Communications Market Report: Scotland

Research Document

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Introduction

This is Ofcom's fifth annual review of communications markets in Scotland.

The report offers a detailed overview of communications services across the nation. It provides a comparison of their take-up and use within different parts of Scotland, and compares this with other UK nations.

Nearly eight in ten people (79%) claimed to have a mobile handset in Q1 2010, ten percentage points lower than the UK-wide average. A 2G mobile signal covers 87% of people in Scotland relative to the UK figure of 97%. Higher-speed 3G mobile, which is available to 87% of the UK population, covers 66% of the Scottish population. With mobile signals focusing on densely populated regions of Scotland, and influenced by topography, geographic coverage tends to be lower in Scotland (64% for 2G and 41% for 3G) than elsewhere in the UK (91% 2G and 76% 3G).

Sixty-one per cent claim to have broadband in Scotland, still below the UK average (71%), with the gap widening by two percentage points over the last twelve months. Cable broadband is available to 37% of the population (versus 48% of the UK as a whole), while most fixed exchanges in Scotland now support broadband. But the actual speeds experienced by consumers depend on a variety of factors. These include the length of the line from the exchange to a customer's premises, and the number of people connected to a single exchange who are logged on to the internet concurrently.

As competition between communications providers intensifies, a growing proportion of homes are taking services in bundles of two or more. Across Scotland, 44% of homes took bundles, up by two percentage points year on year; but the gap with the UK average widened by two percentage points to seven percentage points. People in Lothian and Forth Valley were the most likely to take bundled services. Those outside major conurbations were the least likely, possibly reflecting the lower availability of competing providers in these areas.

The growing adoption of digital technologies is influencing how people in Scotland are consuming media content. Patterns of television viewing and radio listening remained relatively stable in 2009/10. People in Scotland watch more television per head per day than in any other nation (at 4.2 hours/head/day). Levels of radio listening are more comparable to the UK-wide average (3.0 hours/head/day versus 3.1 for the UK as a whole. Furthermore, twenty-eight per cent of the population claimed to watch television over the internet, while 8% used the internet to listen to the radio (these compare to the UK-wide figures of 38% and 14%). And a fifth (15%) of people in Scotland are now using their mobile handset to access the internet – broadly on a par with the UK average.

There are also themes that unite the UK's nations. Perhaps one of the more striking is common experience of people who live in rural locations throughout the UK. They are less likely to have access to super-fast broadband, a 3G phone signal, and to a choice of suppliers through their local fixed telephony exchange. Our research shows that the average broadband speeds delivered to premises in rural locations are typically lower than in urban areas; that fixed-line take-up is often higher; and that households are less likely in rural areas to take communications services in bundles.

The consumer research that informs the report's analysis is based on larger regions this year. This has improved the robustness of the research, and its comparability from region to

region. In future editions of this report, this will enable us to make more meaningful year-on-year comparisons. As with earlier editions of this report, the detailed data must be seen in the context in which they are collected. Care must be taken in drawing far-reaching conclusions.

This is just a snapshot of the findings of this year's report. The first section (see page 18) compares Scotland's communications market with the UK's other nations. It goes on to examine the impact of the economic cycle on communications markets in Scotland (page 27). It concludes by examining fixed-broadband and mobile not-spots in Scotland (page 36).

The remainder of the report covers television/audio-visual content, radio/audio content, internet-only content/services and the telecommunications sector. In each, we set out in detail an analysis of industry and consumer data. The sections have been restructured this year, to reflect user feedback. The headline findings from the consumer research are set out in a summary 'Fast Facts' table. We have also included consumption of video and audio content over the internet in the 'broadcast' sections (see Sections 2 and 3).

Finally, to make this report and its resources more useable to stakeholders we are, for the first time, publishing all the data and charts in a searchable resource. This can be found at www.ofcom.org.uk/cmrscotland.

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. Nor does it represent any proposal or conclusion about the assessment of significant market power for the purpose of the Communications Act 2003, the Competition Act 1998 or any other relevant legislation.

Contents

Introduction		1
Fast Facts		4
Key Points		7
1	The market context	15
2	TV and audio-visual content	49
3	Radio and audio content	77
4	Internet and web-based content	93
5	Telecoms and networks	105

Fast Facts

Please read the notes below this table for important context and interpretation. The base used in this table is all Scottish people/homes with the exception of the digital television (DTV) figures. Statistically significant differences between Scotland's figures and the UK are *not* highlighted in this table. As a rule, where there is a statistically significant difference, the Scotland figure is below the UK average.

	UK average	Scotland average	Glasgow, Clyde & L'shire	Lothian & Forth	Grampian, Tayside & Fife	Scotland Urban	Scotland Rural	England average	Wales average	NI average	UK urban	UK rural
Digital TV take-up among TV homes [1]	92 ↑+2	91	91	92	89	91	89	92	97 ↑+8	87	92 ↑+2	92
Broadband take-up[2]	71 ↑+3	61	53	72	68	61	60	73	64 ↑+6	70 ↑+6	70	75
Mobile broadband [2]	15 ↑+3	12 ↑+5	10	14	14	13	10	15	16 ↑+5	14 ↑+6	16	11
Mobile phone take-up[3]	89	85	84	88	87	93 ↑+3	80	90	89 ↑+4	88	89	90
Use mobile to access data, inc. internet[4]	23 ↑+3	15	12	16	21	15	15	24	23 ↑+5	21	26 ↑+6	19
3G handset take-up[5]	26 ↑+4	26 ↑+6	27	24	23	27	17	26	28	18 ↑+4	26	25
Fixed landline take-up[6]	85 ↓-2	79	70	86	87	77	88	86	79	81	84	91
Households taking bundles[7]	51 ↑+5	44	44	54	46	46	37	52	44 ↑+9	44	51	48
Watching video online[8]	38 ↑+4	28 ↑+7	21	39	38	29	30	40	28	38	38	41
Use of social networking[8]	40 ↑+10	27 ↑+7	21	33	31	26	24	42	37 ↑+12	37 ↑+9	40	42
Current use of VoIP[9]	15 ↑+5	10	5	14	15	10	12	16	15 ↑+6	15	15 ↑+3	18 ↑+5

XX	**Figure is higher than that nation's average**	XX ↑+xx	**Figure has risen by xx percentage points since 2009**
XX	**Figure is lower than that nation's average**	XX ↓-xx	**Figure has fallen by xx percentage points since 2009**

Notes: 1. The data in this table are based on the results from a consumer survey of over 9,000 UK adults. The large sample size allows us to make robust comparisons between geographic areas of the UK's nations and regions. Statistically significant differences from the nation's average (in which we can be 95% confident) are indicated by red and green boxes, and arrows are used to indicate where there has been a statistically significant change fromQ1 2009. A statistically significant difference means that we can be 95% confident that the difference is real (i.e. a data point higher or lower) – but we cannot be as confident as this in the extent of the difference. 2. It should be noted that the information presented in this table is subject to the same risks of sample error that you would expect to find in any survey research. So, whilst we can be 95% confident that the changes marked by green or red boxes and arrows are real changes, this does mean that we would expect around 1 in 20 of the apparently statistically significant changes marked to be a result of sample error – rather than being a result of real change. 3. Note that in case the base used is all respondents in the indicated area. This allows each figure to be reported as a proportion of all respondents in that area, and each figure in this table is reported on a consistent basis. The figures will not, however, always match those that are reported in the body of this report – for example digital television take-up, which in the table is reported as 'proportion of all respondents', is analysed in the report as 'proportion of all respondents with television'.

Ofcom research Q1
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth, 363 Grampian Tayside & Fife)

Questions
1Which, if any, of these types of television does your household receive at the moment?
2Which of these methods does your household use to connect to the Internet at home?
3Do you personally use a mobile phone?
4Which if any, of the following activities, other than making and receiving voice calls, do you use your mobile for?
5Do you personally use a 3G mobile handset?
6Is there a landline phone in your home that can be used to make and receive calls?
7Do you receive any of these services as part of an overall deal or package from the same supplier?
8Which, if any, of these do you or members of your household use the Internet for whilst at home?
9Have you or anyone in your household ever used one of these services to make voice calls using the Internet at home?

Key points: TV and audio-visual

The key points in this report relating to television and audio-visual content include:

- **Over nine in ten (91%) homes in Scotland have digital TV**
  Digital television take-up on main sets in Scotland stood at 91% in by Q1 2010, broadly in line with the UK-wide average (92%). Take-up was largely stable year on year, following a six percentage point increase the previous year **(page 66).**

- **DTV take-up is broadly comparable across rural and urban areas of Scotland**
  Take-up stood at 91% in urban areas and at 89% in rural locations in Q1 2010. The figure ranged from 89% in Grampian, Tayside, and Fife to 92% in areas such as Lothian and Forth (**page 66**).

- **People in Scotland watch more TV per head per day than anywhere else in the UK**
  People in Scotland watch 4.2 hours of TV per person per day, higher than the UK average of 3.8 hours, and are the only viewers in the UK to watch over 4 hours a day. This figure has remained comparatively stable, rising by 1% over the past five years (**page 68**).

- **The popularity of catch-up TV online grew fastest in Scotland (by 9pp to 16%)**
  The number of people in Scotland claiming that someone in their home uses the internet to watch catch-up TV grew by nine percentage points to 16% in Q1 2010 - faster than any other UK nation. But levels of use remained the lowest of any nation – probably connected to the comparatively lower levels of broadband take-up (**page 73**).

- **People living in rural parts of Scotland are much more likely to use satellite as their primary TV service**. 57% took a pay-satellite service, compared to 35% of Scottish homes in urban locations. Freeview is more prevalent in urban areas than rural (38% versus 27%) as is cable (15% versus 3%), probably influenced by greater coverage and availability in urban areas **(page 67).**

- **Over half of homes in Scotland (52%) take a pay-TV service**. 52% of TV homes in Scotland took a pay-TV service such as Sky or Virgin Media in Q1 2010. Take-up of pay-TV varied across the country. Fifty-six per cent of homes in rural areas had a pay-TV service, compared with 51% of homes in urban locations (**page 67).**

- **Television is a more popular source of local news in Scotland than elsewhere in the UK**
  Sixty-four per cent of people in Scotland claimed that television was their main source of news about their local area. This is much higher than the UK average of 49%.

- **Spend on network programmes made in Scotland increased by £15m to £65m**
  Spending on networked programme production (broadcast to the whole of the UK) rose by 38% in the three years to 2009. Spend in Scotland rose from £50m to £65m, and its share of all networked hours nearly doubled, rising by 1.5 percentage points in two years to 3.3% (**page 61**).

- **Spend on English language programming specifically for viewers in Scotland increased by 1% to £50m.** The BBC and STV spent a combined total of £50m on

English-language TV programmes for viewers in Scotland in 2009, up from £49m in 2008. The number of English-language hours produced for viewers in Scotland stood at 1,644 in 2009, up by 1.3% (21 hours) year on year **(page 57)**.

- **The combined share of PSB channels in Scotland has fallen**
  Since 2004, the main PSB channels' combined share of viewing has fallen by 19 percentage points in all homes in Scotland (56% in 2009). This reduction in share between 2004 and 2009 in Scotland is greater than anywhere else in the UK.

- **STV's non-news programming volumes rose by 67%**
  Despite a reduction in the quota for non-news programmes from 4 hours to 1.5 hours a week, STV broadcast a higher volume of own-productions for viewers in Scotland. Volumes of non-news output increased from 221 hours in 2005 to 370 hours in 2009 (67%) (**page 57**).

- **BBC ALBA spent £17m on original Gaelic-language programming in 2009**
  BBC ALBA, the Gaelic-language service backed by the BBC and MG Alba, spent £17.2m on original programming in 2009, its first full year of broadcasting. In 2009, BBC ALBA broadcast 2,502 total hours, of which 678 hours (27%) were Scottish originations (**page 59**).

- **Scottish consumers embrace HDTV in spite of the economic downturn**
  A quarter of consumers in Scotland (25%) claimed to have purchased an HD-ready TV in the last 12 months, which reflects the entrance of HDTV into the mainstream across the UK as a whole. Eleven per cent of respondents in Scotland also claimed to have bought a DVR in the last year, three percentage points more than the proportion of consumers across the UK (8%). **(page 33)**

Key points: radio and audio

The key points in this report relating to radio and audio content include:

- **Hours of radio listening per head in Scotland is slightly lower than the UK average.** Eighty-seven per cent of the population in Scotland listened to the radio on a weekly basis in the year to March 2010, lower than the UK average of 90%. Time spent listening was also lower than average, at 21 hours per week compared to the UK-wide average of 22 hours **(page 83)**.

- **Over a third (36%) of radio listeners in Scotland had a DAB set in the home by Q1 2010.** This was comparable to the UK average of 38% and higher than Wales (29%) and Northern Ireland (22%). Take-up of sets was highest in the Glasgow, Clyde and Lanarkshire area, at 41%. **(page 85)**.

- **Radio listening via digital platforms (including listening via DAB sets, DTV, or online), accounted for over a fifth (22%) of all radio listening hours in Scotland** in Q1 2010. This was up by six percentage points on a year previously but was still two percentage points below the UK average digital share of 24% of hours. This was highest in England, where a quarter of all radio hours were via a digital platform, and lowest in Northern Ireland at 14% **(page 89)**.

- **Around a third (32%) of adults in Scotland had listened to radio services through a digital TV by Q1 2010**, in line with the UK average. Listening via DTV was highest in the Glasgow, Clyde, and Lanarkshire area, at 45%, and lower in Grampian, Tayside, and Fife, at 22% **(page 88)**.

- **Listening to radio services online has been tried by 14% of adults in Scotland;** similar to levels in Wales (12%) and Northern Ireland (16%) but lower than in England (21%). Across Scotland online listening was highest in the Lothian and Forth Valley, at 17%, and lower in some rural areas at 11% **(page 88)**.

- **3% of people in Scotland use music streaming services, compared to 6% across the UK.** Listening to streamed audio services like Spotify remained a minority activity in Scotland, with only 3% using the internet for this purpose – claimed use was highest in Lothian and Grampian, at 5% of the population (**page 91**).

- **Just over a quarter (26%) of respondents in Scotland claimed to personally use an MP3 player or iPod**. This figure was comparable to Wales (27%) but below Northern Ireland (37%) and England (33%). A third of households in Scotland owned an MP3 player/iPod, compared to the UK average of 40% **(page 87)**.

- **BBC expenditure on Scotland's national radio services was up 1.6% in 2009/10** BBC spend on BBC Radio Scotland / nan Gàidheal equated to £38.7m in 2009/10, up by £0.6m (1.6%) from £38.1m in 2008/09. This took average spend per head to £7.82 in 2009/10, higher than spend in England at £2.82 per head, but lower than in Wales (£11.21) and in Northern Ireland (£11.12) (**page 71).**

- **Commercial radio revenues per head were highest in Scotland**. Commercial radio stations in Scotland generated around £38m of revenue in 2009, down by £3m (8%) on 2008 (UK revenues were down 12% overall). At an average £7.84 per head, this was, however, the highest among the UK nations, with an UK-wide average of £6.68 (**page 81**).

- **Over one in five adults listen to BBC Radio Scotland / nan Gàidheal**
  Almost a million (955,000) adults listened to BBC Radio Scotland/ nan Gàidheal in an average week in Q1 2010. This equates to over one in five (22%) of the population, up by 0.5 percentage points on a year previously. (**page 85**).

- **18 community stations now serve Scotland**
  The number of community radio stations in Scotland increased during 2009, with the number of stations now broadcasting up from 12 at the start of the year to 18 by the end. Community stations are broadcasting to local audiences in Aberdeen, Badenoch and Strathspey, Barrhead, Cumbernauld, Dumfries, Dunoon, Edinburgh, Glasgow, Govan, Leith, Midlothian, Orkney, Rothesay, Saltcoats and Ardrossan, St Boswells, and Stonehaven (**page 79**).

Key points: internet and web-based content

The key points in this report relating to internet and web-based content include:

- **Mobile broadband take-up in Scotland varies by region…**
  Twelve per cent of people in Scotland use mobile broadband; below the UK average of 15%. Take-up is only slightly below the UK average in Edinburgh and the Forth Valley, and in Grampian, Tayside and Fife (at 14% in both regions). But it is significantly below the UK average in rural Scotland, and in Glasgow, Clyde and Lanarkshire (**page 97**).

- **...but few are using their mobile phones to access the internet**
  Scotland has the lowest level of use of a mobile phone to access the internet – 9% compared to the UK average of 16% (**page 98**).

- **Lack of internet access for involuntary reasons is highest in Scotland**
  Fifteen per cent of households in Scotland are 'involuntary' non-owners of internet access (that is, non-adoption for reasons of lack of availability or cost). This is the highest of any UK nation and compares to the UK average of 9% (**page 99**).

- **Social networking (undertaken by 27% of the population in Scotland) is less popular than in other parts of the UK (where it averages 40%)**
  At 33%, people living in Lothian and Forth Valley are the most likely in Scotland to use social networking sites. But only 21% of people in Glasgow, Clyde and Lanarkshire use them (**page 103**).

- **Three in ten households in Scotland access online banking services**
  Twenty-nine per cent of Scottish households are taking advantage of the opportunities offered by the internet to access online banking sites. This is below the UK average of 43%. People in rural areas of Scotland are more likely to do this than those in urban areas (37% versus 27%) (**page 101**).

- **People in Scotland are half as likely to use government sites as the UK average**
  Just 13% of people in Scotland claim to access local council or government sites online, less than half the UK average of 26%. In Glasgow, Clyde and Lanarkshire the figure falls to just 4% (**page 100**).

- **One in seven households in Scotland access health information online.**
  Across Scotland 14% of households use the internet to find information on health issues, compared to the UK average of 27%. In Lothian and Forth Valley this figure rises to 20% (**page 102**).

Key points: telecoms and networks

The key points in this report relating to telecoms and networks include:

- **Broadband take-up in Scotland grew by one percentage point to 61%**
  Broadband take-up in Scotland grew by one percentage point to reach 61% - ten percentage points below average take-up across the UK. Take-up was highest in Lothian and Forth Valley (72%, above the UK average of 71%), and lowest in Glasgow, Clyde and Lanarkshire (53%) (**page 96**).

- **People in Scotland were more likely to rely solely on their mobile phone in Q1 2010 as a means of making voice calls...**
  Along with Wales, Scotland now has the highest proportion of adults who rely solely on a mobile phone (19%) (**page 119**).

- **...and fixed-line ownership has fallen**
  The number of people with a landline phone in Scotland fell by five percentage points in 2009 to 79%. Fixed line take-up is highest in rural areas of Scotland (88%) and lowest in Glasgow, Clyde and Lanarkshire (70%).

- **Mobile broadband take-up in Scotland stands at 12% (compared to 15% across the UK)...**
  12% of people in Scotland use mobile broadband, below the UK average of 15%. Take-up is only slightly below the UK average in Edinburgh and Forth Valley, and in Grampian, Tayside and Fife (at 14% in both regions) but is significantly below the UK average in rural Scotland, and in Glasgow, Clyde and Lanarkshire **(page 97)**.

