The major cities in Scotland are: Edinburgh (capital city), Glasgow, Aberdeen, Dundee, Inverness and Stirling. Other major towns include: Ayr, Dumfries, East Kilbride, Falkirk, Greenock, Paisley, Perth, Fort William, Kirkwall, Lerwick and Stornoway.

1.1.4 Politics

Scotland currently has 59 members of the UK parliament – 38 Labour, 12 Liberal Democrat, seven Scottish National Party (SNP) and one Conservative. A by-election is pending for the Glasgow North East constituency as of July 2009.

Following the election held in May 2007, the Scottish Parliament comprises 47 Scottish National Party MSPs (SNP), 46 Labour, 16 Conservative, 16 Liberal Democrat, two Scottish Green, one independent and one with no party affiliation. These MSPs were elected by a mixed member proportional representation system, with 73 representing individual constituencies, and 56 from eight member regions.

The Scottish Parliament has responsibility for areas such as health, local government (including education, housing, social work, roads and planning), sport and arts, agriculture, forestry and fishing, economic development, tourism, heritage, emergency services, environment, public records and some aspects of transport. The Parliament has taken an interest in broadcasting, primarily within its remit for culture, while the Scottish government is also active in the field of broadband provision.

There are 32 Unitary Local Authorities in Scotland. Following the elections in 2007 very few have majority administrations. Most operate either as coalitions or minority administrations.

In June 2009 the SNP won the largest share of the European election vote for the first time, coming first in 22 of the 32 council areas. They took 29.1% of the vote, ahead of Labour's 20.8%, Conservative 16.8% and Liberal Democrat 11.5%. This translated into two MEPs each for the SNP and Labour, with one each for the Conservatives and LibDems.

1.2 Recent developments in Scotland

1.2.1 Television

Digital switchover

The Selkirk transmitter and its 11 relays serving Scottish Borders completed switchover on 20 November 2008. Digital switchover got under way in south-west Scotland from the Caldbeck transmitter and its 48 associated relays on 24 June 2009, and is due to be completed on 22 July 2009. The STV regions begin to switch in Spring 2010, starting in Orkney and Shetland. Precise dates for STV North will be announced towards the end of July 2009.

Scottish Broadcasting Commission

The Scottish Broadcasting Commission (SBC) published its final report in September 2008. It proposed a Scottish Digital Network (SDN), which gained all-party support in the Scottish Parliament. The SBC suggested that the new network could place a strong emphasis both on news for Scotland, and on non-news programmes reflecting Scottish culture.

With this originated output supported by archive material from BBC and STV, and distributed by broadband as well as television, the SBC put the estimated annual cost at £75m. A separate analysis, commissioned by Ofcom, forecast the costs at a similar level. The SBC recommended that the funding for the channel should come from the UK government, and be derived from the proceeds of the sale of cleared digital spectrum around the UK. Ofcom suggested an approach whereby the SDN might operate as a competitive fund, which would support a series of interconnected initiatives in Scotland, e.g. Scotland-wide television, local television, online and radio services. Ofcom stated that it was for the UK and Scottish governments to consider funding to decide what is best for viewers and citizens in Scotland.

STV

STV has stated that its vision is to deliver high-quality PSB and strong home-grown programming across Scotland. It reported a strong financial performance in 2008 as a result of this strategy, achieving performance targets in all areas of its business despite the challenging economic context³. It has, to a significant extent, opted out of the ITV network, and is investing in its digital business; combining on-line content with new commercial initiatives. It has announced plans to launch online city sites, which will improve the localness of its news coverage and increase the services offered to its audiences. 2008 was a landmark year for *Taggart*, as the show celebrated its 25th anniversary, filmed its 100th episode and went into production with its largest-ever commission of ten hour-long episodes for ITV.

Digital Britain

Subject to the outcome of a consultation on contestable funding, the UK government has announced that it may launch three independently-funded news consortia on a pilot basis, with one in Scotland. It aims to launch these in 2010. Third parties wishing to provide national or regional news via slots on the ITV network will need to meet essential criteria, including being either an existing news provider with an established audience in Scotland (e.g. a local newspaper or radio station), a media production company or other broadcast, local television or multi-media company with a track record of delivering news or current affairs in Scotland.

³ <http://www.stvplc.tv/content/mediaassets/doc/SPEECH%20.pdf>

BBC Scotland

BBC Scotland has around 1,330 staff supporting TV, radio and online services across all genres, for Scottish and UK outlets. Its headquarters at Pacific Quay, Glasgow, is the BBC's biggest broadcasting centre outside London, and represents an investment of £188m in a high definition, fully integrated cross-media production facility. During the past year a number of networked programme strands were identified for transfer to Scotland, including *The Weakest Link*, *Imagine* and *Newsnight Review*.

BBC ALBA

BBC ALBA, a Gaelic digital broadcast service, was launched in September 2008 as the result of a partnership agreement between BBC Scotland and MG ALBA. It is available on Sky and Freesat with programming also online. The BBC Trust will examine the option of broadcasting on DTT (Freeview) later this year. The service offers one to two hours of originated television programming each night, incorporates a half-hour nightly news service from BBC Scotland (*An Là*) and takes at least 50% of its commissions from the independent sector. During 2008, the channel broadcast 694 hours of output. BBC Scotland's Gaelic radio service, *Radio nan Gàidheal*, acts as a sustaining service when televised programmes are off air (BBC ALBA transmits each night from around 5.00PM to 11.30PM) and BBC ALBA is also supported by a dedicated website.

Scottish Premier League rights

The Scottish Premier League has now agreed a five-year deal with Sky and ESPN to screen 60 live matches per season. This deal replaces the one struck with collapsed broadcaster Setanta. The broadcast slots will remain as they currently stand, and the SPL's existing broadcasting deals with BBC, BT Vision, MG ALBA and Sportfive will be unaffected by the new deal.⁴

Local TV

Organisations across Scotland are expressing an interest in local TV provision in many areas; the Highlands and Islands, Tayside and the south of Scotland. The fact that the Border TV area was the first to be switched over in Scotland was a key factor in the high levels of interest there.

A new webcast station – Channel Fife at www.channel-fife.tv - was launched as a pilot during the Glenrothes by-election, with up to four dedicated TV news teams reporting stories from across Scotland Kingdom. Other programming broadcast included a daily magazine show.

Launch of 4iP

4iP had its Scottish launch in October 2008, in partnership with Scottish Enterprise and Scottish Screen. Announced as part of Channel 4's *Next on 4* strategic blueprint, 4iP is an innovation fund that aims to stimulate public service content provision on digital media. It will invest up to £50m in the web, mobile and games over the next three years.

1.2.2 Radio

Talk 107, serving the Edinburgh area, was closed on Christmas Eve 2008, as its owner, UTV Radio, could not find a buyer for it.

⁴ <http://www.scotprem.com/content/default.asp?page=s2&newsid=7990&back=home>

The number of community radio stations in Scotland continued to grow in 2008/09, with 14 community licences awarded over the period. This took the total number awarded in Scotland to 20, although one has been handed back. Twelve community stations are already broadcasting to local communities in Aberdeen, Cumbernauld, Edinburgh, Glasgow, Govan, Leith, Midlothian and Orkney.

1.2.3 Telecoms

Broadband Reach Project

On 5 October 2007, the Scottish Government launched the Broadband Reach Project, whose aim is to deliver an affordable, sustainable, broadband service to those households and businesses located in broadband not spots (those unable to access a broadband service due to their distance from the telephone exchange) which notified the Scottish government of their broadband demand. Following a competitive open procurement, the Scottish Government signed a contract with Avanti Communications in June 2008.

Avanti is using a mixture of technologies, including satellite and wireless, to fulfil its contract to provide basic (512Kbps) broadband services to eligible premises. The project started in July 2008, and the main phase was successfully completed in May 2009, with around 2,100 premises connected throughout Scotland. Avanti is now delivering a service to late registrants to the project.

Pathfinder projects

Work continues on the Scottish government-funded Broadband Pathfinder Projects, which use an aggregated approach to provide high-capacity broadband links to schools, libraries, local authorities and other public sector sites throughout rural areas.

The £32m South of Scotland Broadband Pathfinder Project, run jointly by Dumfries and Galloway Council and Scottish Borders Council, was rolled out by Cable & Wireless Worldwide. The project is now complete, with 282 sites connected. Pathfinder North, involving local authorities in Argyll and Bute, Highland, Moray, Orkney Islands and the Shetland Islands, is a £70m project, also contracted to Cable & Wireless Worldwide, which will eventually connect over 800 sites. By the end of May 2009, 74.6% of the Pathfinder North network was live. Taynuilt Primary School, in Argyll and Bute, became the 600th connected site in the broadband roll-out programme.

BT and superfast broadband

Further plans to roll out superfast broadband have been announced, with another four locations to be covered by fibre broadband services. The additional exchanges where this will become available are Craiglockhart and Corstorphine in Edinburgh, and Giffnock and Bridgeton in Glasgow. Bridgeton, in the East side of Glasgow, is a key location in the Clyde Gateway Regeneration project and for the 2014 Commonwealth Games in the city. The new locations will take the number of super-fast lines in Scotland to almost 70,000.

BT Openreach committed to deploy fibre to the cabinet (FTTC) technology in Edinburgh and Glasgow in early 2010 as part of the Scottish roll-out of its £1.5bn project. The fibre-based broadband services will offer speeds of up to 40Mb/s and potentially up to 60Mb/s. By March 2009, BT had upgraded 33 Scottish exchanges as part of the roll-out of its 21st century next generation network. The exchanges already enabled are in Aberdeen, Alloa, Glasgow, Edinburgh, Dunfermline, Musselburgh, Falkirk, Paisley, Hamilton, Inverness, Livingston, Ayr, Perth, Dalkeith, Kilmarnock and Stirling.

Connected Communities

The Connected Communities Broadband Network in the Outer Hebrides continues to grow, with 35 new relay sites now completed, significantly expanding network coverage to many of the smallest villages and hamlets throughout the islands. As well as enhancing the coverage within the Connected Communities area, the service now provides broadband to many areas already enabled by BT but beyond the distance from an exchange where it is possible to receive ADSL services. When complete, the Outer Hebrides expects to have the most complete coverage of any rural area in Scotland. The network connects hospitals, schools, health centres, the fire service, airports and learning centres, as well as business and residential subscribers.

Other broadband initiatives

These include the Fibrecity project in Dundee, being built by Fibrecity Holdings at a cost of £30m and using a fibre optic network to bring super-fast broadband (up to 100 Mb/s) to more than 70,000 households and businesses in the city. Fibrecity Dundee is using part of Scottish Water's waste water network to lay the fibre optic cable across the city. Link: <http://www.fibrecity.eu/dundee/index.htm>

Fibre optic cable is being installed in new homes in Cambuslang, Glasgow, to provide next-generation broadband access. The housing provider, West Whitlawburn Housing Co-operative, is also setting up a communication co-operative – owned and managed entirely by the community it serves – that will provide TV, phone and internet services at reduced costs in comparison with major providers.

Recent developments at THUS and Cable & Wireless

Cable & Wireless acquired the Scottish-based telco, THUS, in October 2008. Since then it has focused on integrating the two networks and migrating THUS large enterprise customers. Cable & Wireless has brought all its Scotland staff together at principal sites at Glasgow and Livingston, and plans to roll out its new wireless FMC (fixed mobile convergence) product which will remove the need for desk phones.

Project Atlas

Last year's *Communication's Market Report for Scotland* referred to Project Atlas, a Scottish Enterprise initiative with an EU-approved strategic investment in telecommunications technology, using advanced fibre-optic infrastructure and equipment co-location facilities. It gives SMEs access to high-bandwidth e-business services on six business parks, in Aberdeen, Dundee, Edinburgh, Glasgow, Bellshill and Dumfries. Service providers (telcos, ISPs and other service providers such as off-site data storage) are using the neutral open-access network to reach customers over advanced broadband connections. The service started in early 2007 and the open access networks are now being offered to telcos and other service providers on a supplier-neutral basis. Several service providers have already connected, introducing the provision of services to on-park businesses, with others in the process of connecting. End-users are now realising the benefits of advanced broadband at competitive prices.

Case study – Glasgow subway WiFi - update

In January 2008, Strathclyde Partnership for Transport (SPT) and communications infrastructure operator Arqiva announced a deal to provide a combined cellular and WiFi network in Glasgow's subway stations. This is now available to subway passengers.

Two phone companies - O2 and Vodafone - have connected to the neutral host provider and capacity exists for other companies' networks to be hosted. The subway is currently in the process of tendering for the provision of digital content, to be delivered by flat-screen technology, which will show digital advertising content, security information and general location information. SPT is the owner and operator of Glasgow's subway system and this particular project is part of an ongoing programme of subway modernisation and development.

Innovation Centres Scotland Ltd

Innovation Centres Scotland Ltd (ICS Ltd) is a specialist economic development provider of innovation and technology services. As well as operating Hillington Park Innovation Centre and Alba Innovation Centre, ICS Ltd manages Wireless Innovation, Scotland's national initiative for wireless and mobile technologies, on behalf of Scottish Enterprise.

Wireless Innovation plays a role in providing business development, market intelligence and product development support to over 240 companies developing wireless, mobile and digital media products and services across Scotland.

Transport initiatives

Transport Scotland is undertaking work to analyse the options for wireless connectivity on Scotland's rail services. Its aim is to ensure not only that progress is made wherever possible, but also that the technology solution chosen is not in danger of being quickly outmoded. It has decided to conduct further research, to develop the optimal commercial model for achieving this.

Scotland's games sector

Scotland is home to games companies of global significance, such as Realtime Worlds which has secured over \$80 million of venture capital since 2006 and Rockstar North, developer of Grand Theft Auto, the fastest-selling global entertainment product of all time. Over half of Scotland's games development studios are based in Dundee. More than 500 people are employed in Scotland's games sector which generates over £20m annually. Price Waterhouse Coopers predicts compound growth rates of 17% and 19% for online and wireless games respectively.

1.2.4 Media literacy

Towards the end of 2008 a network was formed, called Media Literacy in Scotland. This is a partnership between Ofcom Scotland, BBC Scotland, Scottish Screen, Skills Development Scotland and Learning and Teaching Scotland. The aim of the partnership is to provide a forum for the sharing of expertise, information and best practice on the development of media literacy in Scotland; and to act as a vehicle for the development of strategic thinking and co-ordinated activity, with a view to achieving greater media literacy in Scotland.

Ofcom has provided support to Age Concern Edinburgh's IT computer training project (ACE IT) which seeks to encourage new and non-confident users, specifically in the 50+ age group, to learn basic computer, internet access and email skills. Ofcom helped to provide

training for a number of volunteers who will work with older people, resident in care homes, as part of ACE IT's '*Moose in the Hoose*' project. In 2008 ACE IT won the Nominet Best Practice Challenge Award and this year '*Moose in the Hoose*' has been nominated in the 'Best Development Project' category.

1.3 Scotland's communication market in the UK context

This section sets out a selection of headline figures for Scotland's communications market, putting them into a UK-wide context.

1.3.1 Availability of communications platforms and services

A rising number of homes in Scotland are connected to unbundled telephony exchanges – but the gap with the UK average widened during 2008/09.

The availability of communications services in Scotland varies to some degree, from near-universal coverage for well-established services such as fixed lines, to lower coverage for more recently-launched services:

- Digital terrestrial television coverage for all six multiplexes stood at 82% in Scotland in 2009, unchanged on 2008 and the highest among the four nations, where coverage averaged 73% (see Figure 1.5). Scottish households in the Borders region were among the first to experience the impact of the digital switchover programme during 2008, while the rest of the country will switch to DTT in 2010/11. At that point, the DTT footprint will rise, to offer viewers in Scotland near-universal coverage.
- We believe that 100% of homes in Scotland have access to a fixed-line telephone service – in line with the UK average.
- DSL broadband infrastructure is less widely available in Scotland than elsewhere in the UK. The proportion of homes in Scotland connected to a DSL-enabled telephone exchange stood at 99.87% in 2009, behind the UK average, with homes in the other three nations estimated to have 100% DSL coverage. Broadband cable infrastructure was available to 38% of homes in Scotland (unchanged on 2008), running behind the nationwide figure of 49%, though substantially ahead of the figures in Wales (24%) and Northern Ireland (30%).
- Seven in ten homes in Scotland were connected to an unbundled exchange in 2009, up by two percentage points on 2008, behind the UK figure of 84% and the lowest among the UK's four nations. The gap between the UK average and Scotland widened by one percentage point over the period to 14 percentage points in 2009.
- Eighty nine per cent of the population in Scotland lived in a postcode district that offered at least 90% coverage from one mobile operator or more – this figure is behind the UK-wide average figure of 98%. The comparable figure for third-generation mobile phone coverage stood at 67% (compared to the UK-wide average of 87%).

Figure 1.5 Availability of communications infrastructure

Platform	UK-wide			England	Scotland	Wales	N Ireland
	2009	2008	Change				
Fixed line	100%	100%	0%	100%	100%	100%	100%
2G mobile ¹	98%	-	-	99%	89%	92%	92%
3G mobile ²	87%	-	-	91%	67%	67%	43%
DSL ³	100%	99.6%	0.0%	100%	99.9%	100%	100%
Cable broadband ⁴	49%	49%	0%	53%	38%	24%	30%
LLU ⁵	84%	80%	+4	87%	70%	76%	71%
IPTV ⁶	15%	15%	0%	-	-	-	-
Digital satellite TV	98%	98%	0%	-	-	-	-
Digital terrestrial TV ⁷	73%	73%	0%	73%	82%	63%	58%
DAB digital radio ⁸	90%	90%	0	-	-	68%	-

Sources: Ofcom and:

1. Proportion of population living in postal districts where at least one operator reports at least 75% 2G area coverage. Sourced from GSM Association / Europa Technologies (Q1 2008)
2. Proportion of population living in postal districts where at least one operator reports at least 75% 3G area coverage. Sourced from GSM Association / Europa Technologies (Q1 2008)
3. Proportion of premises able to receive DSL services at 512kbit/s based on data reported by BT
4. Proportion of households passed by Virgin Media's broadband-enabled network
5. Proportion of households connected to an LLU-enabled exchange
6. IPTV availability figure calculated on the assumption that Tiscali TV is now available in London, Stevenage, Birmingham, Newcastle and Edinburgh
7. Availability of services from all six digital multiplexes
8. DAB digital radio coverage figure based on a Digital One estimate. Both the BBC and Digital One built new transmission masts during 2006/07

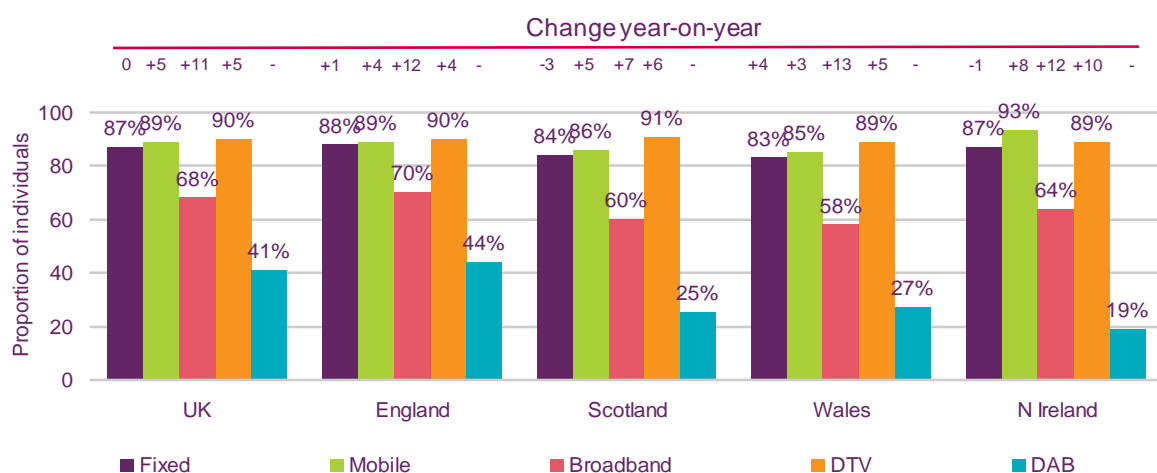
Take-up of communications platforms and services

Broadband take-up is rising in Scotland, but the gap with the UK average has widened

Perhaps connected to levels of availability, take-up of communications services in Scotland varied to some extent in Q1 2009:

- Digital television take-up among households in Scotland rose by six percentage points to 91% in Q1 2009 – the second highest increase in take-up in the UK (behind Northern Ireland). The gap between take-up in Scotland and the UK-wide average narrowed by one percentage point between 2008 and 2009 (Figure 1.6).
- Twenty-five per cent of homes in Scotland had one or more DAB digital radio sets in Q1 2009, compared to 41% across the UK.
- Eighty-four per cent of individuals in Scotland also claimed to have access to a fixed-line telephone in Q1 2009, three percentage points behind the UK-wide average. Mobile adoption, at 86% (five percentage points higher year-on-year), stood three percentage points lower than the UK figure of 89%. The gap with the UK average narrowed by one percentage point year-on-year.
- Residential broadband take-up (fixed or mobile) was among the lowest in the UK in Scotland (along with Wales), at 60% of homes in 2009. Growth year-on-year was low, with 7% more homes in Scotland taking a broadband connection at home during 2008/09; the result was a widening gap between take-up in Scotland and in the UK as a whole.

Figure 1.6 Patterns of technology adoption across the UK's nations



Source: Ofcom research, Quarter 1 2009

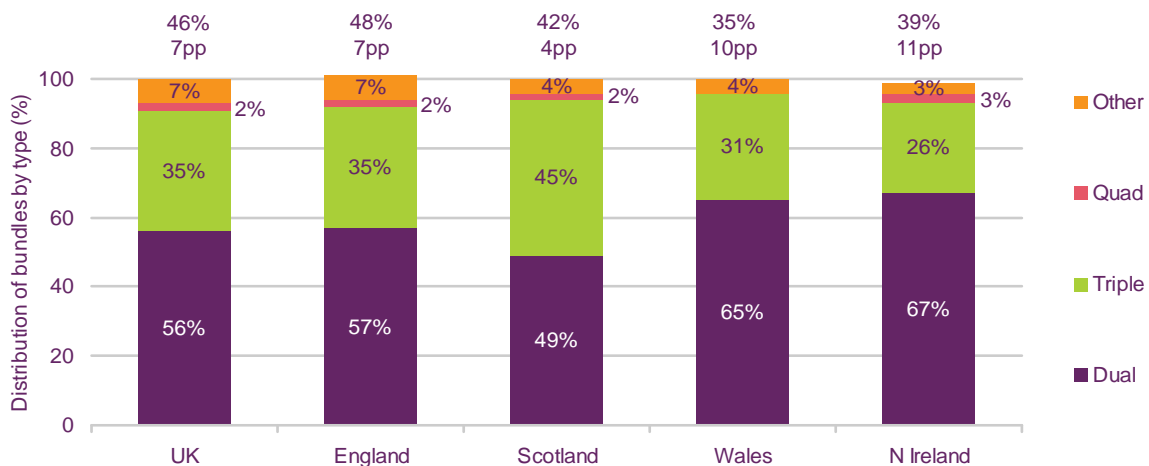
Consumer take-up of bundled services

Triple-play bundles more popular in Scotland than anywhere else in the UK

Across the UK, 46% of individuals claimed to receive more than one communications service from a single provider in Q1 2009, up by seven percentage points in 12 months (Figure 1.7). By contrast, 42% of people in Scotland made the same claim, up by four percentage points over the same period – the gap between Scotland and the UK figure widened over the period from one percentage point to four.

Among those who took a bundle of services, people in Scotland were more likely than those in any other nation to take a triple-play package (45% of homes with a bundle in Scotland versus 35% across the UK). Dual-play services were less popular, with less than half of homes in Scotland that bundled (49%) taking a two-product package, in comparison to 56% of homes UK-wide.

Figure 1.7 Service bundling, by nation



Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ with a package of services regardless of whether or not these include a discount (n = 2467 UK, 1508 England, 351 Scotland, 344 Wales, 264 Northern Ireland)

QG1. Do you receive more than one of these services as part of an overall deal or package from the same supplier?/ QG3. Do you receive a discount or special deal for subscribing to this package of services?

1.3.2 Spending by public service broadcasters on television and radio content

Spend per head on broadcast content production in Scotland is £32.01 (UK average £41.79)

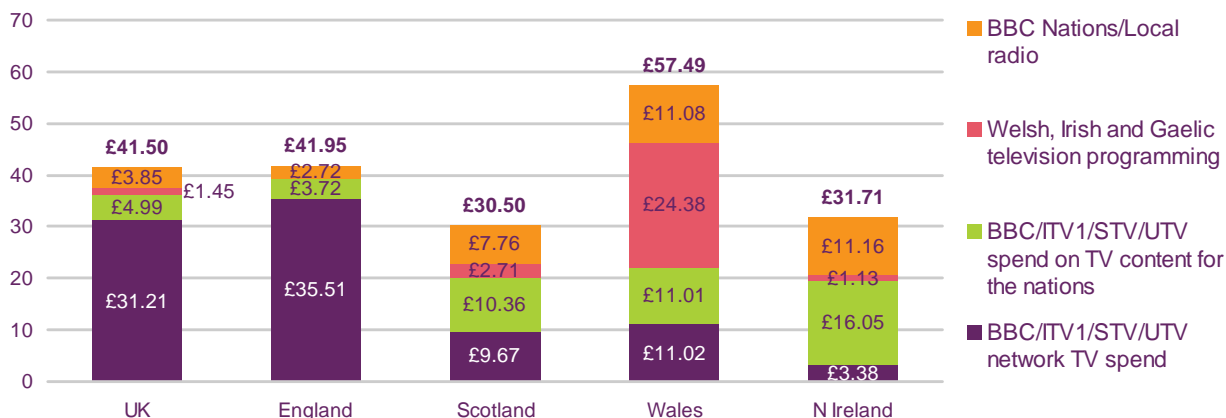
Figure 1.8 illustrates four categories of content spend:

- the value of networked television content produced in Scotland;
- BBC spend on radio for listeners in Scotland;
- spend by the BBC and STV on television content for viewers in Scotland; and
- spend by the BBC/MG Alba on funding Gaelic language output for BBC ALBA.

Total spend per head on these four categories of content was lower in Scotland during 2008 than in any other nation, at £30.50.

This compared to the UK-wide figure of £41.50 and was in large part explained by the comparatively low levels of network television production in Scotland. This was not offset to the same extent as in other nations, either by production of TV shows for the audience in Scotland (£10.36 in Scotland versus £11.01 in Wales and £16.05 in Northern Ireland) by spend on radio services for listeners in Scotland (£7.76 versus £11.16 in Northern Ireland and £11.08 in Wales) or by shows in another language (£2.71 for Gaelic versus £24.38 for Welsh language output).

Figure 1.8 Spend per head on UK-originated content, by public service broadcasters on TV and radio



Source: Broadcasters and Ofcom calculations

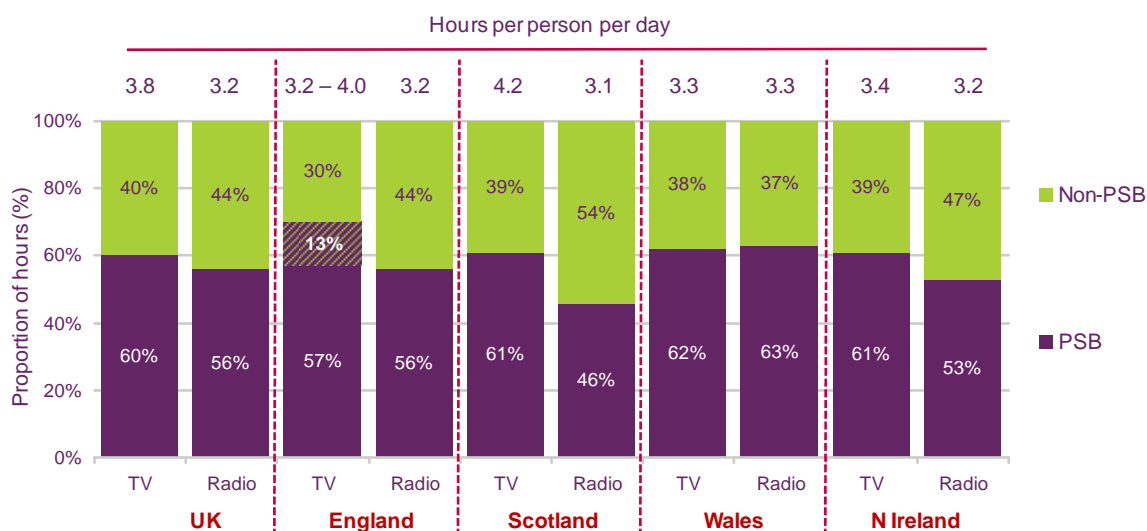
1.3.3 Consumption of communications services in Scotland

PSB TV as popular in Scotland as it is across the UK; PSB radio less so.

People in Scotland spent substantially more time watching television every day than they did listening to radio during 2008 (4.2 hours per head per day versus 3.1 hours respectively). The gap between the two was wider than in any other UK nation – 0.9 hours against the UK average of 0.6 hours.

Of the 3.1 hours of radio listening, a lower proportion (46%) was devoted to the BBC's radio services, compared to the other UK nations; across the UK the average figure stood at 56% during 2008. Viewing of the PSB channels in multichannel homes in Scotland stood at 61% over the same period, just ahead of the UK-wide figure of 60%.

Figure 1.9 Hours of daily viewing of television and radio, by nation



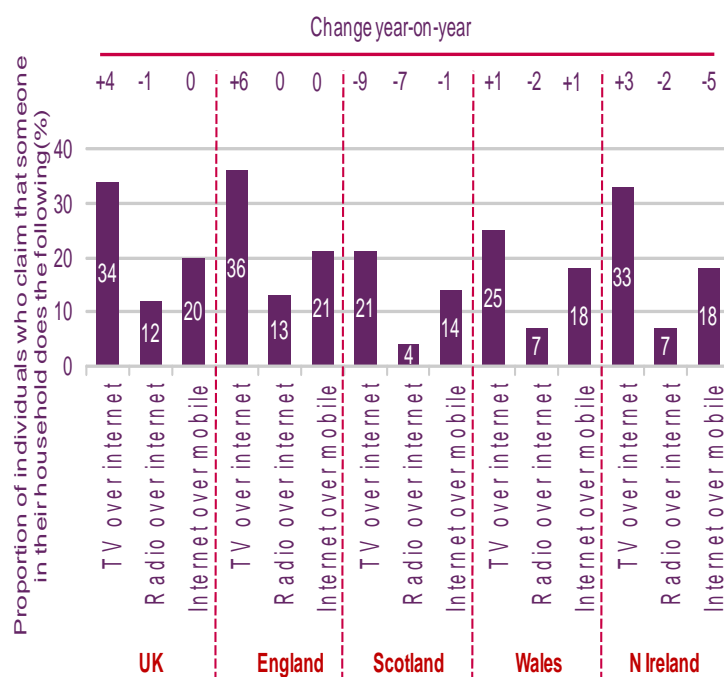
Source: Broadcasters and Ofcom calculations

Note: PSB share of television viewing in England varies from 57% (in London) to 70% (in the South West). An England-wide figure is not available.

Across many of the UK's nations, converging technologies are finding favour with consumers. A growing proportion of individuals are using the internet to access audio-visual and audio-based services, while mobile handsets are increasingly capable of supporting internet access.

But in Q1 2009, our consumer research suggested that fewer people in Scotland were accessing television and radio services over the internet than they had done in 2008 (Figure 1.10). This might be related to the profile of those individuals who migrated to broadband or went online for the first time this year – they may be less inclined to access these services than those already online, thereby diluting the overall proportion who claim to have watched TV/listened to radio online. One-fifth of individuals (21%) said that they, or someone in their household, had used the internet to view television (compared to the UK average of 34%). Only 4% had used the web to access radio services (12% across the UK). And 14% had used their mobile handset to access to internet (compared to 20% of individuals UK-wide).

Figure 1.10 Consumers' use of converging platforms



Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 3437 England, 1014 Scotland, 987 Wales, 652 Northern Ireland)

QE12. Which, if any, of these do you or members of your household use the internet for whilst at home?

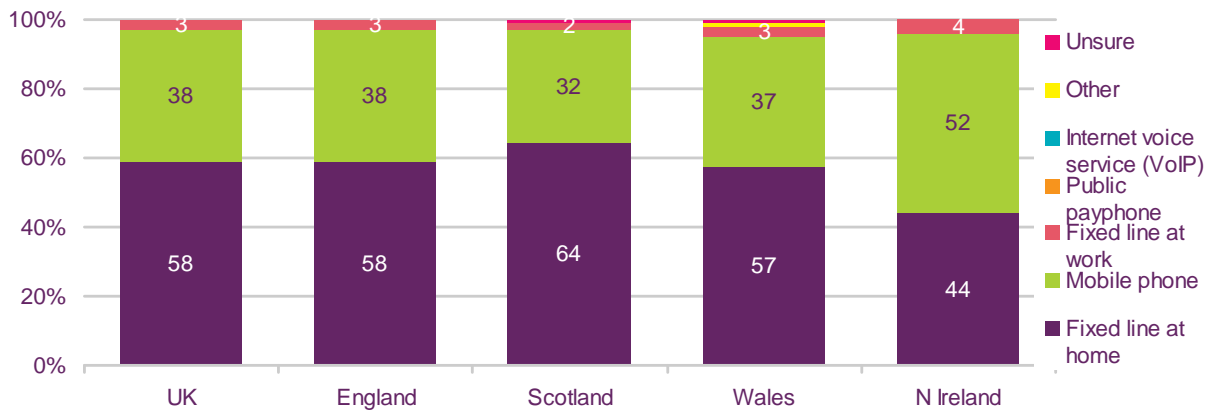
QD28. Which, if any, of the following activities, other than making and receiving calls, do you use your mobile for?

Fixed line in the home more likely to be the main means of making/receiving calls in Scotland than in any other nation

Across the UK an average of 58% of individuals claimed that their fixed-line telephone was their main method of making and receiving calls. A further 38% made the same claim about their mobile phone, with a further 3% citing their fixed line at work (Figure 1.11). Consumers in Scotland were more likely to claim that their fixed line was their main means of making/receiving calls – 64% in Q1 2009, the highest proportion of any of the UK's nations and 22 percentage points ahead of the comparable figure in Northern Ireland. Less than a

third of people in Scotland (32%) cited their mobile phone as their principal call-making/receiving device – the lowest among the four nations.

Figure 1.11 Main means of making/receiving telephone calls



Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 3437 England, 1014 Scotland, 987 Wales, 652 Northern Ireland)

QC28. Which of these do you consider to be your main method of making and receiving telephone calls?

1.4 Scotland's communications market and the economic downturn

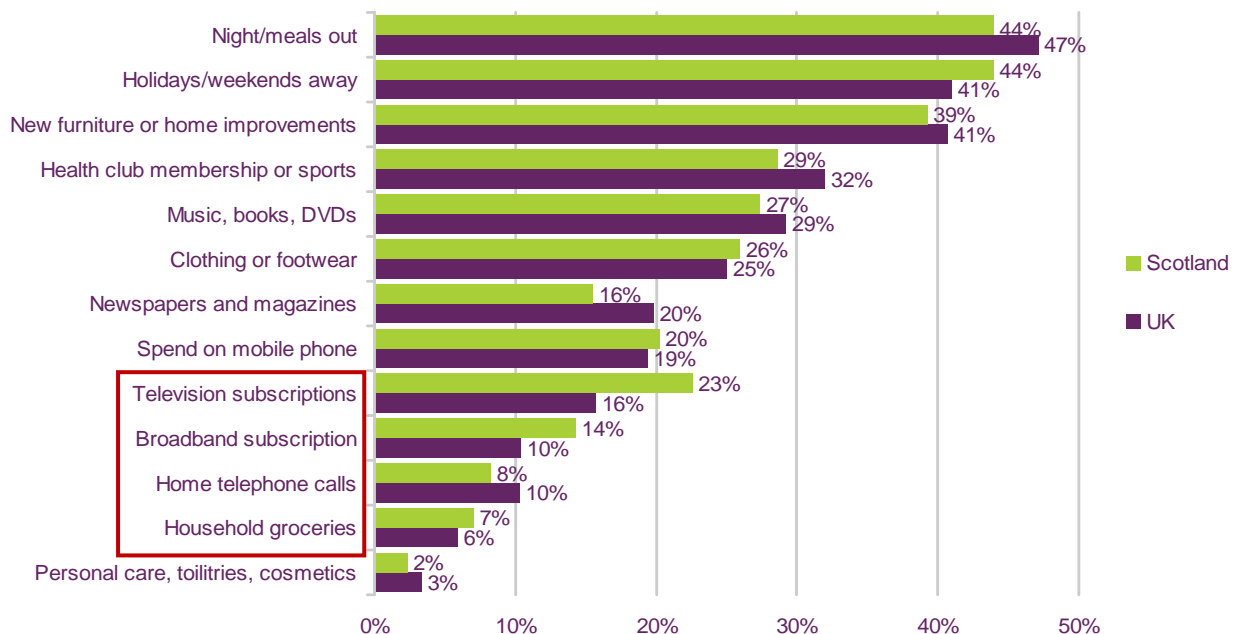
Since the last *Communications Market Report for Scotland* was published, the UK economy has moved into recession. As a result, Ofcom commissioned a survey to explore consumers' views on the economic downturn and the impact that it might be having on their attitudes towards and use of communications services.

This research revealed that people in Scotland attach some significance to their communications services, even in the face of more challenging economic circumstances. When asked to select three products or services whose claim on household disposable income was least essential, consumers were less likely to select communications services (mobile, pay television, broadband, home phone) than most other items, such as meals out or holidays. Only household groceries and personal care products were less likely to be mentioned by consumers. The ranking of product/service categories among people in Scotland was broadly comparable to the UK-wide results.

One point of difference emerged between the UK and Scotland; people in Scotland were more likely to identify their subscription television in their top three (23% versus 16%) (Figure 1.12). This might be connected to the fact that at the time the research was conducted, there was some uncertainty concerning the future coverage of Scottish Premier League football matches.

Figure 1.12 Consumers' likelihood of cutting products/services from their disposable spending

Proportion of individuals citing items they would be less likely to spend on if they were forced to cut back spending (%)



Source: Ofcom-commissioned research

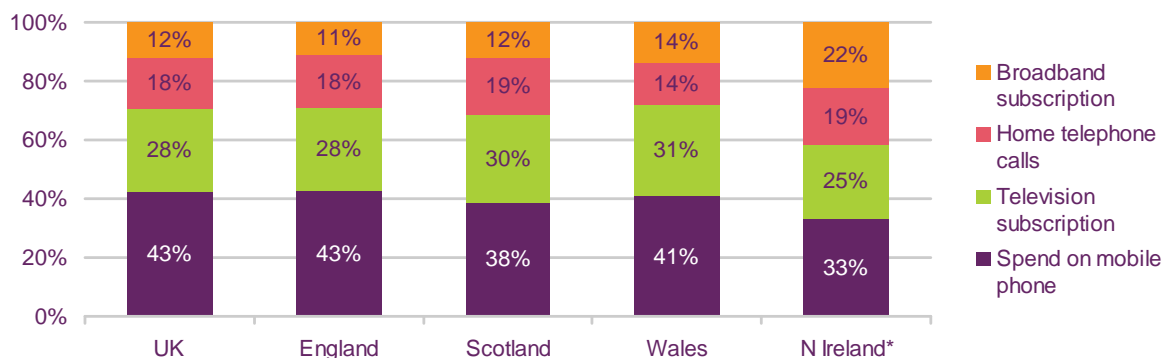
Base: Those with all four communications services (n= 862 for UK and n=84 for Scotland)

Question: If you were forced to cut back on spending, which of the following items would you be most likely to spend less on?

When forced to prioritise, people in Scotland who had all four of the main communications services were most likely to identify spending on their mobile phone as the first candidate for a cut. This was followed by spend on television subscriptions then home telephone calls. Broadband was least frequently mentioned. The pattern of prioritisation in Scotland was consistent with that across the UK, where mobile phone spending was the most likely to be picked and broadband the least (Figure 1.13).

Figure 1.13 The communications service that consumers would cut spending on first

Proportion of individuals selecting each communications service (%)



Source: Ofcom-commissioned research

Base: Those with all four communications services (n= 862 for UK, n= 632 for England, n=84 for Scotland ; n=83 for Wales and n=63 for Northern Ireland). *Note small base size for Northern Ireland; results should be treated as indicative only.

Question: Which ONE of the following would you be most likely to cut back spending on?

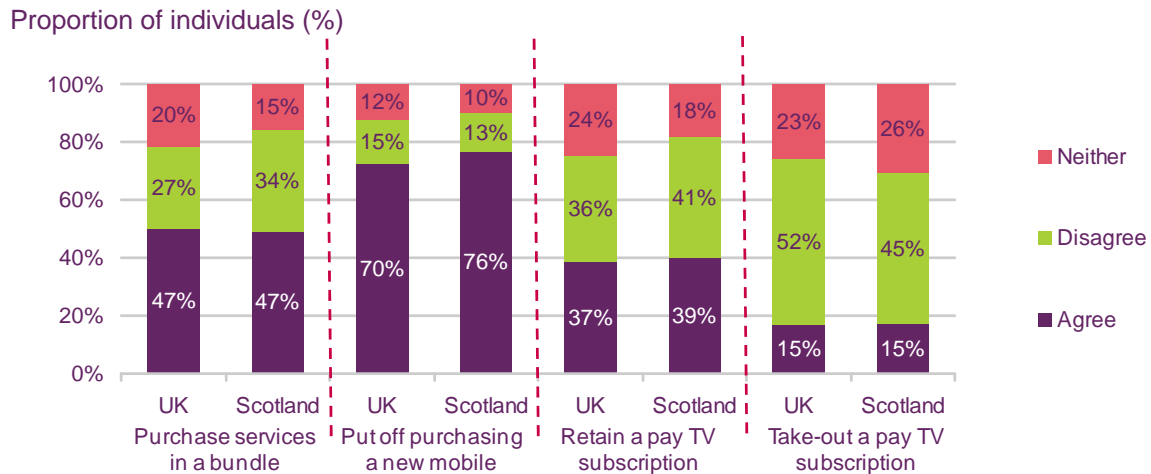
Our research also examined changes in consumers' attitudes towards three decisions connected with use of communications services:

- taking communications services in a bundle;
- keeping an existing mobile handset (rather than trading up); and
- keeping or taking on pay-TV as an alternative to going out.

The findings suggests that communications bundles offering price discounts might take on added significance for some consumers in the downturn; 47% in both Scotland and the UK as a whole agreed they were more likely now than 12 months ago to consider purchasing communications services in a bundle. It would also appear that consumers are conscious of the costs connected with acquiring new mobile handsets with 76% of those in Scotland agreeing that they were now more likely to put off making a change now than twelve months ago.

Among those with pay-TV subscription services, nearly four in ten respondents in Scotland agreed that they were more likely now than twelve months ago to keep their subscription (Figure 1.14). But among those who did not pay for additional television channels, just 15% thought that they were now more likely than a year ago to upgrade to pay-TV.

Figure 1.14 Consumers' agreement with a range of statements exploring changes in behaviour over the last twelve months



Source: Ofcom-commissioned research

Base: UK – n=2321, 1970, 1188, 1133; Scotland – n=187, 161, 102, 85 respectively

Question: I am now going to read out a number of statements other people have made about how the recession has changed their spend on TV, broadband, mobile and home phone services. For each tell how much you agree or disagree.

Overall, the downturn appears to be having some bearing on consumers' sense of what they spend on communications services.

Figure 1.15 shows nearly one quarter of people in Scotland said they were now more conscious of their spending on broadband than they were twelve months ago – eight percentage points higher than the UK-wide figure. Twenty eight per cent said the same about their fixed line (comparable to the UK-wide response). A third made the same claim about their subscription television service (11 percentage points higher than the UK) and nearly four in ten people said the same of their mobile phone..

People in Scotland were the least likely to say that they were now more sensitive to their spending on fixed-line telephony. The tendency of consumers in Scotland to agree with these statements was broadly in line with the UK-wide average.

Note that the analysis below sets out responses from all of those that have broadband, mobile, free television or pay-TV. The demographic profiles of each group may therefore vary, limiting the degree to which meaningful comparisons can be made between the responses for different services.

Figure 1.15 Degree to which consumers have become more conscious of their spending on a variety of communications services



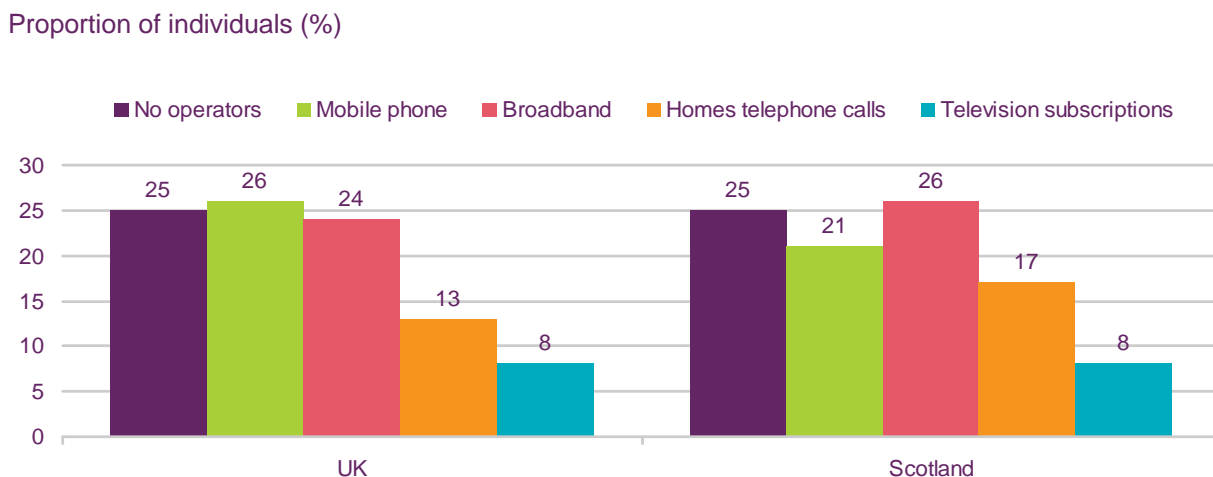
Source: Ofcom-commissioned research

Base: Broadband (n=1398 for UK and n=105 for Scotland); Mobile (n=1970, n=161); TV subscription (n=1188, n=102); home telephone calls (n=1901, n=153).

Question: In the last 12 months have you become more conscious about your spend on any of the following services?

Consumers in Scotland also appear to believe that some communications service providers are offering better value for money now than they did twelve months ago. Twenty-six per cent thought that broadband operators offered better deals; a fifth thought that mobile phone providers were doing the same. Those offering home telephone calls ranked third (17%) some way ahead of pay television subscription providers at just 8%. At the same time, however, 25% of people in Scotland did not regard any category of communications service provider as offering a better deal (Figure 1.16).

Figure 1.16 Consumer perceptions of which operators are offering better deals now than twelve months ago



Source: Ofcom-commissioned research

Base: All UK – n=2321, Scotland – n=187

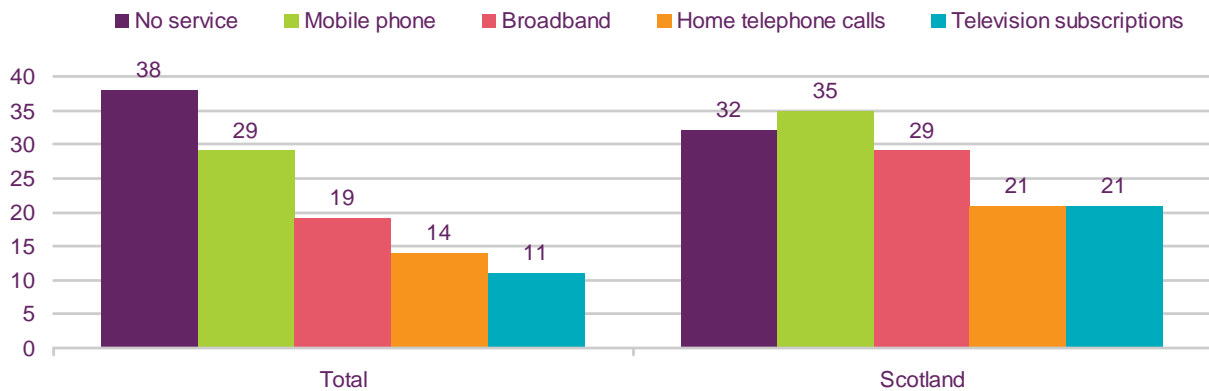
Question: Which providers do you think are offering better deals than they were 12 months ago?

These attitudes may be shaping consumers' future engagement with communications products, as they pay closer attention to the deals on offer and their overall spend. Over a third of people in Scotland said that they were now more likely to shop around for their

mobile phone service than they were a year ago (Figure 1.17). Twenty nine per cent said the same for their broadband provider, while 21% made the same claim about their home telephone calls. Twenty one per cent felt that they were now more likely to shop around for a subscription television service than twelve months ago. In each case, people in Scotland were substantially more likely than those in the UK as a whole to claim that they would now be more likely to shop around for their communications services.

Figure 1.17 Consumers' claims on which services they are now more likely to shop around for, compared to 12 months ago

Proportion of individuals (%)



Source: Ofcom-commissioned research

Base: Base: All UK – n=2321, Scotland – n=187

Question: Which of the following are you more likely to shop around for than you were 12 months ago?



The Communications Market 2009

2 Converging markets

2.1 Converging communications markets

'Convergence' in communications markets is often used to describe the growing tendency for different content formats (audio, video, text, pictures) to reach consumers through a range of different digital networks (the internet, mobile infrastructure, satellite, cable, digital terrestrial, etc.) and consumer devices (PC, TV, mobile, etc.) This section looks at what these changes mean for the supply and consumption of communications content and services in Scotland.

2.1.1 How content gets from creator to consumer

There are many ways in which content travels from creator to consumer, and from consumer to consumer. But it follows the same general path, set out in Figure 2.1 below:

Figure 2.1 Delivering content and voice services to consumers (value chain)



This year the convergence section of the Nations and Regions Report looks at devices, where there have been interesting trends in take-up, and more generally at consumer behaviour, where we have a rich base of consumer research. The section follows the structure below:

- **devices** – the equipment consumers use to access content (section 2.2, page 33); and
- **consumption** – how people consume and create content (section 2.3, page 36).

2.2 Devices

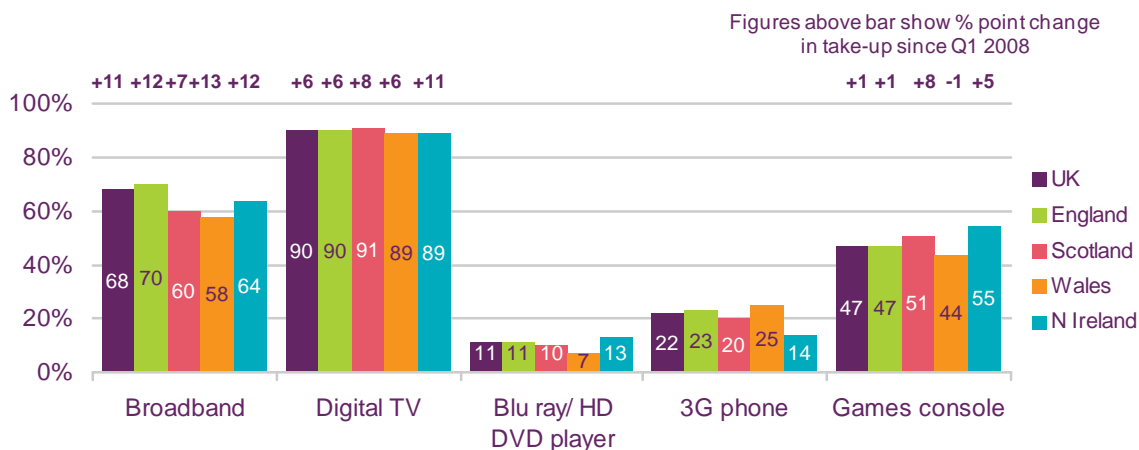
Convergence in communications services has led to an increase in the number of devices through which consumers can access content. These range from mobile phones and other handheld devices to broadband-enabled PCs and flat-screen TVs. Often the same device can access content from more than one distribution technology; for instance, both WiFi and 3G networks are available on some smartphones. As the range and complexity of activities that consumers can use these devices for increases, the devices are becoming more important as a means of accessing converged networks.

2.2.1 There are some variations in device and platform take-up

Take-up of TV sets equipped to receive digital services was broadly similar in each of the four nations, at around 90% in Q1 2009. The Scottish part of the Border region has already completed digital switchover, and take-up of digital TV in Scotland is likely to rise as the rest of Scotland switches throughout 2010/11.

But there were differences in some areas. Scotland lags behind the UK in take-up of broadband-enabled computers (60% versus 68%) and 3G phone take-up (20% against 22%) (see Figure 2.2), but has higher games console take-up (51% compared to 47%). Games console take-up grew by eight percentage points during 2008 – the highest of any of the UK nations.

Figure 2.2 Take-up of main communications devices and platforms



S

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 3437 England, 1014 Scotland, 987 Wales, 652 Northern Ireland)

QE9. Which of these methods does your household use to connect to the internet at home?/ QH1a. Which, if any, of these types of television does your household use at the moment?/ QB1. Which of the following do you, or does anyone in your household, have in your home at the moment?/ QD24B: Do you personally use a 3G mobile handset?

2.2.2 Take-up of leading games consoles was 44% in Scotland

In recent years games consoles have developed from simple games-playing machines into sophisticated pieces of technology, allowing consumers to use them for a variety of converged activities. As well as using them for games, consumers can, among other things:

- watch audio-visual content on demand – including streaming and downloading films on demand and watching content on catch-up applications such as the BBC iPlayer;
- watch high-definition content using the Blu-ray and HD-DVD drives on the Playstation 3 and Xbox 360;
- download new content (such as audio-visual content or games) and extras to their console;
- play networked games and communicate and chat with other players; and
- (from Autumn 2009) watch live streamed television from Sky on the Xbox 360.

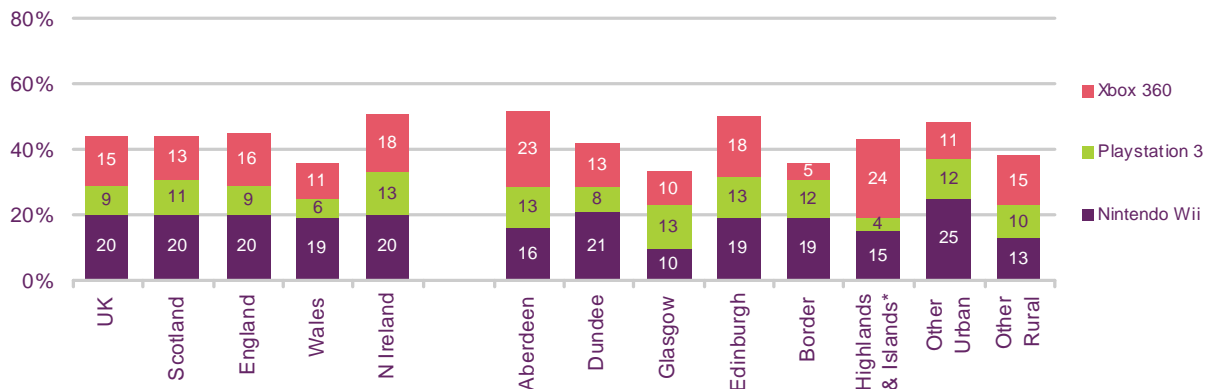
As functionality has increased, games consoles have expanded out of their traditional niche segments to reach a wider audience, and nearly one in every two households now have these highly-converged devices.

Figure 2.3 shows the take-up of the three leading games consoles (PS3, Wii and Xbox 360) across Scotland, where the take-up of 44% was identical to the UK average. Take-up of the PlayStation 3 was slightly higher in Scotland than the UK average, and take-up of the Xbox 360 was correspondingly lower. Take-up of the Nintendo Wii was roughly the same across the four nations of the UK.

Across Scotland, take-up of the major consoles varied widely, from 33% in Glasgow to 52% in Aberdeen. Take-up also varied between rural and urban areas, with households in urban areas slightly more likely to contain one of these consoles. It also varied between different

urban areas, with take-up higher in Aberdeen (52%) and (Edinburgh (50%) than in Glasgow (33%).

Figure 2.3 Take-up of leading games consoles



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QB4. Which games console/s do you, or does anyone in your household, have at the moment?

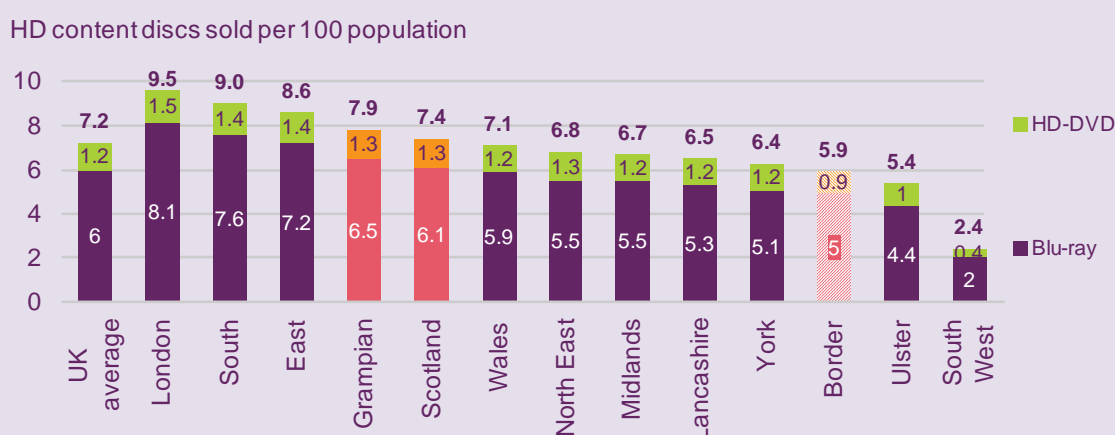
Advanced devices offer another way to consume HD content

A key feature of some of the latest games consoles is the inclusion of high definition functionality. The Playstation 3 (Blu-ray) and Xbox 360 (HD-DVD) both offer an alternative platform to cable or satellite through which consumers can watch HD content. Consumers need an HD-ready TV set and buy or rent a Blu-ray or HD-DVD disc. Xbox 360 owners also need to acquire the optional HD-DVD drive. With sales of HD-ready TV sets now around 18 million according to GfK sales data, and with Xbox 360/PS3 take-up standing at 24% it would appear that a substantial number of consumers may already be able to access disc-based HD content.

But despite this, sales of HD-content discs remain relatively low. Figure 2.4 shows that just over seven HD discs were sold per 100 people in 2008. This compares to 415 standard DVDs sold per 100 people.

The great majority of HD content discs sold were Blu-ray. This reflected the decision of Toshiba (the driver behind HD-DVD) to discontinue its HD-DVD business in February 2008. Sales of the discs in Northern (7.9 per 100 people) and Central (7.4 per 100 people) Scotland were slightly higher than the UK average of 7.1 per 100 people. The highest sales were in London and southern England at over nine discs per 100 people.

Figure 2.4 HD disc sales, by region, 2008



Source: Ofcom analysis/British Video Association Yearbook 2009

2.3 Consumption

This section looks at how people consume and share content over converging networks and devices. It starts by looking at service ‘bundling’ before reviewing how consumption of selected converged services varies by region. In turn it looks at consumption of:

- **internet services** – including voice calls, audio and audiovisual content (page 37);
- **mobile services** – including mobile internet, audio and audiovisual content (page 41); and
- **social networking sites** – including Facebook, MySpace, Bebo and Twitter (page 43).

2.3.1 Service bundling

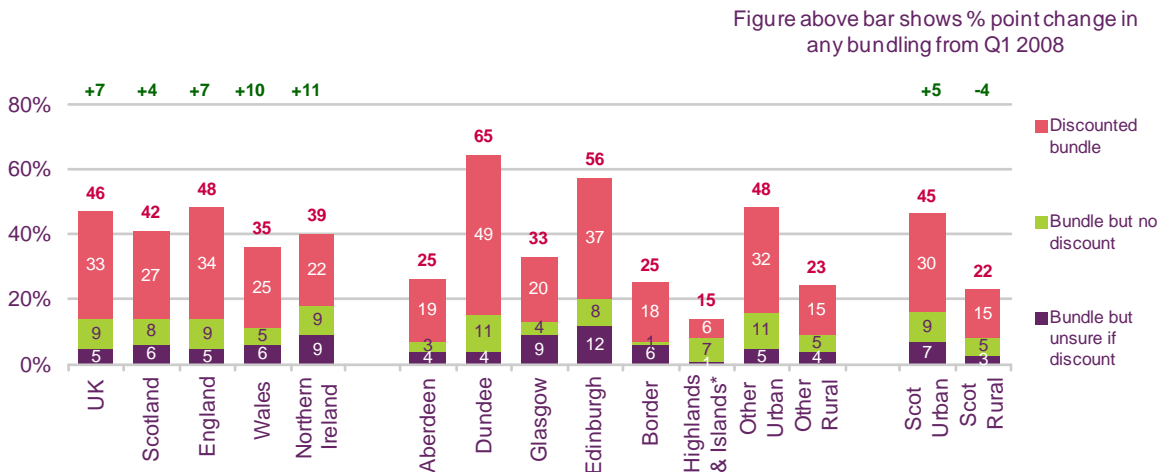
Convergent devices and technologies allow consumers to access multiple content types over a variety of networks. Many operators seek to exploit this by expanding into adjacent markets and offering ‘bundles’ of communications services: for instance, a mobile operator may offer a bundle of mobile phone, mobile data and fixed broadband services.

This can benefit both operator and consumer. For the operator it can increase average revenue per user and increase customer loyalty. For consumers some bundles can offer considerable savings over the separate purchase of services, with the added convenience of receiving a single bill for all services.

Take-up of bundles appears highest in Dundee and Edinburgh

Just over four in ten adults (42%) in Scotland took communications service bundles in Q1 2009, an increase of four percentage points over the past year (Figure 2.5). This was below the UK average (46%) and England (48%), but higher than Wales (35%) and Northern Ireland (39%). Twenty-seven per cent of adults in Scotland claimed to take bundles that offered a price discount over single services.

Figure 2.5 Bundling of telecoms services



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

Note: Figures above chart columns indicate total uptake of bundled service

QG1. Do you receive more than one of these services as part of an overall deal or package from the same supplier? / QG3. Do you receive a discount or special deal for subscribing to this package of services?

The incidence of purchasing a ‘bundle’ of services was higher in urban areas of Scotland (45%) than in rural areas (22%). Buying in bundles varied significantly across Scotland, ranging from 15% of adults in the Highlands and Islands to over half (56%) of adults in Edinburgh and 65% of adults in Dundee. The proportion of adults purchasing a bundle of services was higher in rural areas of England (37%) than in rural areas of Scotland (22%).

Lower rural take-up of bundles in Scotland may reflect lower broadband take-up in isolated areas. Scotland is also less well-served by both cable and unbundled exchanges than the rest of the UK. This reduces the number of bundles available for some, and may also mean that some of the cheaper deals are unavailable in more parts of Scotland than across the rest of the UK.

2.3.2 Consumption of content and services over the internet

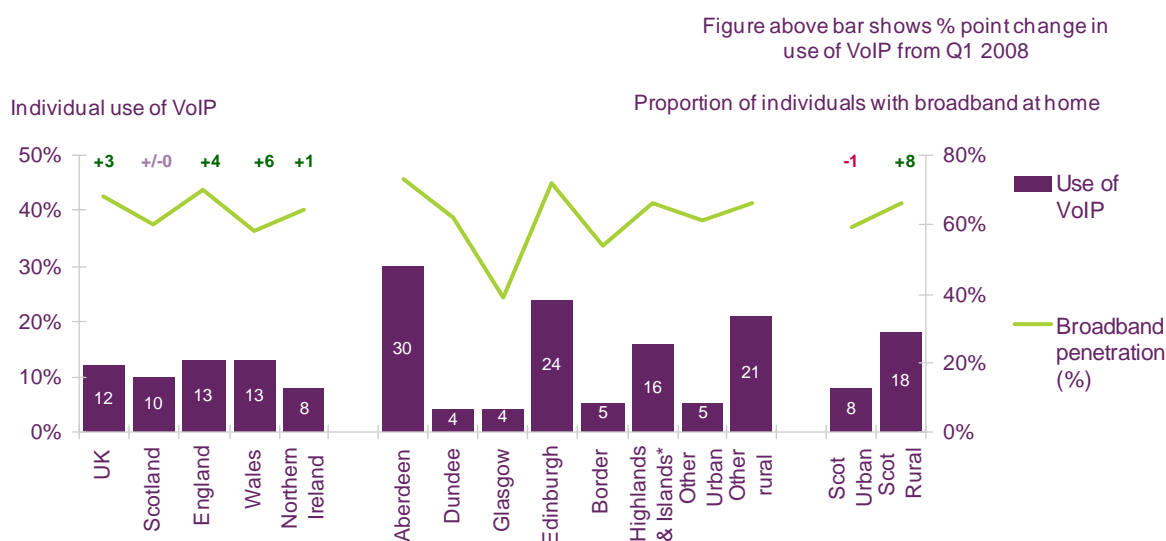
The internet allows consumers to engage in a range of converged activities online. These include making phone calls, listening to the radio, watching video and creating and sharing content. This section considers the online consumption of these types of service in detail.

Use of the internet to make phone calls (VoIP) has grown in rural areas of Scotland

Voice over Internet Protocol technology allows users to make cheap (or free) voice calls over fixed or mobile telephony networks. Recent entrants (e.g. Skype) and existing operators (e.g. BT and Orange) provide services that make use of VoIP technology.

Figure 2.6 shows one in ten adults in Scotland used the internet in 2009 to make telephone calls, slightly lower than the UK average (12%). This has remained stable in Scotland since last year. Use was higher in rural areas (18%) than in urban areas (8%), as use of VoIP in Scotland’s rural areas has increased in the last year. As we found last year, use of the internet to make telephone calls was highest in Aberdeen (30%). In Scotland, use of VoIP seems to have a direct relationship with broadband take-up – areas with higher broadband take-up were more likely to use VoIP.

Figure 2.6 Proportion of adults living in a household that has used VoIP



*Base less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QE29. Before now, were you aware that you could make voice calls using the internet?/ QE30. Have you or anyone in your household ever used one of these services to make voice calls using the internet?

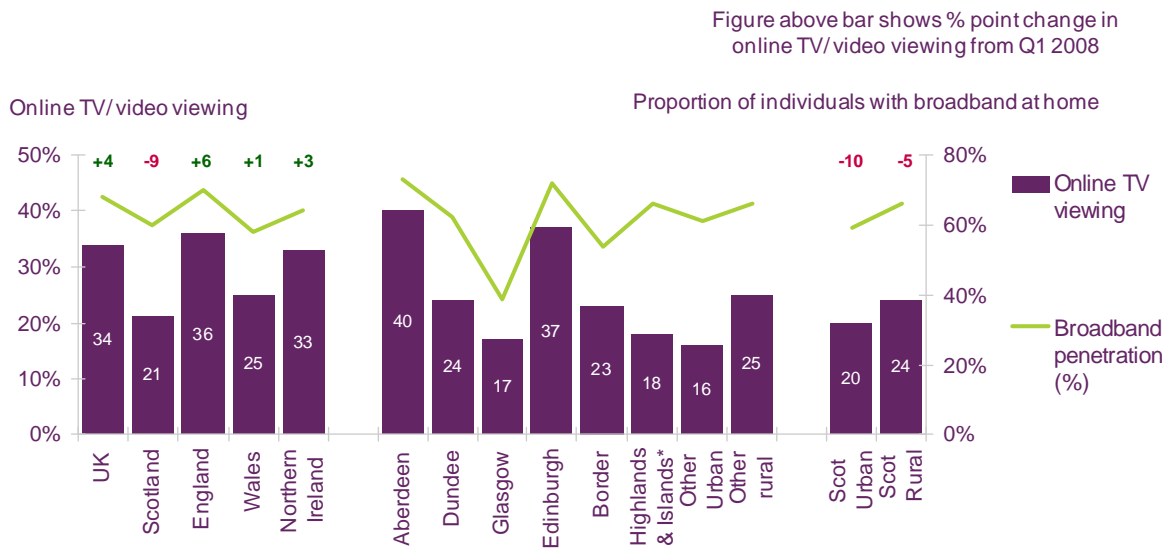
Watching video and TV content online appears to have fallen in Scotland

Audio-visual content online can include catch-up TV, user-generated content and music videos. Sites like YouTube, that let consumers share content with each other, and video content embedded in social networking sites have continued to grow in popularity. And the success of services like the BBC iPlayer, Skyplayer and itvplayer has shown that there is also an appetite for free-to-view made-for-television content online.