- **...but few are using their mobile phones to access the internet**
  Scotland has the lowest level of use of a mobile phone to access the internet – 8% have done this, compared to the UK average of 16%. **(page 98)**

- **Scottish consumers most satisfied with telecoms services in the UK**
  Consumers in Scotland have the highest level of satisfaction with the overall service provided by their fixed-line (93%), broadband (92%) and mobile (96%) suppliers (**page 122)**.

The Communications Market in Scotland

1 The market context

1.1 Scotland: setting the scene

Key facts about Scotland

Figure	Scotland	UK
Population[1]	Total for Scotland: 5,194,000 City of Glasgow: 588,470 City of Edinburgh: 477,660 City of Aberdeen: 213,810	Approximately 8.4% of total UK population
Age profile[2]	Scotland has the youngest population in the UK, with 60% of people aged 15 – 44. It is also an ageing population, with the number of 60-74 year olds up 12 percent between 1999 and 2009. During this time the over 75 age group grew 14 percent.	15 – 44: 51% 45+: 49%
Language[3]	86,000 people in Scotland, 1.8% of the population in Scotland, say they have at least some competence in Gaelic.	n/a
Income[4]	Weekly household income: £611 Weekly household expenditure: £432.80	Weekly household income: £669 Weekly household expenditure: £459.70
Unemployment[5]	7.8%	8.0% (Labour Force Survey – December 2009 – February 2010

Sources: 1. Figures are estimates for 30 June 2009 from the General Register Office for Scotland 2. Figures compare 1999 to 2009 - General Register Office for Scotland. 3. 2001 Census. 4. ONS 5. Labour Force Survey – December 2009 – February 2010

A note on our research

A note on the Scotland survey data

We conducted a face-to-face survey of 9,013 adults in the UK, with 1,468 interviews conducted in Scotland. Fieldwork took place in January and February 2010.

Some of the survey data in this section of the report are split by geographic areas of Scotland.

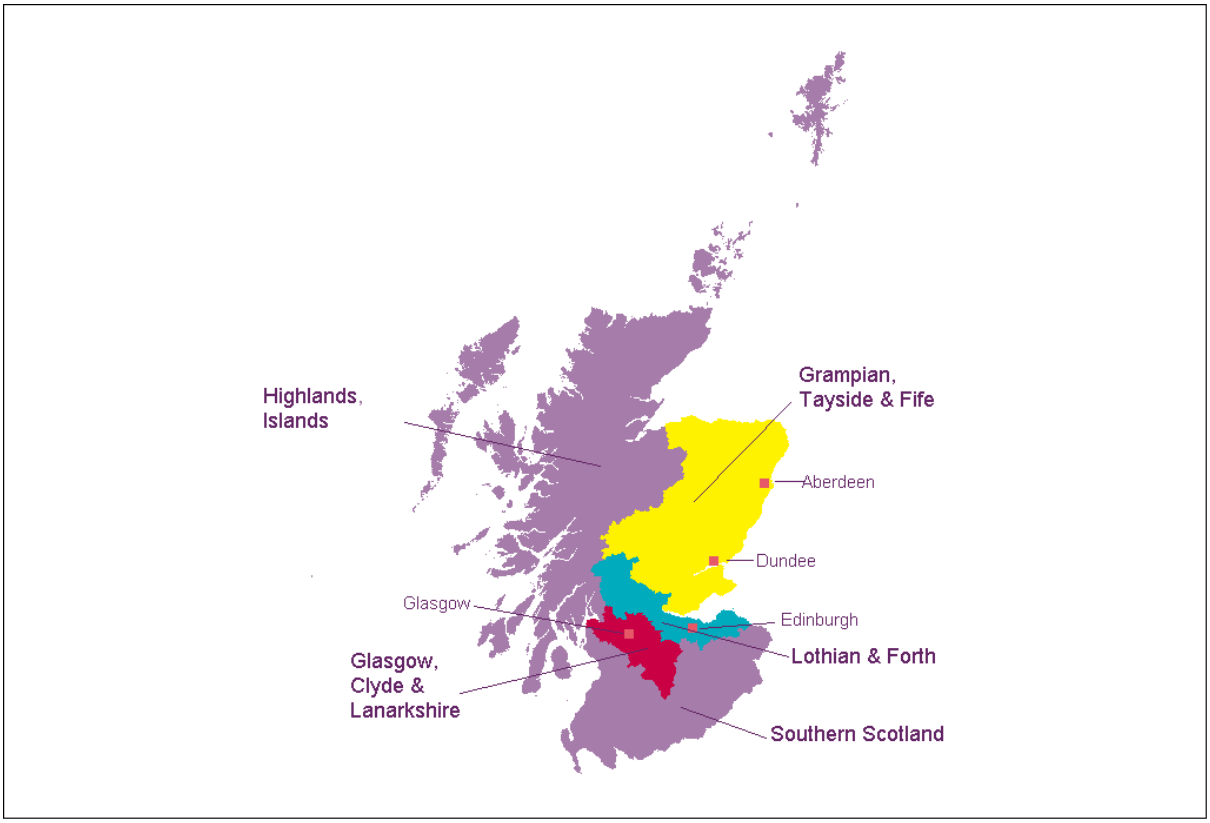
This year we report on wider geographic areas than in previous years, using larger sample sizes; this has the benefit of providing narrower error margins, which in turn improves the comparability of the results from different parts of Scotland.

In Scotland we have used Health Board geographic definitions to report on Glasgow, Clyde & Lanarkshire (sample size 368), Lothian & Forth Valley (sample size 357) Grampian, Tayside & Fife (sample size 363) and other areas of Scotland (sample size 380).

Respondents were defined as urban if they lived in a settlement with a population of 2000 or more and rural if they lived in areas with smaller populations.

In addition to the survey data, this section of the report refers to data from a range of other sources, including data provided to Ofcom by stakeholders.

Figure 1.1 Map of Scotland



Based on Ordnance Survey data and National Statistics Postcode Directory
Source: Ordnance Survey © Crown copyright 2010 and Office for National Statistics.

1.2 Scotland's communications 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.

1.2.1 Availability of communications platforms and services in Scotland

Most homes in Scotland are connected to a broadband-enabled telephone exchange

Figure 1.2 illustrates the availability of communications services in Scotland. It compares coverage levels to the comparable figures for the other UK nations and the UK-wide average. With many communications services now well-established, service availability in Scotland changed little between 2009 and 2010.

Coverage of communications services in Scotland varied from universality for some, to those that extend to only a minority of the population:

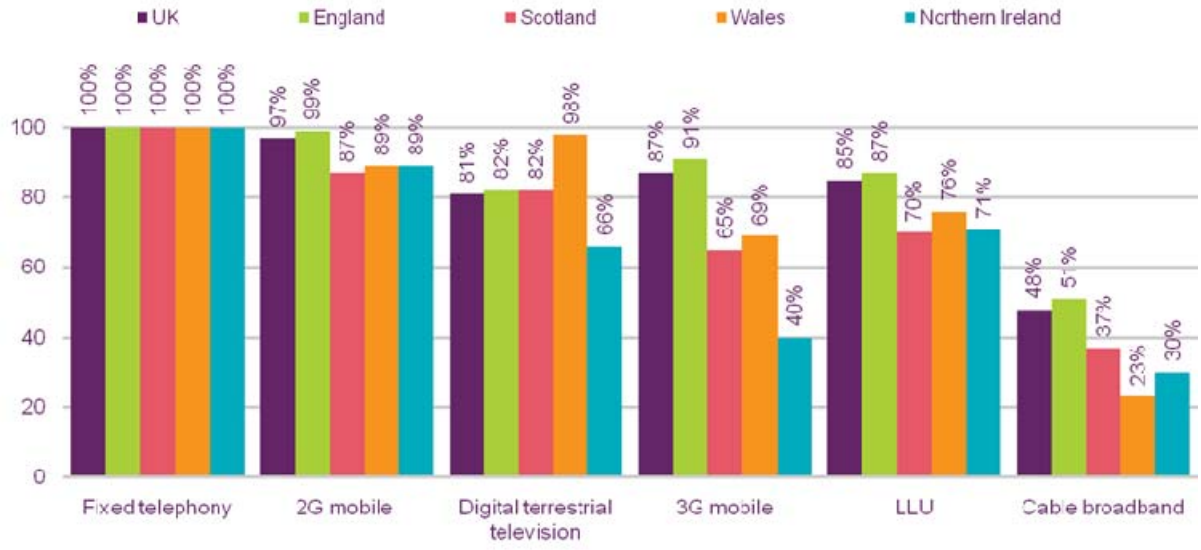
- Digital terrestrial television (DTV) availability, offering the full channel line-up, was available to 82% of Scotland's population in 2010. This figure is higher than for England or Northern Ireland; only coverage in Wales is higher, as a result of the completion of digital switchover. As switchover is completed in Scotland (by the end of 2011), DTV coverage will rise as the signal strength is increased.

- Broadband delivered over a standard fixed telephony line is available to most (99.86%) homes and commercial properties in Scotland. But factors such as line length and contention influence the actual broadband speed at customer premises. Cable broadband, offering access to a high-speed internet service, is available to 37% of homes in Scotland, the second-highest level of coverage in the UK after England (53%).

- 2G mobile services were available to 87% of the Scottish population; this was lower than in Northern Ireland or Wales. Population coverage in England was the highest among the four nations at 99%. 3G population coverage in Scotland is lower than 2G (at 66%). The service is more widely available in Scotland than it is in Northern Ireland (40%); coverage in Wales and England is higher (69% and 91% respectively).

- The universal service obligation on fixed-line telephony services and dial-up internet access means that it is available to all premises in Scotland, in common with the other UK nations.

Figure 1.2 Communications infrastructure availability across the UK's nations, 2010



Sources: Ofcom
1. Proportion of population living in postal districts where at least one operator reports at least 90% 2G area coverage. Sourced from GSM Association / Europa Technologies (Q1 2008). Note that coverage data has been restated; this means that year-on-year comparisons are not possible.
2. Proportion of population living in postal districts where at least one operator reports at least 90% 3G area coverage. Sourced from GSM Association / Europa Technologies (Q1 2008). Note that coverage data has been restated; this means that year-on-year comparisons are not possible.
3. Proportion of premises able to receive DSL services 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. Availability of at least 17 services. Ofcom estimates.
7. New DAB coverage estimates are forthcoming. Ofcom is currently leading a process to consider the future spectrum planning requirements of digital radio, to prepare for the digital radio upgrade and to make recommendations to Ministers.

1.2.2 Take-up of communications platforms and services in Scotland

Take-up of fixed telephone lines in Scotland is low relative to the UK average

Take-up of communications services in Scotland remained relatively flat year on year (Figure 1.3):

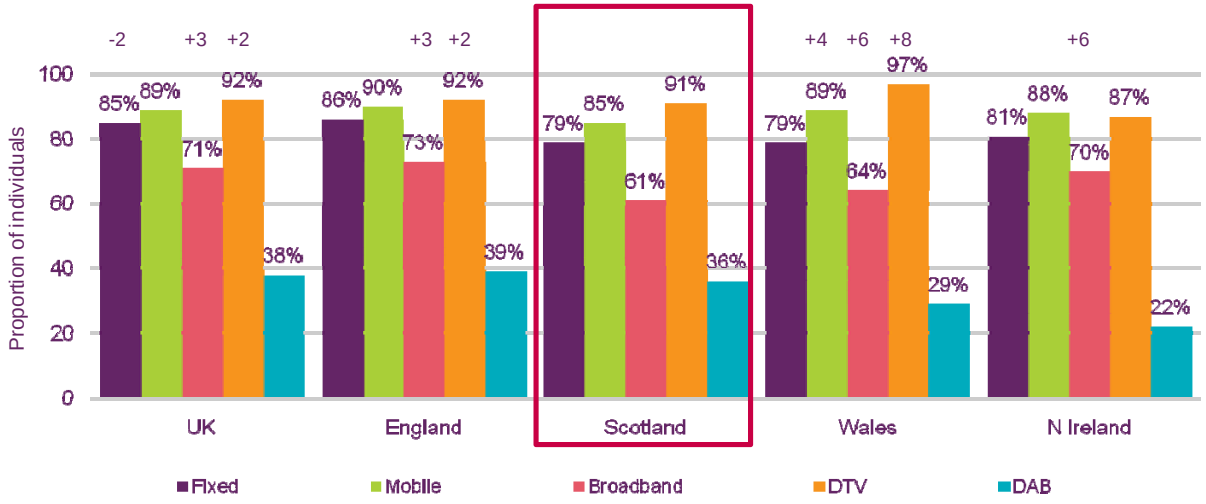
- In common with people in Wales, less than eight in ten (79%) in Scotland claimed to have a fixed telephone line at home. This compares to 81% in Northern Ireland and 86% in England. The gap with the UK-wide average narrowed by two percentage points over the year.

- Broadband take-up is lower in Scotland than anywhere else in the UK (at 61% of individuals). The figure remained flat year on year, and compares to 64% of people in Wales claiming to have broadband at home, 70% in Northern Ireland and 71% in England. The margin with the UK average grew by two percentage points over the period.

- Mobile phone take-up in Scotland, at 85% of individuals, fell below the UK-wide average of 89% in Q1 2010. Ownership of a mobile handset was lower in Scotland

than anywhere else in the UK; the gap was widest with England, where take-up was five percentage points higher, at 90% of individuals.

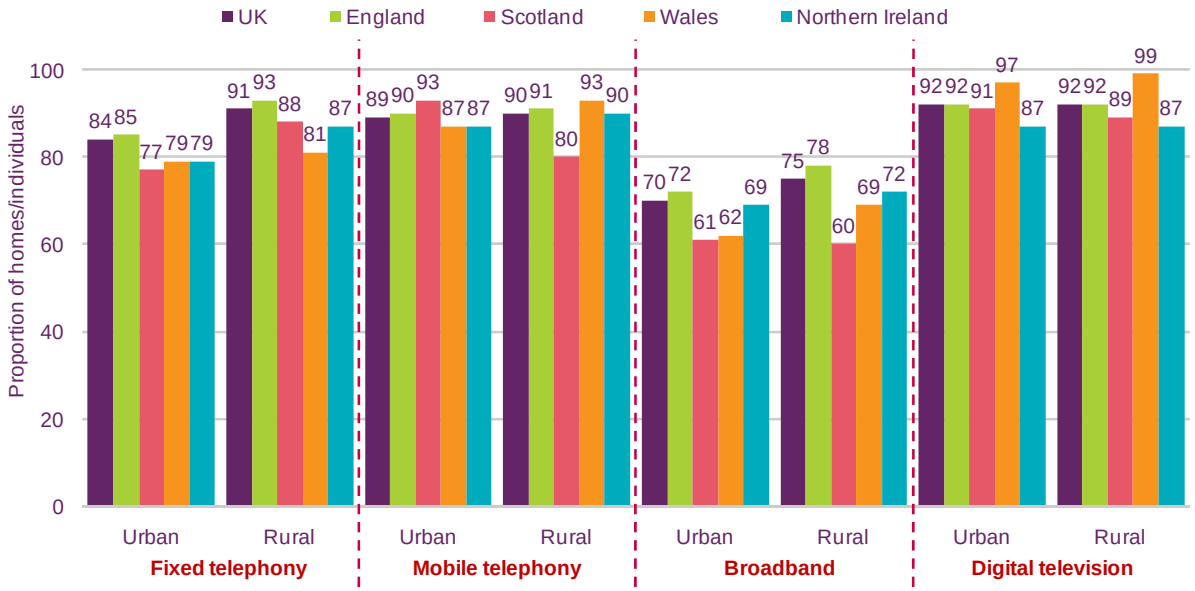
Figure 1.3 Patterns of communications service adoption across the nations of the UK, 2010



Source: Ofcom research, Q1 2010
Fixed line base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
Fixed line question: Is there a landline phone in your home that can be used to make and receive calls?
DTV base: Adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 970 Wales, 640 Northern Ireland)
DTV question. Which, if any, of these types of television does your household use at the moment?
Broadband base: All adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 970 Wales, 640 Northern Ireland)
Broadband question: Which of these methods does your household use to connect to the internet at home?
DAB base: Adults aged 15+ who listen to radio (n= 7017 UK, 4476 England, 1034 Scotland, 854 Wales, 653 Northern Ireland)
DAB question: How many DAB sets do you have in your household? Response represents those with one or more sets.
Note: Remaining percentages are Don't know responses
Mobile base: All adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 970 Wales, 640 Northern Ireland)
Mobile question: Do you personally use a mobile phone?
Note: The DTV take-up figures in this chart will differ from those presented in the 'Fast facts' table. The difference is explained by the base of households over which the two figures are calculated. In this chart, is it all homes with television; in the Fast Facts, it is all homes (including those that do not have television).

Patterns of communications service take-up among people living in urban and rural locations vary by service and type nation. Take-up of fixed telephony services in Scotland is higher among homes situated in rural locations (88% versus 77% in urban). Conversely, take-up of mobile handsets is higher in urban locations (93% versus 80%) – contrary to the pattern in some other parts of the UK. In the adoption of either broadband or digital television, there are no substantial differences between consumers in urban and rural Scotland.

Figure 1.4 Adoption of communications technology/service in urban and rural locations



Source: Ofcom research, Q1 2010. For questions see notes beneath Figure 1.3.

1.2.3 Consumer take-up of bundled services in Scotland

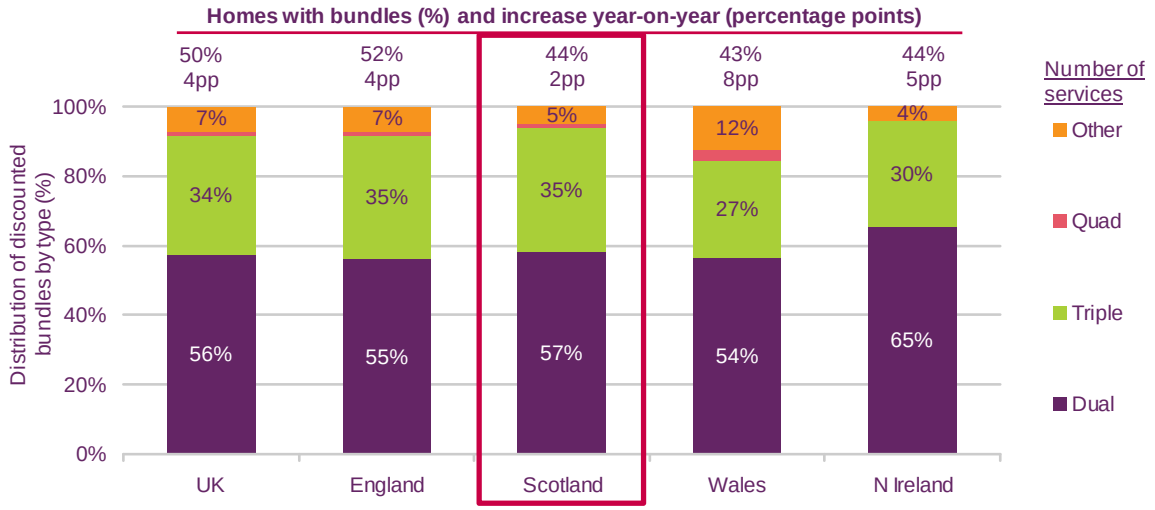
44% of homes in Scotland took a bundle of communications services, up by two percentage points year on year

Across the UK, 50% of homes took a bundle of communications services in Q1 2010. This was up by four percentage points on the year. The most popular type of bundle – taken by more than half (56%) of those who chose a bundle – was a 'dual' package of services such as fixed-line telephony and broadband.