Scotland was the exception to this. The number of people watching TV and video content online declined by nine percentage points since last year, and now stands at 21% of households, significantly lower than the UK average (34%) (Figure 2.7). Part of this difference may be down to a combination of sampling error and people who had previously experimented with online video content no longer consuming it.

There was little difference between rural (24%) and urban areas (20%), although Aberdeen and Edinburgh had the highest use. In Glasgow the relatively low level of use is linked to the relatively low take-up of broadband, an issue Ofcom has been discussing with stakeholders.

Figure 2.7 Proportion of adults living in a household that has used the internet to watch TV or video content



*Base less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QE12. Which, if any, of these do you or members of your household use the internet for while at home?

Catch-up TV

During 2008 a growing range of free catch-up TV services, delivered over the internet, became available. Viewers can now watch a selection of recent broadcast content on the BBC iPlayer, itvplayer, 4OD catch-up, Demand Five and Sky Player. And their growing popularity was much in evidence over the year, with 41 million requests to view iPlayer streams in December 2008 alone, according to the BBC.

Across the UK 16% of people reported that someone in their household had used the internet to watch catch-up TV. The figure was highest in England at 18%, while just over one in ten homes in Wales and Northern Ireland reported using catch-up TV. Use was lowest in Scotland at only 7%. In general, use of catch-up TV accounted for between a third and a half of use of online TV and video.

In Scotland, use of catch-up TV varied from 4% in the Highlands and Islands to 15% in Edinburgh (similar to the UK average). As the iPlayer accounts for a large proportion of catch-up TV content online, it is possible that lower use of catch-up TV in Scotland may be influenced by lower viewership of the BBC in Scotland. Other factors may include broadband take-up, demographic profile and connection speeds.

Figure 2.8 Proportion of adults living in a household that has used the internet to watch catch-up TV (e.g. iPlayer, Skyplayer, itvplayer)



**Small base size: Apply caution*

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QE12. Which, if any, of these do you or members of your household use the Internet for whilst at home?

Listening to the radio online has fallen in Scotland

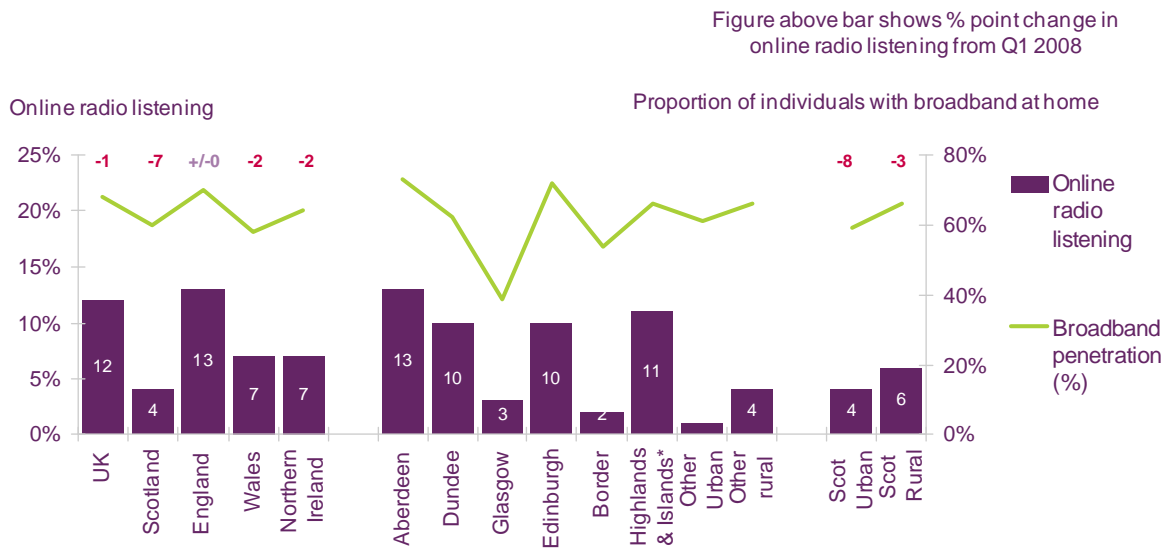
Listening to radio services online is less popular than watching TV online. This may reflect differences in how people consume audio and video content. For instance, most radio listening is ambient and frequently takes place outside the home, away from an internet connection. By contrast, a large amount of TV content is seen as an 'appointment to view'.

It may also be true that internet radio faces more competing alternatives than does online TV. Many people already have extensive personal libraries of digital music, and both unauthorised peer-to-peer networks and new online streaming services (e.g. Spotify and We7) also provide alternatives. But fewer people have large digital video libraries, and on-demand TV streaming is less developed than existing music services.

Listening to the radio online has fallen in Scotland in the last year from 11% to 4% of adults as shown in Figure 2.9 and is now the lowest of all UK nations, although online radio listening is also falling in Wales and Northern Ireland. The fall in these figures compared to last year could be partly related to the survey error margins.

Across Scotland, use was marginally higher in rural areas. The research found greatest use of the internet for listening to the radio in Aberdeen (13%). Use in the Highlands and Islands (11%), Dundee (10%) and Edinburgh (10%) was also relatively high. Above-average use of the internet to listen to the radio in the Highlands and Islands may be because some areas cannot receive FM or DAB radio transmissions.

Figure 2.9 Proportion of adults living in a household that has used the internet to listen to radio



*Base less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QE12. Which, if any, of these do you or members of your household use the internet for whilst at home?

2.3.3 Content consumption over mobile devices

2G and 3G mobile phone technologies can carry voice, data and audio-visual content. In addition, mobile handsets can incorporate other functions such as the ability to play music and games, and technologies such as WiFi, Bluetooth and GPS. This section examines the use of mobile phones to access the internet, watch video and listen to audio content.

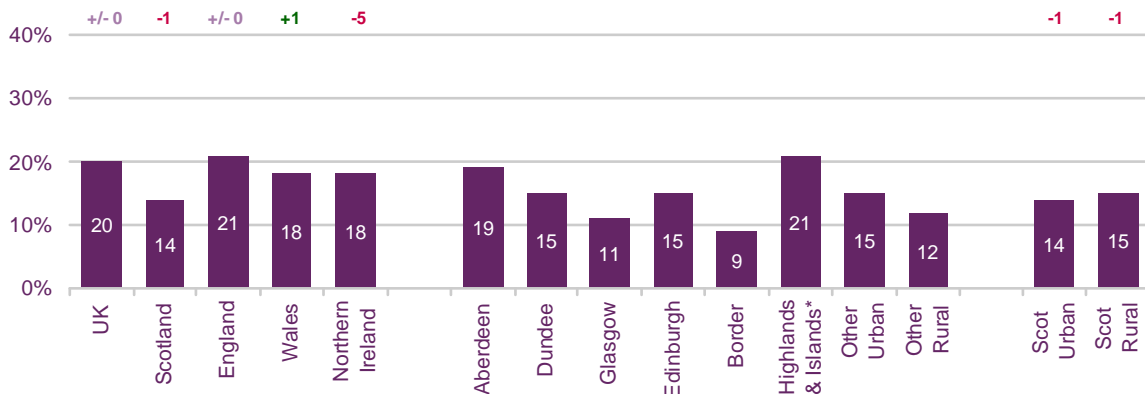
3G coverage appeared to have little effect on using a mobile phone to access the internet

One in seven people (14%) in Scotland used a mobile phone to access the internet, compared to 20% across the UK. Use was highest in England (21%) and lowest in Scotland (14%). Use has remained fairly static since last year, except in Northern Ireland, where it fell by five percentage points to 18% (Figure 2.10).

Within Scotland, use of a mobile phone to access the internet was highest in Aberdeen (19%) and in the Highlands and Islands (21%), although it should be noted that the reported large increase in use in this area in the last year may be due to survey error margins.

There was little difference between urban and rural areas of Scotland in using a mobile to access the internet. Currently, 3G coverage is largely restricted to urban areas in Scotland, suggesting that many people in rural areas may have used the slower 2G networks to access the internet on their mobiles.

Figure 2.10 Proportion of adults who have used a mobile phone to access the internet



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

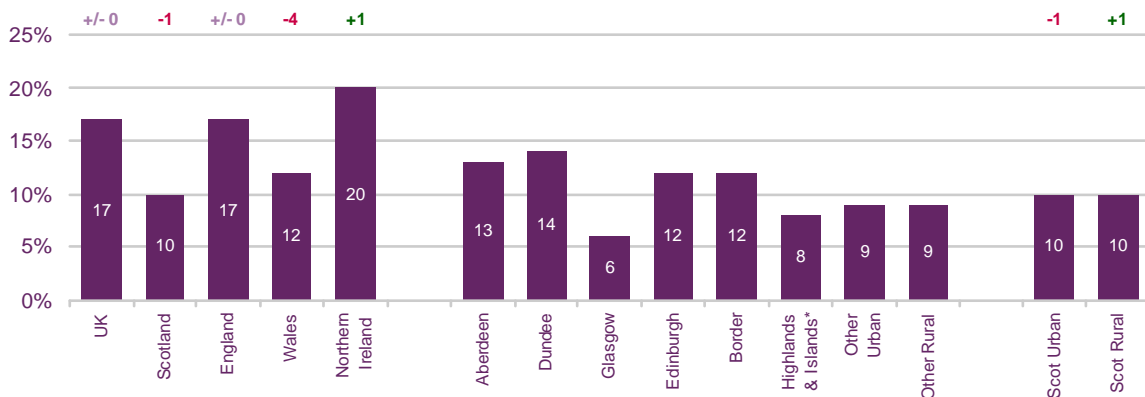
Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QD28. Which, if any, of the following activities, other than making and receiving calls, do you use your mobile for?

Listening to audio on a mobile was lowest in Scotland

Around one in ten adults in Scotland used their mobiles to listen to audio content (such as radio, MP3 files and podcasts). This reflects the versatility of phones as audio devices and the ability to listen to audio content without paying data charges or needing lots of storage space. Use remained less common in Scotland (10%) than in the other nations: Northern Ireland (20%), England (17%) and Wales (12%) (Figure 2.11).

Figure 2.11 Use of a mobile phone to listen to audio



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QD28. Which, if any, of the following activities, other than making and receiving calls, do you use your mobile for?

2.3.4 Social networking

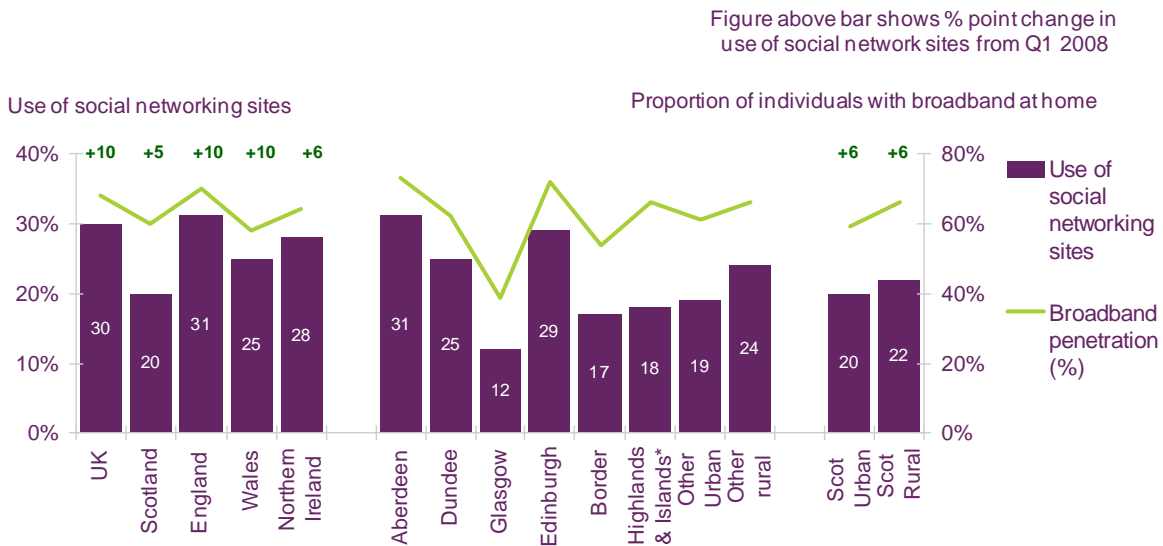
People in Scotland are less likely than the rest of the UK to use social networking sites

Social networking sites (SNS) are websites such as Facebook and MySpace on which users can create their own profiles using text, graphics and photos, join groups of people with common interests and send messages to other site members.

Despite wide media coverage, social networking remained a minority activity among adults aged 15+. Use was lower in Scotland (20%) than in the UK as a whole (30%). Use in Scotland increased by five percentage points in the past year, but lagged behind the UK growth of ten percentage points over the same period (Figure 2.12). Scotland has the lowest level of use of SNS of all the UK nations.

Use of SNS was highest in urban centres (Aberdeen, Dundee, Edinburgh), except in Glasgow, where use was just 12%. This is unsurprising, given the relatively low broadband penetration there.

Figure 2.12 Proportion of adults in a household that has used social networking sites



*Base less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland, 3437 England, 987 Wales, 652 Northern Ireland)

QE12. Which, if any, of these do you or members of your household use the internet for whilst at home?

SNS have developed rapidly over the past year. Our UK report shows that Facebook is now the most popular SNS, overtaking MySpace. Many of the major sites (including Facebook) have also undergone redesigns. And newer sites have grown in popularity. Twitter, a popular micro-blogging service founded in 2006, has grown in terms of users and cultural status. All major social networking sites have now been optimised for mobile phones, and it is likely that this will be an area of future growth.



The Communications Market 2009

3 Television

3.1 PSB spend on television content for viewers in the nations

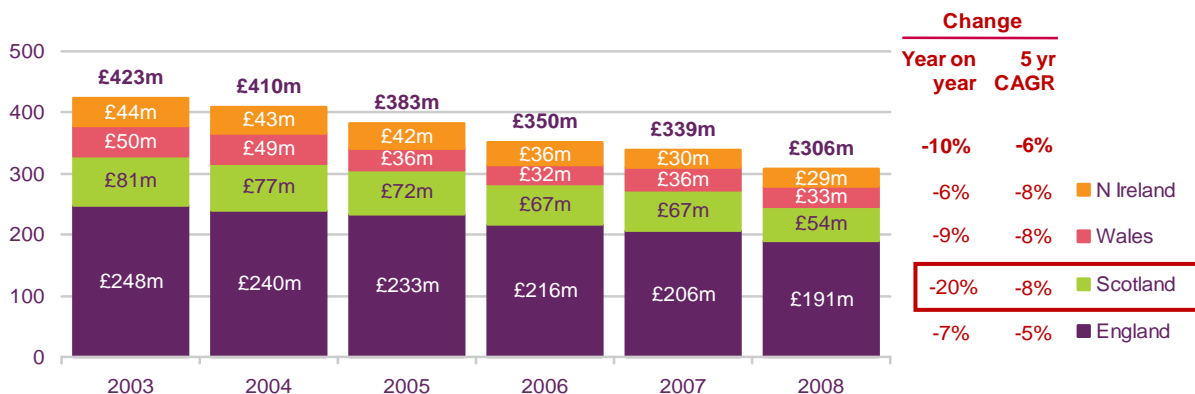
The BBC and STV spent a total of £54m on programmes for viewers in Scotland in 2008, down 20% year-on-year

In 2008 the BBC and STV/ITV/UTV spent a total of £306m on producing TV programmes specifically for viewers in Wales, Scotland, Northern Ireland or the English regions. Expenditure fell by 10% (or £33m) year-on-year; over a five year period, spend declined by £117m or 28%, contracting at an annualised average rate of 6% (Figure 3.1).

Spend on programmes for viewers in Scotland totalled £54m in 2008 (18% of the UK-wide figure), down by 20% or £13m in 12 months (the UK-wide average was -10%) and by 8% per year since 2003 (the nationwide figure was -6% per year). Much of the 2008 reduction was explained by changes in BBC spend. This reduction was driven by a variety of factors including (i) reallocation of spend on Gaelic television programming from BBC Two to BBC ALBA (ii) reduced spending on election coverage and sports rights (iii) additional reductions in programme production (iv) reallocation of spend out of BBC Scotland's programming budget.

Figure 3.1 BBC/STV/ITV/UTV spend on TV programmes for viewers in the nations

Spend (£m, 2008 prices)



Source: Broadcasters. All figures expressed in 2008 prices.

Note: The BBC changed the way it calculated its spend figures from 2005 onwards. The figures for 2002 – 2004 are based on cost per hour averages, while those for 2005 - 2008 are actual spend figures. Comparisons over the period 2003-2008 should therefore be made with caution. Much of the 2008 reduction in spend in Scotland was explained by changes in BBC spend. This reduction was driven by a variety of factors including (i) reallocation of spend on Gaelic television programming from BBC Two to BBC ALBA (ii) reduced spending on election coverage and sports rights (iii) additional reduction in programme production (iv) reallocation of spend out of BBC Scotland's programming budget.

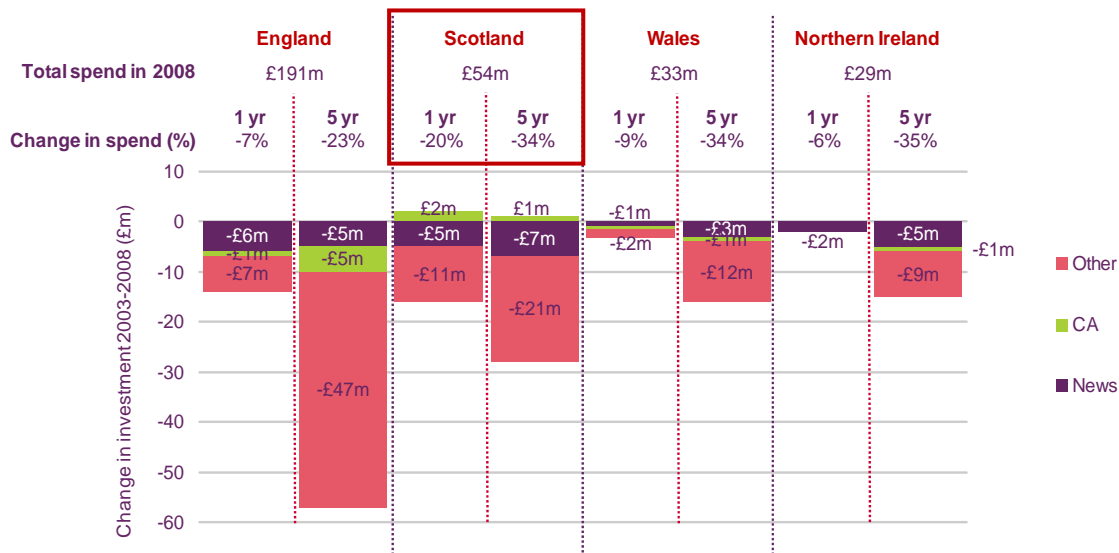
The 20% (£13m) year-on-year fall in spend on programmes for viewers in Scotland represented the largest proportional and absolute reduction across the four nations (the reduction in spend for Welsh viewers ranked second, at 9% over the same period) during 2008.

It was driven by a 24% (£11m) fall in spending on non-news/non-current affairs – substantially higher than the UK-wide average reduction of 19%. A similar reduction of 24% (£5m) on news (higher than the of the UK average reduction of 7%) was a contributory factor to the overall reduction. Spending on current affairs in Scotland actually rose by 72% (£2m)

year-on-year (Figure 3.2), but from a comparatively small base; this contrasted with the UK-wide average, where spending was broadly flat in real terms year on year.

Over the past five years, total expenditure by the BBC and STV on content for viewers in Scotland has fallen by over one-third (34% or £29m), which is broadly comparable to the reductions in Wales and Northern Ireland but greater than the UK-wide average reduction of 28%. The largest proportion of that reduction (£21m) can be explained by falling spend on non-news/non-current affairs programming; the falling cost of news production accounted for much (£7m) of the remainder.

Figure 3.2 Changes in spend on TV programmes for viewers in the nations



Source: Broadcasters. All figures expressed in 2008 prices

Note: The BBC changed the way it calculated its spend figures from 2005 onwards. The figures for 2002–2004 are based on cost-per-hour averages, while those for 2005–2008 are actual spend figures. Comparisons over the period 2003–2008 should therefore be made with caution. Much of the 2008 reduction in spend in Scotland was explained by changes in BBC spend. This reduction was driven by a variety of factors including (i) reallocation of spend on Gaelic television programming from BBC Two to BBC ALBA (ii) reduced spending on election coverage and sports rights (iii) additional reduction in programme production (iv) reallocation of spend out of BBC Scotland's programming budget.

The future funding of regional television news

Consumer research shows that people value regional television news, but the current system faces a number of challenges.

In Ofcom's Second Public Service Broadcasting Review we showed that viewers believe that news is the main priority for nations and regions television.

But there are cyclical and structural pressures on the commercial providers of nations/regions news.

As we set out in the PSB Review there is a tension between ITV plc's desire to reduce regulatory burdens and its ongoing ability to maintain investment in public service programming. This tension is becoming more acute as switchover completes and digital distribution becomes widespread. If regional/nations news is to continue beyond the BBC, provision of additional funding may be necessary.

To address these challenges, Digital Britain outlined the government's intentions for independently funded news consortia (IFNCs).

IFNCs are a joining of interested parties who will provide a more ambitious cross-media proposition and enhanced localness compared with current commercial television regional news; but which, to maximise audience reach and impact, will also broadcast in the regional news slots in the schedule of current Channel 3 licensees. Consortia would include but not be limited to existing television news providers, newspaper groups or other newsgathering agencies. IFNC funding would be awarded on a contestable basis and against a set of public criteria to maximise public value.

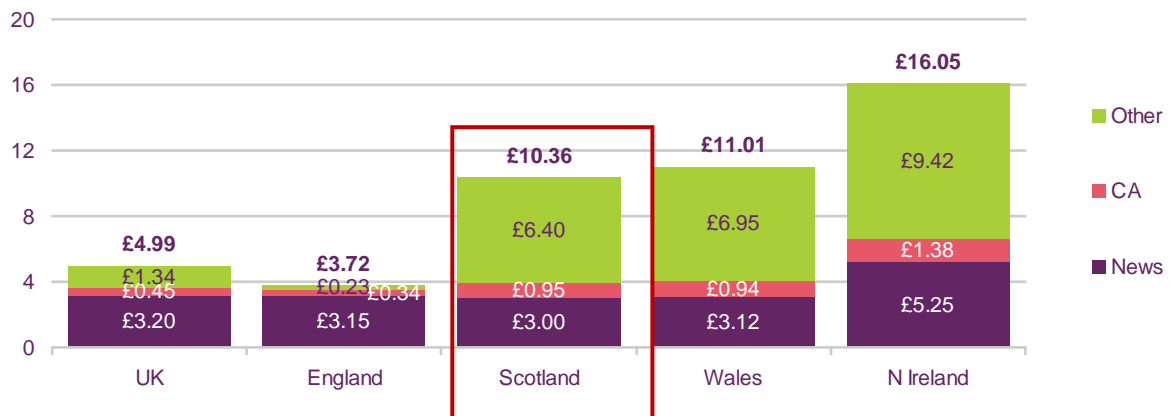
The Digital Britain report announced three pilot IFNC projects - in Scotland, Wales and one in England. Further details on the proposal can be found on page 156 on the report: <http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf>.

The DCMS are currently consulting on the importance of plurality in regional news and the potential sources of top-up funding. Details on the consultation can be found at: http://www.culture.gov.uk/reference_library/consultations/6245.aspx.

Accounting for population size reveals that viewers in Scotland benefited from expenditure per head on nations' programming of £10.36 in 2008 – substantially higher than the UK-wide average of £4.99 (Figure 3.3). This represented the second-lowest level of per-capita expenditure among the four nations, with spend in England totalling £3.72, £11.01 in Wales and £16.05 in Northern Ireland. Programming outside the genres of news or current affairs ('non-news/non-current affairs') accounted for 62% (£6.40) of total spend per head in Scotland (in common with Wales and Northern Ireland) while news (£3.00) made up a further 29% and current affairs (£0.95) accounted for the remaining 9%.

Figure 3.3 Content spend per head, by nation

Spend per head on content for viewers in the nations (£, 2008 prices)



Source: Broadcasters. All figures expressed in 2008 prices.

Note: The BBC changed the way it calculated its spend figures from 2005 onwards. The figures for 2002-2004 are based on cost per hour averages, while those for 2005-2008 are actual spend figures. Comparisons over the period 2003-2008 should therefore be made with caution.

3.2 Hours of output of content for viewers in the nations

Hours of output for viewers in Scotland have fallen by 15% since 2003 – substantially further than the UK average

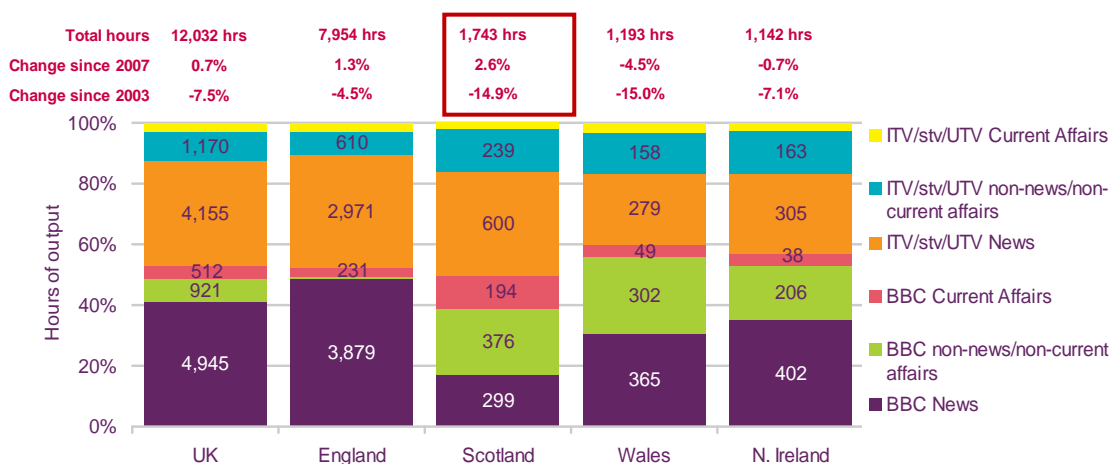
Across the four nations, the BBC/ITV/STV/UTV spent £306m on 12,032 hours of English language output covering news, current affairs and non-news/non-current affairs, up by 0.7% on 2007 (running counter to the reduced levels of spending, driving down costs per hour) but down by 7.5% since 2003.

Figure 3.4 shows hours of output for viewers in Scotland accounted for 14% of that total in 2008 and expanded by 2.6% year-on-year – well ahead of the UK-wide average growth rate and the highest among the four nations. Over five years, the reduction of 14.9% was over double the UK average and, along with Wales, Scotland experienced the largest contraction in hours among the four nations.

News from BBC Scotland and from STV accounted for a majority (52%) of all hours in 2008 (broadly in line with the distribution in Northern Ireland) while non-news/non-current affairs made up a further 35%.

Figure 3.4 Hours of output for television viewers in the nations

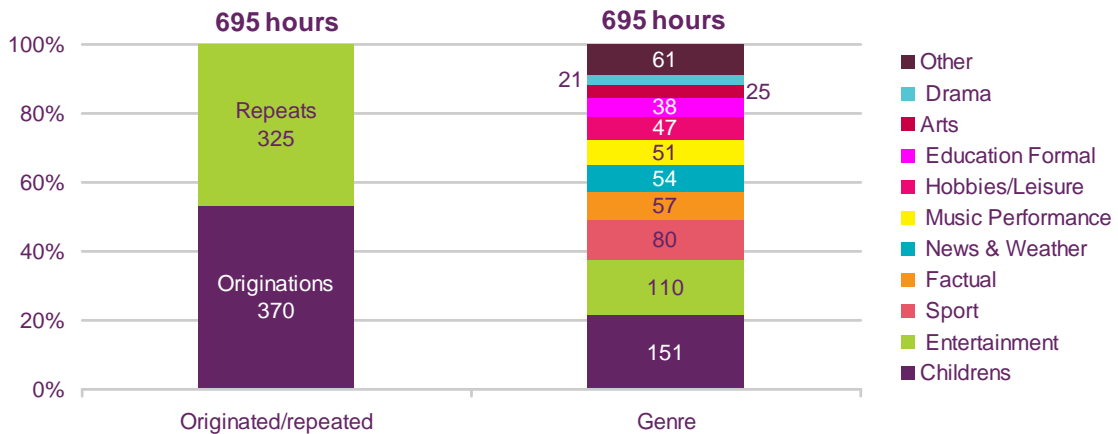
Hours of output



Source: Broadcasters

Prior to September 2008, BBC Two in Scotland also broadcast Gaelic language programming, broadcasting 68 hours of originated content between January 2008 and September 2008. But in September 2008, BBC ALBA launched as a jointly funded (by the BBC and MG Alba) Gaelic language television service. In its first three months it had broadcast a total of 695 hours of output, in a wide variety of genres. Over half of its programmes (55%) were first-run originations.

Figure 3.5 Genre mix and originations on BBC ALBA



Source: BBC

Note: Other includes Current Affairs, Factual Entertainment, Religion and Comedy

An hour of English language television output, tailored to the needs of audiences in one of the four nations, cost an average of £24k in 2008, down by 20% from £30k in 2003. Reductions in cost per hour are explained not only by straightforward cuts in programming budgets, but also by improvements in production efficiencies. Non-news/non-current affairs output was the most expensive to produce on an hourly basis, at £39k in 2008, followed by current affairs at £33k and news at £22k. The cost of current affairs programming fell furthest over the five-year period – by nearly a third (31%); non-news/non-current affairs costs reduced by 25% while the hourly cost of news remained relatively stable, contracting by 8% over the same period. The cost of output for viewers in Scotland stood at £31k in 2008, 24% higher than the UK-wide average; hourly costs have fallen by 21% since 2003 (most of this reduction came about between 2007 and 2008) – broadly in line with the UK-wide average (Figure 3.6).

Figure 3.6 The cost per hour of output for the nations, by genre

Cost per hour (£k, 2008 prices)



Source: Broadcasters. All figures expressed in 2008 prices.

Note: The BBC changed the way it calculated its spend figures from 2005 onwards. The figures for 2002 – 2004 are based on cost per hour averages, while those for 2005 - 2008 are actual spend figures. Comparisons over the period 2003-2008 should therefore be made with caution.

3.3 PSB television quota compliance

3.3.1 Programme production in the nations and English regions

Every year the four main PSBs must each broadcast minimum amounts of programmes that have been produced outside the M25. These out-of-London production quotas have two elements – one relating to the value, which applies to the amount of money spent on programmes produced in the nations and regions, and the second relating to the volume of hours broadcast. In order to qualify against the quota, programmes must comply with Ofcom's regional Production Definition, which establishes three criteria:

- having a substantive base in the relevant nation or regional area;
- achieving a minimum level of expenditure in the nation or region; and
- achieving a minimum spend on production talent based in the nation or region.

In order to qualify, programmes must meet at least two of these three criteria.

The quota levels are different for each broadcaster, as shown in Figure 3.7, where the amounts achieved over the last three years, in terms of the value and volume, are also given. The quotas for the BBC are set at 30% by value and 25% by volume and apply across all its PSB channels. The BBC exceeded these quotas in each of the last three years, achieving 34.9% by value and 33.5% by volume in 2008. The BBC has undertaken to increase the production and commissioning of programmes from Scotland, Wales, Northern Ireland and the English regions and has introduced a new commitment to produce 50% of its output outside London. Within this, 17% must come collectively from the devolved nations. The BBC is working towards full delivery of this requirement by 2016. In Digital Britain the government noted the BBC's proposals to relocate a number of long-running programme strands to Scotland and encouraged the BBC to improve on its targets for production in Scotland, while adopting a similar approach for Wales and Northern Ireland. The report also recognised the increasing pressure on the commercial PSBs' production in the nations.

ITV1/STV/UTV currently has a higher quota level than the other PSBs at 50% for both value and volume, and has met its volume quota in each of the last three years. In 2008 it narrowly missed the value target, achieving 49.9%, having also failed to reach the required levels in 2006 and 2007 by much wider margins (delivering 45.6% and 44.3% respectively). Ofcom imposed sanctions in respect of the 2006 and 2007 breaches and is in discussion with ITV about the shortfall in 2008.

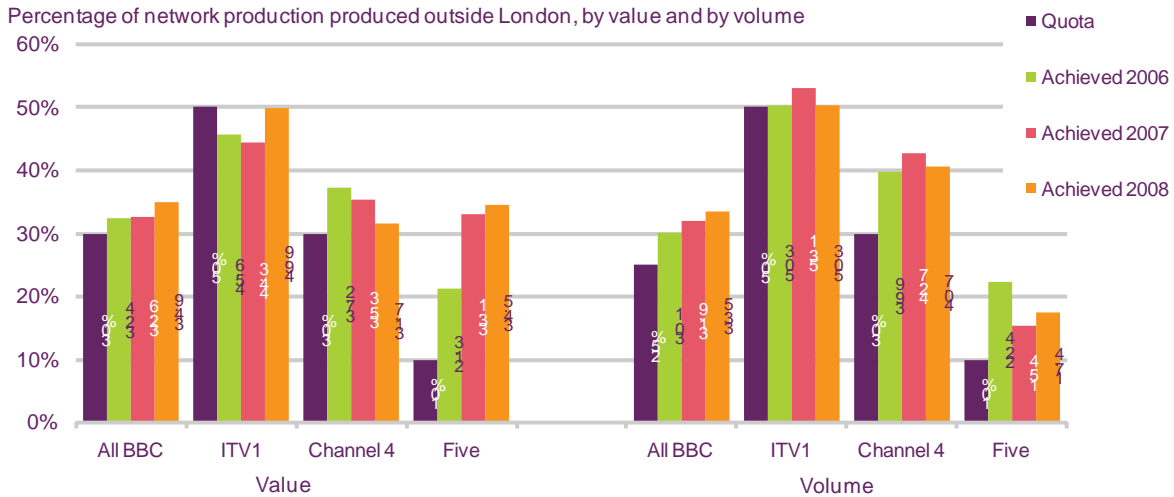
Prior to 2005, the quota was set at 40% of expenditure and 33% of volume and the quotas were increased to 50% for both volume and spend, in line with the conclusions reached in Ofcom's PSB Review of 2004/05. However, reflecting the need to align PSB requirements on ITV1/STV/UTV with the diminishing value to ITV of holding the licences, the second PSB Review decided that the quotas would be reduced to 35%, on a par with 2004 levels, with effect from 2009. Ofcom's PSB Review also increased the spend and volume quotas for Channel 4 from 30% to 35% with effect from 2010. As Figure 3.7 shows, Channel 4 has consistently exceeded its quota levels and this increase in the quotas effectively 'locks-in' the current delivery.

In 2008 Channel 4 achieved 31.7% by value and 40.7% by volume against a quota of 30%. Alongside the 2010 quota revision is the introduction of a new minimum devolved nations quota of 3% of programmes which must be produced outside England. This was a more stretching requirement than Channel 4's own suggestion, that would have taken effect from

2012, and Ofcom has suggested that, subject to funding, the figure should grow substantially in future years. It will consider whether to revise the figure upwards in the future.

Five has a much lower quota commitment, at just 10% but has exceeded its obligations by large margins over recent years, reaching 34.5% by value and 17.4% by volume in 2008, albeit based on lower expenditure figures than the other broadcasters.

Figure 3.7 Performance against the out-of-London production quotas



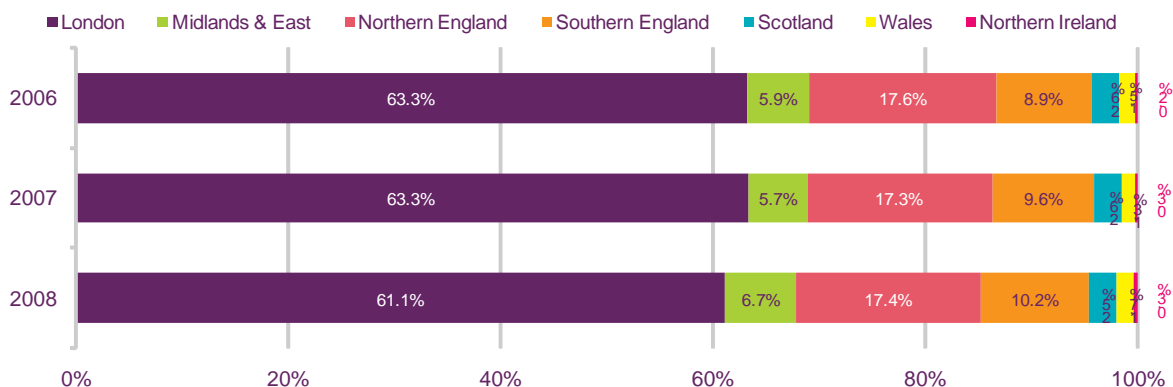
Source: Broadcaster returns

Figure 3.8 shows how the proportion of spend on network original programme productions in the UK by the four PSBs as a whole was divided up. Of the total UK spend of £1,915m, the majority of programmes were made in London, but the proportion has reduced a little from 63.3% in 2006 to 61.1% in 2008. The total spend in the nations and regions reached £744m in 2008 and a greater proportion of the total UK spend was attributable to the Midlands and East and to the South of England than in 2006. The figure for the Midlands and East rose from 5.9% to 6.7%, while in the South the increase was from 8.9% to 10.2%. The percentage in Wales was 1.7%, an increase on the previous two years (1.5% in 2006 and 1.3% in 2007). There was a reduction in Scotland to 2.5% from 2.6% in the two previous years, while the proportion in Northern Ireland remained the same in 2007 and 2008. These levels are expected to grow in future years, as the BBC’s commitment to producing more programmes in the devolved nations starts to take effect, and as Channel 4’s new 3% quota specifically for the nations is implemented.

Scotland’s share of programme expenditure by the PSBs has remained stable at 2.6% in 2006 and 2007, falling to 2.5% in 2008. The actual spend on first-run original productions in Scotland reduced from just under £50m to £48.5m in 2008.

Figure 3.8 Expenditure on out-of-London production

Percentage of production by value



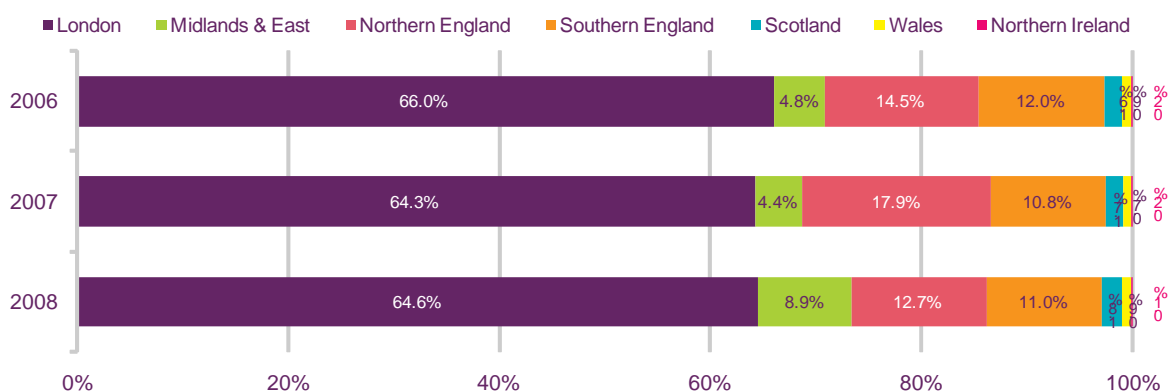
Source: Broadcaster returns

Out of the total of 16,100 hours of first-run UK-originated network programmes broadcast by the four main PSBs in 2008, 5,700 hours were made in the nations and English regions, equating to 35.4% of the total, up from 34% in 2006. The share fell in the Midlands and East from 4.8% of total hours in 2006 to 4.4% in 2007, but increased to 8.9% in 2008 with reductions being seen in the North and South of England (Figure 3.9).

The number of hours produced in Scotland and its share of total volume improved marginally from 1.6% to 1.8%, and in Wales the proportion increased to 0.9% from 0.7% the previous year, returning to the same level as was delivered in 2006. In Northern Ireland there was a reduction in share to 0.1% in 2008, from 0.2% in the previous two years.

Figure 3.9 Volume of out-of-London production

Percentage of production by volume



Source: Broadcaster returns

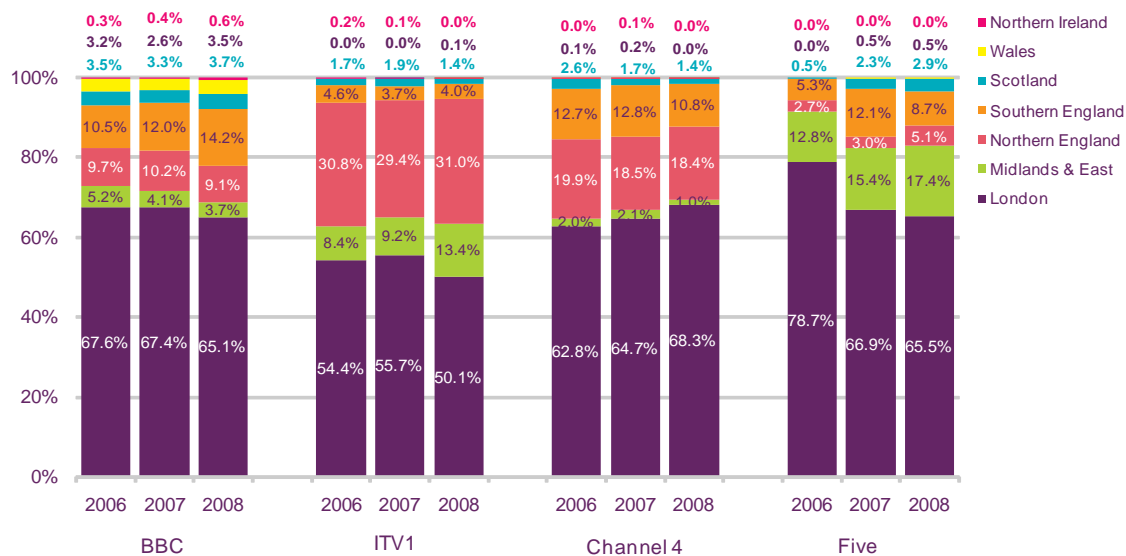
Figure 3.10 shows that all broadcasters, with the exception of Channel 4, increased the proportion of their expenditure on UK original productions made in the nations and regions in 2007 and 2008. The BBC's out-of-London spend went up from 32.4% in 2006 to 34.9% in 2008, while on ITV1/STV/UTV the increase was from 45.6% to 49.9% over the same period. The increase on Five was more significant, albeit from a lower base, rising from 21.3% to 34.5%. The proportion of Channel 4's spend on programmes produced outside London has reduced from 37.2% in 2006 to 31.7%, partly because the overall programme budget has

increased but also because there were fewer commissions from independents based in Southern England in 2008, mainly in the hobbies and leisure category.

In Scotland, the BBC's spend as a proportion of total programme expenditure rose from 3.5% in 2006 to 3.7% in 2008. The actual value of spend in Scotland also increased. On ITV1/STV/UTV, while the proportion of expenditure increased in 2007 from 1.7% to 1.9%, it fell back to 1.4% in 2008 and on Channel 4 the proportion fell from 2.6% in 2006 to 1.7% in 2007 and 1.4% in 2008. On Five there has been a gradual increase in both the proportion of spend in Scotland, from 0.5% in 2004 to 2.9% in 2008, and in the actual value over the last three years.

Figure 3.10 Breakdown of expenditure, by broadcaster

Percentage of production by value



Source: Broadcaster returns

The volume of out-of-London production by broadcaster over the last three years is shown in Figure 3.11.

On the BBC's PSB channels, the proportion of hours made in the Midlands and East macro-region have remained at similar levels while the level has gone down by four percentage points in Northern England, from 9.7% to 5.7%. In the South of England there was an increase of seven percentage points, from 10% in 2006 to 17% in 2008. In Scotland the proportions showed small increases, in Wales the proportion was the same in each of the three years (1.5%), and in Northern Ireland the percentage remained at the same level (0.3%).

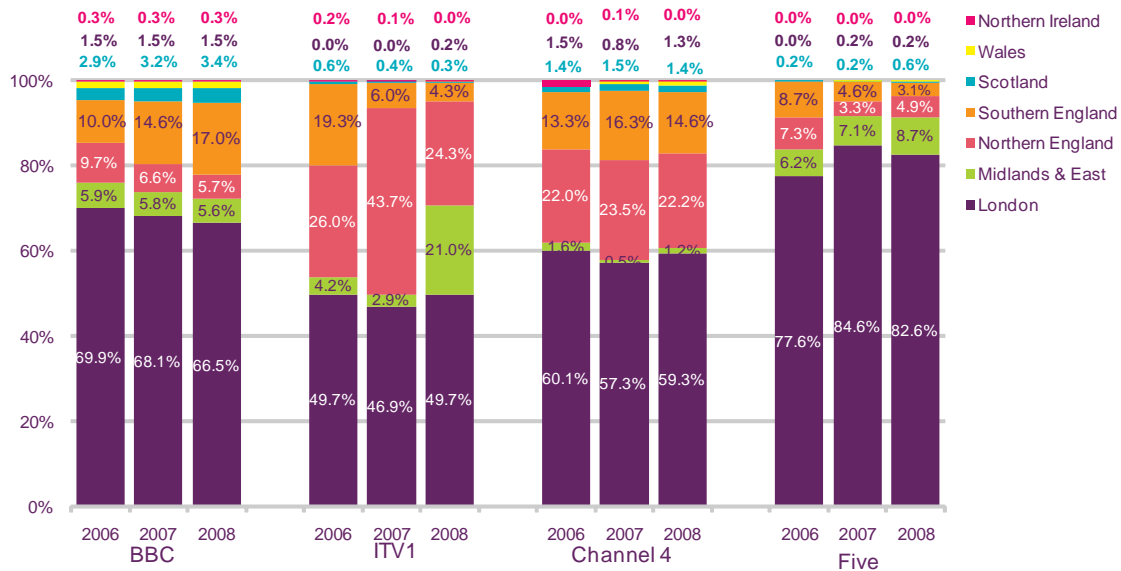
There were significant changes on ITV1/STV/UTV, with an increase of 17 percentage points in the Midlands and East, from 4.2% to 21%, with decreases in the North and South of England which were mainly because of changes in programme production and output for the night-time schedule. The percentage of hours of production in Scotland and Northern Ireland were lower in 2008 than in 2006, but higher in Wales in 2008.

There were no changes of particular note in Channel 4's production volumes in the English regions while on Five there were small increases in the Midlands and East, with reductions in the North and South of England. On Channel 4, the proportion of hours made in Scotland fell from 1.5% in 2007 to 1.4%, returning to the 2006 level. In Wales the proportion fell from

1.5% to 0.8% in 2007, rallying to 1.3% in 2008 but failing to regain the 2006 level. On Five, the proportion increased a little in Scotland and remained the same as the 2007 level in Wales. It should be noted that as the number of hours produced in the devolved nations is low, changes in the proportions broadcast year-on-year are not statistically significant.

Figure 3.11 Breakdown of production volume, by broadcaster

Percentage of production by volume



Source: Broadcaster returns

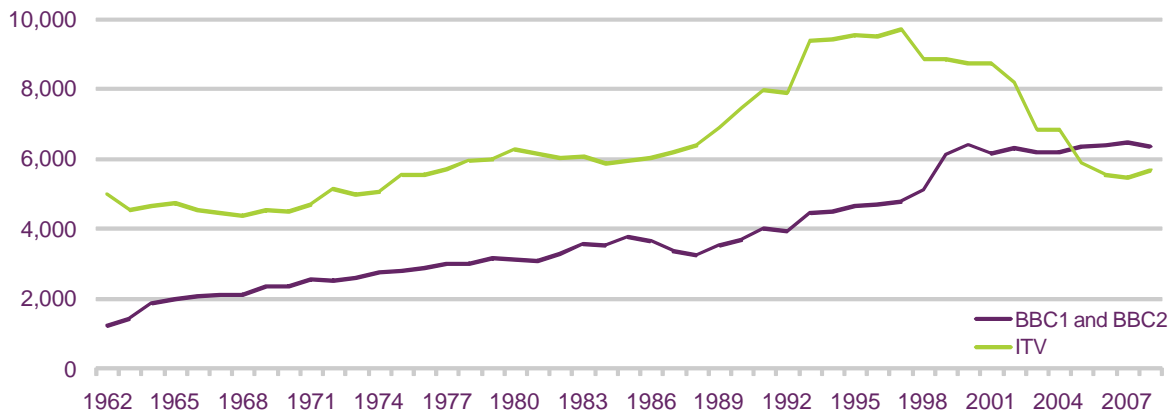
3.3.2 Non-network production in the nations and English regions

Regional programmes are non-network productions made in the nations and English regions specifically for local audiences. The majority are regional news programmes, currently shown at 6pm or 6.30pm on weekdays on BBC One and ITV1/STV/UTV. Channel 4 and Five do not provide regional programmes as their output is fully networked across the whole of the UK.

Figure 3.12 illustrates the trends in the volume of regional programme output on BBC One and Two and ITV1/STV/UTV since 1962. Over the years, both broadcasters have increased the number of hours shown, with the total on ITV peaking at 9,700 hours in 1997. Until 2005 ITV broadcast more regional programmes each year than the BBC, but increased production by the BBC and contractions in ITV's regional services meant that by 2005 the BBC had overtaken ITV in terms of the total volume of regional programmes broadcast annually. The totals achieved in 2008 were 6,378 hours by the BBC and 5,666 hours on ITV1/STV/UTV.

Figure 3.12 Historic trend: total nations and regions output, BBC and ITV1/STV/UTV

Hours per year



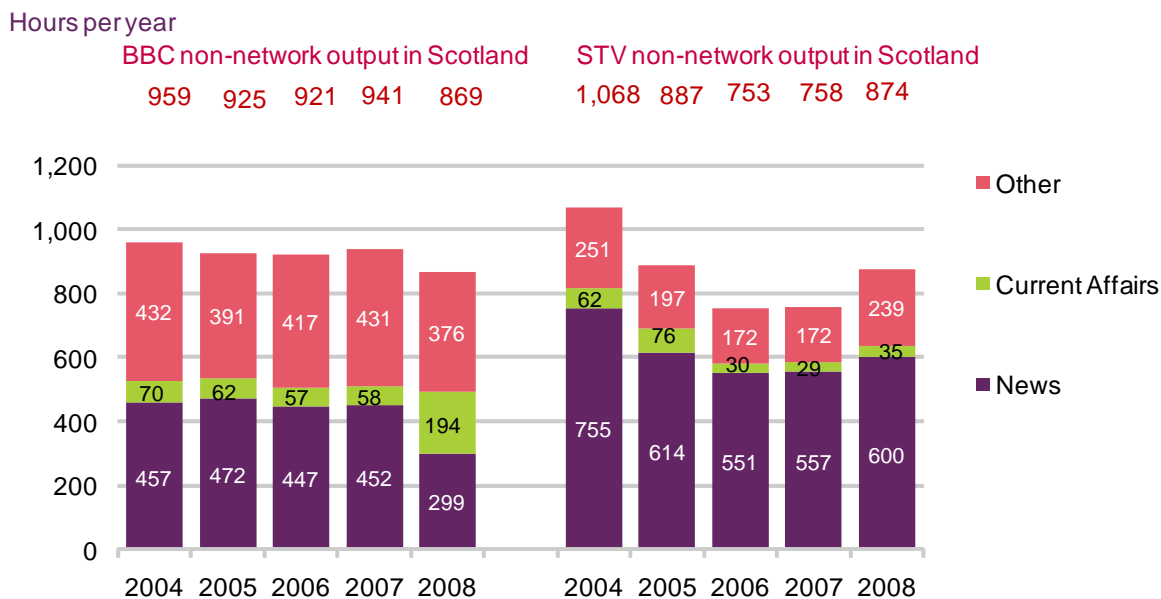
Source: Annual reports and accounts and Broadcasters.

Note: Pre-1998 the BBC figure excludes London productions. The chart shows first-run totals, apart from ITV 1993 to 1998 which includes repeats.

Figure 3.13 shows the delivery of non-network programmes in Scotland since 2004. BBC Scotland programmes fell from 941 hours in 2007 to 869 hours in 2008. There was a re-allocation of programmes between news and current affairs, resulting in an increase of 136 hours of current affairs programming and a reduction in news. The fall in ‘other’ output was partly due to fewer hours of football being shown. On STV, non-network programmes have been consolidated over recent years, with more programmes now being shown across both the Central and North Scotland regions. Figure 3.13 shows that the total number of hours broadcast by STV has fallen from 1,068 hours in 2004 to 874 hours in 2008. The introduction of a new news and general interest magazine programme on weekdays, *The Five Thirty Show*, has contributed to a notable increase in the volume of hours broadcast in 2008, up by 116 hours from 758 hours in 2007, bringing the volume back up to 2005 levels.

From 2009, as a result of Ofcom’s second PSB Review, it has been agreed that one of ITV1/STV/UTV’s priorities should be on nations and regions news programmes, especially in peak time. In prioritising prime-time non-network news, the volume during the daytime will be reduced and the minimum quota for STV’s non-news programmes will be cut from three hours to 1½ hours per week, although peak time will remain unchanged.

Figure 3.13 Non-network output in Scotland, 2004-2008



Note: Figures exclude repeats.
Source: Broadcaster returns

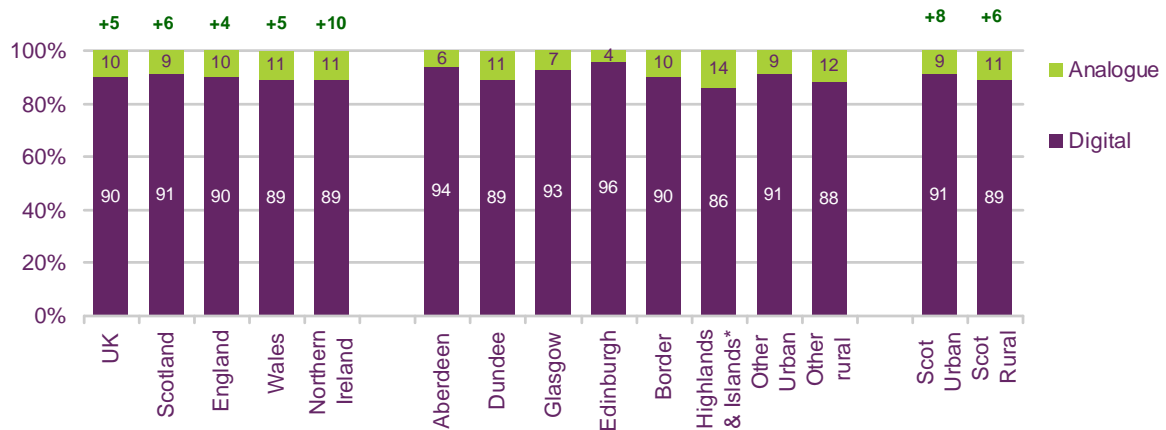
3.4 Digital television take-up

Digital television take-up in Scotland stood at 91% in Q1 2009 – broadly in line with the UK-wide average of 90%. Penetration rose by six percentage points year-on-year compared to the UK-wide average of five percentage points, in the year when the digital switchover programme started, in the Borders region. The rest of Scotland will experience the impact of the digital switchover programme during 2010/2011, as the STV Central and North regions feel the full effect of the digital transition.

Rural and urban DTV take-up in Scotland were broadly comparable, at 91% and 89% respectively in Q1 2009, with urban penetration having risen by eight percentage points year-on-year, and take-up in rural areas up by six percentage points over the same period. Reported levels of penetration stood as high as 96% in Edinburgh but as low as 89% in Dundee (Figure 3.14).

Sixty-three per cent of DTV homes in Scotland took a pay television service such as Sky or Virgin Media in Q1 2009, compared to the UK-wide average of 56% - the highest proportion among the four nations and a full nine percentage points higher than homes in Wales. Of those with either cable or pay satellite, 69% took a pay satellite service with the remaining 31% taking cable; these broadly matched the UK-wide averages of 68% and 32% respectively.

Figure 3.14 Digital television take-up in Scotland



Base less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: Adults aged 15+ with a TV in the household (n= 6001 UK, 1002 Scotland, 3389 England, 970 Wales, 640 Northern Ireland)

QH1a. Which, if any, of these types of television does your household use at the moment?

Note: the UK-wide figure of 90% is drawn from Ofcom's consumer research for Q1 2009; our quarterly Digital Progress Report: DTV for Q1 2009 quotes a UK-wide figure of 89.2%; the difference between the two figures is not statistically significant.

3.5 Television viewing

Viewers in Scotland watched the most TV in 2008

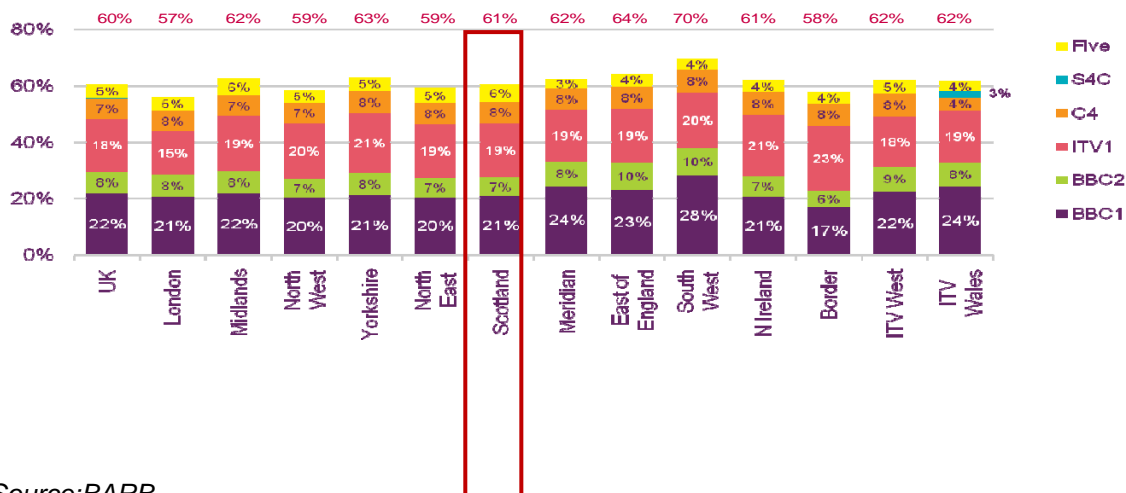
During 2008, people in Scotland spent more time watching television than people anywhere else in the UK, viewing 4.2 hours a day, higher than the UK average of 3.8 hours a day and one hour more a day than viewers in ITV West (3.2 hours). Viewers in Scotland were the heaviest TV consumers despite the average levels of viewing having contracted by 1.2% since 2003, compared to the UK-wide increase of 0.3% (Figure 3.15).

The proportion of the population that watched at least 15 consecutive minutes of television in any one week in Scotland during 2008 was comparable with the UK average at 92.2% (compared to 92.4%), having decreased by two percentage points since 2003, ahead of the UK average reduction of 1.1 percentage points.

The five PSB channels held a 61% viewing share in Scotland in 2008, which was one percentage point higher than the UK-wide average (60%). BBC One and BBC Two both attracted an audience share one percentage point lower than the UK average, at 21% and 7%, although STV, Channel 4 and Five were all slightly more popular in Scotland than in the UK as a whole, with shares of 19%, 8% and 6% respectively.

Figure 3.15 Share of the five terrestrial networks in all homes, 2008

Audience share (%)

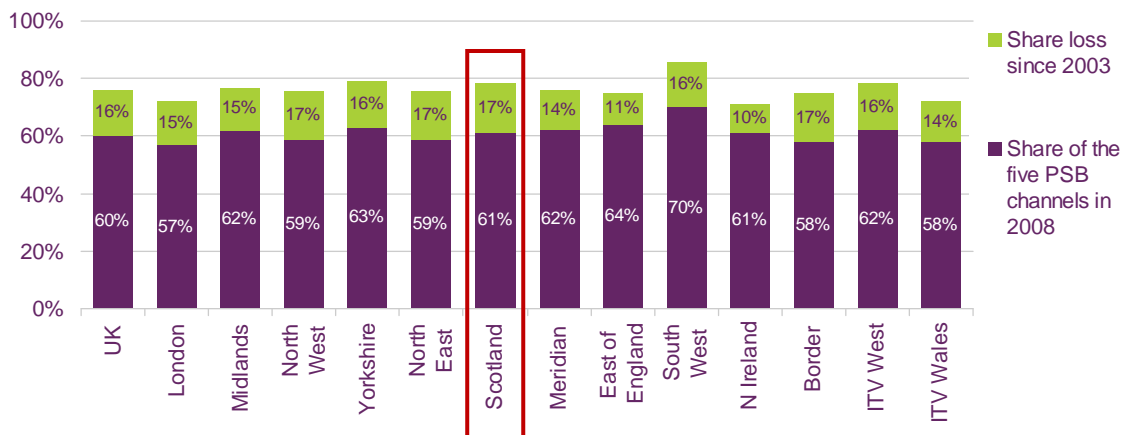


Source:BARB

Since 2003, the five PSB channels' combined share of viewing has fallen by 17 percentage points in all homes in Scotland (Figure 3.16). This is one percentage point above the UK average reduction (16pp), and along with the Northern English regions - North West, North East and Border, the five main PSBs lost a greater share in Scotland than anywhere else in the UK between 2003 and 2008.

Figure 3.16 Reduction in combined share of the five PSB channels, 2003 – 2008

Audience share (%)



Source:BARB

Note: The figure for ITV Wales does not include viewing share for the full Channel 4 service.

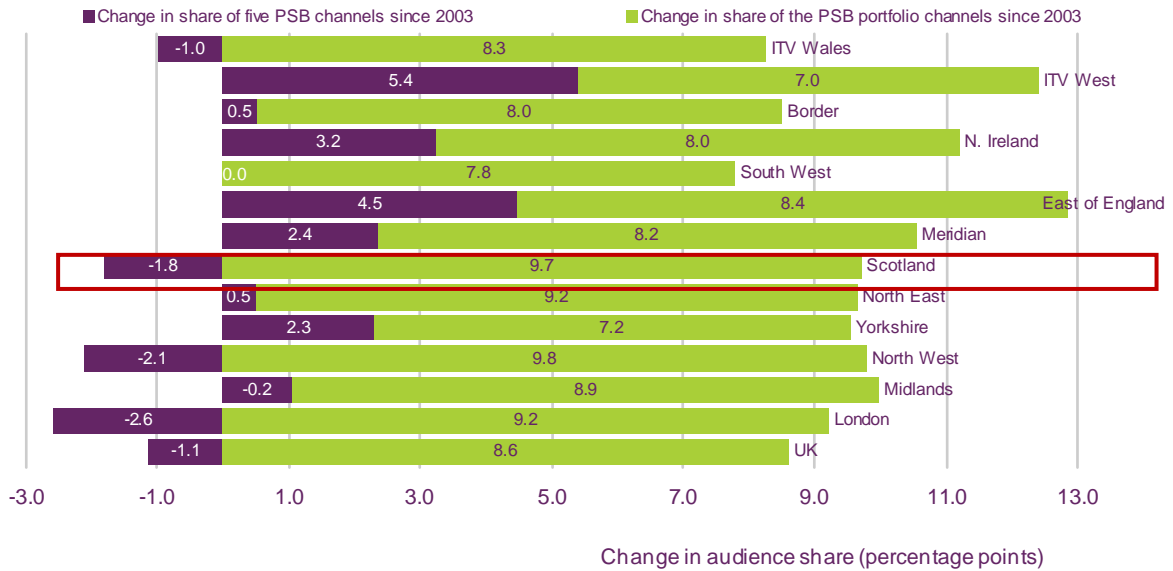
PSB portfolio channels gain high share in multichannel homes in Scotland

The five main PSB channels also lost share in multichannel homes in Scotland, shedding 1.8 percentage points between 2003 and 2008, ahead of the UK average decline of 1.1 percentage points, but lower than London's share loss of 2.6 percentage points. However, the PSB portfolio channels (which include all PSB channels except the five terrestrial channels) saw strong share growth in Scotland, at 9.7 percentage points (with these channels gaining more share only in the North West), ahead of their UK-wide share rise of 8.6 percentage points (Figure 3.17).

In multichannel homes in Scotland, the most popular channel choice, beyond the five PSB channels, was ITV2, with a 3% viewing share (higher than the 2% share that ITV2 secured across the UK), followed by E4 with an audience share of 2%.

Figure 3.17 Net change in the audience share of the five main networks and the PSB portfolio channels in multichannel homes, 2003 - 2008

Change in share (percentage point)



Source: BARB. Note: PSB Portfolio channels include all PSB channels apart from the five terrestrial channels. In the chart the 'ITV Wales' bar for PSB Channels includes Channel 4 and S4C.

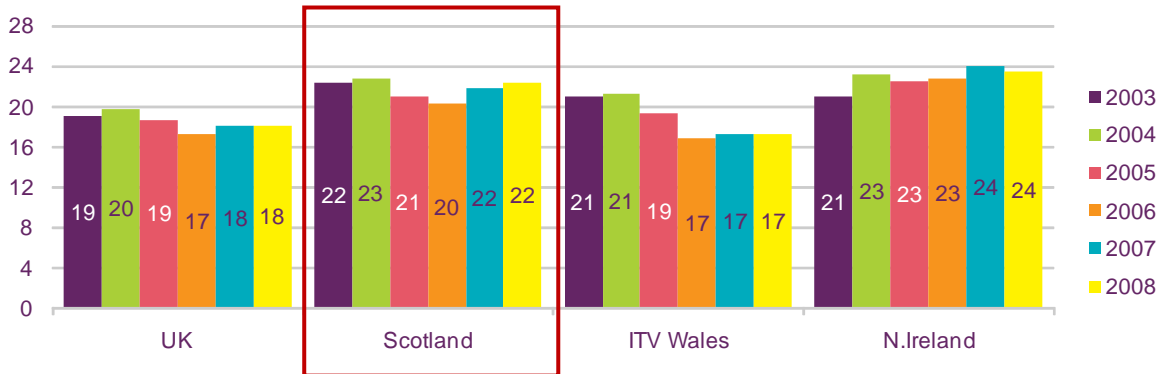
Local news viewing is popular in Scotland

Ofcom consumer research shows that 55% of people in Scotland claimed that television was their main source for local news, while 28% preferred newspapers, both higher than the UK averages (49% preferring television and 23% preferring newspapers).

This is reflected by viewers in Scotland having a high level of consumption of early evening news bulletins in 2008, watching an average of 22 hours per head, six more than the UK average, but two hours less than people in Northern Ireland (Figure 3.18).