In Scotland, 44% of homes took a bundle; their popularity grew a little during 2009, with take-up rising by two percentage points over the year. This was the lowest rate of growth among the UK's four nations. As a result, the gap with the UK-wide average widened by two percentage points to seven percentage points. Bundles were marginally more popular in Scotland than in Wales and on a par with take-up in Northern Ireland; a larger proportion of homes in England took bundles (52%).

The distribution of bundles by type in Scotland was broadly in line with the UK-wide average. Fifty-seven per cent of those who bundled chose the dual package, in contrast to 56% of those who bundled across the UK. The comparable figures for triple-play packages were 35% and 34%.

Figure 1.5 Take-up of bundles, by nation

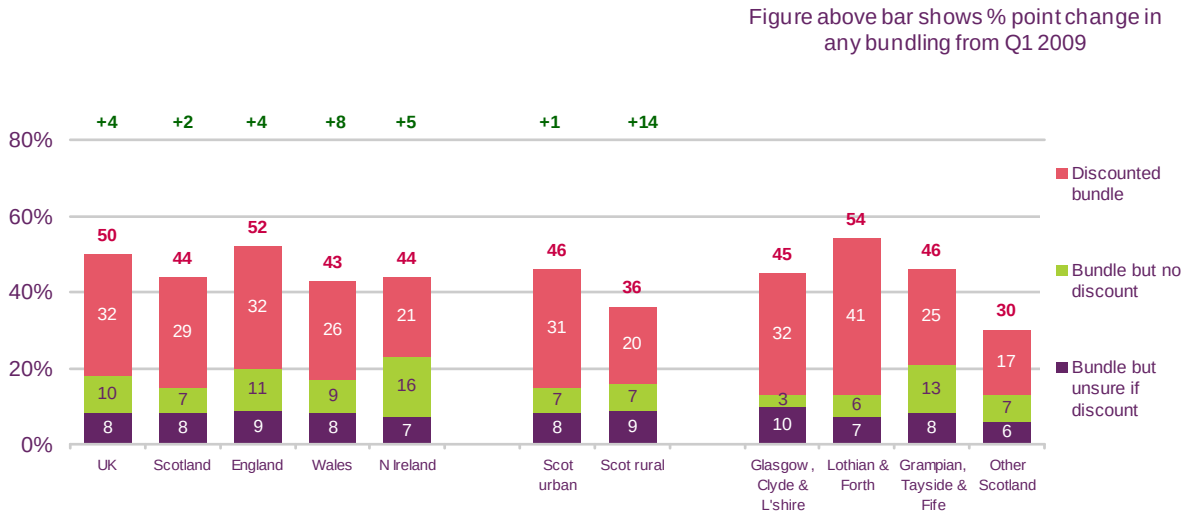


Source: Ofcom research, Q1 2010
Base: All adults aged 15+ with a package of services regardless of whether or not these include a discount (n = 4167 UK, 2793 England, 605 Scotland, 437 Wales, 332 Northern Ireland)
Notes: 1. Remaining percentages are Don't know responses. 2. Bundling is also considered in the UK report; that analysis is based on bespoke research, with a headline bundling figure of 48% (not 50%). The difference arises from different definitions of bundles used in the two pieces of research. In this report a bundle is defined as one where all services are on a single bill, with or without discount. In the UK report research, the definition was of two or more services from one supplier on a single bill and receiving a discount.

Consumers in Lothian and Forth Valley most likely to take bundles of communications services

Across Scotland, take-up of bundles is lower in rural parts of the nation (36% versus 46% for urban locations). This may reflect the fact that these areas are less well-served by both cable and unbundled exchanges than the rest of the UK, reducing the supply of bundles and discounted packages available, most of which include broadband. Take-up peaked at 54% of homes in Lothian & Forth Valley (above the UK-wide average of 50%).

Figure 1.6 Proportion of customers buying bundled services, 2009-2010



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley, 363 Grampian Tayside & Fife, 380 other Scotland)
QG1. Do you receive more than one of these services as part of an overall deal or package from the same supplier? QG3b. Do you receive a discount or special deal for subscribing to this package of services?

1.2.4 Spending by public service broadcasters on television and radio content in Scotland

Figure 1.7 illustrates patterns of expenditure in Scotland on broadcasting output. It adjusts for population size by expressing spend on a per-head basis. The chart sets out four types of expenditure:

- the value of networked television spending in Scotland – programmes that are produced in Scotland, which are then broadcast to all UK viewers;
- BBC spending on radio services for listeners in Scotland (such as BBC Radio Scotland);
- spend by the BBC and STV on television programmes specifically for viewers in Scotland; and
- Gaelic language television programmes commissioned by BBC ALBA.

Total spending per head on broadcast-based output in Scotland totalled £33.20 in 2009, up from £30.50 twelve months earlier. This represented one of the lowest spends per head across the four nations. The increase over 2009 was driven primarily by rising spend on networked television output produced in Scotland.

Figure 1.7 Spend per head on UK-originated content broadcast by PSBs on TV and radio, 2010

Source: Ofcom analysis and broadcasters

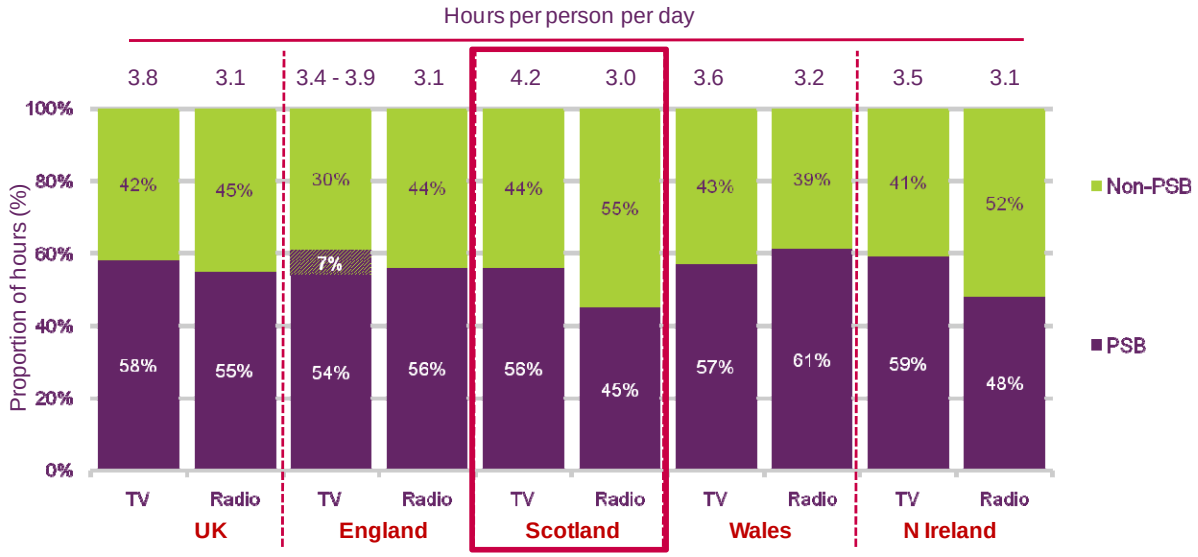
1.2.5 Consumption of television and radio services by people in Scotland

BBC radio services least popular with Scottish listeners

People in Scotland spent a total of 7.2 hours a day watching television and listening to the radio. This was above the UK-wide average of 6.9 hours per day, and was driven by higher levels of television viewing per head in Scotland. At 4.2 hours/day, viewers in Scotland are the only ones to watch more than four hours of television on a daily basis. Levels of radio listening in Scotland were broadly comparable to the UK-wide average (3.0 hours/day versus 3.1 hours/day). Television viewing was stable year on year in Scotland, while hours of listening per head fell by 0.1 hours over the same period.

The BBC's radio services were least popular in Scotland, commanding a 45% share of listening in 2009, compared to the UK-wide figure of 55%. PSB channels took a 56% share of all viewer hours in Scotland – broadly in line with the UK-wide figure of 58%. In terms of station choice, there are 39 local commercial analogue radio stations licensed to broadcast within Scotland; equivalent to around 13% of the UK's total of 296. This compares to ten local commercial stations licensed in Northern Ireland, 15 in Wales and 232 in England.The BBC national stations, BBC Radio Scotland and nan Gàidheal, are also available to listeners in Scotland, and there are 18 community radio licences serving local populations across the country.

Figure 1.8 Hours of daily viewing of television and radio, by nation, 2010



Source: BARB and RAJAR

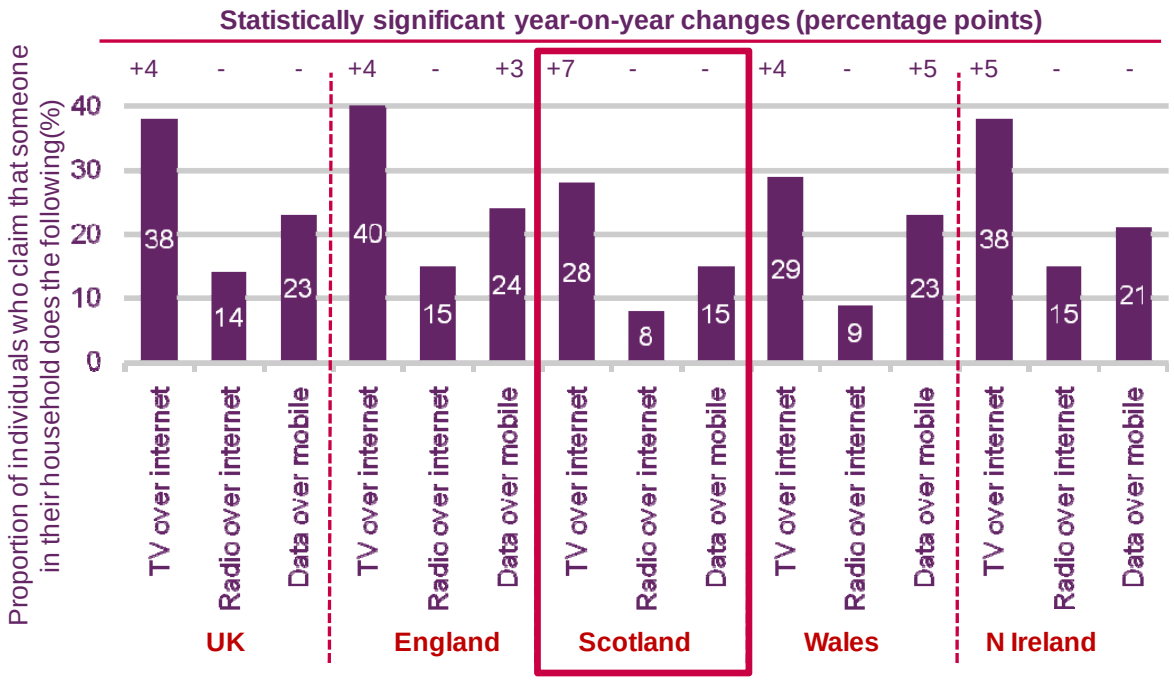
1.2.6 Scottish consumers' use of converged platforms and devices.

A growing proportion of people in Scotland are watching television over the internet

A growing proportion (28%) of consumers in Scotland claim to be using their internet connection to watch television services. This represents a seven percentage point increase over 12 months. But accessing television through the internet is still less popular in Scotland than across the UK as a whole (28% versus 38%) which may be explained by the lower levels of internet take-up in Scotland. Take-up of broadband services may also explain the differences between Wales and Scotland, and England and Northern Ireland (see page 20)

Eight per cent of respondents also claimed to use the internet to listen to the radio over the internet in Q1 2010, on a par with people in Wales, but behind England and Northern Ireland. A further 15% of people in Scotland used their mobile handset to access data services (including the internet) – substantially below the UK-wide average of 23%. This is in part because of lower 3G coverage in Scotland than other parts of the UK (see Figure 1.27)

Figure 1.9 Consumers' use of converging platforms



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
Q: For the TV and radio question - Which, if any, of these do you or members of your household use the internet for whilst at home?
For the Data question - Which if any, of the following activities, other than making and receiving voice calls, do you use your mobile for? Figure represents the of responses to the following: download free applications, download paid for applications, send/ receive emails, access the internet, connect to the internet using WiFi,, use VoIP service, download a new video clip, video streaming, TV streaming, accessing/ receive sports/ team news/ scores, access/ receive news, use IM/ instant messaging

1.3 Scotland: Communications and the economy

1.3.1 Introduction

Since the last *Communications Market Report: Scotland* was published in August 2009, the UK economy has shown signs of recovery after the official end of the recession. In last year's report we explored the impact of the economic downturn on consumer attitudes towards communications services. In June 2010 we repeated last year's study, to update the findings and assess the extent to which consumer spending and attitudes towards communications services in Scotland have changed over the past 12 months.

1.3.2 Consumer spending on communications services

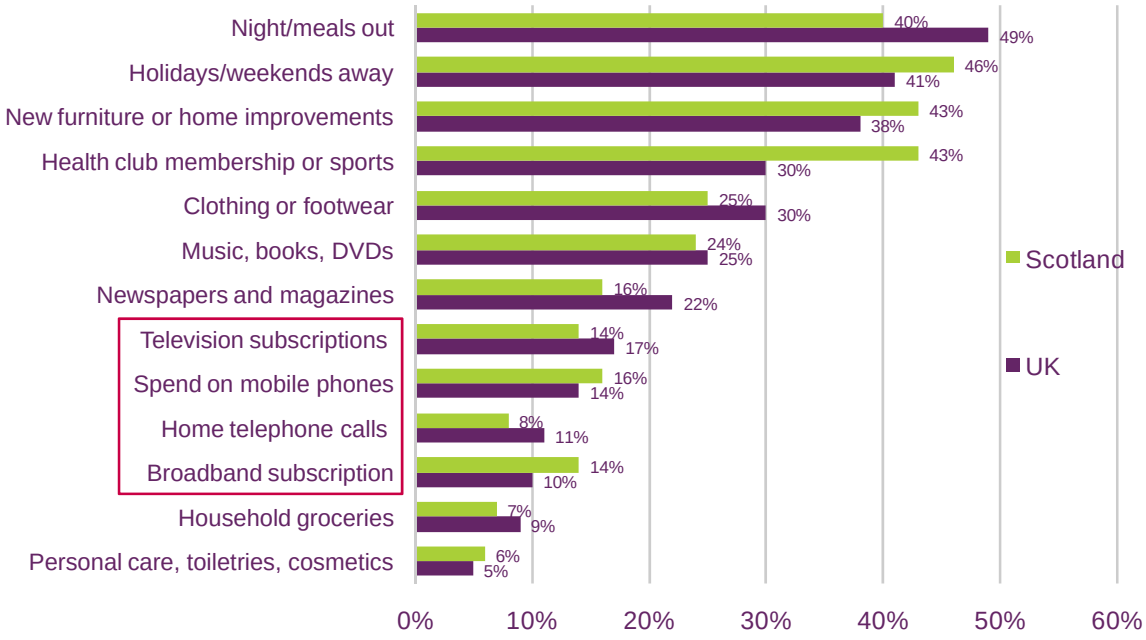
Consumers in Scotland continue to value communications services relative to other items

As shown in Figure 1.10 below, Scottish consumers continue to value communications services relative to spending on other items, even as overall economic conditions have begun to improve. Similarly to the UK as a whole, respondents in Scotland were more likely to cut back on items such as holidays/weekends away (46%) or new furniture/home improvements (43%) than on communication services.

Only 8% of respondents in Scotland placed home phone calls in their top three items most likely to be cut, while less than a fifth of Scottish consumers selected their mobile phone or pay-TV subscription. Similarly to 2009, the only items less likely to be cut than these four communications services were household groceries (7%) and toiletries/cosmetics (6%).

Figure 1.10 Items where consumers are most likely to cut back their spending

Items mentioned as first, second or third choice (%)

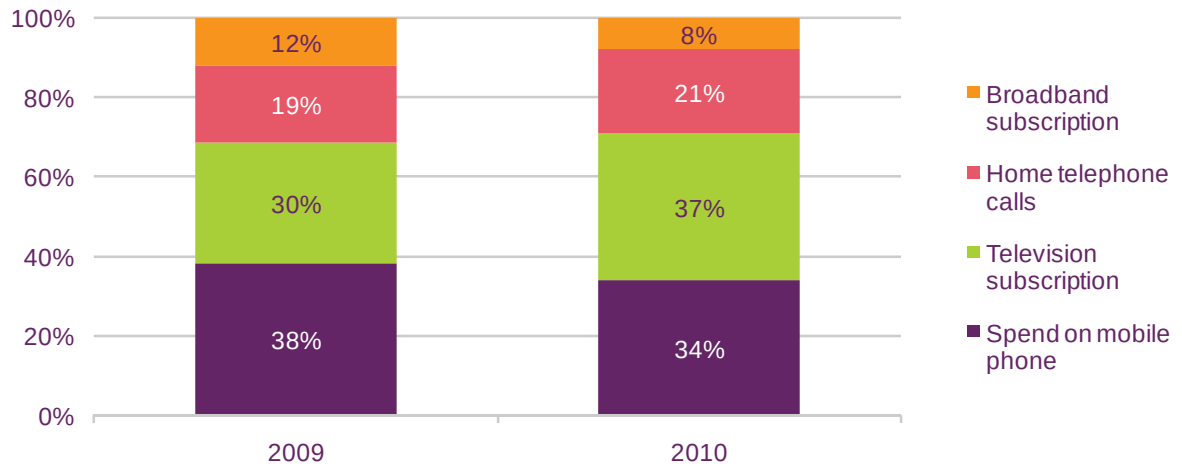


Source: Ofcom-commissioned research
Base: Total sample UK (n=2444) Scotland (n=285)
Question: If you were forced to cut back on spending, which of the following items would you be most likely to spend less on?

If forced to choose, consumers in Scotland with all four communications services were most likely to cut back spending on their pay-TV subscription (37%), with the proportion of respondents choosing pay-TV rising by seven percentage points compared to 2009. Similarly to last year, respondents in Scotland were reluctant to reduce spend on their broadband subscription. Only 8% chose broadband as the item they would cut back on, representing a slight decrease from 12% in 2009.

Figure 1.11 The communications service where consumers would be most likely to cut spend

Proportion of respondents (%)



Source: Ofcom-commissioned research
Base: Those with all four communications services 2009 (n=84) 2010 (n=99)
Question: Which ONE of the following would you be most likely to cut back spending on?

Consumers in Scotland perceive that communications providers are responding to the recession with better deals

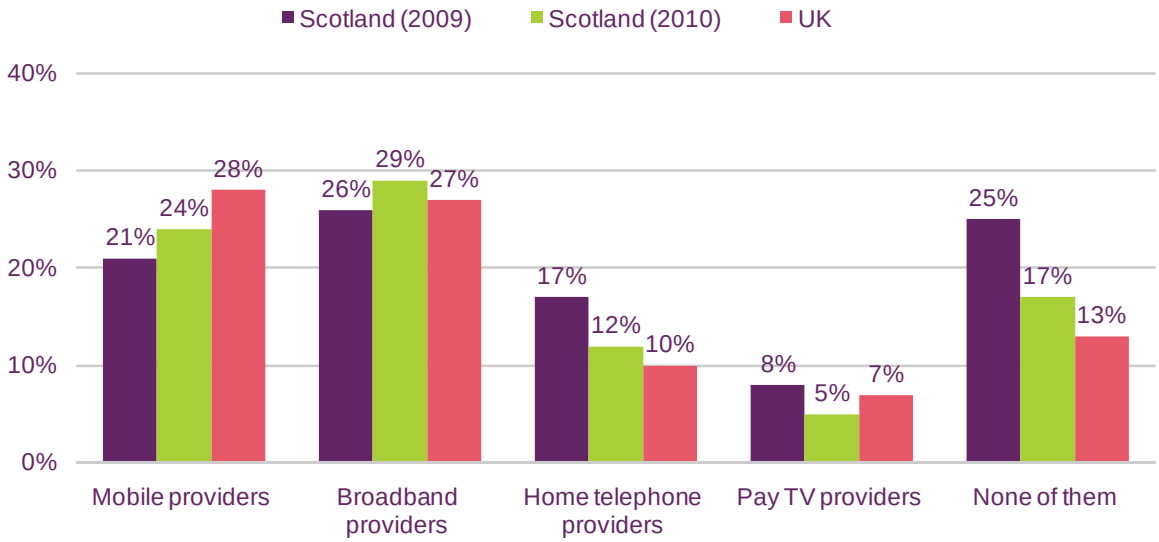
A greater proportion of consumers in Scotland and throughout the UK believe that communications providers are offering improved deals now compared with 12 months ago.

In 2009 a quarter of consumers in Scotland believed that *no* communications providers were offering better deals; in 2010 this figure dropped by seven percentage points to 17%. This decrease is consistent with the trend across the UK and in all nations and regions. It suggests that consumers throughout the UK are gaining confidence that providers are responding to the recession, by offering better value packages for communication services.

Our research indicated that some communications services are perceived to be offering better deals in Scotland than others, as around a quarter of respondents (24% and 29% respectively) agreed that mobile and broadband providers were offering better packages. The proportion of respondents in Scotland choosing home telephone providers in particular (12%) fell by five percentage points since 2009. Following a similar pattern to last year, only a minority of our sample agreed with this statement for pay-TV services (5%).

Figure 1.12 Proportion of Scottish consumers agreeing that communications providers offer better deals now than a year ago

Proportion of respondents agreeing/disagreeing (%)



Source Ofcom-commissioned research
Base: Total sample UK (n=2444) Scotland (2009 n=187, 2010 n=285)
Question: And which of the following providers, if any, are offering better deals than they were 12 months ago?

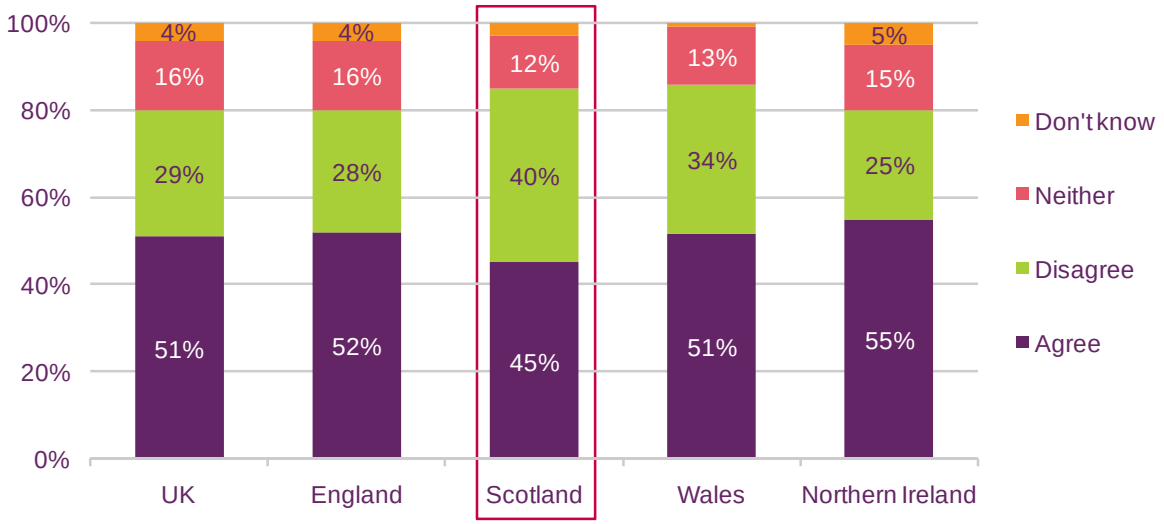
1.3.3 Bundling

Scottish consumers are reluctant to purchase bundled communications services compared to the rest of the UK

In contrast to the rest of the UK, purchasing multiple communications services from the same provider appears to have relatively lower popularity among Scottish consumers. Although just under half of all respondents in Scotland (45%) agreed they are more likely to take communications services in a bundle now compared with 12 months ago, 40% also disagreed with this statement. This was 11 percentage points more than the UK average of 29%.

Figure 1.13 Consumers' agreement / disagreement that they were more likely to take communications services in a bundle, by nation

Proportion of respondents (%)

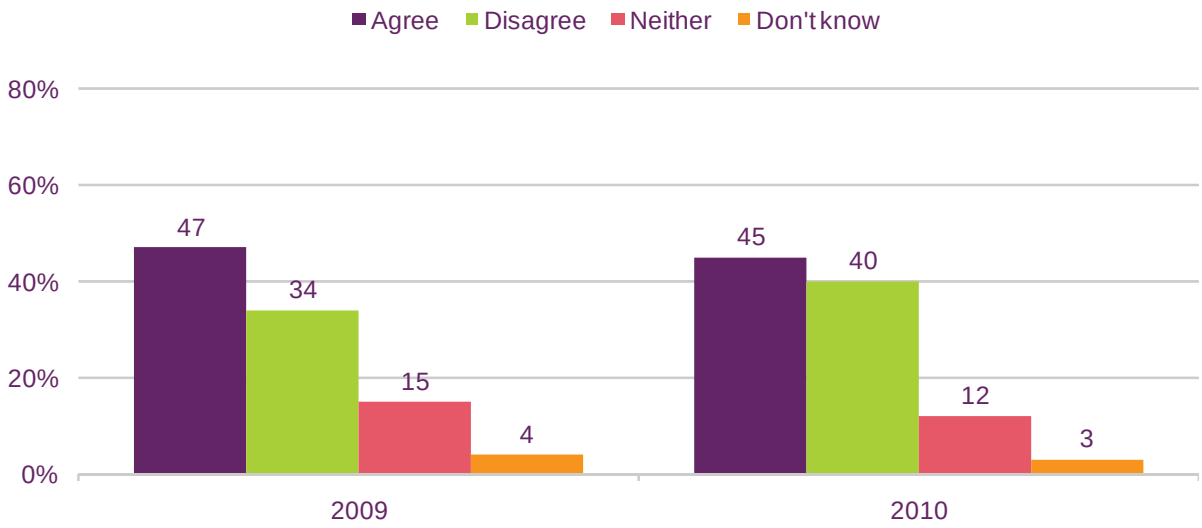


Source: Ofcom-commissioned research
Base: Total sample (n = 2444) England (n = 1727) Scotland (n =285) Wales (n = 203) Northern Ireland (n = 229)
Question: How much do you agree or disagree... I'm more likely to consider purchasing TV, broadband and phone services in a package from the same supplier as it offers better value for money

As illustrated in Figure 1.14 below, the popularity of bundling among Scottish consumers showed a slight change from our 2009 study, in which 34% of Scottish respondents disagreed that they were more likely to take a bundle. In 2010, 40% of respondents in Scotland disagreed with this statement, a decrease of six percentage points from 2009.

Figure 1.14 Consumers' agreement / disagreement that they were more likely to take communications services in a bundle

Proportion of respondents agreeing/disagreeing (%)



Source: Ofcom-commissioned research
Base: Total sample (n = 285)
Question: How much do you agree or disagree... I'm more likely to consider purchasing TV, broadband and phone services in a package from the same supplier as it offers better value for money

1.3.4 Acquisition and use of new communications equipment

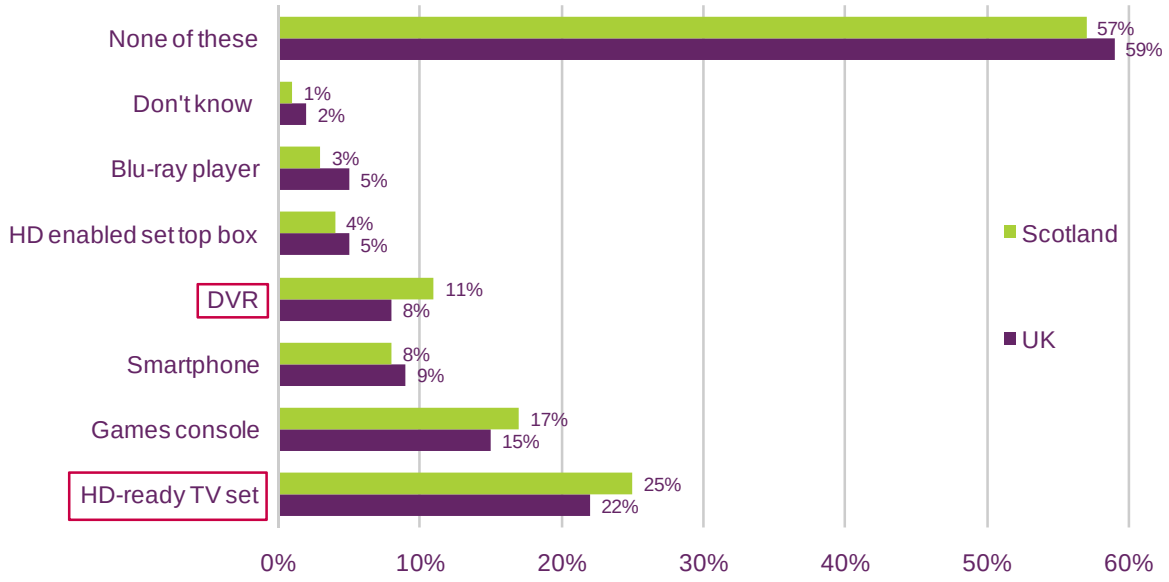
Scottish consumers embrace HDTV in spite of the economic downturn

Despite the economic downturn, Scottish consumers appear to have embraced HDTV, as a quarter of all respondents in Scotland claimed to have purchased an HD-ready TV in the past 12 months. The apparent popularity of HDTV in Scotland is consistent with its entrance into the mainstream across the UK as whole, with sales of HD-ready TV sets being boosted by the recent FIFA World Cup in particular.

Scottish consumers did not appear to deviate from the rest of the UK in take-up of other items, although 11% of respondents claimed to have bought a DVR in the last year, three percentage points more than the proportion of consumers across the UK (8%).

Figure 1.15 Selected communication devices bought in the past 12 months

Proportion of respondents (%)

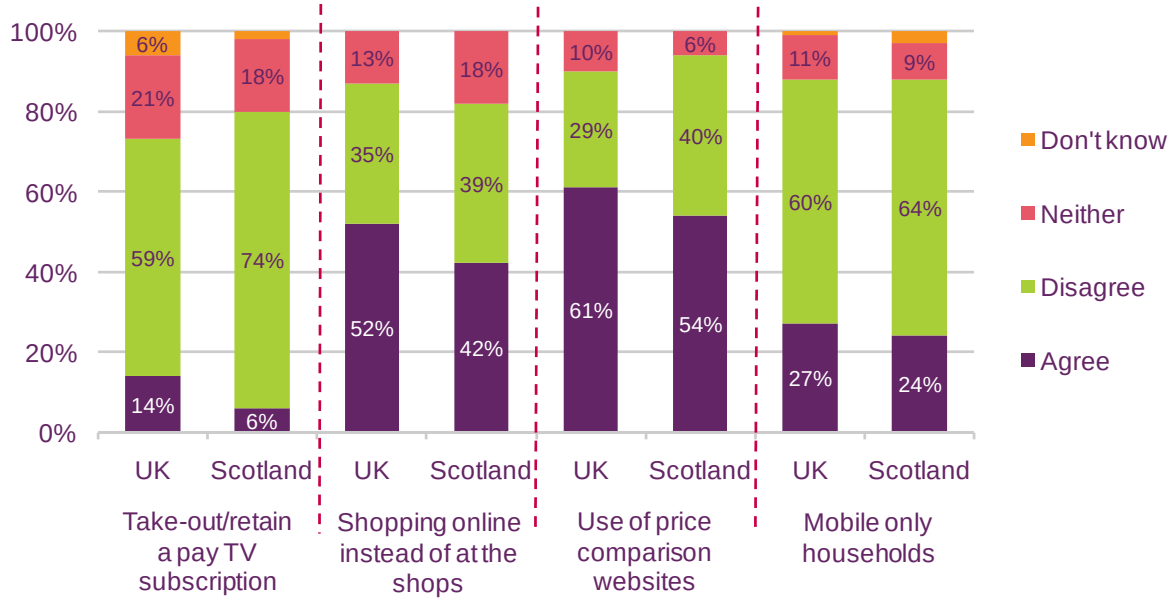


Source: Ofcom-commissioned research
Base: Total sample (UK n=2444, Scotland n=285)
Question: Which, if any, of these products or services have you or your household bought in the last 12 months?

In comparison to the UK average, respondents in Scotland were less likely to take a pay-TV subscription than this time 12 months ago, with 74% of respondents disagreeing, compared to 59% across the UK as a whole. Similarly, Figure 1.16 suggests that consumers in Scotland may be less inclined to use price comparison websites when shopping online, as four in every ten respondents (40%) disagreed with this statement, compared to the UK-wide average of just 29%.

Figure 1.16 Consumers' agreement with a range of statements exploring changes in behaviour over the last 12 months

Proportion of respondents agreeing/disagreeing (%)



Source: Ofcom-commissioned research
Base: UK n=(1300, 1554, 1554, 2099) Scotland (137, 170, 170, 240)
Question: I am now going to read out a number of statements other people have made about how the recession has changed their spending on TV, broadband, mobile and home phone services. For each statement please tell me how much you agree or disagree

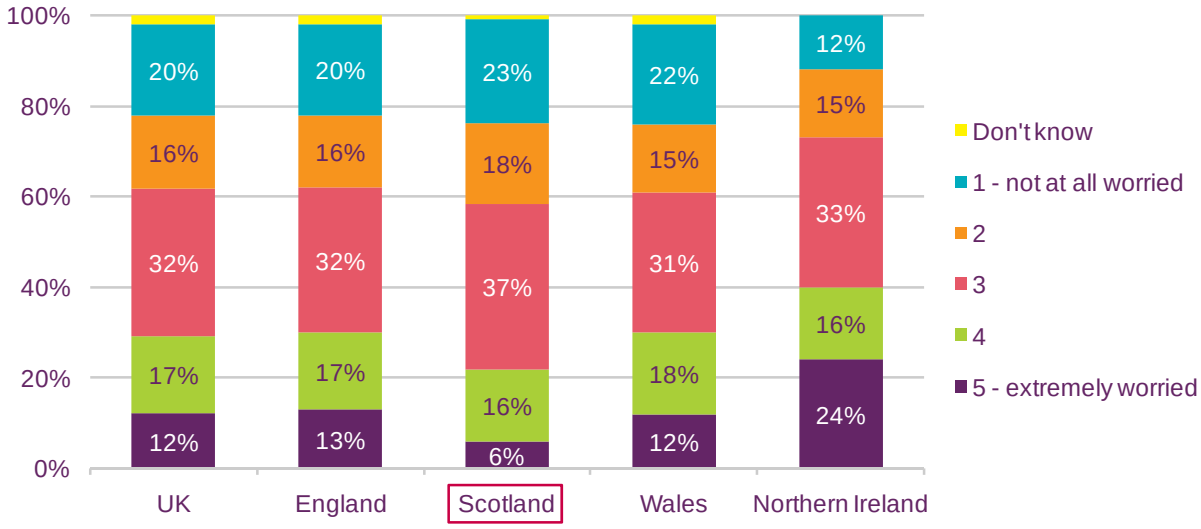
1.3.5 Attitudes of Scottish consumers towards the economy

A greater proportion of consumers in Scotland (relative to the UK average) are not worried about the economic downturn

Our research has revealed that consumer attitudes to the economic downturn have remained largely stable throughout the UK. However, while concern about the recession appears to persist in Northern Ireland, respondents in Scotland claimed to be relatively unconcerned about it, with 23% of respondents stating that they felt 'not at all worried'. The comparative optimism among Scottish consumers comes in the context of a number of factors, including the resilience of house prices in Scotland compared to the rest of the UK.

Figure 1.17 Consumer attitudes towards the recession, by nation

Proportion of respondents agreeing / disagreeing (%)



Source: Ofcom-commissioned research
Base: Total sample (n = 2444) England (n = 1727) Scotland (n =285) Wales (n = 203) Northern Ireland (n = 229)
Question: On a scale of 1 to 5, where 5 is extremely worried and 1 is not at all worried, how worried are you about being personally affected by the recession?

1.4 ‘Not-spots’: the Scottish consumer experience

1.4.1 Introduction and context

This year, one of Ofcom’s annual planning priorities is to make progress on broadband and mobile phone not-spots[1]. To reflect this, this section brings together in one place relevant data that have in the past featured throughout the *CMR: Scotland* report.

Section 1.4 below sets out the context for availability and take-up of broadband and mobile services in Scotland.

The overall picture is that a good proportion of the Scottish population have access to 2G mobile and fixed-broadband services at home, and a substantial proportion of the population claim to have each.

But there are limitations on the ability of broadband-enabled fixed telephone exchanges to deliver high bandwidths. These limitations include long line lengths, which can compromise the ability of fixed lines to support popular internet-based activities such as watching broadcast-quality television output.