Figure 3.18 Combined total hours of viewing of early evening regional news bulletins, all homes, 2003 to 2008

Hours/Viewer/Year



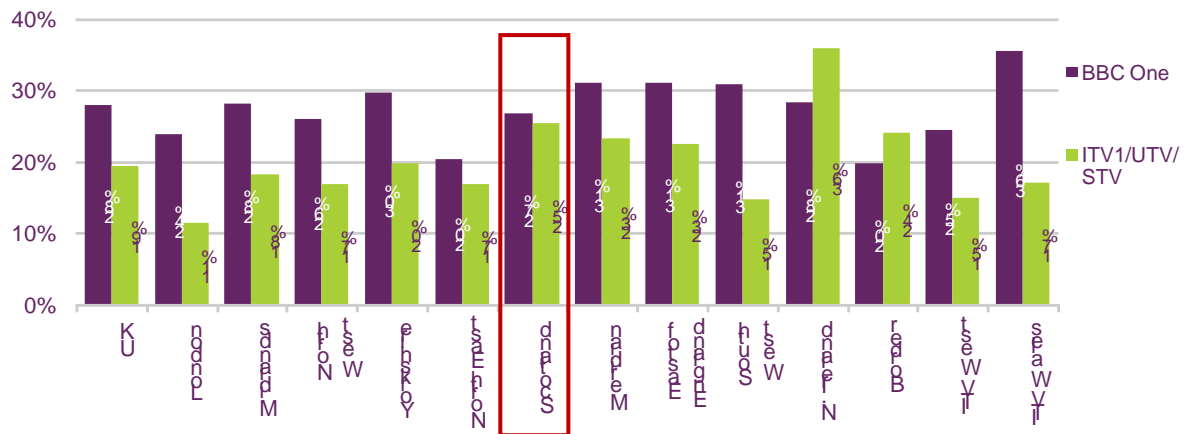
Source: BARB. Analysis done on genre regional News, start time 17:55-18:35, 10 mins+ duration, channels BBC One and ITV1 combined, Monday through to Friday.

In 2008, STV's early evening news bulletins were more popular with viewers in Scotland than ITV1 was on average across the UK, attracting a 25% share compared to the UK ITV1 average of 19% (Figure 3.19). However, STV's share was still lower for these bulletins than UTV's share was in Northern Ireland, where it reached 36% share.

BBC One, on the other hand, secured an early evening news bulletin share one percentage point lower than the UK average of 28% (at 27%), and consequently, the narrowest margin between the two channels was seen in Scotland.

Figure 3.19 BBC One and ITV1/UTV/STV early evening news bulletin shares, 2008

Audience share (%)



Source:BARB



The Communications Market 2009

4 Radio

4.1 The radio industry

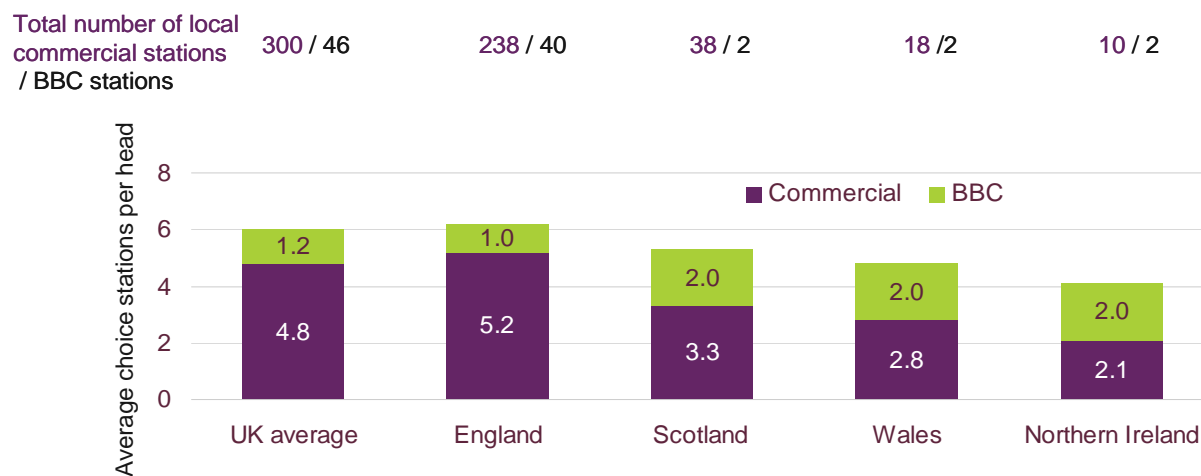
4.1.1 Station changes in 2008/09 and choice of stations in Scotland

Scotland has second-highest station choice of UK nations

Scotland has 38 local commercial analogue radio stations, equivalent to around 12.5% of the UK's total of 304. This compares to the ten local commercial stations licensed in N. Ireland, 18 in Wales and 238 in England. Per head of population, Scotland has a choice of around 3.3 local commercial stations on average. When including the BBC stations BBC Radio Scotland and Radio nan Gàidheal, listeners in Scotland have access to about five local or national stations on average. Scotland also has 19 community radio licences currently awarded, with 12 of these already broadcasting. The main change over the year in terms of station line-up was the closure, in December 2008, of Talk 107, which had broadcast to the Edinburgh, Fife and Lothians areas.

The size of population coverage by commercial stations in Scotland is fairly evenly split between smaller and larger conurbations, with 17 (45%) of the 38 local commercial stations in Scotland covering populations of fewer than 100,000, while 14 (37%) cover populations of over 250,000 people - the remaining seven stations (18%) cover medium-sized territories of between 100,000 and 250,000 people (Figure 4.1). This distribution pattern is similar to that in Northern Ireland, with many stations serving smaller dispersed communities alongside the larger city stations in Scotland.

Figure 4.1 Distribution of radio stations, by population coverage



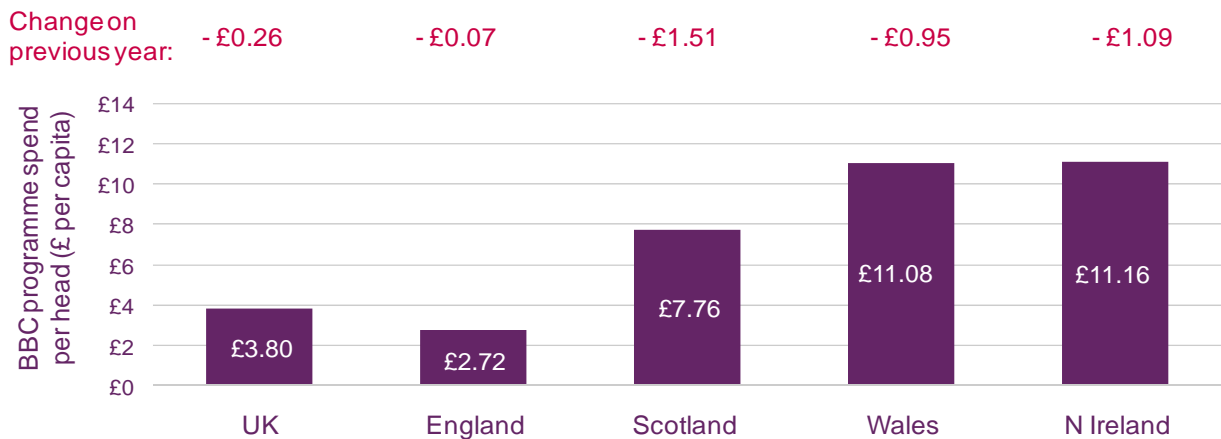
Source: Ofcom, July 2009

Note: Average local commercial radio choice calculated by population coverage of stations. UK total for local commercial excludes overlapping stations.

4.1.2 BBC spend per head on nations radio

BBC nations/local radio spend in Scotland totalled £38.0m in 2008/09; however this was down 16% from £45.4m in 2007/08. This compared to spend of £31.6m in Wales, £18.4m in Northern Ireland and £133.0m on local radio in England in 2008/09. Figure 4.2 shows spend in Scotland equated to around £7.76 per person in Scotland, which was lower than the average spend per head in Wales (£11.08) and Northern Ireland (£11.16), but higher than the average spend per head on local radio in England (£2.72) (Figure 4.2).

Figure 4.2 BBC spend on national / local radio programming 2008-09



Source: BBC Annual Report and Accounts 2008/09

Note: The revenue data above have been compiled by the BBC to illustrate UK public services expenditure by service.

Commercial radio revenues in Scotland second highest per head, down on last year

Over half (53%) of the radio stations in Scotland are independently owned. This is a higher ratio than the other UK nations, with 20 of the 38 stations in Scotland being independent. Of the commercial radio groups, Bauer Radio (formerly Emap / Scottish Radio Holdings) holds the most licences, with 14 (39%). By comparison, in Northern Ireland one group, Northern Media, owns 60% of all licences, while in Wales the two main radio groups own 65% of licences. In England, Bauer and Global Radio together own 37% of local commercial stations.

Revenue generated by the commercial stations in Scotland reached around £42m in 2008, down by 5% from £44m in 2007 (Figure 4.3). This revenue was equivalent to around 9.4% of the UK total of £505m. Adjusting for population size, local commercial revenue in Scotland was equivalent to £8.48 per head in 2008 as shown in Figure 4.3, down by £0.45 on £8.93 in 2007. This was the second highest revenue per head of the UK nations, and £0.90 (12%) above the UK average of £7.58 per person.

Figure 4.3 Local commercial radio revenue per head, 2008



Source: Ofcom, operator net broadcasting revenue returns 2008

Note: Chart shows net broadcasting revenues as based on returns received by Ofcom for the year 2008. The UK total shows the average for local commercial radio revenues across the four nations.

S

4.2 Radio service availability

National DAB coverage increasing, with further transmitters planned for 2009

Analogue radio services are available to most people in Scotland, with ownership of analogue radio devices almost universal. National coverage of DAB digital radio has steadily increased with the installation of further transmitters by Digital One and the BBC. Digital One estimated that its overall coverage of the UK population had reached 90% by March 2008, with the BBC network estimated to have similar coverage.

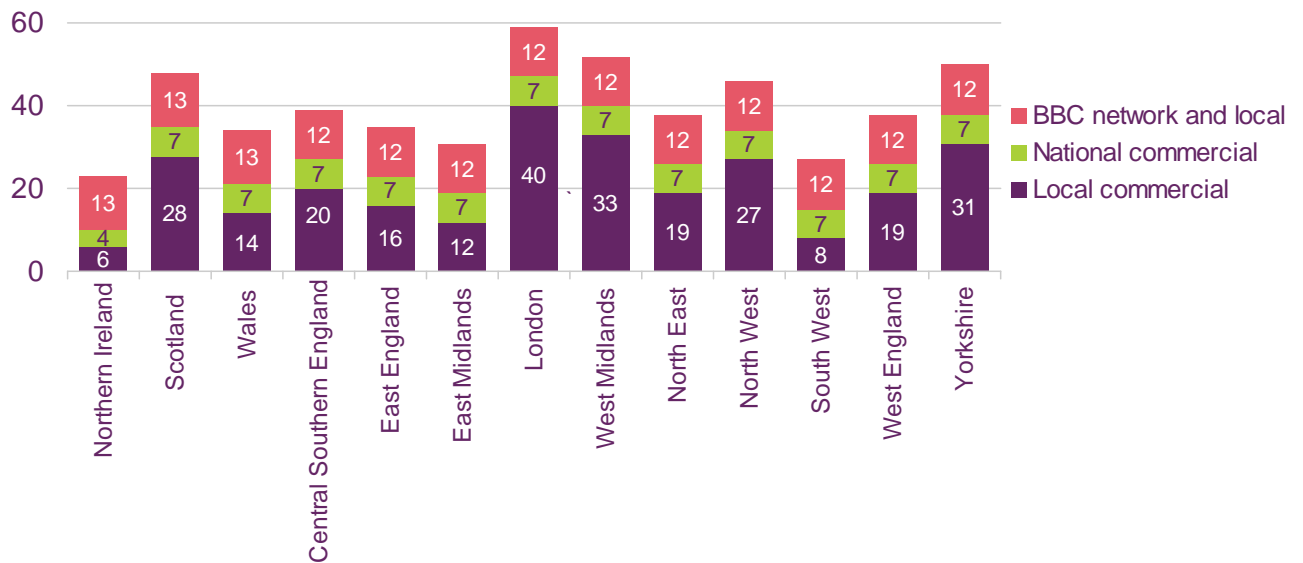
There are currently ten DAB transmitter sites in Scotland providing coverage of the national BBC and commercial services. National DAB sites include: Aberdeen, Ayr, Edinburgh, Glasgow, Moray Firth, Perth, Tayside and Selkirk. In March 2009 a further transmitter was installed by the BBC and Digital One at Braid Hills in Edinburgh. There are plans for additional transmitters at sites in Aberdeen, Fort William, the Highlands and Peterhead in 2009/10, but a new transmitter for Dumfries & Galloway has now been delayed.

There are a further 24 local commercial DAB transmitters supporting the seven local multiplexes, based on sites including Inverness, Aberdeen, Dundee / Perth, Central Scotland, Glasgow, Edinburgh, and Ayr.

Of the DAB stations available in Scotland, the BBC national DAB network offers the five UK-wide BBC stations, (BBC Radio 1,2,3,4 and 5 Live) plus six digital-only stations (1Xtra, 6 Music, BBC7, Five Live Extra, World Service and the Asian Network). The Digital One network currently provides seven national stations across Scotland, England, and Wales, including Classic FM, Virgin Radio, talkSPORT, Planet Rock, Amazing Radio, BFBS, and Fun Kids.

Digital radio listeners in the Glasgow and Edinburgh areas have the greatest DAB choice (34 and 33 stations respectively, including the 18 national services, plus BBC Radio Scotland / BBC nan Gàidheal, and 14-15 commercial stations available through local or regional multiplexes. Listeners in Ayrshire have access to around 25 DAB stations, while Aberdeen has 26, Dundee and Perth 24, and Inverness 23 (Figure 4.4).

Figure 4.4 Availability of DAB stations, by area



Source: Ofcom, July 2009

Note: The above chart shows the maximum number of stations available in each area; local variations, along with reception issues, mean that listeners may not be able to access all of these.

The two national Scottish BBC stations, Radio Scotland and Radio nan Gàidheal, are available on all digital platforms including DAB radio, DTV and the internet. Both services are available through digital TV via satellite, cable and DTT, with the newer BBC/ITV freesat service also carrying both services. BBC Radio nan Gàidheal is carried on local commercial DAB multiplexes, covering Aberdeen, Ayr, Dundee / Perth, Inverness and Central Scotland, while BBC Radio Scotland is carried on local commercial multiplexes in Aberdeen, Ayr, Dundee / Perth, Edinburgh, Glasgow, and Inverness.

Figure 4.5 Availability of national BBC radio stations in Scotland through a digital platform

BBC station	Available DAB area	Freeview	Sky	Virgin Media	Freesat	bbc.co.uk
BBC Radio Scotland	Scotland	719	116	930	712	www.bbc.co.uk/scotland/radioscotland
BBC Radio nan Gaidheal	Scotland	720	139	934	713	www.bbc.co.uk/scotland/alba/radio

Source: BBC






4.3 Radio listening

Radio listening is lower in Scotland than in other UK nations

Radio services reached 87.4% of the adult population in Scotland on a weekly basis in Q1 2009, (down slightly, by 0.3 percentage points, from a year ago); this was 2pp lower than the UK average of 89.4%. Average listener hours per week in Scotland were 21.6 in Q1 2009, again below the UK average of 22.4 hours per week (Figure 4.6)

Figure 4.6 Levels of radio listening in 2009

Average weekly listening hours and percentage reach of population

	England 	Scotland 	Wales 	Northern Ireland 	UK TOTAL 
Average weekly listening	22.3 hours	21.6 hours	23.2 hours	22.7 hours	22.4 hours
Reach	89.5%	87.4%	91.0%	87.1%	89.4%

Source: RAJAR Q1 2009

Local commercial is the most popular form of radio listening in Scotland

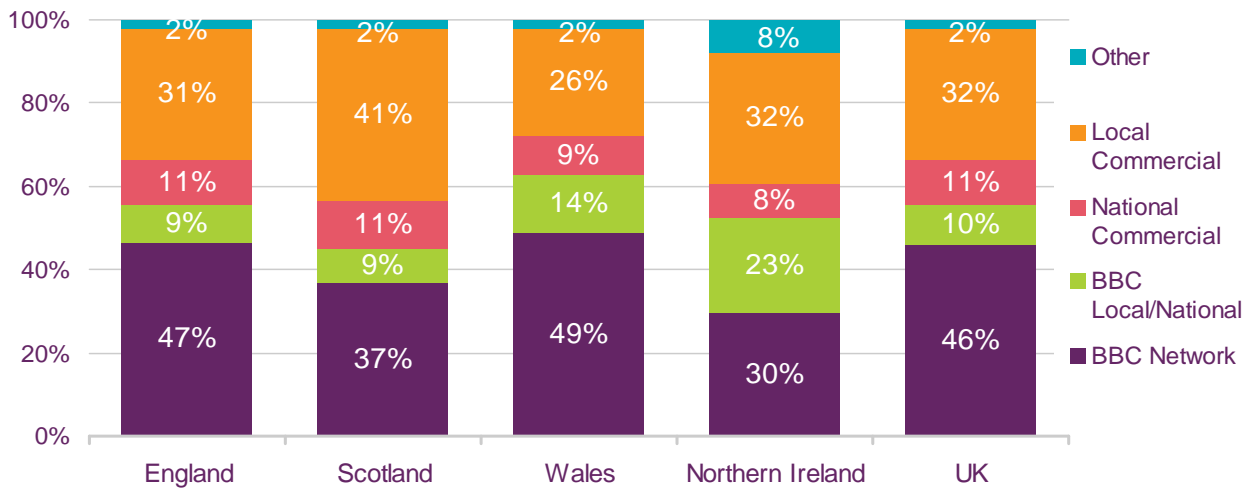
Figure 4.7 shows listening to commercial radio stations accounted for over half (52.4%) of all listening in Q1 2009; this was significantly higher than the UK average share of 42.3%. Of this total, local commercial radio in Scotland accounted for a share of 41.2% compared to an average of 31.5% across the UK, with many local commercial stations in Scotland enjoying a high local reach.

Listening to BBC stations accounted for 45.3% of radio listening in Scotland in Q1 2009. Of this, 36.7% was to BBC network services (up 1.1 percentage points year on year), much lower than the UK average of 45.9%. Listening to BBC Radio Scotland / nan Gàidheal accounted for a 9% share, (down by 0.3pp), similar to local radio share in England (9%), but lower than in Wales (14%) and Northern Ireland (23%).

A general picture across the other nations shows that in Wales the BBC stations are the most listened-to services, with national BBC (14%) and BBC network (49%) both above average. In Northern Ireland the BBC national/local stations have the highest share in the UK, at 23%, while 'other' listening has an 8% share among local audiences; also the highest of the UK nations. In England the BBC network (47%) and the local commercial stations (31%) have above-average audience shares.

Figure 4.7 Share of listening hours, by nation

Audience share for BBC and commercial stations, local/national

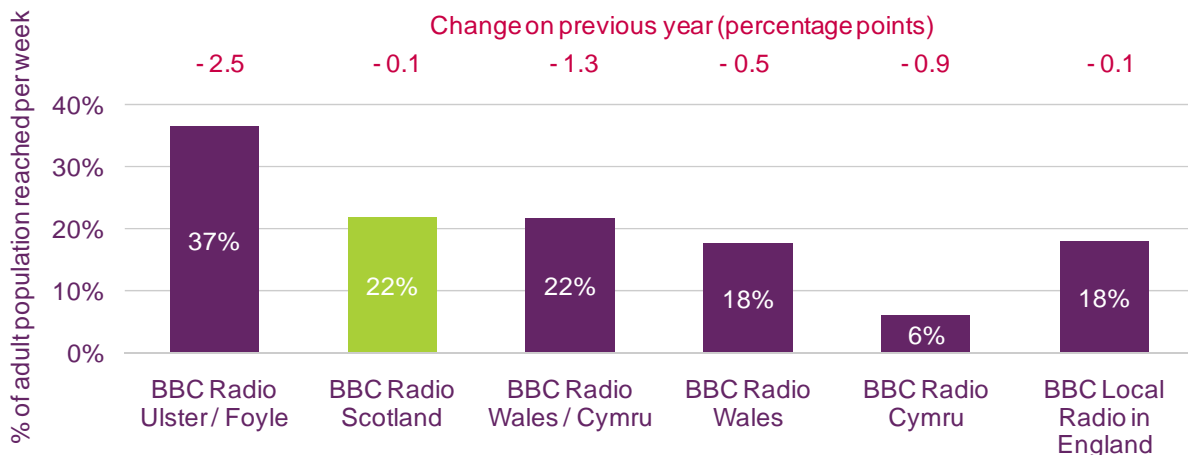


Source: RAJAR Q1 2009

BBC Radio Scotland/ Radio nan Gàidheal weekly audience of around 1 million listeners

Almost a million (940k) adults listened to BBC Radio Scotland/ Radio nan Gàidheal on an average week over 2008. This equates to over one in five (22%) of the population using the national services every week. Audience reach was down very slightly, by 0.1 percentage points, in the year. By comparison, the audience for BBC services in Northern Ireland was down 2.5pp in the year and Wales down 1.3pp, with local radio in England also down 0.1pp. The weekly reach of BBC Radio Scotland / Radio nan Gàidheal now matches that of BBC Radio Wales / Cymru.

Figure 4.8 Weekly audience for national / local BBC services, 2008



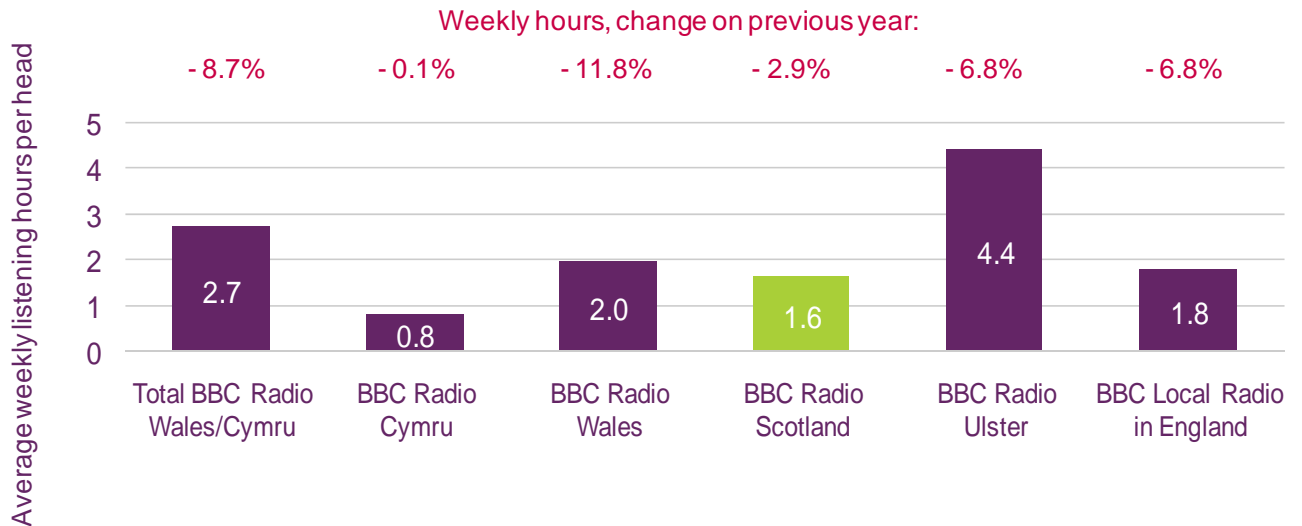
Source: RAJAR, average reach over calendar year 2008

Listening hours down 2.9% for BBC Radio Scotland/ Radio nan Gàidheal in 2008

Average UK listening hours for the BBC national / local radio services fell between 2007 and 2008; total weekly listening hours to BBC Radio Scotland / Radio nan Gàidheal were down

by 2.9% in 2008 (Figure 4.9). However, this was less than the fall in listening to other BBC services, such as in Wales where it was down 8.7% in 2008, and in Northern Ireland and England, both down by 6.8%. Average hours per head of population for BBC Radio Scotland / Radio nan Gàidheal were 1.6 hours per week in 2008; lower than the other nations, with Northern Ireland at 4.4 hours per head, Wales 2.7, and 1.8 hours per head for listening to BBC local radio in England.

Figure 4.9 Weekly listening to national / local BBC services, 2008



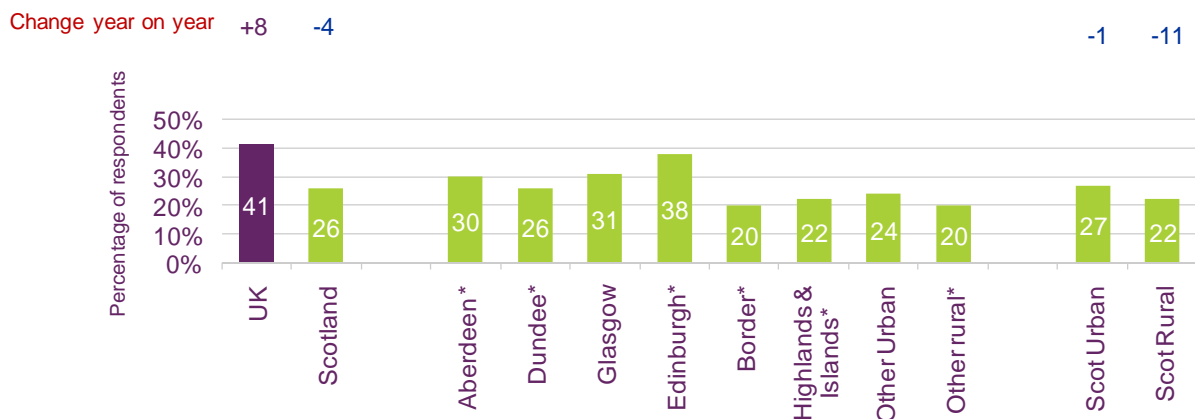
Source: RAJAR, (adults 15+). Average weekly listening hours per head, over calendar year 2008

One in four own a DAB digital radio set

Research carried out in Q1 2009 (Figure 4.10) showed that 26% of respondents in Scotland claimed to own a DAB digital radio set. This was similar to ownership in Wales, at 27%; ownership was highest in England at 43% and lowest in Northern Ireland at 19%.

Within the regions of Scotland, take-up was generally higher in the larger cities, with Edinburgh the highest at 38%, Glasgow 31% and Aberdeen 30%. Urban areas had an average ownership of 27%, compared to 22% in rural areas.

Figure 4.10 Ownership of DAB digital radios



Source: Ofcom research, Quarter 1 2009.

*Base less than 100: Apply caution

Base: Adults aged 15+ who listen to radio (n= 5016 UK, 780 Scotland)
 Q: How many DAB sets do you have in your household?

4.3.2 Listening to radio via digital formats: digital TV, internet, DAB or mobile phone

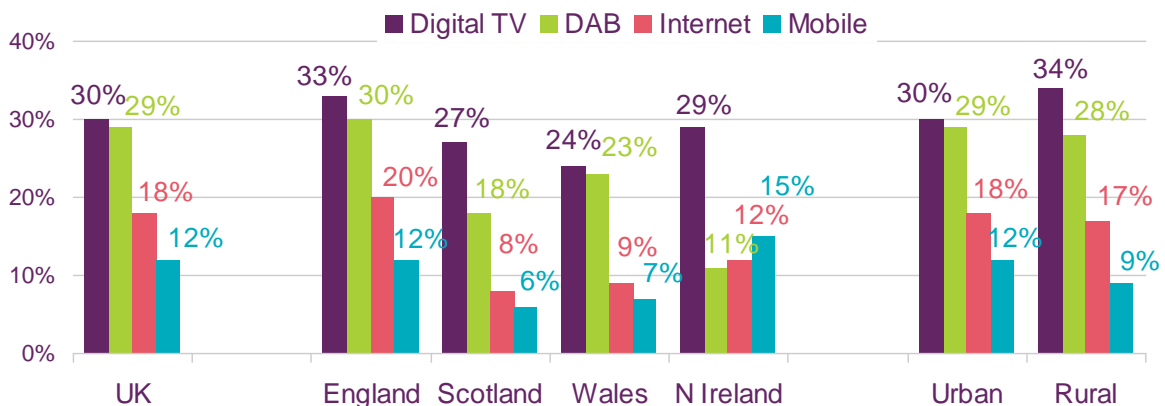
By Q1 2009 over a quarter (27%) of people in Scotland claimed to be using digital TV to listen to radio channels; this was the most popular way of accessing digital radio and similar to the other nations, with a UK average of 30% using this feature.

Listening online had been tried by 8% of respondents in Scotland; lower than in the other nations: England (20%), Northern Ireland (12%), and Wales (9%). Levels of listening to digital radio via a DAB set were also below average at 18%, compared to 30% in England and 23% in Wales, but higher than 11% in Northern Ireland.

Listening to radio over a mobile phone was lowest in Scotland, at 6% compared to the UK average of 12% (Figure 4.11)

Figure 4.11 Listening to radio via DTV, internet, mobile phone

Proportion of respondents (%) who have ever listened to radio via DTV, DAB, Internet, or mobile phone



Source: Ofcom research Q1 2009.

Base: Adults aged 15+ who listen to radio (n= 5016 UK, 780 Scotland)

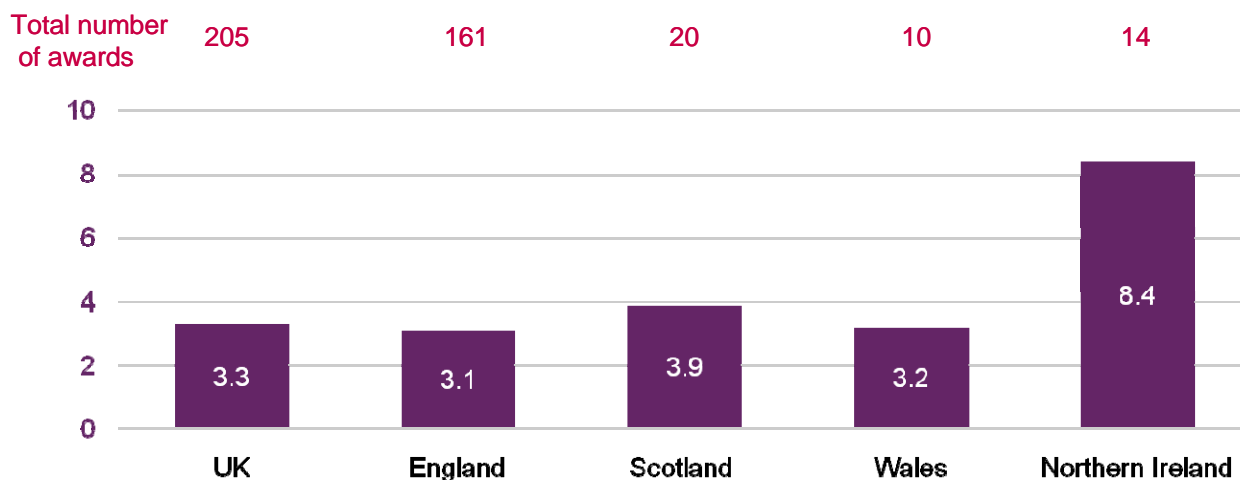
4.3.3 Community radio licence awards

Community radio licences are awarded to small-scale operators working on a not-for-profit basis to serve local areas or particular communities. The number of community stations has increased over the last couple of years, with 205 new licences issued by Ofcom for services throughout the UK's nations and regions.

Twenty community licences been awarded in Scotland, with one of these handed back, leaving 19 still active. Scotland has the second most community stations per head, at an average of 3.9 stations per million people. Northern Ireland has the most community stations per head at an average of 8.4 per million people, higher than the ratio in Wales (3.2) and England (2.9) (Figure 4.12).

Figure 4.12 Community radio stations in the UK

Number of community radio stations, (average per million head of population)



Source: Ofcom, July 2009

Community stations – 12 stations now on air in Scotland

Scotland community awards: Scotland currently has 19 community radio licences awarded, with one licence, for Inverness, having being returned to Ofcom. The twelve stations already broadcasting include local communities in Aberdeen, Ayrshire, Borders, Cumbernauld, Edinburgh, Glasgow, Govan, Leith, Midlothian and Orkney (Figure 4.13).

Figure 4.13 Community station licences awarded in Scotland

Community station	Location	On-air date
shmuFM	Aberdeen	20/10/2007
Speysound Radio	Badenoch & Strathspey	-
Pulse FM	Barrhead	-
Revival Radio	Cumbernauld	03/09/2006
Alive Radio	Dumfries	-
Dunoon Community Radio	Dunoon, Argyll	-
Edinburgh Garrison FM	Edinburgh	14/08/2006
Celtic Music AM	Glasgow	16/01/2008
Awaz FM	Glasgow - Central	01/01/2006
Insight Radio, RNIB Scotland	Glasgow - West	30/03/2007
Sunny Govan Radio	Govan	23/03/2007
Leith FM	Leith	24/03/2007
Black Diamond FM	Midlothian	29/03/2007
Jubilee1	North & South Queensferry	-
Super Station Orkney	Orkney	14/01/2008
Bute FM	Rothesay, Isle of Bute	-
3TFM	Saltcoats & Adrossan, N Ayrshire	19/04/2008
Brick FM	St Boswells, Borders	22/01/2008
Mearns FM	Stonehaven & the Mearns	-

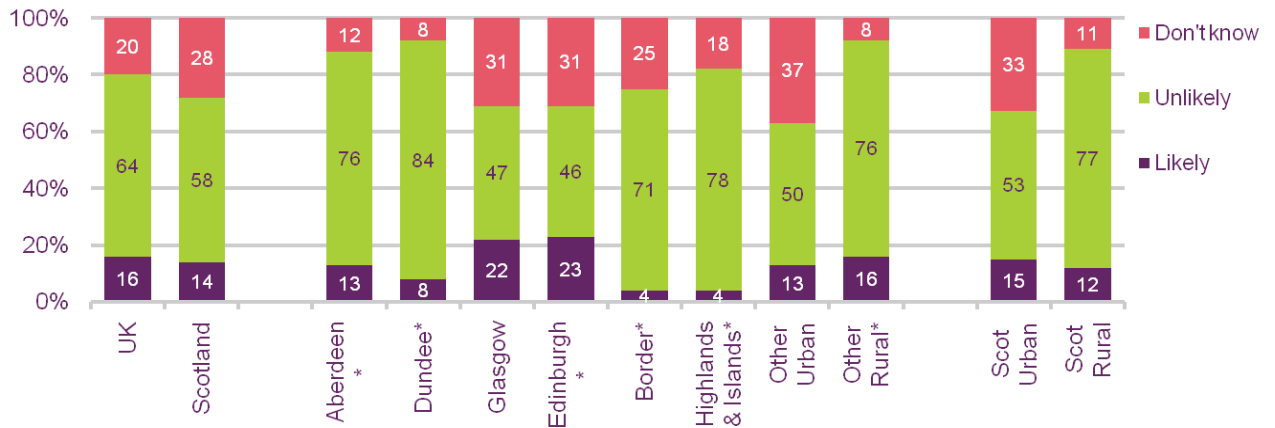
Source: Ofcom, July 2009

4.3.4 Likelihood to purchase DAB radio set

Around one in seven (14%) of respondents in Scotland without a DAB radio set said they were likely to purchase one within the next six months (Figure 4.14). This was similar to the UK average of 16% intending to buy. Residents in the larger cities were the most likely to buy, with 23% of people in Edinburgh and 22% in Glasgow intending to purchase. The Border area and the Highlands and Islands were the least likely to buy, at only 4%. Urban areas were slightly more likely to buy than rural areas, but these were not too far apart, at 15% and 12% respectively.