Moreover, while 87% mobile population coverage in Scotland is high, the figure for geographic coverage is lower; the result is that a proportion of Scotland’s landmass is not covered by a mobile service from any operator.

1.4.2 Fixed broadband services

In some parts of Scotland, very slow ‘broadband’ speeds may inhibit internet use

Over 99% of local exchanges in Scotland are now DSL-enabled, meaning that most homes in Scotland now have access to a broadband service. However, because of the length and/or quality of the copper telephone wire between exchanges and consumer premises, not all consumers are able to receive downstream broadband speeds sufficient for many internet applications.

Broadband not-spots typically arise when the length or quality of copper telephone lines is not sufficient to support speeds via DSL broadband which are much higher than those available through ‘dial-up’ internet access. Generally, not-spots are most likely to arise in rural areas, where there can long distances between homes and the local exchange. This can also be the case in some urban areas; for example, when new housing developments are built on the edges of towns and are served by telephone exchanges in town centres.

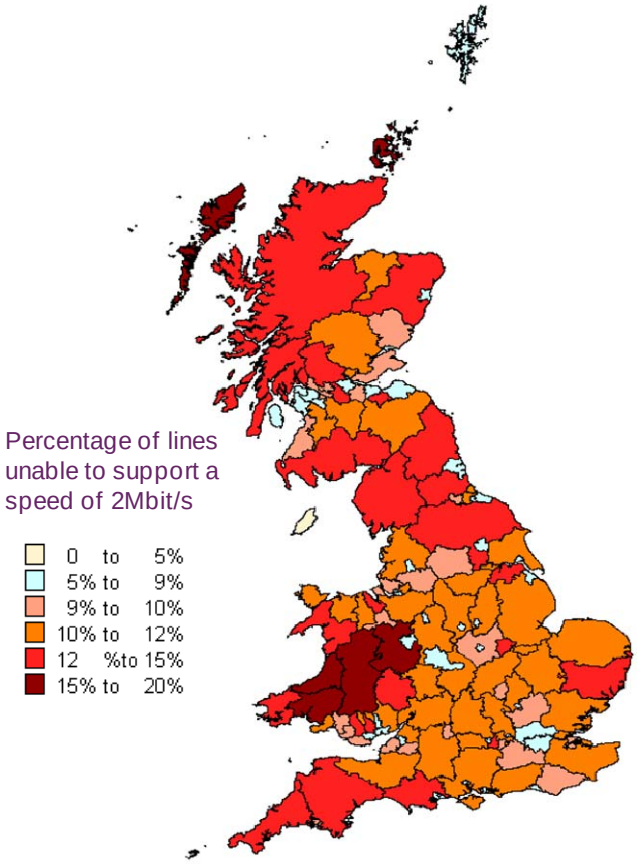
The 2009 *Digital Britain* report[2] estimated that around 11% of UK households were unable to get a broadband service with a downstream speed of 2Mbit/s or more. This is the connection speed the report believed was necessary to stream a TV programme and watch it online.[3]

Figure 1.18 indicates the proportion of ‘bad lines’ (i.e. lines incapable of delivering download speeds of 2Mbit/s) vary across Scotland and Great Britain as a whole. It shows that there is

[1] Ofcom Annual Plan 2010/11: http://www.ofcom.org.uk/about/accoun/reports_plans/annual_plan1011/annplan1011/annplan1011.pdf
[2] http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf
[3] Note, however, that the BBC recommends a minimum download connection speed o 0.5Mbit/s for its iPlayer service.

a low proportion of ‘bad lines’ in the built-up metropolitan areas of Glasgow and Edinburgh, and a higher proportion of ‘bad lines’ in the Highlands and Islands, and the Borders.

Figure 1.18 Percentage of ‘bad lines’ in Great Britain



Source: Digital Britain, final report, June 2009
Note: English, Scottish, Welsh, and Isle of Man counties have been coloured according to their number of total ‘bad lines’ against the number of total premises = percentage of total bad lines (due to line length plus network effects)

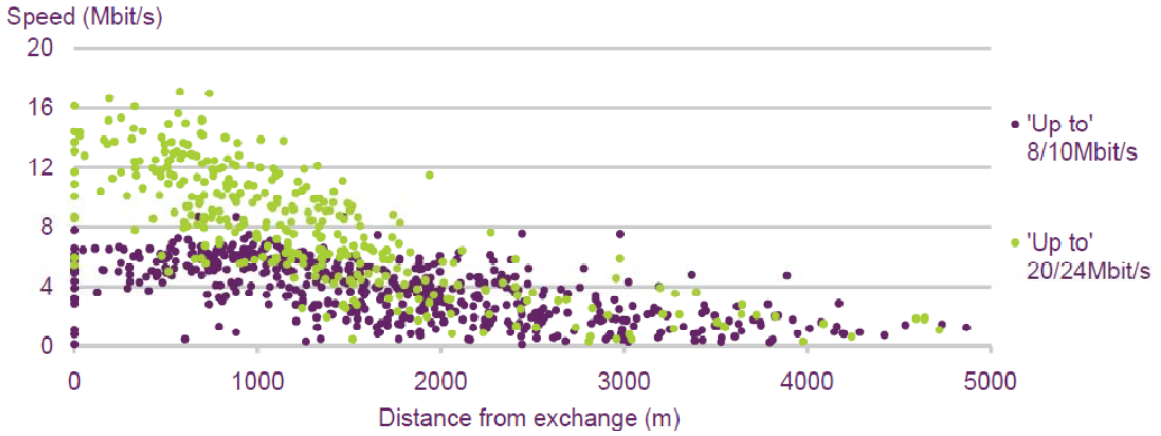
Ofcom’s research into broadband speeds (conducted in association with SamKnows) found that there was very large variation in the performance delivered to a panel of over 1,500 residential broadband users.[4] Average speeds for consumers in rural areas (2.7Mbit/s) were around half of those in urban areas (5.8Mbit/s) and while some consumers taking high speed cable services were able to receive average download speeds of over 40Mbit/s, the average speed received by those with DSL broadband was just 4Mbit/s. Around a third (34%) of those on ‘up to’ 8 or 10Mbit/s DSL packages, received average speeds of less than 2Mbit/s.

Figure 1.19 maps the average speed of all the DSL panellist in this research against the (straight line) distance between their home and the local telephone exchange. It indicates that speeds typically decreased with the distance from the exchange, indicating that those living more than 4km from the exchange are unlikely to be able to receive speeds of more than 2Mbit/s. However, a few panellists had very slow broadband speeds despite living in close proximity to the exchange; this is likely to be the result of electrical interference causing signal loss, or very poor quality in-home wiring.

[4] http://stakeholders.ofcom.org.uk/market-data-research/telecoms-research/broadband-speeds/broadband-speeds-2010/

Figure 1.19 Average line speeds versus distance of customer premises from the telephone exchange, May 2010

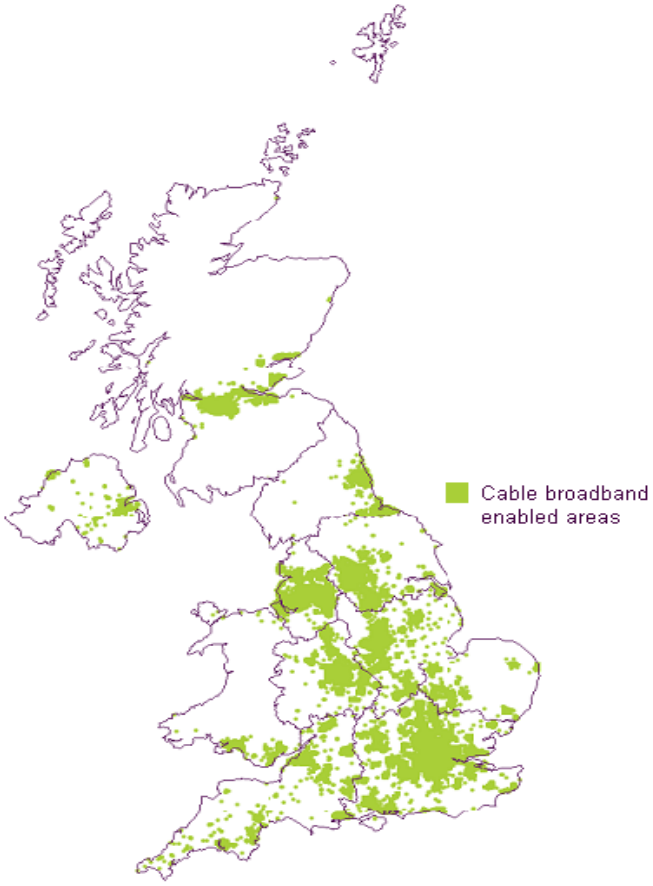
Distance from exchange and average download speeds achieved by panellists on 'up to' 8/10Mbit/s and 'up to' 20/24Mbit/s DSL packages, single thread results, May 2010



Ofcom UK Broadband Speeds Report, July 2010.
Source: SamKnows measurement data for all panellists with a DSL connection in May 2010.

The main alternative to DSL broadband in the UK is cable broadband, which is available to 37% of homes in Scotland (and to 48% of homes in the UK as a whole). However, as shown in Figure 1.20, Virgin Media's cable footprint is largely confined to built-up areas: cable is not an alternative for the large majority of people who live in a DSL broadband not-spot.

Figure 1.20 Map of the availability of Virgin Media cable broadband



Source: Ofcom / Virgin Media, September 2009 data

Lower availability and take-up of cable services, combined with longer average line lengths, means that average broadband speeds in Scotland are lower than in England, although they are slightly higher than average speeds in Wales and Northern Ireland (Figure 1.21).

Figure 1.21 Estimated average and maximum download speeds, by nation, May 2010

Ofcom UK Broadband speeds report, July 2010
Source: SamKnows measurement data for all panel members with a connection in May 2010. Panel Base: 1506.
Notes: (1) Note that these data have been estimated based on the numbers of households in Geographic Markets 1,2 and 3, and as such are not directly comparable with UK average data published in Ofcom's UK Broadband Speeds, May 2010 report; (2) As sufficient sample sizes were not available for consumers on packages of 'up to' 2Mbit/s or less, data collected for these packages in April 2009 have been factored in, in proportion to share of all connections in May 2010 and an estimated split between nations; (3) Data collected from single-thread download speed tests.

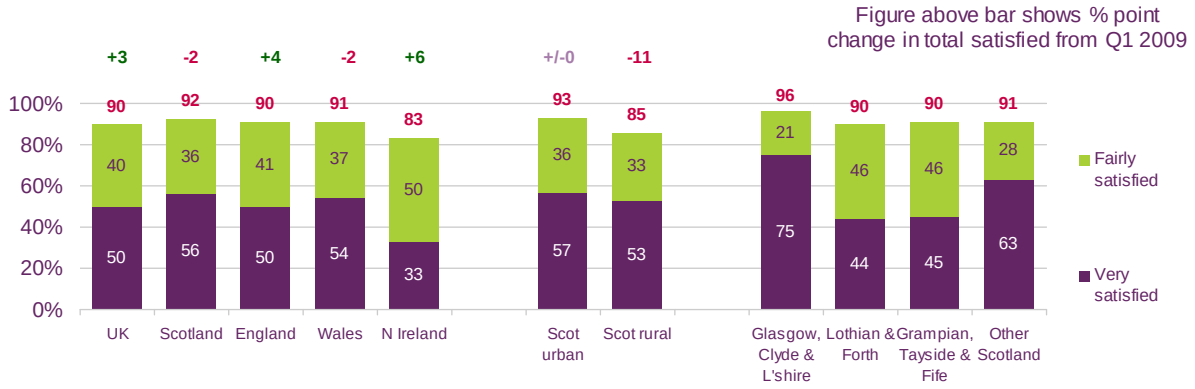
Consumers in Scotland are more satisfied than the UK average with their broadband service, although less so than in 2008, particularly in rural areas

As shown in Figure 1.22, 92% of consumers in Scotland are satisfied, or very satisfied, with their fixed broadband service. This is above the UK average of 90%, and the highest among all of the UK nations.

However, overall satisfaction with fixed broadband services has fallen slightly in Scotland since Q1 2009, driven by a large drop in satisfaction in rural areas. This is likely to be related to the fall in satisfaction with speeds (see Figure 5.22 in the Telecoms and networks section below).

Satisfaction with broadband services in urban areas remains high in Scotland, with the highest levels in Glasgow, Clyde and Lanarkshire, where satisfaction is almost universal at 96% and three-quarters of people with a fixed broadband connection reported that they were very satisfied.

Figure 1.22 Overall satisfaction with fixed broadband service



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 778 Scotland, 3559 England, 604 Wales, 469 Northern Ireland, 612 Scotland urban, 166 Scotland rural, 154 Glasgow, Clyde & Lanarkshire, 233 Lothian & Forth Valley, 216 Grampian Tayside & Fife, 175 other Scotland)
QE8a. Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

1.4.3 Mobile services

87% of people in Scotland are able to receive 2G mobile phone coverage, compared to the UK average figure of 97%

The phenomenon of mobile voice not-spots, or areas where poor reception make reliable mobile calls difficult, is a familiar experience for some people living in Scotland's more rural and remote locations. In these areas, which are characterised by lower population densities and/or challenging terrain, there are physical and economic challenges that may deter operators from putting up and maintaining mobile phone masts.

How we measure the availability of mobile telephony in this report

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 postcodes that fall within this coverage threshold.

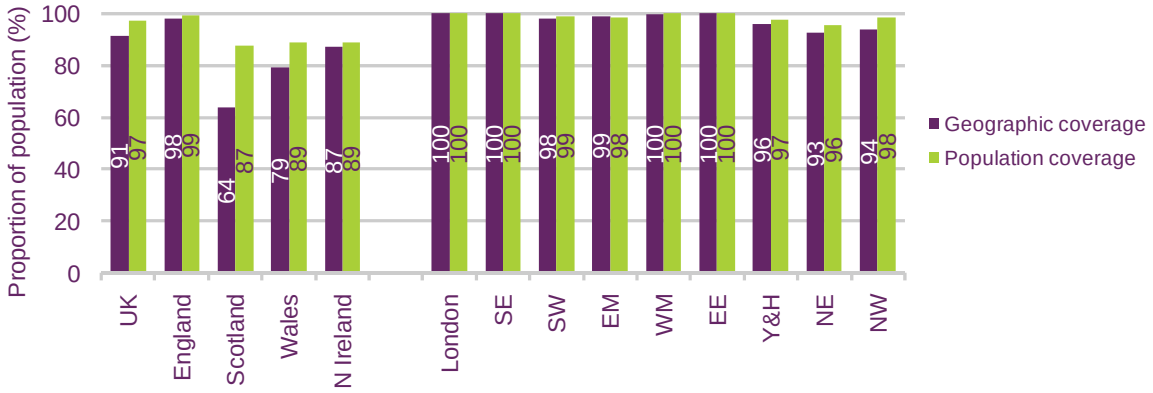
It is important to note that even though a postcode district does not meet or exceed the 90% threshold, it does not mean that mobile services are not available there; rather, that none of the mobile operators meet the 90% threshold that we have set in this analysis.

Our data show that across Scotland, 87% of the population lived in a postcode district with at least 90% 2G area coverage from one or more operators in Q2 2010. This is lower than the UK overall (97%) and lower than England (99%) and Northern Ireland and Wales (both 89%). *Note that postcode districts in the remaining 13% of Scotland may well receive some 2G mobile phone coverage – but the proportion of the postcode with a 2G signal falls below the 90% threshold.*

The figure below also illustrates geographic 2G coverage (using the same 90% coverage threshold). Nearly two-thirds of postcode districts in Scotland (64%) had 2G area coverage from one or more mobile networks in Q2 2010; lower than population coverage (87%). The gap between population and geographic coverage is likely to be wider in those nations with

large areas of low population density or where hilly or mountainous terrain limits the range of cellular masts.

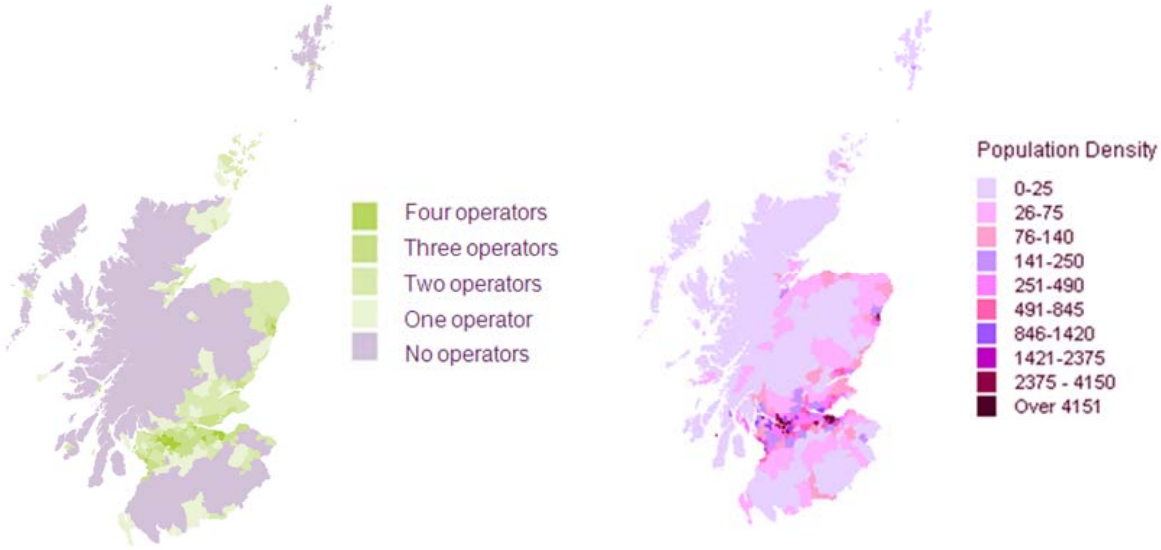
Figure 1.23 2G mobile phone geographic and population coverage



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of postcode districts and percentage of population within postcode districts where at least one operator had at least 90% 2G area coverage; data not directly comparable to those published in the 2009 report.

The first map below shows where 2G services were available from one or more operators in Scotland and where coverage was less than 90%; the second details the population density of each of the postcode districts covered in this analysis. In Scotland, coverage is primarily concentrated around the major urban areas including Edinburgh, Glasgow and Aberdeen, while there are still sizeable areas, particularly in the Highlands and Islands, where coverage is less than 90%. This is a result of the networks concentrating build in areas of high population density, whereas mobile coverage is lower in those areas with low population density.