Figure 4.14 Intention to purchase DAB radio

How likely is it that your household will get a DAB radio in the next 12 months?



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

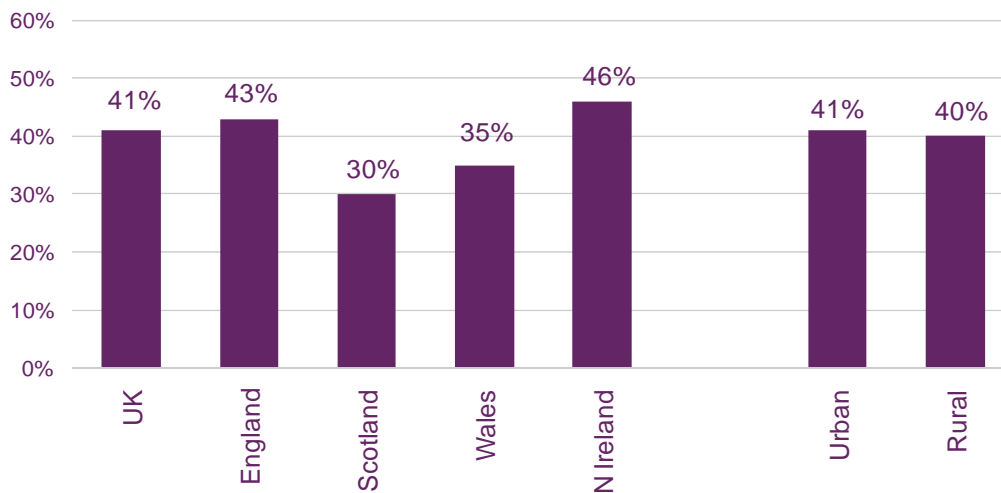
Base: Adults aged 15+ who listen to radio and do not have a DAB set (n= 3314 UK, 558 Scotland)

Ownership of MP3 players lowest in Scotland

Ownership of MP3 players or iPods was lowest in Scotland of the UK nations, with just under a third (30%) of the population aged over 15 claiming to own one. This compared to 46% in Northern Ireland, 35% in Wales and 43% in England.

Figure 4.15 Ownership of MP3 / iPod

Ownership of either an MP3 player or iPod (%)



Source: Ofcom research, Q1 2009

Base: Adults aged 15+ who listen to radio and do not have a DAB set (n= 3314 UK, 558 Scotland)

Q: Which of the following do you, or does anyone in your household have in your home at the moment: An MP3 player/iPod?



The Communications Market 2009

5 Telecoms

5.1 Availability

5.1.1 Fixed lines

BT is subject to the universal service obligation (USO) which makes access to voice services over the public switched telephone network (PSTN) available to all households in Scotland at a standardised charge (although additional connection charges apply in areas where the cost of installation exceeds £3,400).

This means that there are no significant issues regarding the availability of landline services in Scotland, or in the UK as a whole, although a small number of remote premises may have difficulties in connecting to a fixed network. The USO also makes it mandatory for BT to provide affordable fixed telephony services for less-advantaged members of the community in the form of special pricing schemes.

5.1.2 Narrowband internet

Narrowband internet services are those achieved by means of dial-up over a twisted copper pair or coaxial cable at download speeds of less than 128kbit/s. Internet connections of this type have largely been superseded by higher-bandwidth broadband connections, and according to the Office for National Statistics⁵, less than 5% of UK internet connections were narrowband in December 2008, down from almost 75% five years previously.

As the only requirement to access narrowband internet services (apart from a suitably equipped PC) is a standard fixed telephony line, the USO ensures that, like fixed voice telephony, narrowband services are available to all UK residents.

5.1.3 Broadband internet

Almost all (over 99%) UK broadband internet connections are provided using either digital subscriber lines (DSL) provided over a standard twisted copper pair connected to a DSL-enabled local telephone exchange, or over a cable operator's hybrid fibre-coaxial network. Our data show that at the end of December 2008 78% of UK non-corporate fixed internet connections were provided using DSL technology, while cable broadband connections made up most of the remainder.

Fibre-to-the-home (FTTH) deployment has been limited in the UK, with availability of fibre-based services confined to small geographic areas. A small number of households in Scotland have access to FTTH via the service provided by H2O Networks in Dundee. This service has been provided by routing fibre cabling through the sewerage network (H2O Networks has also launched FTTH services using this method in Bournemouth, England).

Other FTTH deployments in the UK include BT's rollout in the greenfield developments in the Ebbsfleet Valley area and FTTC trials currently under way in Muswell Hill in London and Whitchurch in South Glamorgan, while a fibre network is also being deployed in the Titanic Quarter development in Belfast.

As a result of the limited fibre roll-out in the UK, the majority of connections that are not provided using DSL or cable networks (these account for less than 1% of the total) are provided using satellite and fixed-wireless technologies.

⁵ Office for National Statistics Internet Connectivity report, December 2008:
<http://www.statistics.gov.uk/pdfdir/intc0209.pdf>

5.1.4 DSL broadband

As DSL broadband availability is higher than that of cable-based broadband services in all areas of the UK, it can be used as a measure of overall broadband availability.

Almost all UK households (over 99.98%) were connected to a DSL-enabled BT local exchange at the end of 2008, unchanged over the year and up from 99.91% three years previously. However, not all of these will be able to obtain broadband services, for a variety of reasons which include the distance of the premises from the local exchange, home wiring problems and random network effects (see the box on 'not-spots' below).

Broadband 'not-spots'

Although our data show that over 99.98% of households are connected to a DSL-enabled local exchange, BT estimates suggest that 99.6% of its network is able to provide downstream broadband speeds of 512kbit/s and above. However, even with this high level of availability, a significant number of people still live in 'not-spots'; areas where it is not possible to receive DSL broadband services.

Those living in 'not-spots' cannot properly access, or fully benefit from the full experience of using those online services which require higher download speeds or constant connectivity, such as the real-time streaming of video used by services such as the BBC's *iPlayer* or by internet telephony services such as Skype and Vonage.

The problem of 'not-spots' is becoming more apparent as more people try to subscribe to broadband services. The exact scale of the problem is difficult to ascertain, although the government's *Digital Britain* report estimated that around 11% of UK households are currently unable to get broadband at 2Mb/s.

(<http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf>).

The proportion of households in Scotland connected to a DSL-enabled local exchange is the lowest among the UK nations

At the end of 2008 almost all UK households were connected to a DSL-enabled BT local exchange (Figure 5.1). Over 99.9% of households were connected in all of the UK nations except Scotland, where the proportion was very slightly lower. In total, around 4,200 UK households were not connected to an exchange able to provide DSL at the end of 2008, and more than 3,000 of these were in Scotland. However, the Scottish government has been funding an initiative to address 'not-spots'.

Out of the UK total of 28 BT local exchanges that had not been DSL-enabled at the end of 2008, 21 were in the Western Isles of Scotland, where the Connected Communities scheme provides a wireless broadband network.

Figure 5.1 Proportion of households connected to a DSL-enabled BT exchange



Source: Ofcom / BT, December 2008 data

The government's *Digital Britain*⁶ report announced a new broadband universal service commitment to address the problem of broadband not-spots. This will seek to make 2Mbit/s broadband connections available to all UK residents who request the service by 2012, using a mixture of fixed and wireless technologies to plug gaps in current DSL broadband availability. It also proposed a 50p a month supplement on all fixed copper lines (PSTN and cable analogue and ISDN2 lines) from 2010 to help deliver at least 90% next-generation broadband coverage by 2017.

5.1.5 Cable broadband

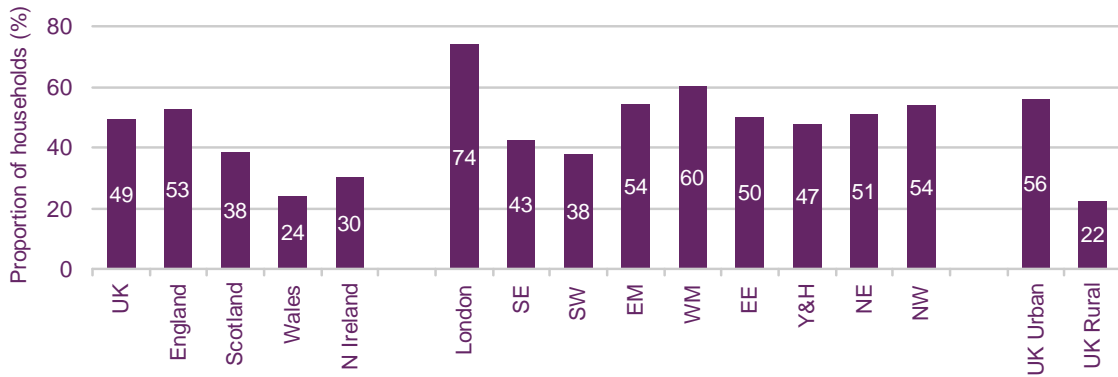
38% of households in Scotland are passed by Virgin Media's cable broadband network

At the end of 2008 49% of UK households were passed by Virgin Media's cable broadband-enabled network (Figure 5.2), although a small proportion of these may not be able to obtain a service. This figure has remained unchanged for a number of years, as the cost of deploying new network has limited the incentive for further roll-out. Virgin Media has instead focused investment on upgrading its existing network to digital and increasing take-up of its services in cabled areas.

There is wide variation in the availability of cable broadband services across the UK. Scotland had the second highest proportion of households passed by Virgin Media's broadband-enabled network at the end of 2008 (38%) after England (53%).

⁶ http://www.culture.gov.uk/what_we_do/broadcasting/6216.aspx

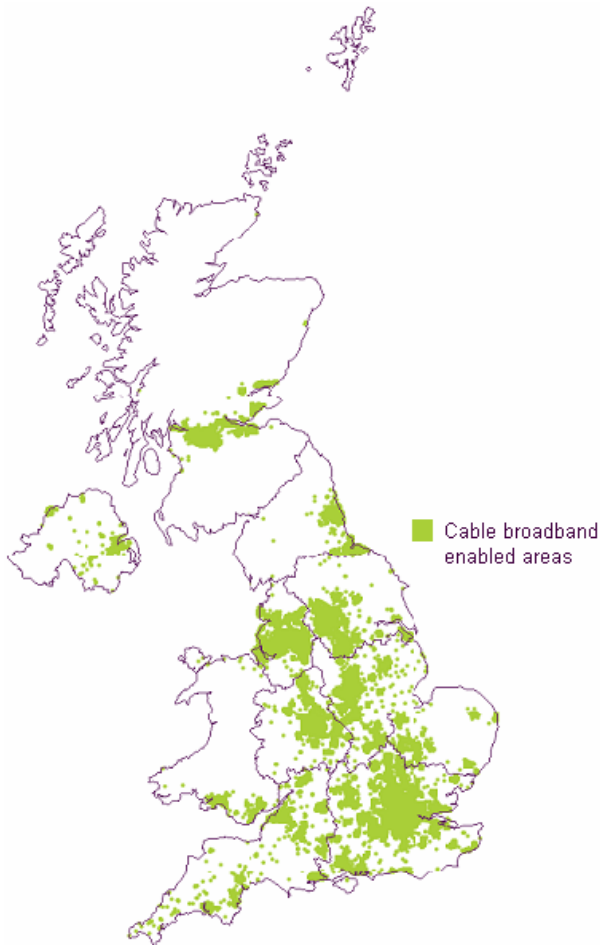
Figure 5.2 Proportion of households passed by Virgin Media broadband



Source: Ofcom / Virgin Media, December 2008 data

The original cable franchisees concentrated their network roll-out in areas of high population density (in order to maximise the potential customer bases and therefore turnover from their network spend). As a result, 56% of households in urban areas are passed by Virgin Media’s cable broadband network, but only 22% of households in rural areas. Figure 5.3 shows that cable broadband availability is concentrated around major cities and urban areas.

Figure 5.3 Availability of Virgin Media cable broadband



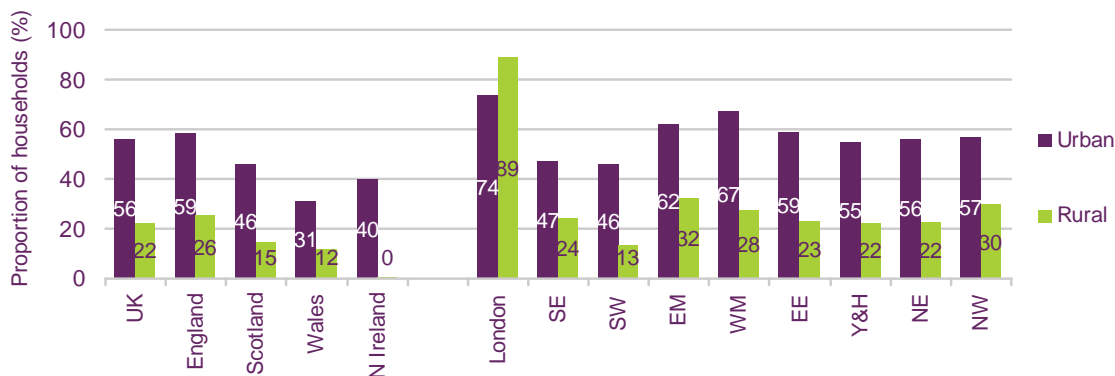
Source: Ofcom / Virgin Media, December 2008 data

Household cable broadband availability in Scotland is the second highest among the nations in both urban and rural areas

Across all of the UK nations, households in urban areas were more likely than those in rural areas to be passed by Virgin Media’s broadband network at the end of 2008 (Figure 5.4). The only area where this was not true was London, where 89% of those living in rural areas were passed by Virgin Media’s broadband network, compared to 74% in urban areas. The analysis used in this report designates an exchange area as urban or rural based on where the exchange is sited. In some cases this designation will not match that of the area covered by the exchange and therefore gives this counter-intuitive result, as several urban areas in London are classed as rural in our analysis.

In Scotland 46% of households in urban areas and 15% in rural ones were passed by Virgin Media's broadband network, both lower than the UK averages of 56% and 22% respectively, but the second highest among the nations.

Figure 5.4 Proportion of households in urban and rural areas passed by Virgin Media broadband



Source: Ofcom / Virgin Media, December 2008 data

Note: The urban / rural split is based on the location of the local exchange rather than the area which it covers

5.1.6 LLU broadband

Over the past few years growth there has been significant growth in the use of local loop unbundling (LLU) services, and this has changed the competitive dynamics of the telecoms landscape.

Under LLU an alternative operator leases the twisted copper pair which connects the local exchange to the customer’s premises from the incumbent operator. It then sites its own equipment in the local exchange and connects it to its own network to provide DSL broadband and (in the case of full LLU) fixed voice services to consumers.

Using LLU allows operators to be more innovative when it comes to product offerings and prices as they are not constrained by the incumbent’s wholesale products and tariffs. It also gives them access to economies of scale that are not available when buying a wholesale product on a per-unit basis. Consumers living in unbundled areas also benefit as they are likely to have a wider choice of suppliers and products.

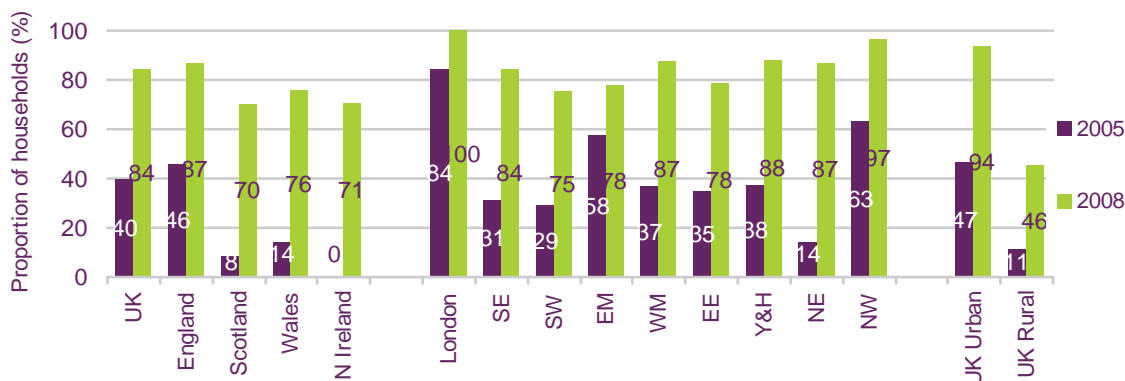
At the end of 2008 almost a third (32%) of non-corporate broadband connections were provided using LLU (up from 24% a year previously) and the net growth in the number of

LLU broadband connections during the year (1.8 million) was 100,000 more than the total net broadband growth over the period.

Household LLU broadband availability in Scotland is the lowest among the nations

At the end of 2008 84% of UK households were connected to an unbundled BT local exchange, up from 40% three years previously (Figure 5.5) and by four percentage points year-on-year. The proportion of households in Scotland connected to an unbundled local exchange was the lowest among the nations at the end of 2008, at 70%. This was despite growth in the previous three years being the joint second-highest, at 62 percentage points.

Figure 5.5 Proportion of households connected to an unbundled local exchange



Source: Ofcom / BT, December 2008 data

Urban household LLU availability in Scotland is the lowest among the UK nations

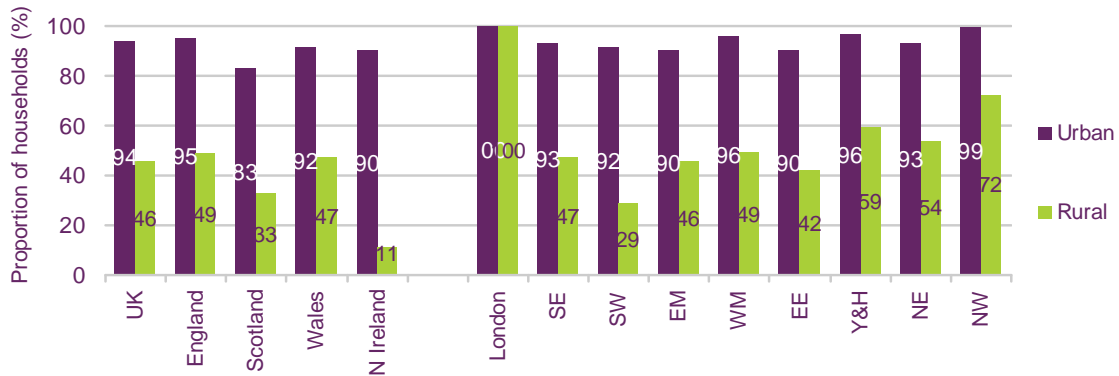
The provision of LLU services is characterised by high up-front costs (the purchase of network equipment, the cost of installing it in the local exchange and the provision of backhaul) and low ongoing costs (the monthly rental of the twisted copper pair from BT, currently £1.30 for DSL broadband services or £7.20 for voice and broadband⁷). However, periodic network capacity upgrades will be required as the number of lines increases.

This means that the LLU provider needs a large number of customers connected at each exchange, so that the per-unit cost of providing services using LLU is lower than that of using the incumbent’s wholesale products. For this reason, LLU providers have tended to target exchanges with a large potential customer base, and these in turn tend to be located in urban areas. In addition, the maximum distance over which LLU broadband equipment can be backhauled to an operators’ core network is approximately 40km (25 miles), so it is not possible to implement LLU in some isolated areas.

These factors are reflected in Figure 5.6, which shows that in all of the UK nations and English regions except London the availability of LLU services was higher in urban areas than in rural ones. Across the UK more than 80% of urban households were connected to an LLU-enabled local exchange at the end of 2008, compared to less than 50% in rural areas. Scotland has comparatively low LLU availability (70% in urban areas and 8% in rural) as its exchanges generally serve fewer customers than those in the other nations, and as such are less appealing to LLU operators.

⁷ <http://www.openreach.co.uk/orpg/pricing/loadPricing.do>

Figure 5.6 Proportion of households in urban and rural areas connected to an unbundled local exchange

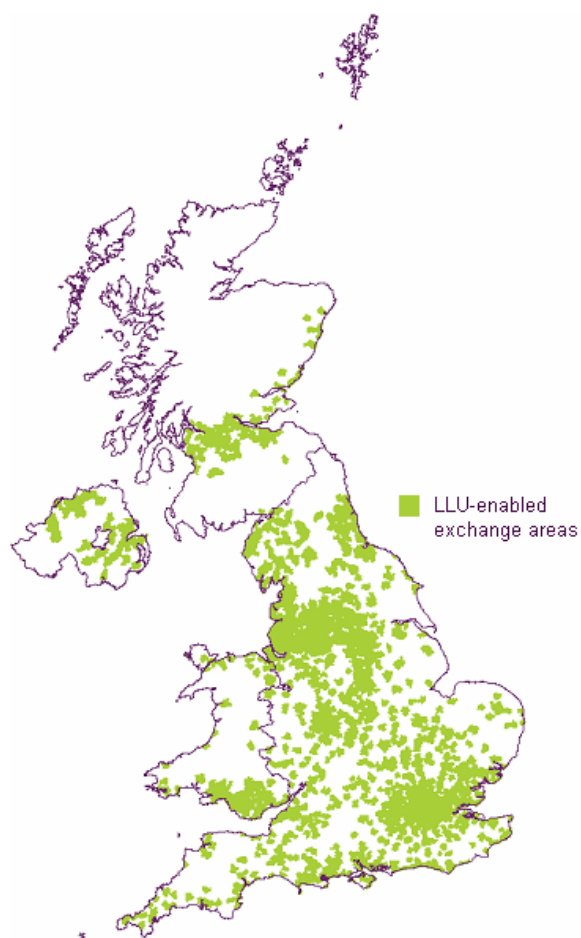


Source: Ofcom / BT, December 2008 data

Note: The urban/rural split is based on the location of the local exchange rather than the area which it covers

The map below (Figure 5.7) illustrates the areas of the UK where LLU-based broadband and voice telephony services are available, and shows that these are concentrated in urban rather than rural areas. It should be noted that this map closely resembles that of cable broadband availability (Figure 5.3).

Figure 5.7 Areas served by unbundled exchanges



Source: Ofcom / BT, December 2008 data

5.1.7 Mobile

In order to evaluate the availability of mobile telephony services across the UK we examine the number of mobile networks with second generation (2G) and third generation (3G) coverage in each postcode district. For an operator to be counted as having coverage its network footprint has to cover at least 90% of the postcode district, and by using these data in conjunction with population figures we are able to calculate the proportion of people living in such postcode districts. The 90% threshold is different to that used in the 2008 report (when we used 75% for 2G and 3G services). It is important to note that just because a postcode district does not have 90% mobile coverage, it does not necessarily follow that mobile services are not available there.

2G availability high across most of the UK

For 2G services we identified postcode districts where a) at least one and b) all four of the 2G networks had area coverage above the 90% threshold. It is important to note that the figures for Q1 2009 are not directly comparable with those published in the 2008 report as a result of the changes to the area coverage threshold, outlined above.

The data show that across the UK almost all of the population (over 98%) lived in a postcode district where there was at least 90% 2G area coverage from one or more of the mobile

networks in Q1 2009 (Figure 5.8). The data show that in Scotland the proportion living in an area with 2G coverage from at least one operator was at 89%, the lowest in the UK.

There was greater variation in the proportion of people living in a postcode district, with at least 90% coverage from all four 2G mobile networks. Across the whole of the UK 83% of people lived in such an area, while in Scotland less than two-thirds (63%) did. This was higher than in Wales (60%) and Northern Ireland (57%).

Figure 5.8 2G mobile phone population coverage



Source: Ofcom/ GSM Association / Europa Technologies; Q1 2009

Note: Figures show the percentage of population within postcode districts where at least one or four operators had at least 90% 2G area coverage; data not directly comparable to those published in the 2008 report.

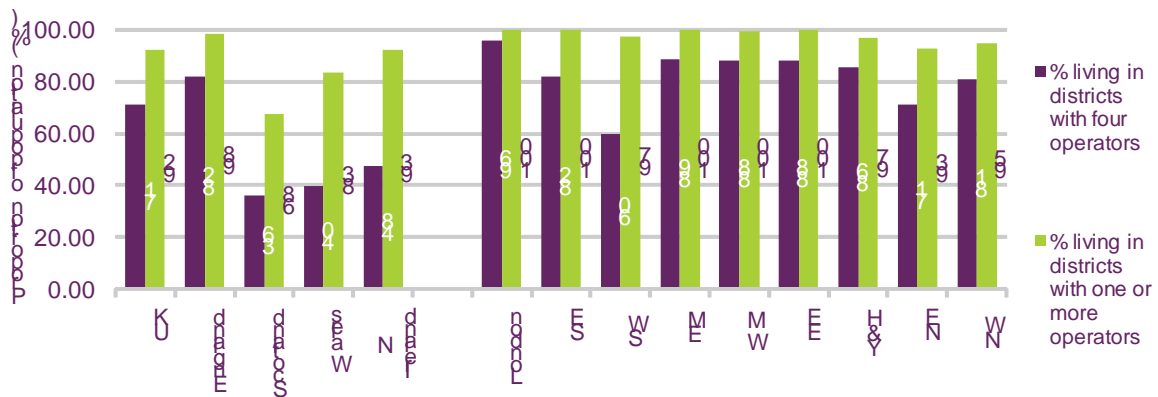
Over two-thirds of Scotland covered by 2G

In addition to population coverage we also calculated geographic 2G coverage (using the same 90% area coverage threshold) in order to understand where there were gaps in coverage. Figure 5.9 below shows that although 2G mobile geographic coverage was high across most of the UK in Q1 2009, it was not as high as population coverage. This is a result of the networks concentrating network build in areas of higher population density.

The majority of postcode districts in the UK (92%) had 2G area coverage from one or more mobile networks. Geographic 2G coverage in Scotland was the lowest among the UK nations, at 68%, as large areas of the sparsely populated Highlands and Islands are without coverage.

The proportion of postcode districts with 90% area coverage from all four 2G networks varied widely across the UK nations. In all of the nations except England (71%) less than half of postcode districts had 2G coverage at the 90% area threshold from all four 2G networks. Scotland had the lowest level of geographic 2G coverage from all four providers, at 36% of postcode districts.

Figure 5.9 2G mobile phone geographic coverage



Source: GSM Association / Europa Technologies; Q1 2009

Note: Figures show the percentage of postcode districts where at least one or four operators had at least 90% 2G area coverage; data not directly comparable to those published in the 2008 report.

Figure 5.10 shows that although most of the UK was covered by 2G services, there were still sizeable areas where coverage was less than 90% or where 2G services were available from only one or two mobile networks. These regions included the Scottish Highlands and Islands, the Border areas and parts of mid and north Wales, areas with low population density and those with poor coverage as a result of topographies that limit the range of cellular masts.

Figure 5.10 2G mobile phone geographic coverage, by number of operators



Source: Ofcom / GSM Association / Europa Technologies; Q1 2009

Note: Map shows the number of 2G operators with at least 90% area coverage; not directly comparable to that published in the 2008 report

3G availability concentrated around urban areas

The 90% postcode district network threshold was also used when analysing 3G mobile availability. In the 2008 report a 75% area threshold was used for 3G services, to reflect ongoing network roll-out ahead of the end-2007 deadline for achieving 80% population

coverage, as stipulated in the five 3G licences. This means that that the data in this year's report are not comparable to those published last year.

Similarly, it should be noted that the methodology used to derive the coverage data in this report is different to that published in July 2009, alongside the second phase of Ofcom's mobile sector assessment. The data in this report are based on postcode district coverage estimates provided to a third party by the mobile networks, while the methodology used to create the maps published in July 2009 was based on Ofcom's theoretical predictions, further details of which can be found at:

http://www.ofcom.org.uk/radiocomms/ifi/licensing/classes/broadband/cellular/3g/maps/3gmaps/coverage_maps.pdf

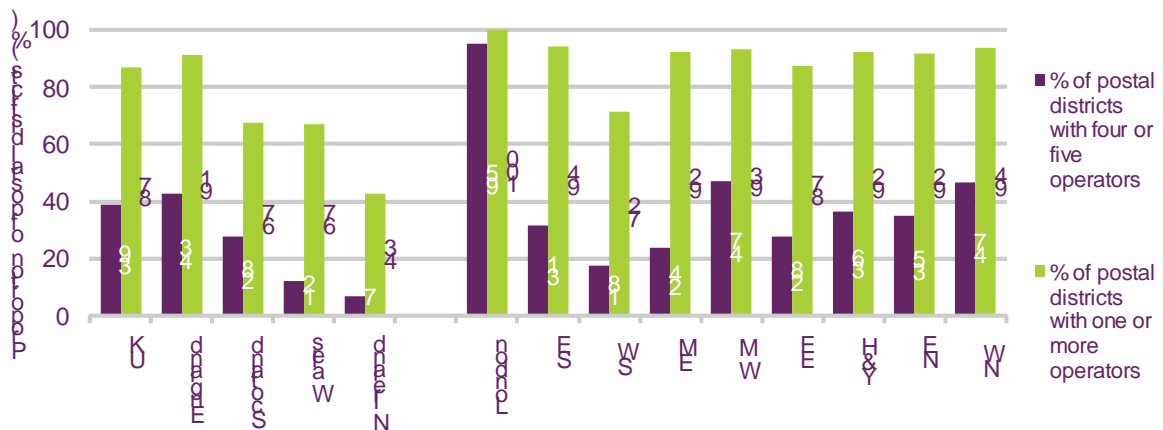
In the case of 3G services there are five network operators (rather than four as there are for 2G) and we identified postcode districts where a) at least one and b) at least four of the 3G networks had area coverage above the 90% threshold.

Over two-thirds of the population in Scotland covered by at least one 3G network

Across the UK, 3G coverage figures were lower than those for 2G services, the only exception being in London, where the proportion of postcode areas with 2G and 3G coverage from at least one network at the 90% threshold was the same (100%).

The data show that 87% of the UK population lived in a postcode district with at least 90% area coverage from one or more 3G networks, and the proportion among the UK nations varied from 43% in Northern Ireland to 91% in England (Figure 5.11). Scotland had the same level of 3G coverage as Wales, at 67% of the population.

Figure 5.11 3G mobile phone population coverage



Source: Ofcom/ GSM Association / Europa Technologies; Q1 2009

Note: Figures show the percentage of population within postcode districts where at least one or four or five operators had at least 90% 3G area coverage; data not directly comparable to that published in the 2008 report.

Geographic 3G coverage varies widely across the UK

Analysis of geographic 3G coverage showed that in Q1 2009 three-quarters (75%) of UK postcode districts had 90% 3G area coverage from one or more of the mobile networks (Figure 5.12). Among the UK nations the geographic 3G coverage was highest in England at 87%, and lowest in Scotland and Wales at 39%.

Across the UK, just under one-third of postcode districts (32%) had 90% 3G area coverage from at least four of the UK 3G networks. The proportion in England (39%) was, again, much greater than in the other nations, where it was highest in Scotland (14%) and lowest in Wales (7%).

Figure 5.12 3G mobile phone geographic coverage

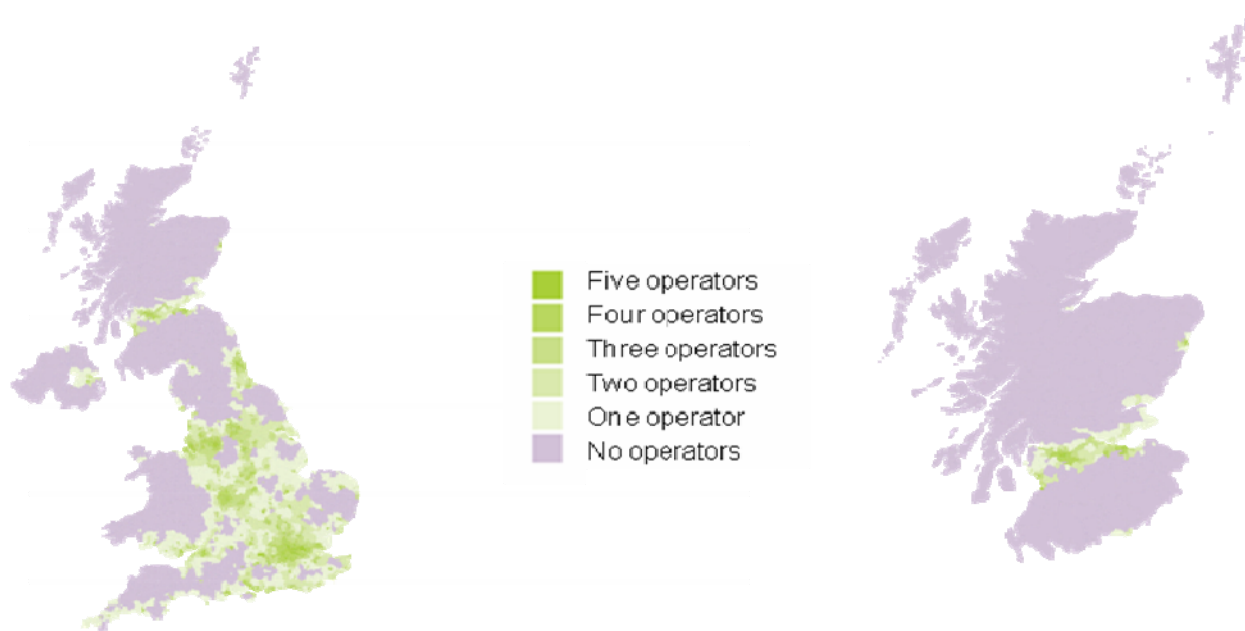


Source: Ofcom/ GSM Association / Europa Technologies; Q1 2009

Note: Figures show the percentage of postcode districts where at least one or four or five operators had at least 90% 3G area coverage; data not directly comparable to that published in the 2008 report.

Figure 5.13 shows where the mobile operators have rolled out their 3G networks. Across the UK, 3G network rollout has been concentrated in urban areas to enable the networks to meet the population coverage obligations outlined in the 3G spectrum licences. The result of this is that there are still large areas with a low population density where 3G services are not available. 3G coverage in Scotland is concentrated around Edinburgh and Glasgow.

Figure 5.13 Map of 3G mobile phone geographic coverage, by number of operators



Source: Ofcom / GSM Association / Europa Technologies; Q1 2009

Note: Map shows the number of 3G operators with at least 90% area coverage; not directly comparable to that published in the 2008 report.

Facilitating better mobile coverage

In Ofcom's second consultation on the mobile sector published in July 2009 (<http://www.ofcom.org.uk/consult/condocs/msa/>) we committed to look more closely into the persistent 2G 'not-spot' problem as well as the state of mobile broadband coverage and work where appropriate to facilitate better coverage. To address persistent 2G not-spots (or 'complete not-spots') we intend to explore how we might encourage creative solutions.

For example, we intend to work with mobile operators and with public bodies in the Nations, regions and localities to bring together relevant expertise as they consider initiatives to resolve not-spots in their areas (as we have done previously with local broadband initiatives).

5.2 Service take-up

Mobile phone ownership increases by five percentage points

Over eight in ten adults in Scotland (84%) had access to a fixed-line phone at home, slightly lower than the UK average of 87% (Figure 5.14), after a three percentage point fall in ownership in the past year. Wales was the only nation with lower levels of fixed-line access, at 83%.

Take-up was higher in rural areas of Scotland (88%) than in urban areas (83%), again consistent with the UK average position. Glasgow, in particular, has a relatively low level of fixed-line ownership.

Mobile phone take-up was marginally lower in Scotland than the UK average (86% compared to 89%), and was lower than in both England and Northern Ireland (89% and 93% respectively). Mobile phone ownership in Scotland has increased by five percentage points in the past year, and is higher in rural areas of Scotland (89%) than in urban areas (86%).

Figure 5.14 Take-up of communications services, 2009

	UK	Scotland	England	Wales	N. Ireland	UK Urban	UK Rural
Individual							
Voice telephony Fixed Line	87%	84%	88%	83%	87%	87%	92%
Mobile	89%	86%	89%	85%	93%	89%	89%
Internet PC	74%	65%	75%	65%	75%	73%	76%
Total Internet	70%	62%	72%	60%	68%	70%	71%
Broadband (fixed and mobile)	68%	60%	70%	58%	64%	68%	67%
Fixed Broadband	65%	58%	66%	55%	62%	65%	64%
Mobile Broadband	12%	7%	13%	11%	8%	12%	10%

	UK	Scot	A'deen	D'dee	G'gow	Eb'gh	B'rder	H'lds & I'lds*	Other Urban	Other Rural	Scot Urban	Scot Rural
Individual												
Voice telephony Fixed Line	87%	84%	86%	85%	71%	88%	87%	91%	85%	86%	83%	88%
Mobile	89%	86%	92%	84%	89%	90%	87%	84%	83%	92%	86%	89%
Internet PC	74%	65%	81%	65%	46%	81%	62%	72%	64%	71%	64%	71%
Total Internet	70%	62%	75%	62%	41%	75%	59%	70%	61%	70%	60%	70%
Broadband (fixed and mobile)	68%	60%	73%	62%	39%	72%	54%	66%	61%	66%	59%	66%
Fixed Broadband	65%	58%	64%	58%	34%	70%	52%	59%	59%	65%	57%	63%
Mobile Broadband	12%	7%	15%	10%	6%	8%	3%	22%	5%	9%	6%	12%

Source: Ofcom

Base: Adults aged 15+ (n = 6090 UK, 987 Wales, 3437 England, 1014 Scotland, 652 Northern Ireland)

* Sample size less than 100. Apply caution and treat as indicative only.

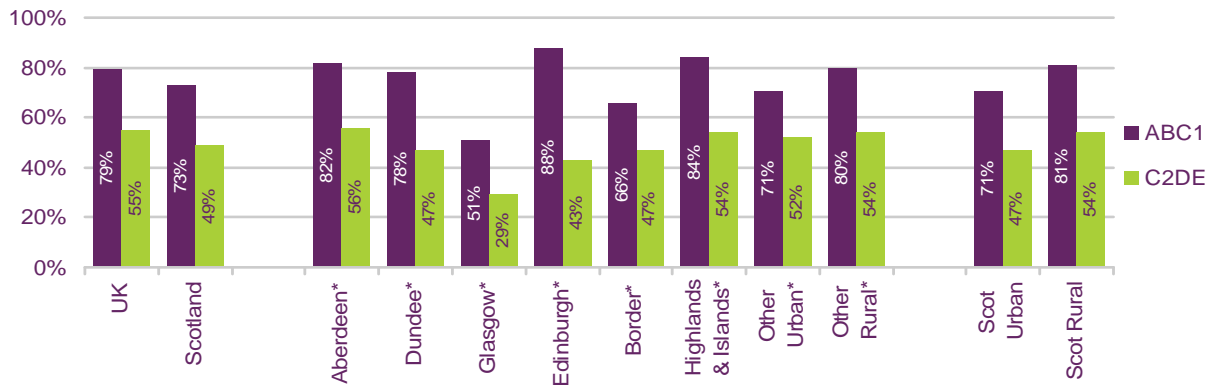
PC ownership lower than UK average

Home computer/ PC ownership was lower in Scotland than the UK average (65% compared to 74%), with broadband take-up also lower (60% against 68%) (Figure 5.15). Scotland had similar levels of PC ownership, internet access and broadband take-up to Wales, while these figures tended to be higher in England and Northern Ireland.

Within Scotland, broadband take-up varied by geographic area, with the urban penetration level (59%) being constrained by low take-up in Glasgow (39%). The relatively low PC and broadband take-up in Glasgow is linked to low income; Glasgow has particularly low broadband use among C2DE social groups (29%)⁸. Broadband take-up is highest in Aberdeen and Edinburgh.

⁸ Last year's survey found relatively low broadband take-up in Glasgow, which meant that we were unable to report on uses of internet due to the small sample sizes. So that we are able to report in more detail this year, we increased the sample size in Glasgow. We conducted 201 interviews in this area, so we are confident that the survey provides a reliable estimate of broadband take-up in the Glasgow city council area.

Figure 5.15 Broadband take-up, by socio-economic group



QE2. Do you or does anyone in your household have access to the Internet/ Worldwide Web at home?/ QE9. Which of these methods does your household use to connect to the internet at home?
 Source: Ofcom.

Base: Adults aged 15+ (n = 6090 UK, 987 Wales, 3437 England, 1014 Scotland, 652 Northern Ireland)

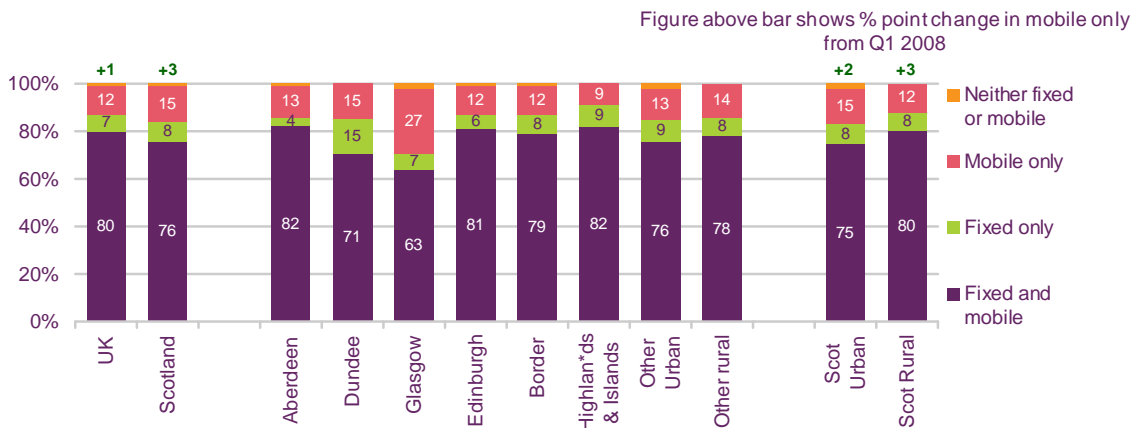
* Sample size less than 100. Apply caution and treat as indicative only.

Penetration of mobile-only households increases

Figure 5.16 shows the proportion of mobile-only households in Scotland (15%) is a little higher than the UK average (12%), and has increased by three percentage points in the last year; some consumers appear to have cancelled their fixed-line connection.

The ownership of telephony was similar in the rural and urban areas of Scotland, with people in urban areas slightly more likely to rely on mobile telephony only. The highest level of mobile-only households was found in Glasgow (27%), which has lower than average income levels. Across the UK, the survey found that mobile-only households are more common in urban low income areas.

Figure 5.16 Cross-ownership of household telephony services



Source: Ofcom

Base: Adults aged 15+ (n = 6090 UK, 1014 Scotland)

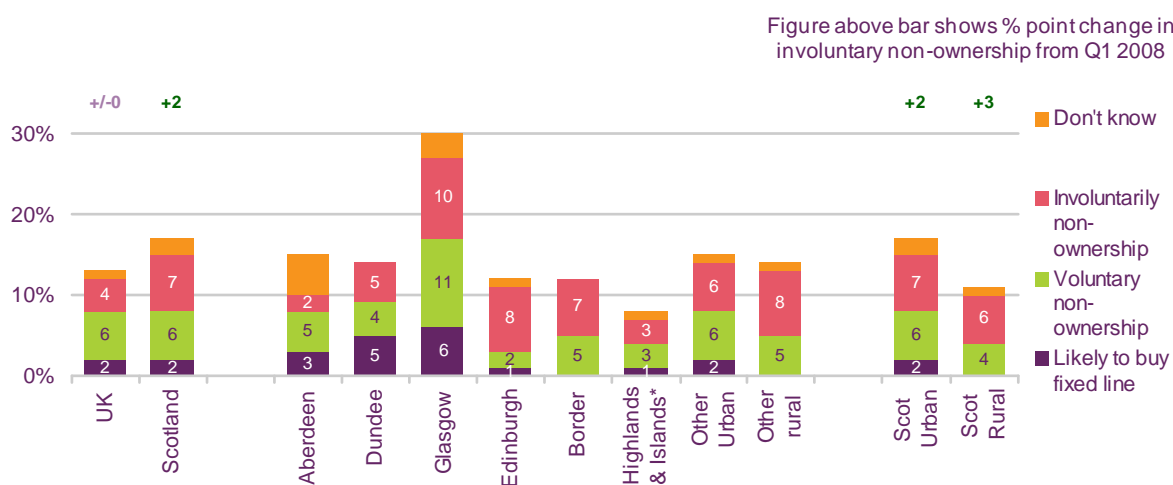
* Sample size less than 100. Apply caution and treat as indicative only.

5.2.1 Non-ownership of communications services

There are many reasons for not owning a particular communications service, and these fall into two broad categories: voluntary and involuntary. Voluntary non-ownership is where potential consumers do without services because they perceive they do not need them, or because they are satisfied with alternative services. Involuntary non-ownership is where potential consumers do without services, but not through choice: this is mainly due to affordability. In the following analysis, where consumers gave multiple responses which fell into both categories, these have been reported as 'involuntary'. Consumers who do not have fixed-line phones, mobile phones or broadband typically said that this is because they didn't want them, or that the cost was too high. Less than 1% of survey respondents in Scotland said that lack of service availability was a reason for not having a fixed line, mobile phone or broadband connection.

The survey suggests that involuntary exclusion from fixed telephony in Scotland has increased by two percentage points from the previous year (to 7% of all households) and is significantly higher than the UK average (4%). As might be expected, involuntary exclusion is highest in cities with higher levels of social deprivation, with 10% of households in Glasgow saying they did without a fixed-line phone because they could not afford it. Recent changes in the market may be partially resolving this issue: in October 2008 BT launched BT Basic, which offers customers who receive Income Support, income-based Jobseeker's Allowance, Employment Support Allowance (income-based) or Guaranteed Pension Credit reduced line rental (from £4.50 a month instead of the usual £11.25 a month).⁹ It reported over 300,000 customers across the UK in May 2009.

Figure 5.17 Non-ownership of fixed-line services



Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland)

QC7a. How likely is it that your household will get a landline phone at home in the next 12 months?/

QC7b. Why are you unlikely to get a landline phone at home in the next 12 months?

*Base size less than 100: Apply caution

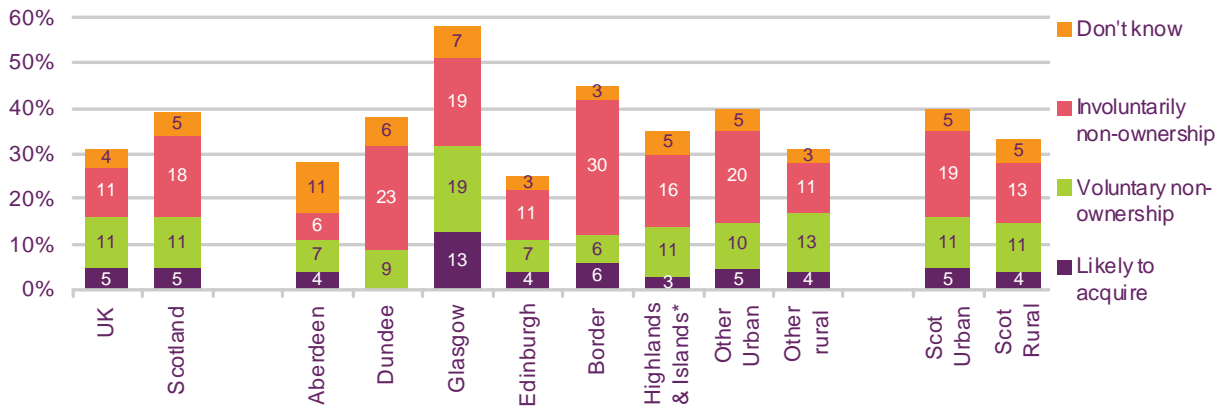
Involuntary non-ownership of broadband is higher in Scotland than the UK average

Thirty-nine per cent of people in Scotland live in a household without a broadband connection, compared to the UK average of around 31%. Involuntary non-ownership of

⁹ <http://www.btplc.com/News/ResultsPDF/q409release.pdf>

broadband was higher in Scotland (18%) compared to the UK average (11%) and higher still in urban areas (19%).

Figure 5.18 Non-ownership of broadband services



Source: Ofcom research, Quarter 1 2009

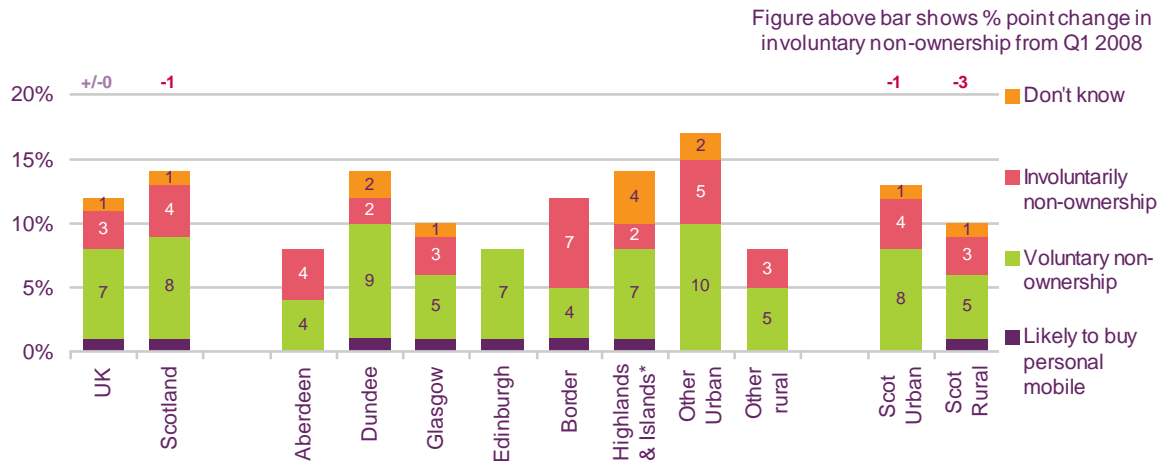
Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland)

QE26. How likely is it that your household will get a broadband internet access at home in the next 12 months?/ QE27. Why are you unlikely to get broadband at home in the next 12 months?

*Base size less than 100: Apply caution

At 4% (Figure 5.19), involuntary non-ownership of a mobile phone in Scotland was lower than for fixed-line or broadband services, probably reflecting the availability of pre-pay mobile services which require no fixed monthly payment. Fourteen per cent of households in Scotland do not have a mobile connection, with less than one in ten of these expecting to get a mobile phone in the next 12 months.

Figure 5.19 Reasons for not having mobile services



Source: Ofcom research, Quarter 1 2009

Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland)

QD27. How likely is it that you will get a mobile phone in the next 12 months?/ QD28. Why are you unlikely to get a mobile phone in the next 12 months?

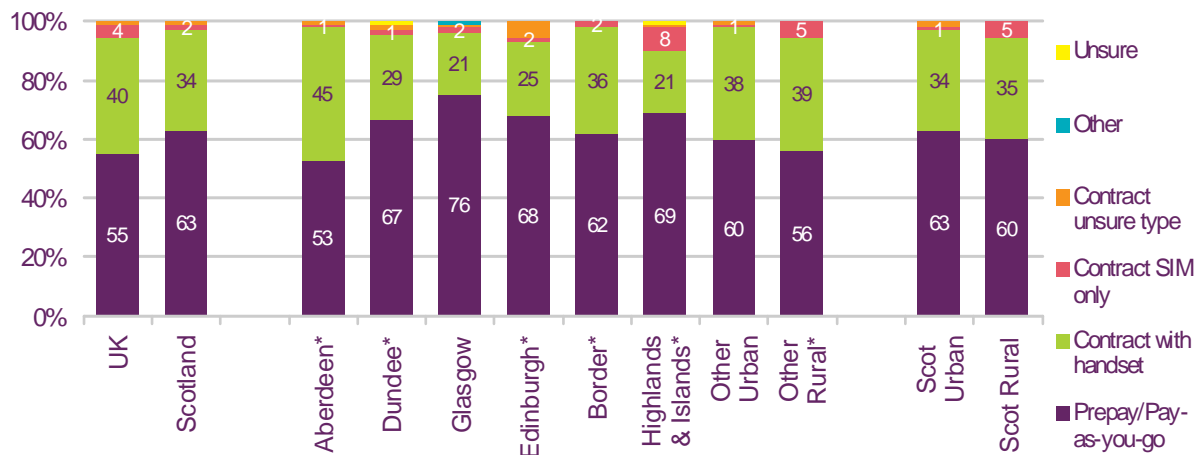
*Base size less than 100: Apply caution.

5.2.2 Type of mobile subscription

Pay-as-you-go more popular in Scotland than UK as a whole

Figure 5.20 shows a higher proportion of mobile phone users in Scotland are on pay-as-you-go plans (63%) than in the UK as a whole (55%). While there was a marginal (2%) year-on-year increase in the proportion of mobile phone users in Scotland on pay-monthly contracts, this was a smaller increase than in the UK as a whole (5%), indicating that operators have been less successful in their efforts to convert people in Scotland. During 2008, all the mobile network operators launched lower-rate pay-monthly plans, including SIM-only plans which offer a number of inclusive calls for monthly fees of £15 or less.

Figure 5.20 Type of mobile subscription



QD11. Which of these best describes the mobile package you personally use most often?

Source: Ofcom research, Quarter 1 2009

Base: Adults aged 15+ who personally use a mobile phone (n= 5273 UK, 836 Wales)

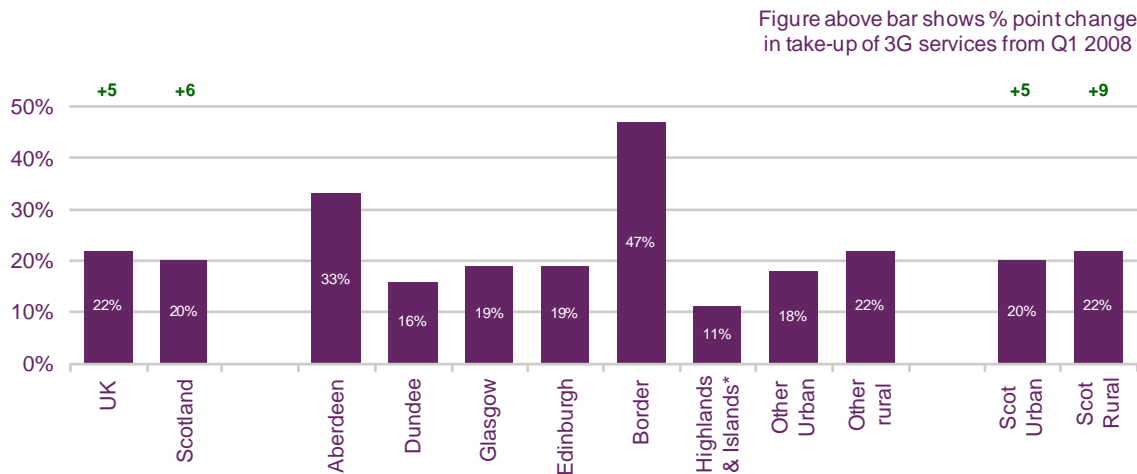
*Base size less than 100: Apply caution and treat as indicative only

5.2.3 3G mobile take-up

One in five claim to have a 3G handset

Claimed 3G ownership in Scotland stood at 20%, after an increase of six percentage points in the last year (Figure 5.21). Take-up of 3G handsets is similar to the UK average (20%). However, these numbers should be treated with some caution as it is uncertain whether consumers are accurately reporting the type of handset they have.

Figure 5.21 Take-up of 3G services



Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

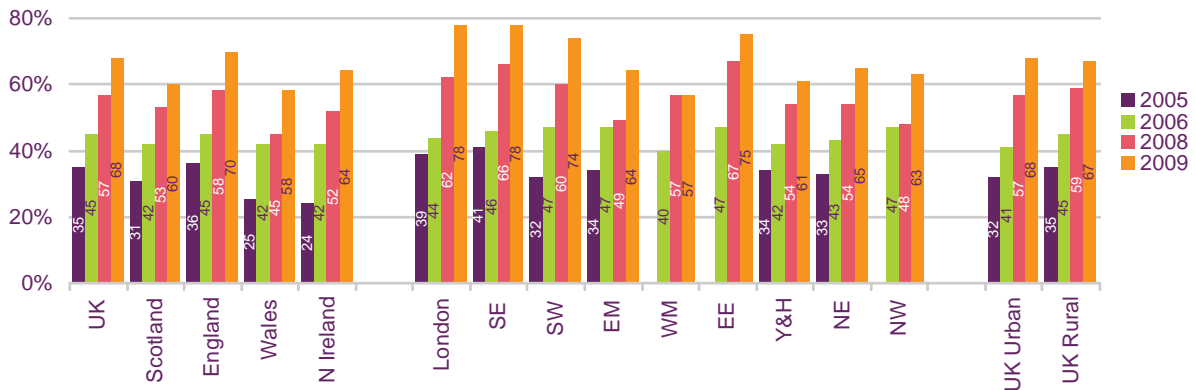
Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland)

QD24B: Do you personally use a 3G mobile handset – third generation mobile phones allow you to send and receive data at high speeds, allowing you to carry out activities such as making and receiving video calls – this might be for business or personal use?

5.2.4 Broadband take-up

Broadband growth in Scotland since 2005 has broadly mirrored that of the rest of the UK, although in the past year it has grown at a slower rate than the UK as a whole. Scotland has a lower level of broadband take-up than England and Northern Ireland.

Figure 5.22 Broadband take-up trend in Q1, 2005-2009



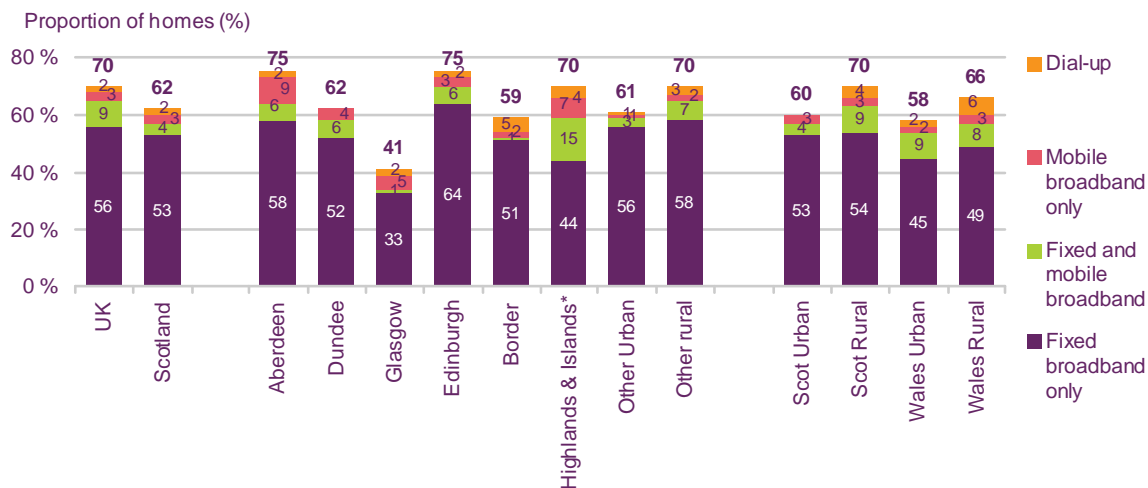
Source: Ofcom Base: Adults aged 15+ (n = 6090 UK, 987 Wales, 3437 England, 1014 Scotland, 652 Northern Ireland)

During 2008 mobile broadband take-up also grew, as consumers increasingly accessed the internet via cellular networks by plugging a 3G mobile USB modem, or ‘dongle’, into their laptops. In Q1 2009, 7% of households in Scotland claimed to be accessing the internet via mobile broadband, compared to 12% across the UK as a whole. However, just 3% of households in Scotland (and 3% in the UK as a whole) used mobile broadband as their only means of accessing the internet; the majority of mobile broadband users also have a fixed-line broadband connection at home. Despite the larger number of mobile-only households in

Glasgow (where 30% of households have no fixed-line connection), mobile broadband penetration was lower (6%) than across Scotland as a whole.

In Q1 2009, just 2% of households in Scotland had a dial-up connection (compared to 7% a year previously, indicating that migration to broadband is nearing completion (Figure 5.23).

Figure 5.23 Internet take-up



Source: Ofcom research, Quarter 1 2009

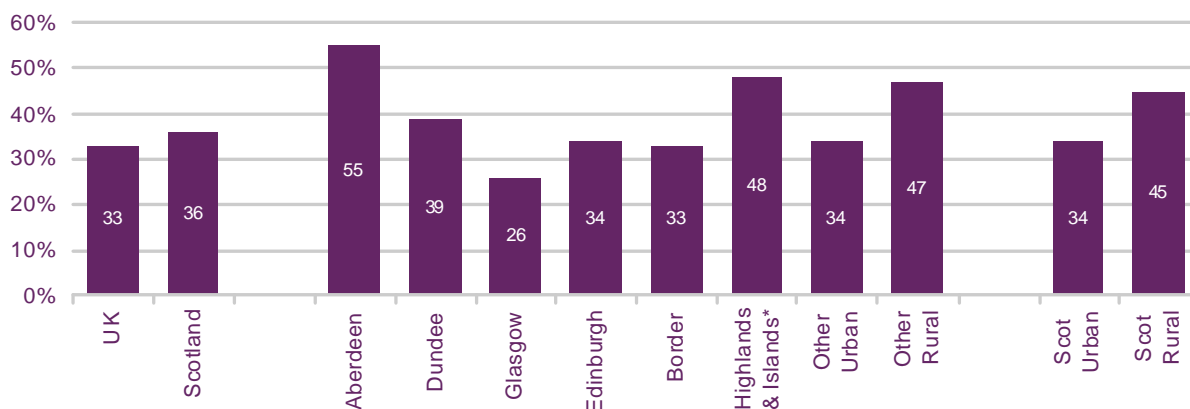
Base: All adults aged 15+ (n = 6090 UK, 1014 Scotland)

QE9. Which of these methods does your household use to connect to the internet at home?

*Base size less than 100: Apply caution

Awareness of mobile broadband is marginally higher in Scotland than in the UK as a whole, with higher awareness in rural than in urban areas, despite the greater availability of high-speed networks which support mobile broadband in cities and areas of relatively high population density.

Figure 5.24 Awareness of mobile broadband



Source: Ofcom research, Quarter 1 2009

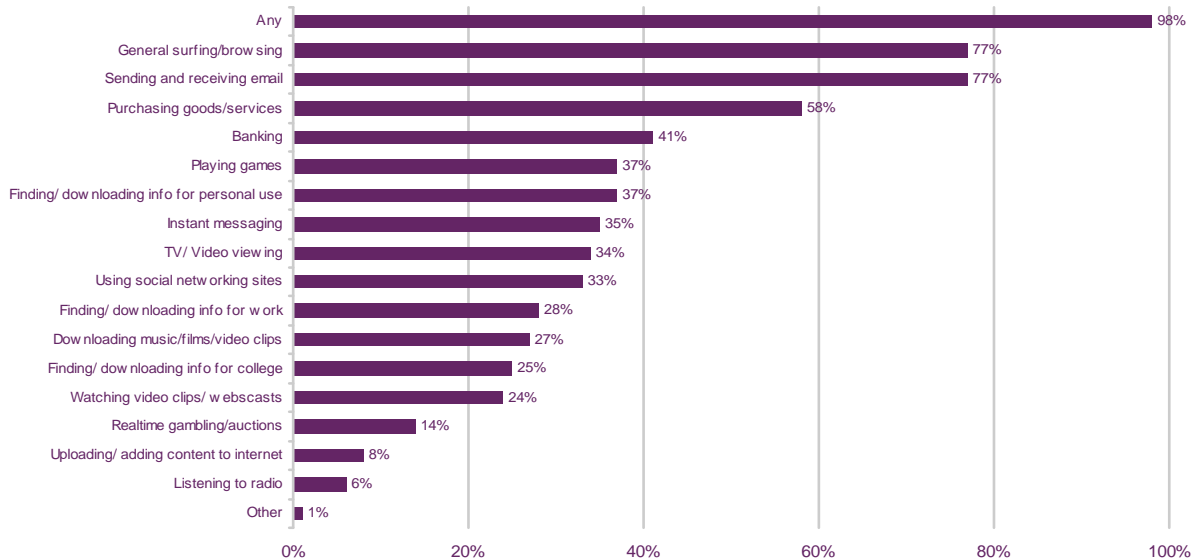
Base: All adults aged 15+ (n = 6090 UK, 652 Northern Ireland, 3437 England, 1014 Scotland, 987 Wales)

QE21. Before now, were you aware that you can access broadband services on your PC or laptop by using a mobile network?

* Base size less than 100: Apply caution

Figure 5.25 shows that broadband users in Scotland used the internet for a variety of purposes. The most commonly-cited reasons were general surfing/ browsing (77%) and sending/ receiving email (77%), with online purchasing also widely used (58%). It appeared that broadband users in Scotland were capitalising on the benefits offered by greater bandwidths and download speeds, with a third (34%) having watched television and video content over their broadband connection and a quarter (27%) having used the internet to download audio and video files.

Figure 5.25 Use of online applications among Scotland broadband users



QE5. Which, if any, of these do you or members of your household use the internet for while at home?

Source: Ofcom

Base: Adults aged 15+ with a broadband connection at home (n = 567)

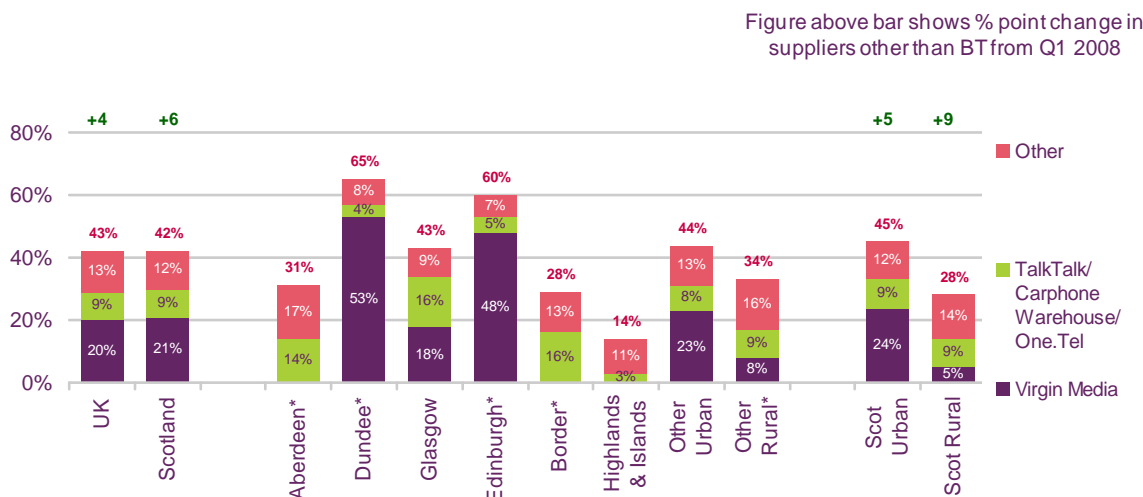
5.3 Take-up, by supplier

5.3.1 Fixed-line suppliers

Over four in ten (42%) households in Scotland used a company other than BT as their main fixed-line supplier, level with the UK average of 43% (Figure 5.26). More households in Scotland use an alternative to BT than in Wales (31%) or Northern Ireland (33%). The proportion of adults with a fixed line who use a supplier other than BT has increased by six percentage points since last year.

Across the UK, the gap between rural and urban areas was substantial (25% in rural areas compared to 41% in urban), partly as a result of differing levels of availability.