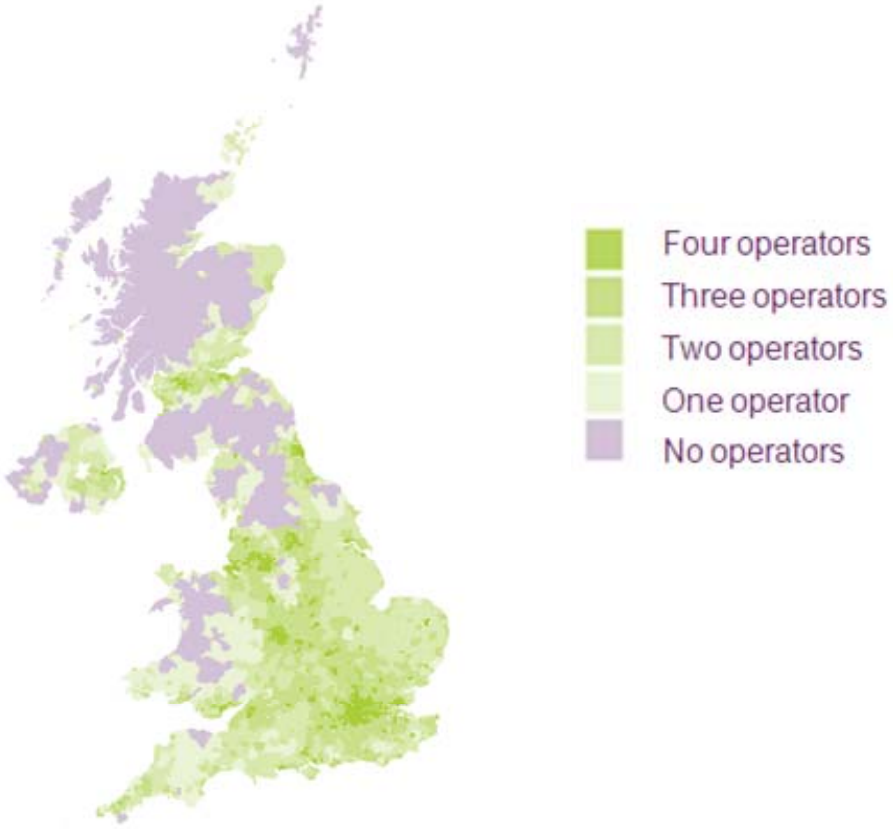
Figure 1.24 2G mobile coverage map and population density, by postcode district



Source: Ofcom / GSM Association / Europa Technologies; Q2 2010, and 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).
Note: Map shows the number of 2G operators with at least 90% area coverage; not directly comparable to data published in the 2009 report. Population density shows number of people divided by area (km2) of postcode district.

The map of 2G coverage across the UK shows a similar trend, with coverage concentrated in and around major conurbations, whereas areas of low population density, such as parts of Mid and North Wales, the Border areas and national parks in England have lower coverage.

Figure 1.25 UK 2G mobile coverage map

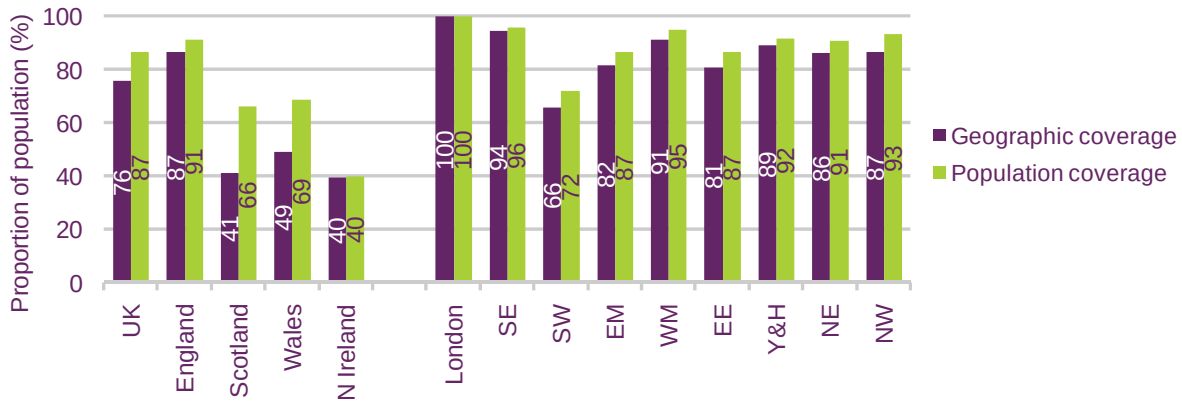


Source: Ofcom / GSM Association / Europa Technologies; Q2 2010
Note: Map shows the number of 2G operators with at least 90% area coverage; not directly comparable to data published in the 2009 report.

Across the UK, 3G coverage, supporting multimedia applications such as video and internet access alongside conventional voice services, was generally lower than 2G coverage.

Scotland's 3G population coverage (using the 90% postcode district threshold) is lower than 2G, at 66%. This is lower than the UK-wide average (87%), and lower than Wales (69%) but higher than Northern Ireland (40%). In line with 2G, geographic 3G coverage is lower than population coverage. Under half (41%) of postcode districts have area coverage from at least one mobile operator. This is significantly lower than the UK as a whole (76%), England (87%) and Wales (49%) but higher than Northern Ireland (40%).

Figure 1.26 3G mobile phone geographic and population coverage, by number of operators



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of postcode districts and percentage of population within postcode districts where at least one operator had at least 90% 3G area coverage; data not directly comparable to that published in the 2009 report.

Figure 1.27 shows that within Scotland the postcode districts with 90% 3G area coverage are largely concentrated around the central lowlands between Edinburgh and Glasgow where population density is greatest (and where the geographic terrain is least challenging). In contrast there are large areas with lower population density, particularly in the Highlands and Islands, where 3G coverage falls below the threshold used in this analysis.

Figure 1.27 3G coverage map

Source: Ofcom / GSM Association / Europa Technologies; Q2 2010
Note: Map shows the number of 3G operators with at least 90% area coverage; not directly comparable to data published in the 2009 report.

Over 40% of mobile phone users in Scotland claim to regularly experience mobile not-spots

Mobile phones are ubiquitous in Scotland, with take-up levels at 85%, lower than the UK average of 89%. However, the importance of mobile coverage to consumers in Scotland is

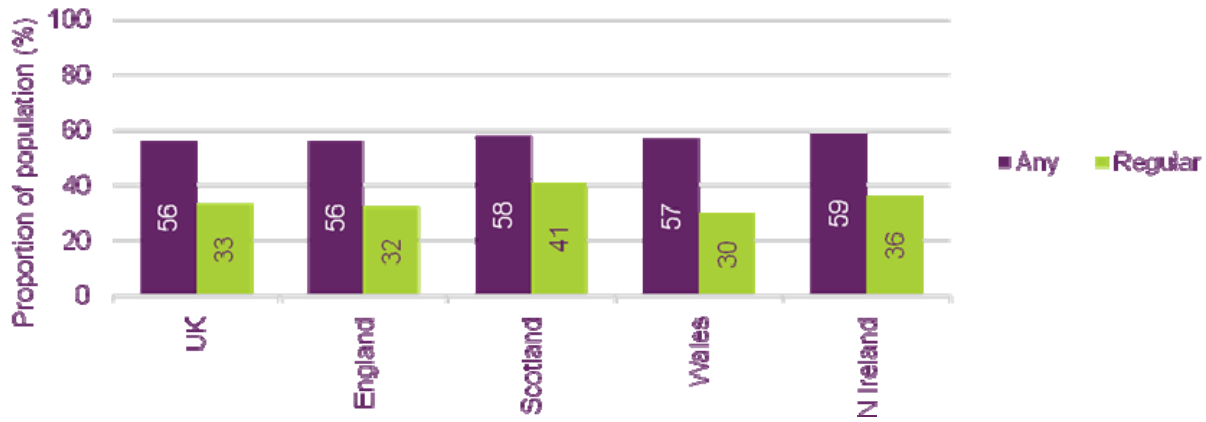
reflected in the fact that despite having lower mobile phone take-up, there are actually more mobile-only households in Scotland (19%) than the UK average (14%) as shown in Figure 5.15.

Consumers in Scotland are less likely to claim that they use a mobile broadband service, at 12% of households, compared to the UK average of 15%. However, for these consumers, the reliability/widespread availability of the mobile signal is particularly relevant.

In October 2009, the Communications Consumer Panel published a review of mobile coverage[5]. Its research (Figure 1.28) found that 58% of people with a mobile phone in Scotland had experienced problems with mobile coverage.

Of these, 41% had experienced problems regularly. This was significantly higher than the UK average of 33% and higher than any other nation in the UK.

Figure 1.28 Proportion of UK adults with a mobile phone experiencing problems with coverage



Source: Mostly Mobile, Communications Consumer Panel report
Question: Which of the following problems, if any, have you had in the past in terms of your mobile reception…? Which of them, if any, do you experience regularly?
Base: All those who use a mobile for personal use (UK n = 1716, England n = 1439, Scotland n = 144, Wales n = 84, Northern Ireland n = 50.

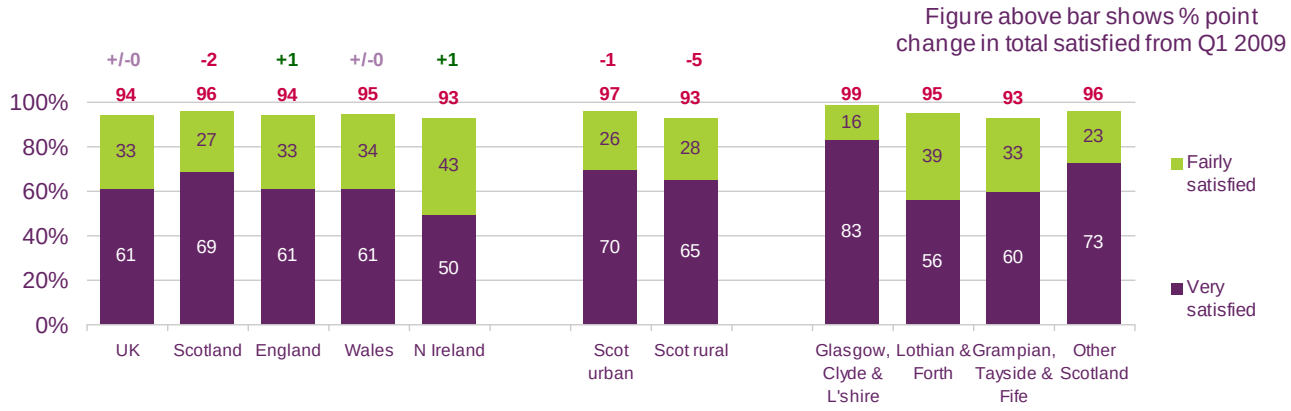
Despite 41% of people regularly experiencing mobile not-spots, most are satisfied with the service they receive

Despite many mobile phone users claiming they regularly experience not-spots, more people in Scotland claim to be satisfied with their mobile phone service (96%) than the UK average.

Satisfaction is particularly high in Glasgow, Clyde and Lanarkshire, where 99% of mobile phone users say they are satisfied with their overall service, including 83% who say they are very satisfied. Satisfaction is lower in Scotland's rural areas (93%) than in urban areas (97%). This is likely to be related to lower levels of service coverage.

[5] *Mostly Mobile*, Communications Consumer Panel, October 2009: http://www.communicationsconsumerpanel.org.uk/Mobile_coverage_consumer_perspective.pdf

Figure 1.29 Overall satisfaction with mobile phone service



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 1237 Scotland, 5008 England, 923 Wales, 658 Northern Ireland, 1001 Scotland urban, 236 Scotland rural, 308 Glasgow, Clyde & Lanarkshire, 313 Lothian & Forth Valley, 316 Grampian Tayside & Fife, 300 other Scotland)
QD21a. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

1.4.4 The consumer's experience of mobile not-spots in Scotland

To better understand the consumer experience of not-spots in the nations and regions of the UK, we commissioned some qualitative research using a mixture of telephone and face-to-face interviews, and diary exercises, to explore the effect on the small numbers of people who cannot get a mobile signal.

In Scotland, our research focused on the following areas:

- rural locations: Elphin in Sutherland; Lochmaddy on the Isle of North Uist and Ettrick Valley near Selkirk;
- urban residential locations: Argyll, East Perthshire and the Inverness vicinity; and
- major rail links in Scotland, as well as points along the A9, A82 and A819.

In the research, consumers in Scotland highlighted the importance they placed on services such as mobile access and fixed broadband. For example, consumers in rural Scotland said that:

"We had to get broadband to keep the business going, keep connected, get our internet shopping done."

"The internet provides MSN for our son but I do worry about when he gets older because all kids communicate with text messages these days."

This research is part of our UK-wide work on better understanding the issue of mobile not-spots (again reflecting our Annual Plan priority). The full results of this will be published later in the year as part of our overall consideration of the issues relating to mobile not-spots.

In addition to this, as part of our research we conducted a small number of in-depth interviews with people who are affected by not-spots. As an example, the case study below examines the experience of someone living without mobile phone coverage in the Highlands of Scotland.

Case study: Living without coverage in the Highlands

Claire works on one of the large estates in the Highlands. She lives there with her husband and two children.

Claire has a pay-as-you-go mobile phone, but there is no coverage in a 10-mile radius of where she lives and works. She has not complained, as she believes the community is too small for a large network operator to take notice of; nor has she switched network, because she does not believe that other networks offer anything better.

Although Claire accepts the situation, she is frustrated about the lack of mobile coverage: *"we get post three times a week...I would expect telecommunications to be of a greater standard."*

Broadband is crucial to the everyday lives of Claire and her family, especially for shopping online and for her children's homework. Claire picks up her text messages when she travels to the nearby town, an hour and a half round-trip.

Satellite and two-way radios have been tried on the estate with little success. *"We really struggle with safety compliance and our public liability insurances are massive, so it would be a great benefit to get better coverage"*

The lack of coverage has potentially serious consequences for the people living in Claire's village, particularly those with health conditions. It can also create problems for gamekeepers on the estate who cannot be contacted when they are walking in the glens: *"I have had to call the helicopter out twice when people haven't returned, when a direct call to their mobile would have done it."*

Claire thinks that improving coverage in her local area would make a "dramatic difference daily" by enabling more flexible working practices, improving health and safety, and improving social connectivity. It would even enable her son to text his friends, rather than relying on MSM as he currently does.

Note: The case study above is taken from one of the in-depth interviews conducted by the research agency as part of the not-spots qualitative research. The respondent's name has been changed to ensure anonymity.

1.4.5 Current progress and future work on not-spots

Emergency mobile roaming

A joint effort between Ofcom, mobile network operators, the emergency services authorities and the fixed operators who act as call handling agents has resulted in the development of new emergency roaming procedures. These were introduced in 2009 and allow mobile phone users to call the emergency services using another mobile network operator if their own service provider does not offer coverage.

This means that in an emergency, people can call 999 or 112 from their mobile phone even if their own network has no coverage. In this case, the phone automatically switches over to whichever network operator has the best signal in that area.

For people living, working and travelling through areas where there are mobile not-spots, this reassures them that – should they need to make an emergency call – the call can still be made, provided that at least one mobile network operator has coverage in that area.

Mobile not-spots

Ofcom is undertaking further research to better understand the causes of, and solutions for, mobile not-spots.

As outlined above, it is one of Ofcom's priorities for 2010/11 to make progress on broadband and mobile phone not-spots. We are undertaking a programme of further research to improve our understanding of the causes of, and solutions for, mobile not-spots. Ofcom intends to publish further thinking on the causes of not-spots; where they are; and what impact they have for citizens and consumer across the UK, later this year. We plan to use this evidence base to consider whether there are any appropriate solutions, within the scope of our duties and powers, for improving coverage.

Fixed broadband not-spots

The UK coalition Government has announced a plan – subject to European state aid rules - to roll out 2Mb/s broadband across the UK by 2015. Ofcom will provide technical advice to assist with this process.

As well as municipal schemes, an alternative way of targeting fixed broadband not spots may be through the use of local schemes. For example, people experiencing fixed broadband not spots might be able to gain broadband access through point-to-point wireless networks, or satellite broadband provision. The emergence of increasingly fast and affordable mobile broadband - which is now used by 12% of people in Scotland – may also provide an important alternative to people who are unable to receive a fixed broadband service – though there may also be areas where the not spots are concurrent.

Following broadband projects by the former Scottish Executive, and the successful completion of the Scottish Government's Broadband Reach Project, basic broadband coverage (defined as offering a download speed of at least 512kbit/s) is now generally available throughout Scotland.

The Broadband Reach Project provides a basic, affordable, broadband service to all Scottish households and businesses which notified the Scottish Government that they needed broadband, and could not get a conventional broadband service due to their distance from the exchange.

This project was delivered by Avanti Communications, using satellite and wireless technology, under a contract with the Scottish Government worth £3.3m. The first phase of the project was completed in May 2009, and the final phase, during which late registrants to the project received broadband service, was completed at the end of March 2010. A total of over 2,400 premises, many located in rural areas, have benefited from this project.

The Communications Market in Scotland

2 TV and audio-visual content

2.1 TV and audio-visual content

2.1.1 Recent developments in Scotland

The Scottish Government and Scottish Broadcasting Commission

In September 2009, the Scottish Government published *Opportunities for Broadcasting - Taking Forward Our National Conversation*[6], which listed options for broadcasting under devolution and independence. In the same month, the Scottish Government reported on the progress of proposals in the Scottish Broadcasting Commission's 2008 Report *Platform for Success*. The Government welcomed announcements on increasing network production in Scotland, but described as "disappointing" the lack of progress towards establishing a Scottish Digital Network[7].

Interactive Scotland links up the digital world

Interactive Scotland, a new support network with the objective of stimulating growth and innovation in Scotland's digital media sector, was launched in March 2010. It was developed in response to industry demand for business growth support for the sector, and contributes to the Scottish Digital Media Industry Advisory Group's strategy, Digital Inspiration[8]. The project is funded by Scottish Enterprise and the European Regional Development Fund.

Scottish companies working in design/advertising, mobile, interactive software, internet, gaming, broadcast services, film, video production, exhibition services, next-generation learning, music and publishing can benefit from the service, which offers access to market intelligence and research; product and technology support; sector-specific business development; and partner connections.

The advisory services will be delivered on behalf of Scottish Enterprise by Innovation Centres Scotland Ltd, a specialist provider of physical and virtual incubation services, and strategy and design consultancy New Media Partners.

STV

STV reported a strong performance in 2009 against its original KPI growth targets, with a backdrop of "incredibly challenging market conditions", and in February 2010 outlined a new set of KPI targets for 2010-2012.

The company continues to identify new opportunities for revenue generation via its digital business; total video streams on stv.tv for 2009 were up 307% compared to the previous year.

STV will later this year launch STV Local, providing local information to many hyper-local sites in Scotland.

In 2009, STV's production arm, STV Productions, won its first-ever series commission for the BBC, delivering a series of *Antiques Road Trip* for BBC2. The series was re-commissioned for 2010. STV Productions has also recently confirmed a co-commission of six new episodes of *Taggart,* along with ITV and UKTV. The programme is now (August 2010) in production.