Figure 5.26 Fixed-line supplier use



QC21b. Which of these do you consider is your main supplier?

Source: Ofcom. Base: Adults aged 15+ with a fixed line phone at home (n = 5151 UK, 804 Scotland)

Sample size less than 100. Apply caution and treat as indicative only.

Note: Figures above chart columns indicate the proportion of fixed line users who use a provider other than BT and excludes those who were unsure

Within Scotland, respondents with a fixed line in urban areas were almost twice as likely as those in rural areas to use suppliers other than BT, at 46% and 28% respectively. This is because consumers in urban areas typically have a greater choice of suppliers, both as a result of local loop unbundling and because of wider cable coverage, with Virgin Media’s network available to 24% of households in urban areas compared to 4% in rural areas. Use of Virgin Media for fixed-line service in Scotland as a whole (21%) is on a par with the UK overall average (20%).

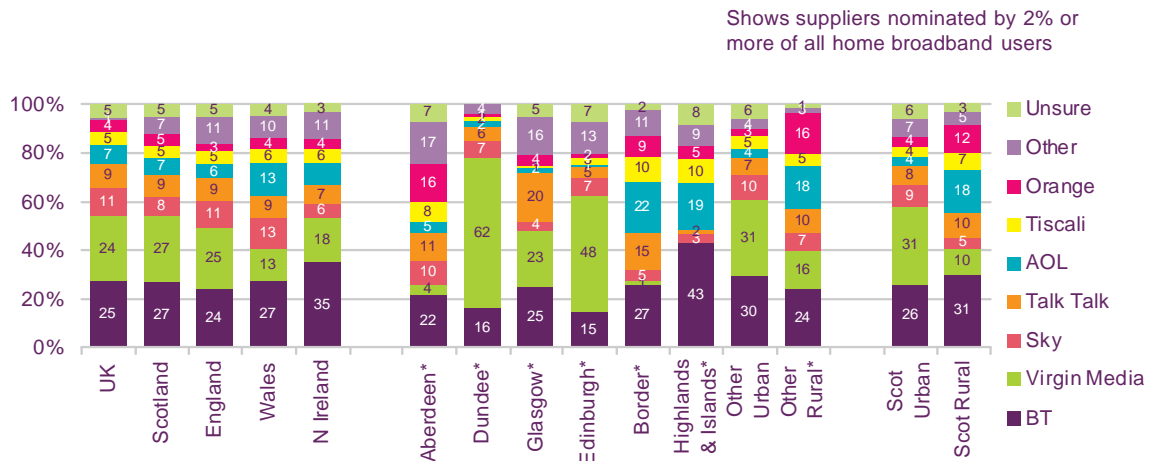
Across Scotland there was high penetration of non-BT suppliers in three of the four main urban areas surveyed (Edinburgh, Dundee and Glasgow).

5.3.2 Broadband suppliers

Take-up of non-BT broadband services highest in Dundee

BT and Virgin Media were the main suppliers of broadband in Scotland, with BT’s share of connections broadly in line with the UK average, while Virgin Media was slightly higher at 27% (Figure 5.27). More households in urban (31%) and rural (10%) areas of Scotland use Virgin Media compared to the other three nations, although there are significant differences in take-up of cable services due to the availability of the service. Lack of Virgin Media infrastructure in the Highlands and Islands means that there are no cable connections in this area and BT is the main supplier (43%), while in the urban areas of Dundee and Edinburgh take-up of non-BT services is high at 78% and 63%, with Virgin Media accounting for over 75% of these connections.

Figure 5.27 Broadband supplier use



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

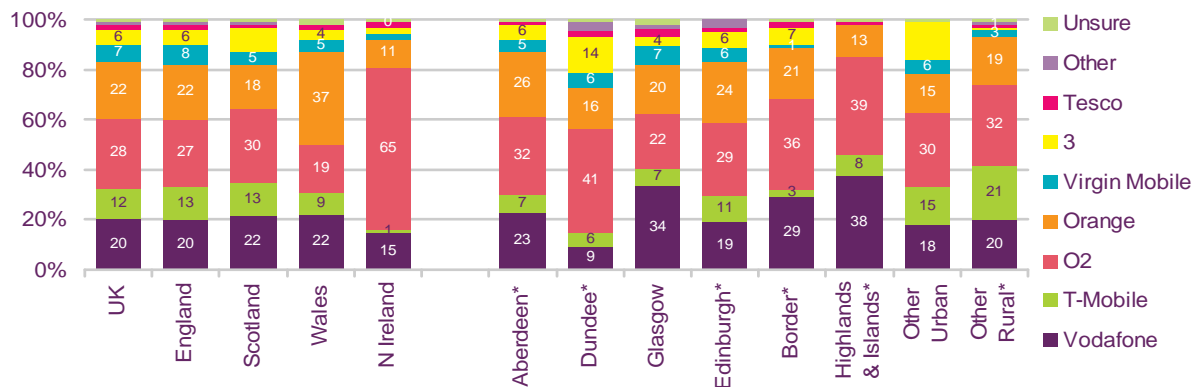
Base: Adults aged 15+ with broadband at home (n = 3710 UK, 567 Scotland, 2180 England, 557 Wales, 406 Northern Ireland)

QE7. Which Internet Service Provider (ISP) does your household currently uses as its MAIN supplier at home?

5.3.3 Mobile network suppliers

Use of mobile phone networks was similar in Scotland to the UK as a whole (Figure 5.28). O2 had a 30% share of the mobile base in Scotland, followed by Vodafone (22%) and Orange (18%). The major differences between the use of networks between nations were the higher use of O2 in Northern Ireland and the higher use of Orange in Wales. There were few differences between rural and urban areas, although 3 had a greater share in the urban areas of Scotland.

Figure 5.28 Mobile network operator used



QD10. Which mobile network do you use most often?

Source: Ofcom. Base: Adults aged 15+ in with mobile phone (n = 5273 UK, 877 Scotland)

* Sample size less than 100. Apply caution and treat as indicative only.

5.4 Telecoms spend

Claimed monthly fixed telephony spend in Scotland remained stable at an average of £21, the same as the UK-wide figure, while claimed spend in Northern Ireland was highest at £24

per month. Average monthly spend was lowest in Edinburgh, and highest in the Highlands and Islands (Figure 5.29), where there is higher dependency on fixed-line telephony - almost all (97%) of households in this area have fixed-line access, and the area has the lowest proportion of mobile-only households across Scotland. Overall, households in rural areas in Scotland claimed to spend a similar amount on fixed-line telephony as those in urban areas.

Figure 5.29 Average monthly household spend on fixed-line telephony



QC3. Approximately how much would you estimate the total QUARTERLY bill is for your home landline phone service?

Source: Ofcom. Base: Adults aged 15+ with a fixed line

* Sample size less than 100. Apply caution and treat as indicative only.

Spend on internet highest in the UK

Claimed average monthly internet spend in Scotland was £22, the highest reported spend of all of the UK nations. There was some variation in this figure across rural and urban regions and across the Scottish regions, with evidence of lower spend in rural areas. The lowest claimed spend was in Glasgow, where broadband take-up was among the lowest. Caution should be applied to year-on-year comparisons, as these estimates are increasingly likely to include spend on both fixed and mobile broadband services.

Figure 5.30 Average monthly household spend on internet service



QE10. Approximately how much would you estimate your household pays each MONTH for your Internet service at home?

Source: Ofcom, Base. Adults aged 15+ with internet access at home (n = 3649 UK, 551 Scotland, 2136 England, 552 Wales, 410 Northern Ireland)

* Sample size less than 100. Apply caution and treat as indicative only.

Claimed average monthly mobile phone spend for adults in Scotland (£21) was at a similar level to the rest of the UK (Figure 5.31). While there was little difference in spend between rural and urban areas, there were some key differences by region (Figure xxx). Mobile phone users in Edinburgh claimed to spend £5 more per month than the Scotland average and customers in the Highlands and Islands claimed to spend £7 more.

Figure 5.31 Average monthly individual spend on mobile phone



QD3. *Approximately how much do you spend each MONTH on your main mobile phone network?*
 Source: Ofcom. Base: Adults aged 15+ who personally use a mobile phone (n = 5273 UK, 877 Scotland, 2973 England, 836 Wales, 587 Northern Ireland)

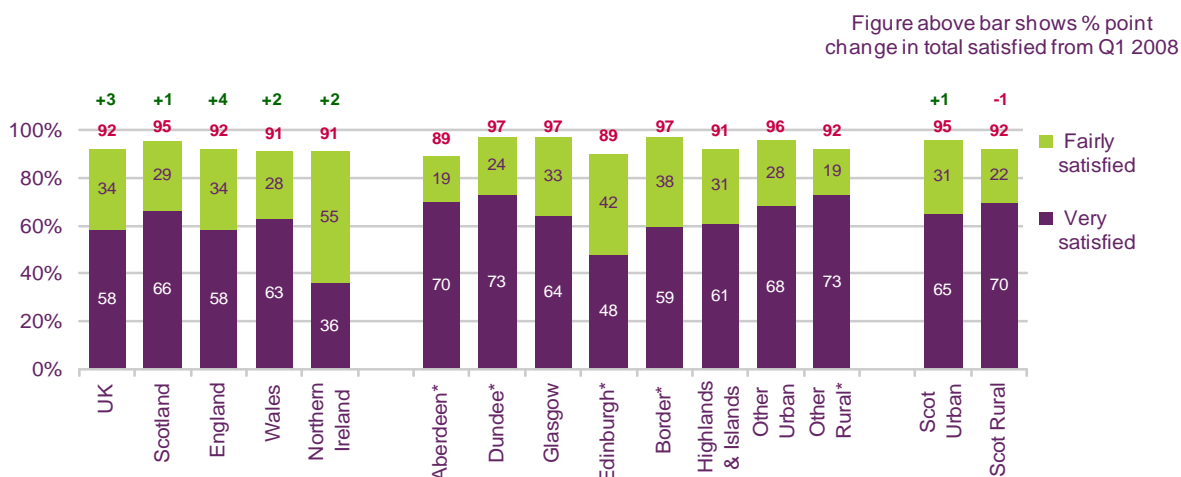
* Sample size less than 100. Apply caution and treat as indicative only.

5.4.1 Satisfaction

Highest level of satisfaction with fixed-line, broadband and mobile services

Ninety-five per cent of those in Scotland with a fixed line were satisfied with their service, with a significantly higher proportion being very satisfied than in the UK as a whole (66% compared to 58%). People living in urban areas of Scotland had slightly higher levels of satisfaction than those in rural areas, with Dundee, Glasgow and border areas having the highest satisfaction levels (Figure 5.32).

Figure 5.32 Overall satisfaction with fixed-line service



QC13a. Thinking about your home phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Source: Ofcom. Base: Adults aged 15+ with a fixed line (n= 5151 UK, 804 Scotland, 2962 England, 818 Wales, 567 Northern Ireland). Don't knows have been excluded.

* Sample size less than 100. Apply caution and treat as indicative only.

Figure 5.33 shows overall satisfaction with fixed broadband services among consumers in Scotland was the highest in the UK (97%). The proportion of fixed broadband users who were either fairly, or very, satisfied was relatively consistent across regions, but was lowest in the Highlands and Islands (91%); this may be a reflection of the limited choice of providers due to a lack of cable and LLU availability.

Figure 5.33 Overall satisfaction with fixed broadband service



QE18a. Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

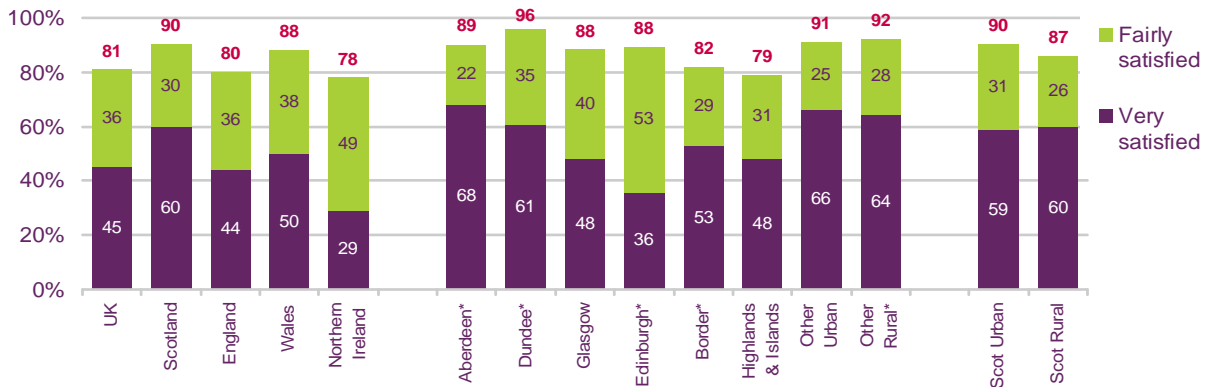
Source: Ofcom Base: Adults aged 15+ with a fixed broadband connection at home (n= 3491 UK, 528 Scotland, 2048 England, 527 Wales, 388 Northern Ireland) Don't knows have been excluded.

* Sample size less than 100. Apply caution and treat as indicative only.

Satisfaction with fixed broadband connection speeds in Scotland was the highest in the UK, at 90% (Figure 5.34). Slightly lower satisfaction was reported in Scotland's rural areas, which may be explained by these homes being further from the local exchange, and by the lack of availability of broadband services offering faster speeds, either over LLU or via cable, such as Virgin Media's 50Mbps cable broadband service.

The lowest levels of satisfaction with fixed broadband speeds in Scotland were in the Highlands and Islands (79%) and the Border area (82%).

Figure 5.34 Overall satisfaction with speed of fixed broadband connection



QE18b. Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the speed of your service while online (not just the connection)?

Source: Ofcom Base: Adults aged 15+ with a broadband connection at home (n= 3491 UK, 528 Scotland, 2048 England, 527 Wales, 388 Northern Ireland) Don't knows have been excluded.

* Sample size less than 100. Apply caution and treat as indicative only.

In Scotland nearly eight in ten customers were satisfied and nearly six in ten were very satisfied with their mobile broadband service. Satisfaction was slightly lower than in England and Wales but higher than in Northern Ireland. Those in rural parts of the UK appear to have greater levels of satisfaction than those who live in urban parts.

Figure 5.35 Overall satisfaction with mobile broadband



*Base size less than 100: Apply caution

Source: Ofcom research, Quarter 1 2009

Base: Adults aged 15+ with a mobile broadband connection (n= 643 UK, 382 England, 88 Scotland, 113 Wales, 60 Northern Ireland)

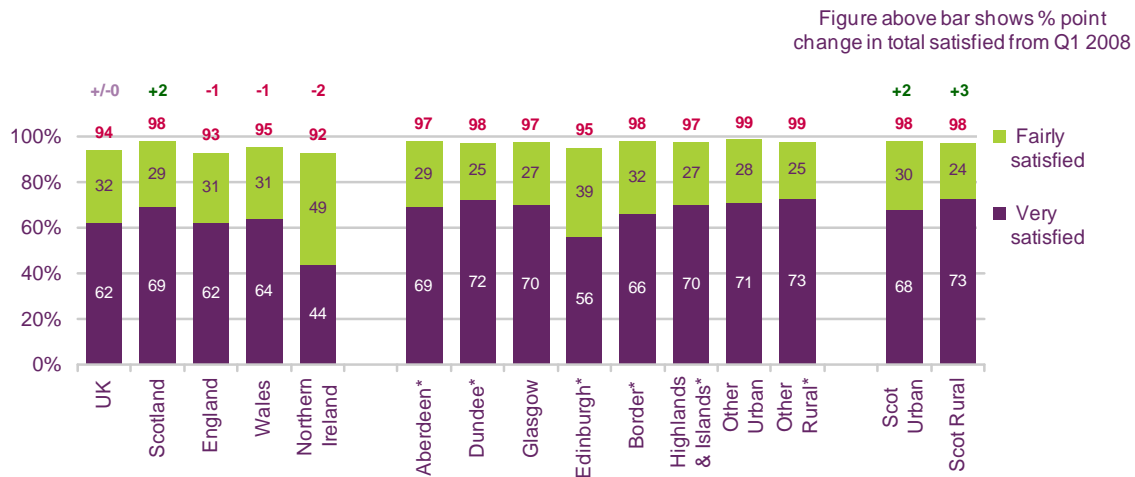
Note: Figures above chart columns indicate the proportion of people who were 'very' or 'fairly' satisfied with their overall mobile broadband service

QE8a. Thinking about your mobile broadband internet service, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

The overall level of satisfaction among mobile phone users in Scotland was 98% compared to 97% for fixed broadband and 95% for fixed-line services (Figure 5.36). Satisfaction with mobile phone services in Scotland was the highest in the UK (98% compared to an average of 94%), with a higher proportion of 'very satisfied' responses (69% compared to 62%).

Although there was no difference in overall satisfaction levels between urban and rural areas, proportions of 'very satisfied' responses varied across the Scottish regions. Edinburgh had the lowest proportion of 'very satisfied' responses (at 56%).

Figure 5.36 Overall satisfaction with mobile phone service



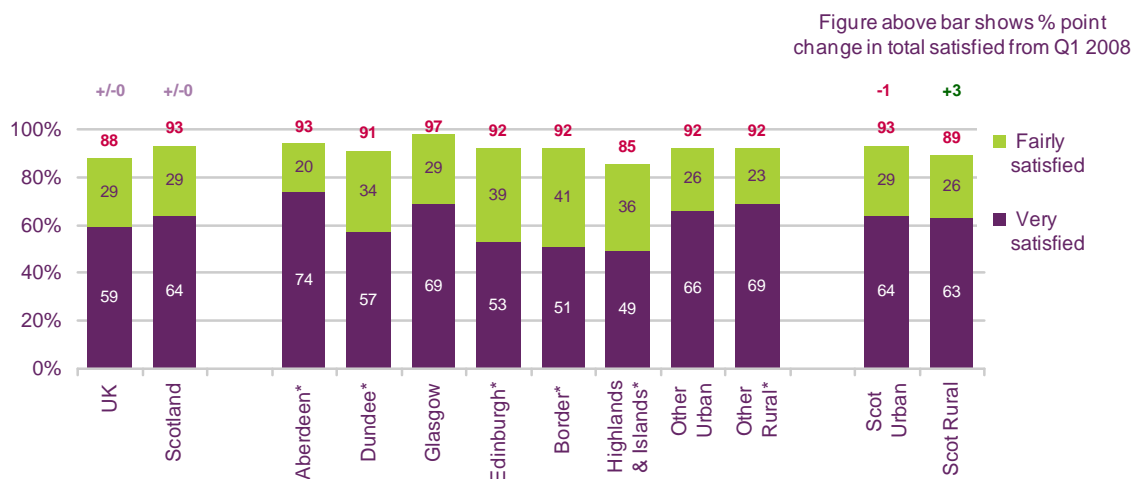
QD21a. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Source: Ofcom, Base: Adults aged 15+ with a mobile phone (n= 5273 UK, 877 Scotland, 2973 England, 836 Wales, 587 Northern Ireland). Don't knows have been excluded.

* Sample size less than 100. Apply caution and treat as indicative only.

Overall, satisfaction with mobile phone reception was higher in Scotland (93%) than the UK average (88%). However, there were varying degrees of 'very satisfied' responses by area in Scotland, and consumers in urban areas were more satisfied than those in rural areas (Figure 5.37). The Highlands and Islands had the lowest level of 'very satisfied' mobile users; probably reflecting the lower levels of mobile coverage in these areas.

Figure 5.37 Satisfaction with reception of mobile phone service



QD21c. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for reception/ accessing network?

Source: Ofcom, Base: Adults aged 15+ with a mobile phone (n= 5273 UK, 877 Scotland, 2973 England, 836 Wales, 587 Northern Ireland)

* Sample size less than 100. Apply caution and treat as indicative only.



The Communications Market 2009

6 Annexes

Annex A: Survey methodology

The research survey referred to in this report is the second in a series of annual surveys. Respondents were adults, living in the UK, aged 15 or over. A total of 6,090 interviews were conducted; 3,437 in England, 1,014 in Scotland, 987 in Wales and 652 in Northern Ireland.

In England, the East of England, East Midlands and Yorkshire and Humber regions were over-sampled. This is to allow more detailed analysis within those areas. In future years, other regions will be picked for detailed analysis.

Research agency Saville Rossiter-Base was commissioned to conduct the survey as part of Ofcom's annual residential consumer tracking survey. A specialist sampling agency (UK Geographics) was used to draw the sampling points, using output areas (OAs) as classified by the 2001 Census. In Scotland, due to the smaller size of OAs, UK Geographic used its own aggregation process to create sample areas of a comparable population to English and Wales OAs.

Interviewers were provided with specific addresses to approach regarding the research. All interviews were conducted in the respondents' homes using paper questionnaires and prompt material. The questionnaire took an average of 30 minutes to complete. Parents of respondents aged 15 were free to stay with their child during the interview. In total, 6,090 interviews were conducted across 511 sampling points; 290 in England, 86 in Scotland, 83 in Wales and 52 in Northern Ireland. Fieldwork was conducted between 10 January and 28 February 2009.

Quotas were set according to regional population profiles, so the findings are representative of the regions surveyed. The quotas were set on age, gender, social-economic group, and whether the area was cabled, rural or urban, and the level of deprivation. The indices of rurality and deprivation are UK Geographics' proprietary datasets, to ensure comparability between nations.

Quotas were set to achieve a minimum of 100 interviews in each of the urban regions and sub-regions of interest and 85 interviews in rural areas. This required the number of interviews to be boosted in many areas, including specific towns and some rural areas. Data analysed on sample sizes below 100 within nation or region are indicated in the charts and tables with an asterisk (*). These findings should be treated with caution and at an indicative level only.

Data weighting

All data have been weighted to match the profile of each of the four nations as detailed in the 2001 Census and to remove the effect of the over-sampling of specific areas mentioned above. Unweighted bases are shown throughout this report to illustrate the number of respondents interviewed.

	Unweighted	Weighted
UK	6,090	3,020
England	3,437	2,510
Scotland	1,014	261
Wales	987	146
Northern Ireland	652	102

Margin of error and statistical significance

Because the survey was conducted among a sample of people aged 15 or over rather than the whole UK population, the data may be subject to a small margin of error. The error margin for each of the nations and regions of interest covered by the survey are illustrated in the following tables. Error margin rises among smaller sub-groups. Results referred to as 'significantly' different, have been tested at the 95% level of confidence.

UK nations

	Total sample size	Error margin at 95% confidence interval, for questions asked of the full sample
UK	6,090	1-2%
England	3,437	1-2%
Scotland	1,014	3-4%
Wales	987	3-4%
Northern Ireland	652	3-5%

UK regions - England

	Total sample size	Error margin at 95% confidence interval, for questions asked of the full sample
Total urban	2,706	1-2%
Total rural	731	3-5%
London	258	4-7%
South East urban	180	4-7%
Bristol	102	6-10%
Other SW Urban	132	6-9%
Derby	107	6-10%
Nottingham	107	6-10%
Leicester	105	6-10%
Other East Midlands urban	96	6-10%
Birmingham	107	6-10%
Other West Midlands urban	119	5-8%
Norwich	109	6-10%
Ipswich	108	6-10%
Peterborough	104	6-10%
Other East of England urban	130	5-9%
Leeds	107	6-10%
Sheffield	108	6-10%
Bradford	108	6-10%
Other Yorkshire & Humber urban	179	4-7%
North East urban	108	6-10%
Manchester	108	6-10%
Liverpool	104	6-10%
Other NW urban	144	5-9%
South East rural	80	6-10%
South West rural	84	6-10%
East Midlands rural	107	6-10%
West Midlands rural	83	6-10%
East of England rural	102	6-10%
Yorkshire & Humber rural	108	6-10%
North East rural	84	6-10%
North West rural	83	6-10%

UK regions – Scotland

	Total sample size	Error margin at 95% confidence interval, for questions asked of the full sample
Total urban	762	3-5%
Total rural	252	4-7%
Aberdeen	107	6-10%
Dundee	108	6-10%
Glasgow	201	4-7%
Edinburgh	107	6-10%
Border	108	6-10%
Highlands & Islands	97	6-10%
Other urban	179	4-7%
Other rural	107	6-10%

UK regions – Wales

	Total sample size	Error margin at 95% confidence interval, for questions asked of the full sample
Total urban	679	3-5%
Total rural	308	4-7%
Cardiff	108	6-10%
Newport	105	6-10%
Swansea	108	6-10%
Wrexham	106	6-9%
Other urban north	72	7-12%
Other urban south	108	6-9%
Mid Wales	105	6-10%
North Coastal	108	6-10%
Rural North	60	8-13%
Rural South	107	6-10%

UK regions – Northern Ireland

	Total sample size	Error margin at 95% confidence interval, for questions asked of the full sample
Total urban	476	4-6%
Total rural	176	5-8%
West	363	4-7%
East	289	3-7%
West urban	276	4-6%
East urban	200	5-8%
West rural	87	7-11%
East rural	89	7-11%
Belfast	108	6-10%
Londonderry/ Derry	112	6-10%
Small towns	123	6-9%
Border	179	5-8%

Glossary

2G Second generation of mobile telephony systems. Uses digital transmission to support voice, low-speed data communications, and short messaging services.

3G Third generation of mobile systems. Provides high-speed data transmission and supports multimedia applications such as full-motion video, video-conferencing and internet access, alongside conventional voice services.

ADSL Asymmetric Digital Subscriber Line. A digital technology that allows the use of a standard telephone line to provide high speed data communications. Allows higher speeds in one direction (towards the customer) than the other.

ADSL1 The first generation of ADSL, capable of data speeds of up to 8Mbit/s towards the customer and up to 640kbit/s from the customer.

ADSL2/ADSL2+ Improved versions of ADSL, offering high speeds, especially on shorter telephone lines. In the case of ADSL2+, up to 24Mb/s can be delivered towards the customer.

AM Amplitude Modulation. Type of modulation produced by varying the strength of a radio signal. This type of modulation is used by broadcasters in three frequency bands: medium frequency (MF, also known as medium wave: MW); low frequency (LF, also known as long wave: LW), and high frequency (HF, also known as short wave: SW). The term AM is often used to refer to the medium frequency band (see MF below).

ATT Analogue Terrestrial Television. The television broadcast standard that all television industries launched with. Most countries in this study are planning to phase out ATT in the next ten years.

BARB Broadcasters Audience Research Board. The pan-industry body which measures television viewing.

Broadband A service or connection generally defined as being 'always on' and providing a bandwidth greater than narrowband.

Contention ratio An indication of the number of customers who share the capacity available in an ISP's broadband network. Figures of 50:1 for residential broadband connections and 20:1 for business are typical).

CPS Carrier Pre-selection. The facility offered to customers which allows them to opt for certain defined classes of call to be carried by an operator that has been selected in advance and has a contract with the customer. CPS does not require the customer to dial a routing prefix or use a dialler box.

DAB Digital Audio Broadcasting. A set of internationally accepted standards for the technology by which terrestrial Digital Radio multiplex services are broadcast in the UK.

Digital dividend The spectrum that will be released by the switch to all-digital television.

Digital switchover The process of switching over the current analogue television broadcasting system to digital, as well as ensuring that people have adapted or upgraded their televisions and recording equipment to receive digital TV.

DSL Digital Subscriber Line. A family of technologies generally referred to as DSL, or xDSL, capable of transforming ordinary phone lines (also known as 'twisted copper pairs') into high-speed digital lines, capable of supporting advanced services such as fast Internet access and video-on-demand. ADSL, HDSL (High data rate Digital Subscriber Line) and VDSL (Very high data rate Digital Subscriber Line) are all variants of xDSL).

DTT Digital Terrestrial Television, currently most commonly delivered through the Freeview service.

DVD Digital Versatile Disc A high capacity CD-size disc for carrying audio-visual content. Initially available read-only, but recordable formats are now available.

DVR Digital Video Recorder (also known as Personal Video Recorder and Digital Television Recorder). A digital TV set-top box including a hard disk drive which allows the user to record, pause and rewind live TV.

Fibre-to-the-cabinet Access network consisting of optical fibre extending from the access node to the street cabinet. The street cabinet is usually located only a few hundred metres from the subscriber premises. The remaining segment of the access network from the cabinet to the customer is usually a copper pair but could use another technology, such as wireless.

Fibre-to-the-home A form of fibre optic communication delivery in which the optical signal reaches the end user's living or office space.

Fibre-to-the-building A form of fibre-optic communication delivery in which an optical fibre is run directly onto the customers' premises.

FM Frequency Modulation. Type of modulation produced by varying the frequency of a radio carrier in response to the signal to be transmitted. This is the type of modulation used by broadcasters in part of the VHF (Very High Frequency) band, known as VHF Band 2.

Format The type of programme service broadcast by radio stations. Also, the part of a radio station's licence which describes the programme service.

Free-to-air Broadcast content that people can watch or listen to without having to pay a subscription.

GSM Global Standard for Mobile Telephony, the standard used for 2G mobile systems.

HDTV High-Definition Television. A technology that provides viewers with better quality, high-resolution pictures.

HSPA Jointly, downlink and uplink mobile broadband technologies are referred to as HSPA (High Speed Packet Access) services.

Internet A global network of networks, using a common set of standards (e.g. the Internet Protocol), accessed by users with a computer via a service provider.

Internet-enabled mobile phone A mobile phone which allows its user to access the internet via in-built access technology such as GPRS or WCDMA.

IP (Internet Protocol) The packet data protocol used for routing and carriage of messages across the Internet and similar networks.

IPTV Internet Protocol Television. Television and/or video signals that are delivered to subscribers or viewers using Internet Protocol (IP), the technology that is also used to access the Internet. We use the term to mean delivery over a 'closed intranet', typically operated by ISPs and local-loop unbundlers, rather than over the public internet. IPTV services are hosted on servers placed in the exchange, which means they can be delivered with assured QoS since the ISP has more control over the network.

ISP Internet Service Provider. A company that provides access to the internet.

ITV All references to ITV1 should be read as including STV, UTV and Channel Television.

ITV licensees These are ITV Broadcasting Limited, STV, UTV and Channel Television.

LLU (Local Loop Unbundling) LLU is the process whereby incumbent operators (in the UK this means BT and Kingston Communications) make their local network (the lines that run from customer's premises to the telephone exchange) available to other communications providers. The process requires the competitor to deploy its own equipment in the incumbent's local exchange and to establish a backhaul connection between this equipment and its core network.

Local Loop The access network connection between the customer's premises and the local PSTN exchange, usually a loop comprised of two copper wires.

Mobile Broadband Various types of wireless high-speed internet access through a portable modem, telephone or other device.

MP3 (MPEG-1 Audio Layer-3) A standard technology and format for compressing a sound sequence into a very small file (about one-twelfth the size of the original file) while preserving the original level of sound quality when it is played.

MP3 Player A device that is able to store and play back MP3 files.

MPEG Moving Picture Experts Group. A set of international standards for compression and transmission of digital audio-visual content. Most digital television services in the UK use MPEG2, but MPEG4 offers greater efficiency and is likely to be used for new services including TV over DSL and High-Definition TV.

Multichannel In the UK, this refers to the provision or receipt of television services other than the main five channels (BBC ONE & TWO, ITV1, Channel 4/S4C, Five) plus local analogue services. 'Multichannel homes' comprise all those with digital terrestrial TV, satellite TV, digital cable or analogue cable, or TV over broadband. Also used as a noun to refer to a channel only available on digital platforms (or analogue cable).

Multiplex A device that sends multiple signals or streams of information on a carrier at the same time in the form of a single, complex signal. The separate signals are then recovered at the receiving end.

MVNO An organisation which provides mobile telephony services to its customers, but does not have allocation of spectrum or its own wireless network.

Narrowband A service or connection providing data speeds up to 128kbit/s, such as via an analogue telephone line, or via ISDN.

PAYG Pay-as-you-go.

Podcasting Away for digital audio files to be published on the internet, which can then be downloaded onto computers and transferred to portable digital audio players.

PSB Public Service Broadcasting, or Public Service Broadcaster. The Communications Act in the UK defines the PSBs to include the BBC, ITV1, Channel 4, Five and S4C.

PSTN Public Switched Telephony Network.

RAJAR Radio Joint Audience Research The pan-industry body which measures radio listening.

RSS is an acronym of either 'Really Simply Syndication' or 'Rich Site Summary'. It refers to a news feed that is generated by the content on a website, but which visitors can select to have delivered to their computer without visiting the source website

Service bundling (or multi-play) A marketing term describing the packaging together of different communications services by organisations that traditionally only offered one or two of those services.

Service provider A provider of electronic communications services to third parties whether over its own network or otherwise.

Share (Radio) Proportion of total listener hours, expressed as a percentage, attributable to one station within that a defined area.

Share (TV) Proportion of total TV viewing to a particular channel over a specified time, expressed as a percentage of total hours of viewing.

Sub-loop unbundling A variant of LLU where a competitive operator takes control of only a portion of a customer's local loop, allowing them to install their equipment closer to the customer and potentially offer higher-speed services. In Sub-loop unbundling, the point of handover is commonly the Primary Connection Point (PCP) or street cabinet.

Telecommunications, or 'Telecoms' Conveyance over distance of speech, music and other sounds, visual images or signals by electric, magnetic or electro-magnetic means.

Transmitter A device which amplifies an electrical signal at a frequency to be converted, by means of an aerial, into an electromagnetic wave (or radio wave). The term is commonly used to include other, attached devices, which impose a more simple signal onto the frequency, which is then sent as a radio wave. The term is sometimes also used to include the cable and aerial system referred to above, and indeed the whole electrical, electronic and physical system at the site of the transmitter.

VoIP Voice over Internet Protocol. A technology that allows users to send calls using Internet Protocol, using either the public Internet or private IP networks.

Web 2.0 A perceived second generation of web-based communities and hosted services - such as social-networking sites and wikis, which facilitate collaboration and sharing between users.

WiFi hotspot A public location which provides access to the internet using WiFi technology.

Wireless LAN or WiFi (Wireless Fidelity) Short range wireless technologies using any type of 802.11 standard such as 802.11b or 802.11a. These technologies allow an over-the-air connection between a wireless client and a base station, or between two wireless clients.

WLR Wholesale Line Rental A regulatory instrument requiring the operator of local access lines to make this service available to competing providers at a wholesale price.

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