[6] http://www.scotland.gov.uk/Publications/2009/09/23125613/0
[7] http://www.scotland.gov.uk/Topics/ArtsCultureSport/arts/Broadcasting/Progress-report
[8] http://www.digitalinspiration.org.uk/content/default.asp

BBC Scotland

Against a difficult financial backdrop, BBC Scotland reported some notable successes over the past year. The 6.1% network BBC spend target, set by the Director General and the BBC Trust for Scotland for 2012, was reached two years early and the BBC reports that studio utilisation rates reached their highest-ever levels, representing high levels of production activity.

Programme highlights across 2009/10 included the second part of the multi-platform *Scotland's History* series. The *This Is Scotland* season was transmitted in September 2009 and showcased the best of Scotland's culture, arts and music to a UK audience on BBC Four.

Nearly a million viewers tuned into *Reporting Scotland* on 4 January, as blizzards swept the country. In terms of factual output, *Jimmy's Food Factory,* produced by BBC Scotland*,* attracted nearly 6 million viewers on networked BBC One, the highest-rated science format on the channel. On the BBC Two network, *Simon King's Shetland Diaries* peaked with an audience of 3.2 million and, as part of the BBC Network Review strand moves, *The Review Show* began broadcasting from Pacific Quay in January 2010. It joined other network arts programmes from Scotland, including *The Culture Show* and *Artworks.*

BBC Scotland continued to supply around 20% of all BBC Children's programming for the BBC, most of it made in-house.

An average of 2.3 million users visited BBC Scotland websites every week, over 1.64 million of them accessing the news pages.

MG Alba

The Gaelic channel BBC ALBA is a partnership between MG ALBA and BBC Scotland. It is available on Sky and Freesat, with watch-again and live streaming online[9]. The BBC Trust is currently examining the option of carrying the channel on Freeview, with a decision expected in autumn 2010.

BBC ALBA broadcasts for seven hours a day, of which two hours are originations, including a half-hour nightly news service from BBC Scotland (An Là). At least 50% of its commissions are from the independent sector. In 2009, the channel broadcast 2,502 hours, of which 678 hours (27%) were originations (see Figure 2.9 below). From 2010/11 for two seasons, the channel will provide coverage of Scottish Premier League football. In June 2010, BBC ALBA secured exclusive rights to show Magners League rugby union in Scotland for the next four years[10].

Local TV

The UK Government is currently working on policy options to help create a regulatory environment which will support a strong, independent and vibrant local media sector. It has set out its vision for a network of local television services across the UK and has asked Nicholas Shott, the Head of UK Investment Banking at Lazard, to carry out an independent assessment of the commercial potential of local television in the UK. The findings of that review will help produce a local media action plan, due to be published in the autumn. In

[9] http://www.bbc.co.uk/iplayer/gd/playlive/bbc_alba/
[10] http://www.mgalba.com/en/aboutmgalba/news/2010/magners-league-rugby-09-06-10.html

addition, the Government has cancelled the previous plans for pilots of the proposed Independently Funded News Consortia (IFNCs)[11].

Inverness TV.net launched earlier this year

Highland Corporate Video Facilities and Zolk Ltd are behind InvernessTV.net - a local web-based TV service for the people of Inverness which enjoyed its formal launch in February 2010[12]. The service's online channels offer news, events, entertainment and sport, targeted at the local community and tourists.

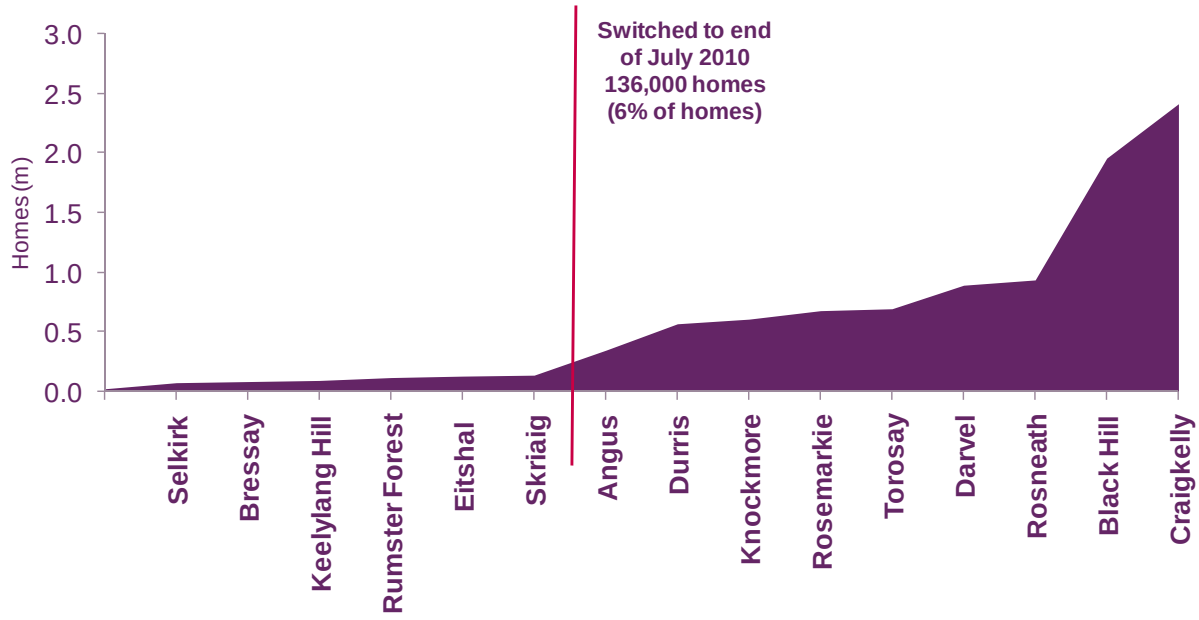
Distributing audio-visual content across Scotland using the internet

A new Glasgow-based advertising production company, Cask Productions, competes with larger UK competitors by using the web to transfer content to clients for approval and to suggest changes. It can then use the internet to upload commercials directly to the broadcasters.

2.1.2 Digital switchover in Scotland

Digital television switchover is now under way in Scotland. So far, 136,000 of the 2.4 million Scottish TV households have switched. Viewers in the Scottish Borders were the first to complete the transition in November 2008. The STV regions began the process in May 2010 and will continue until summer 2011. Across the UK, the project has already completed in the Border, Granada, Wales, West Country and West TV regions.

Figure 2.1 Cumulative households switched in Scotland, by transmitter group



Source: Digital UK Programme office

Scotland has 15 main transmitter groups, of which six have switched to digital-only broadcasting. This includes the Selkirk transmitter group, serving Scottish Borders, and Bressay, Keelylang Hill, Rumster Forest, Eitshal and Skriaig, serving mainly the Highlands and Islands of Scotland. Before the switchover process began, DTT coverage was lower in Scotland than the UK average. Switchover will extend the Freeview signal to the 199 relay

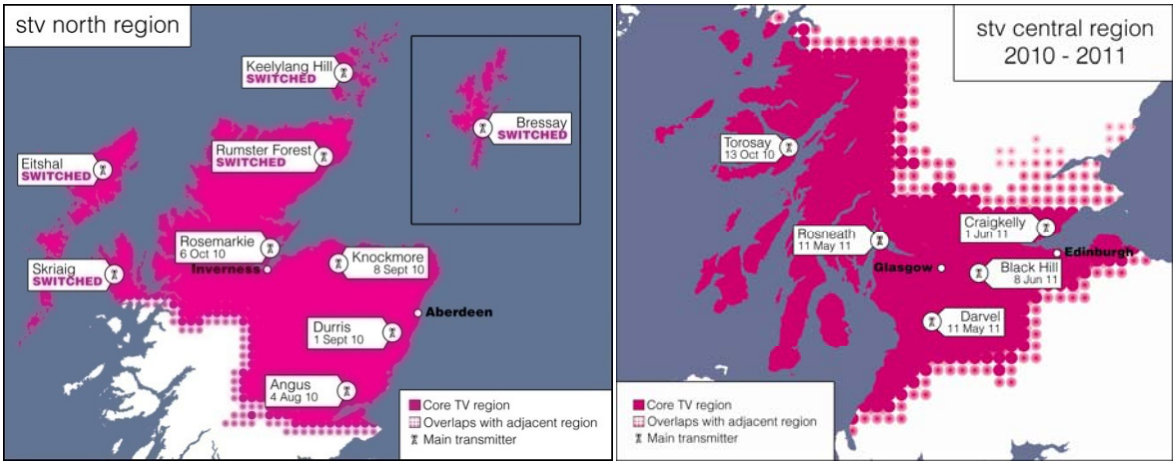
[11] http://www.culture.gov.uk/news/ministers_speeches/7132.aspx
[12] http://www.invernesstv.net/

transmitters across Scotland, boosting the digital terrestrial signal to 98.5% coverage across the nation.

STV North and Central

Switchover began in the STV North area on 5 May 2010 at the Bressay transmitter group on Shetland. The process will continue until the autumn, with all transmitters in the STV North TV region switching this year. Switchover begins in STV Central with the Torosay transmitter group, serving the south-west Highlands and Islands, in October 2010. The process will complete between May and June 2011 when the Darvel, Rosneath, Black Hill and Craigkelly groups will switch to digital-only broadcasting. The Black Hill transmitter and its relays serve around half the Scottish population, including Glasgow and much of Edinburgh.

Figure 2.2 STV North and STV Central switchover transmitter maps



Source: Digital UK

Digital UK is currently running an information campaign across the region to prepare viewers for switchover. This includes TV, radio and press advertising, booklets to every household, outside advertising, roadshows across the north of Scotland and a series of community events. In total there have been around 400 events in STV North, including around 150 public community events (at least one for every council ward in the STV North area). The Digital UK Scotland team leads switchover in the nation and offers local knowledge to help prepare viewers for the day when analogue TV signals are switched off.

The Switchover Help Scheme, run by the BBC under an agreement with the UK government, ensures that eligible older and disabled viewers are offered help and equipment to convert one TV set to digital. In addition, Digital UK has established a partnership with the charity sector to provide information, advice and support to potentially vulnerable viewers who are not eligible for the Help Scheme but may need some extra help in managing the switchover process.

Consumer experiences and readiness in Scotland

Awareness of the switch to digital among Scottish people was almost universal throughout 2009 and early 2010, and 99% of homes were aware of switchover just before it happened in those regions that have already switched.

In line with other switchover regions, 95% of people in Scotland felt comfortable with the switchover process; this is consistent among those who have switched already and those who are preparing for switchover.

Ninety-six per cent of homes were ready for switchover on the weekend before switchover started in Scottish Borders, the Shetland Islands, Orkney Islands, Caithness and north Sutherland. All households had access to digital TV two weeks after switchover finished in Scottish Borders. Post-switchover monitoring across all remaining switchover regions will reveal the final levels of digital TV take-up and platform conversion results.

In the remaining Scottish switchover regions, levels of digital TV take-up are over 93%, and a further 1% of homes own digital TV equipment which they are planning to use after switchover.

2.1.3 Spending by PSBs on TV content for viewers in Scotland

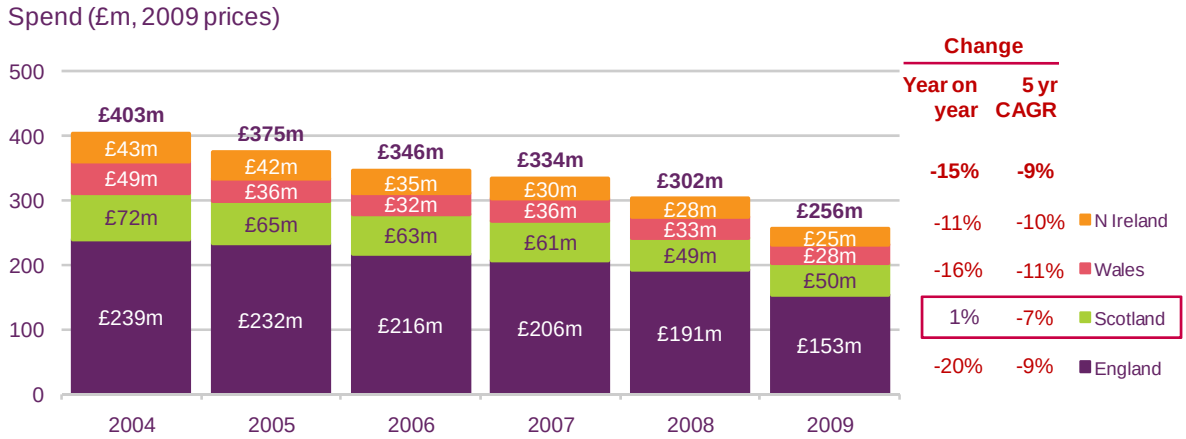
PSB spend on TV programmes for viewers in Scotland

A total of £256m was spent by the BBC and ITV/STV/UTV on producing programmes specifically for viewers in Wales, Scotland, Northern Ireland and the English regions in 2009, down 15% (£46m) on 2008.

The BBC and STV spent a combined total of £50m on English-language TV programmes for viewers in Scotland in 2009, an increase of just under 1% year on year from £49m - Scotland was the only nation to see increased spend on programmes between 2008 and 2009. Our analysis of programmes made for viewers in Scotland excludes Gaelic-language output that has historically appeared on the BBC and STV. BBC ALBA, the channel dedicated to Gaelic programming, is covered in a separate piece of analysis (see page 59).

Spend on programmes for Scotland represented 19% of total spending on nations and regions programming, up from 16% in 2008.

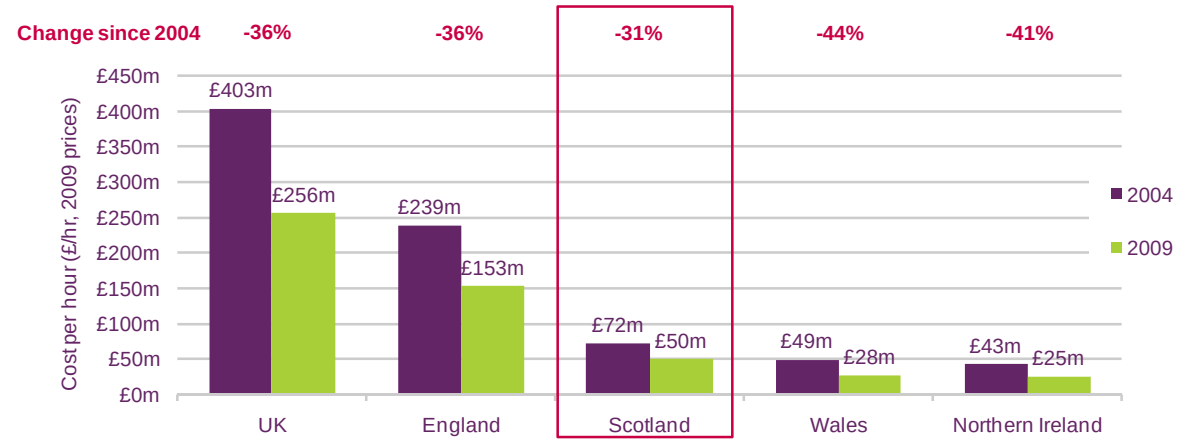
Figure 2.3 Spend on originated nations and regions output by the BBC, ITV1/STV/UTV, 2009



Source: Broadcasters. All figures expressed in 2009 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. Spend excludes Gaelic and Welsh-language programming but includes some spend on Irish-language programming by the BBC.

Over a five-year period, investment in English-language programmes for Scottish viewers was down 7% per year since 2004 (31% over the period), a slightly smaller decrease than the UK average decline of 9% per year (36%).

Figure 2.4 Spend by originated nations and regions output by the BBC, ITV1/STV/UTV, 2004 versus 2009



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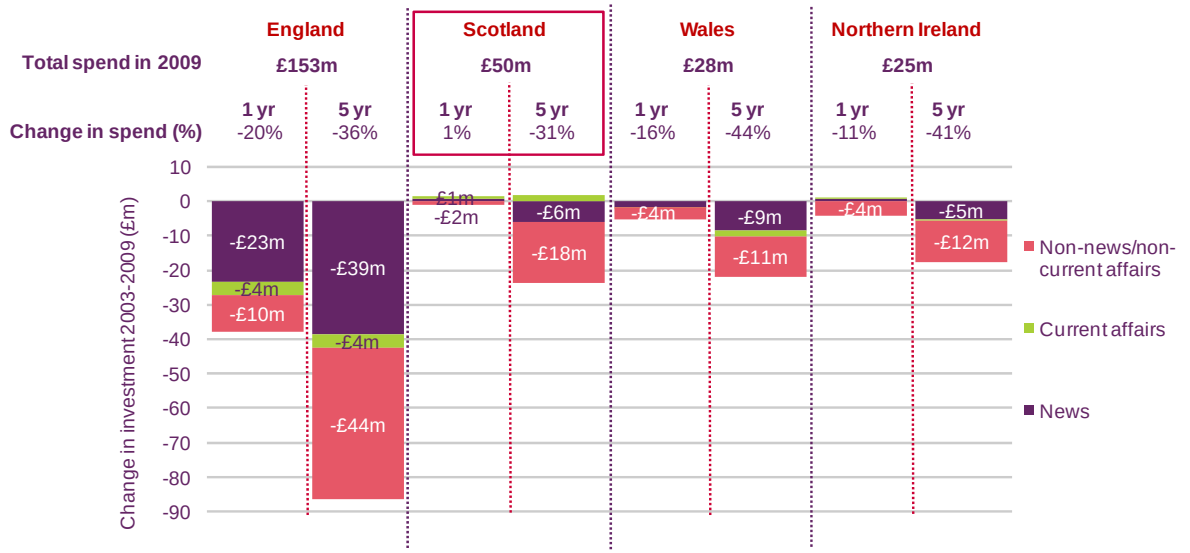
By genre, the steepest proportional decline in spending was seen in non-news/non-current affairs, which was down 1% (£1m) in 2009 to £30m. Spending on current affairs programming for viewers in Scotland experienced a 17% (£1m) increase to £4m in the year. Investment in news was also up in 2009; by 5% year on year to £15m.

For the UK-wide average, investment in news fell by 13% (£24m) to £171m, while investment in non-news/non-current affairs programming experienced a 23% (£18m) reduction across all four nations to £61m. Spend on current affairs programming across all of the nations was down 11% (£3m) year on year to £23m.

Since 2004, total expenditure by the BBC and STV on English-language TV programmes for viewers in Scotland has fallen by just over a third (31%) in real terms from £72m in 2004 to £50m in 2009. Proportionally, this represents the smallest decline in programming spend of any of the four nations. The bulk of the reduction in spending over the five years, £18m, was seen in programmes that fall outside the news or current affairs categories. Spend on news programmes fell by £6m between 2004 and 2009.

Figure 2.5 Change in investment, by genre and nation, 2004 – 2009



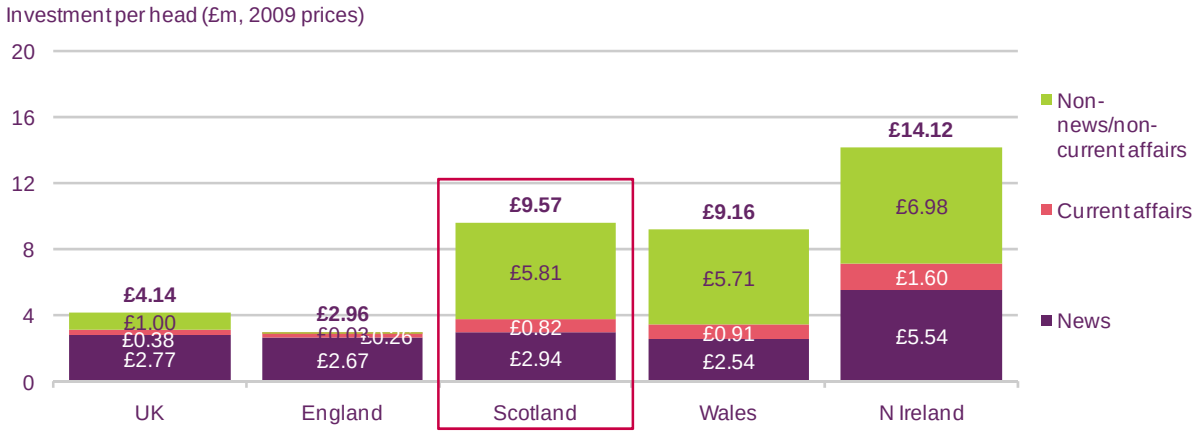
Source: Broadcasters. All figures expressed in 2009 prices. Note: The BBC changed the way it calculated its spend figures from 2005 onwards. The figures for 2002 – 2004 are based on cost per hour averages, while those for 2005 - 2008 are actual spend figures. Comparisons over the period 2003-2008 should therefore be made with caution. Spend excludes Gaelic and Welsh-language programming but includes some spend on Irish-language programming by the BBC.

Per head of population, viewers in Scotland benefited from the second-highest real-terms expenditure per head of any of the nations (after Northern Ireland). In 2009, spending per head was £9.57, compared to £10.36 in 2008.

News programming accounted for about a third (£2.94 per head) of the spend per head in Scotland in 2009, compared to current affairs (9% or 82p per head). Non-news and non-current affairs programmes made for the nation accounted for nearly two-thirds of spend (60% or £5.81 per head). In 2009, spend per head in Scotland was second only to Northern Ireland (£14.12). Investment in English-language TV programmes in Wales was just lower than Scotland, at £9.16 per head.

Spend per head in the English regions was much lower, at £2.96, due to the larger population in England compared to Scotland, Wales and Northern Ireland; the UK average was £4.14. These figures exclude spend on programmes produced in local languages within the nations.

Figure 2.6 Investments per head made by the BBC and ITV/STV/UTV in regional and national output, 2009



Source: Broadcasters. All figures expressed in 2009 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. Spend excludes Gaelic and Welsh-language programming but includes some spend on Irish-language programming by the BBC.

2.1.4 Hours of output of content for viewers in the nations

Hours of programmes for viewers in Scotland showed the smallest decline

The BBC and ITV/STV/UTV produced a total of 10,439 hours of programmes for the English regions, Scotland, Wales and Northern Ireland in 2009, down by 12.4% (1,473 hours) compared to 2008 and down by nearly a fifth over a five-year period.

As the part of the *Second Public Service Broadcasting Review: Putting Viewers First*, from the beginning of 2009 Ofcom reduced some of the quotas for the production of regional programming for the Channel 3 licences[13]. This was necessary in order to keep the cost of programme obligations to ITV in balance with the benefits to the broadcaster of continuing to hold the licences. Otherwise it might have been in ITV's interests to relinquish the licences, in which case all guarantees of any PSB delivery would have been lost.

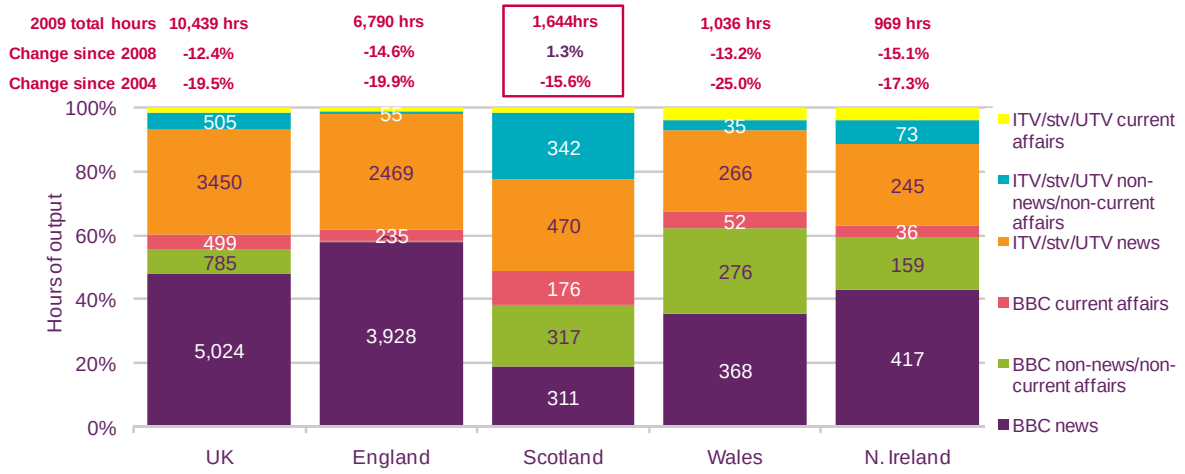
The number of English-language hours produced for viewers in Scotland stood at 1,644 in 2009, up by 1.3% (21 hours) year on year. This represented the only increase in hours of all the nations in 2009; across the UK there was an average 13.2% decline.

Since 2004, hours of regionalised output produced for Scotland have declined by 15.6%, slightly less than the UK average of 19.5%. The largest single component of the reduction in hours for Scotland in 2009 was attributable to news produced by STV, which was down by 130 hours (20%) to 470 hours. At the same time, STV increased its hours of non-news/non-current affairs in 2009 from 187 to 342, an increase of 83%.

The BBC increased news output by 12 hours to 311 hours, while non-news and non-current affairs was stable at 317 hours. Meanwhile, BBC current affairs hours fell by nine hours to 176. Programming produced by STV for viewers in Scotland accounted for 51% of all hours, with the BBC accounting for the remaining 49%.

[13] For more information, read the statement on short-term regulatory decisions: http://www.ofcom.org.uk/consult/condocs/psb2_phase2/shortterm/

Figure 2.7 Hours of regionalised output, by genre and broadcaster, 2009



Source: PSB returns. Note: Hours data for first-run originations only. Hours exclude Gaelic and Welsh-language programming but includes some spend on Irish-language programming by the BBC.

Cost-per-hour calculations show that all of the nations produced programmes more cheaply (or cost effectively) in 2009 than they did in 2004. The UK average cost per hour in 2009 was £25,000, down by £6,000 compared to 2004. Scotland had the highest cost per hour of any nation in 2009 at £30,000; £5,000 higher than the UK average.

The cost per hour for programmes in Scotland has reduced by a quarter since 2004, when the average cost per hour was £37,000.

In terms of genres, the cost per hour to produce regional news reduced most in the five-year period across the UK, down by 19% to £20,000 per hour. The cost per hour for current affairs across the UK was down by 15% to £35,000. Non-news and non-current affairs programmes made for the nations cost on average £48,000; a 0.4% reduction on 2004.

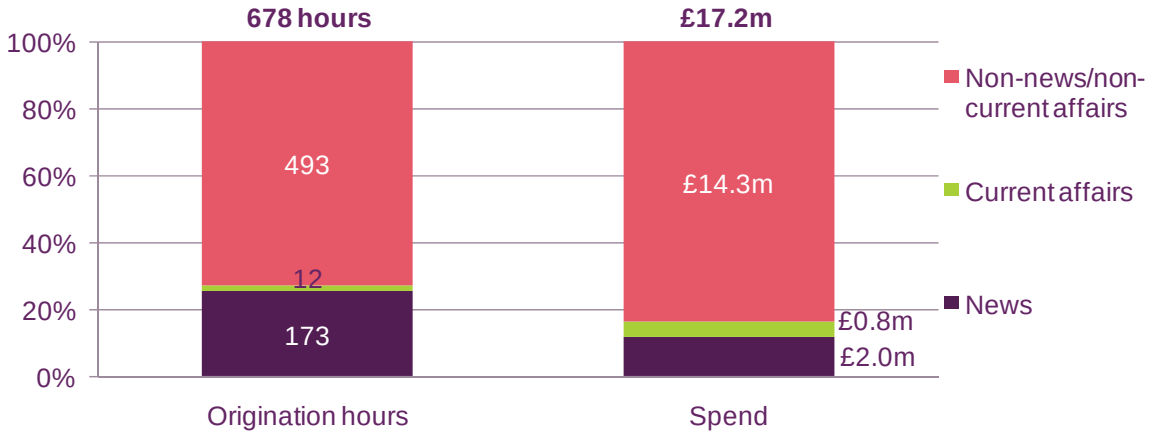
Figure 2.8 The cost per hour of output for the nations, 2009

Source: Broadcasters, all figures expressed in 2009 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. Spend excludes Gaelic and Welsh-language programming but includes some spend on Irish-language programming by the BBC.

BBC ALBA

BBC ALBA is the Gaelic-language service backed by the BBC and MG Alba. The channel spent £17.2m on original programming in 2009, the first full year of broadcasting following its launch in September 2008. In 2009, BBC ALBA broadcast 2,502 hours, of which 678 hours (27%) were originations. Of the £17.2m spent on Gaelic-language programming, 83% (£14.3m) was non-news/non-current affairs programming, constituting 493 hours.

Figure 2.9 BBC ALBA originations, by hours and spend, 2009



Source: BBC
Note: Some Gaelic-language programming is also available on STV, Tele G and BBC2 in Scotland; these hours have been excluded from the main analysis.

2.1.5 PSB television quota compliance

Programme production in the UK nations and English regions

Production quotas for programmes produced outside London set minimum percentages for the four main PSBs, which must broadcast programmes that have been produced in the nations and English regions. The 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.

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.

Programmes must meet at least two of these three criteria.

Figure 2.10 shows the broadcasters' achievement against the quotas over the last four years. The BBC's quotas are set at 30% by value and 25% by volume and apply across all its PSB channels. The BBC exceeded these quotas each year, steadily increasing the proportions year on year and achieving 37.7% by value and 35.3% by volume in 2009. The BBC plans to further increase its production and commissioning of programmes from outside London, and the relocation of key departments, such as Breakfast and Children's, from

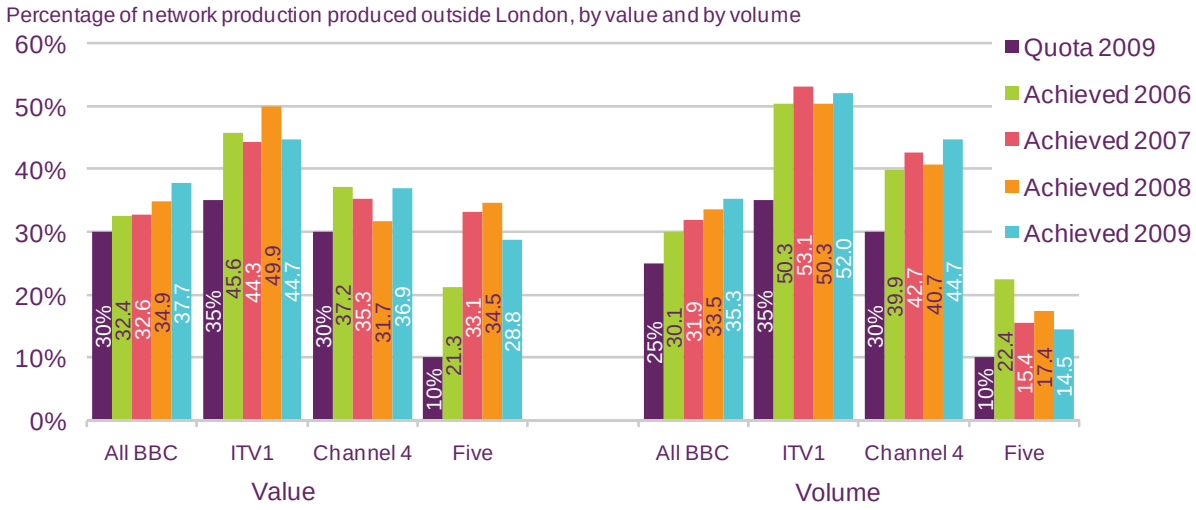
London to Salford Quays, Manchester, will contribute to its commitment to achieve 50% by 2016. Within this figure there is a further commitment to achieve 17% from the devolved nations.

Ofcom's second *PSB Review* recognised the need to align PSB requirements on ITV1/STV/UTV with the diminishing value to these channels of holding the licences. As a result, the quota level was reduced from 50% by value and volume to 35% with effect from 2009. The levels achieved were 44.7% in terms of value and 52% by volume, which remain higher than the amounts achieved by the other three main PSB broadcasters.

In 2009 Channel 4 achieved 36.9% by value and 44.7% by volume, exceeding the existing quota of 30% as well as its new quota of 35%, which came into effect at the beginning of 2010. Alongside the 2010 quota revision is the introduction of a minimum devolved nations quota of 3% by spend and volume of programmes which must be produced outside England. Subject to resources, it is expected that this figure will grow in future years.

Five has a lower quota commitment, at just 10%, but has exceeded its obligations by large margins over recent years, reaching 28.8% by value and 14.5% by volume in 2009. These figures were lower than the levels achieved in previous years and are based on lower first-run originations expenditure figures than the other broadcasters.

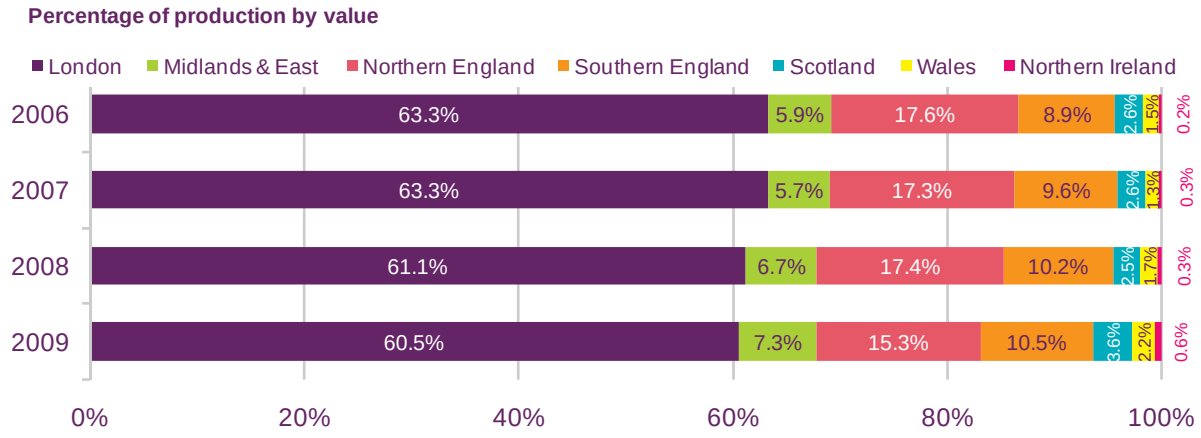
Figure 2.10 Performance against the out-of-London production quotas



Source: Ofcom/broadcasters

The proportion of spend on network original programme productions in the UK, by the four PSBs collectively, is given in Figure 2.11. The chart shows how the expenditure was divided up among the UK's nations and, within England, among 'macro-regions'. The majority of programmes continue to be produced in London but the proportion is gradually falling – down from 63.3% in 2006 to 60.5% in 2009. Of the overall UK spend of £1,800m, a total of £1,089m was spent on programmes made in London, and 33% of expenditure, or £596m, was in the English regions. The total for the devolved nations has increased by 38% since 2006, rising from £83m to £115m in 2009, or 6.4% of all UK expenditure on originated programmes. Spend in Scotland has risen from £50m to £65m during the period.

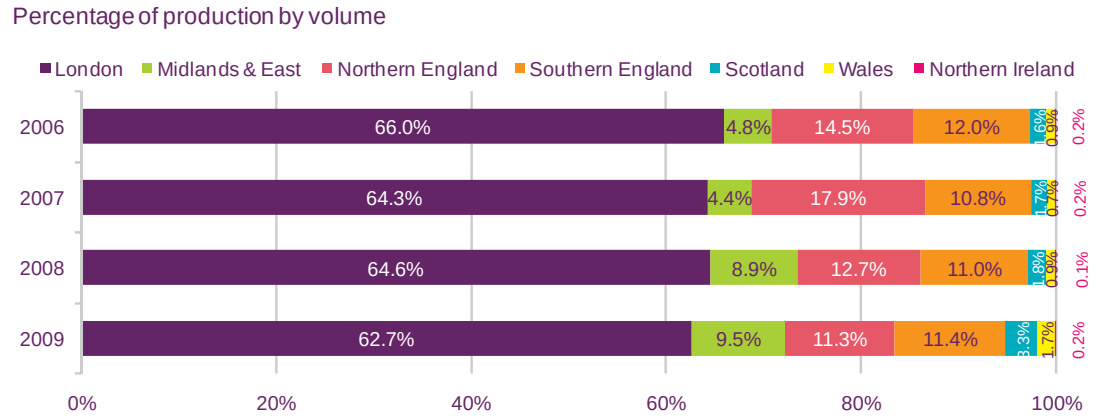
Figure 2.11 Expenditure on out-of-London production



Source: Ofcom/broadcasters

The proportion of hours of programmes produced outside the M25 has also gradually increased; from 34% in 2006 to 37.3% in 2009 (Figure 2.12) Of the total of 14,700 hours of first-run UK-originated network programmes broadcast by the four main PSBs in 2009, around 5,400 hours were made in the nations and English regions. The volume of productions made in England stood at 4,700 hours, with 750 hours in Scotland, Wales and Northern Ireland. The share of hours produced in the devolved nations increased to just over 5% in 2009, up from 2.7% in 2006. The number of hours produced in Scotland and its share of total volume rose from 1.8% in 2008 to 3.3% in 2009; in Wales the proportion increased to 1.7% from 0.9% the previous year. In Northern Ireland there was a small rise in share, to 0.2% from 0.1% in 2008.

Figure 2.12 Volume of out-of-London production



Source: Ofcom/broadcasters

Figure 2.13 shows how the expenditure is divided up for each broadcaster. The BBC's proportion of spend in London has gradually reduced in each of the past four years, with out-of-London spend going up from 32.4% in 2006 to 37.7% in 2009.

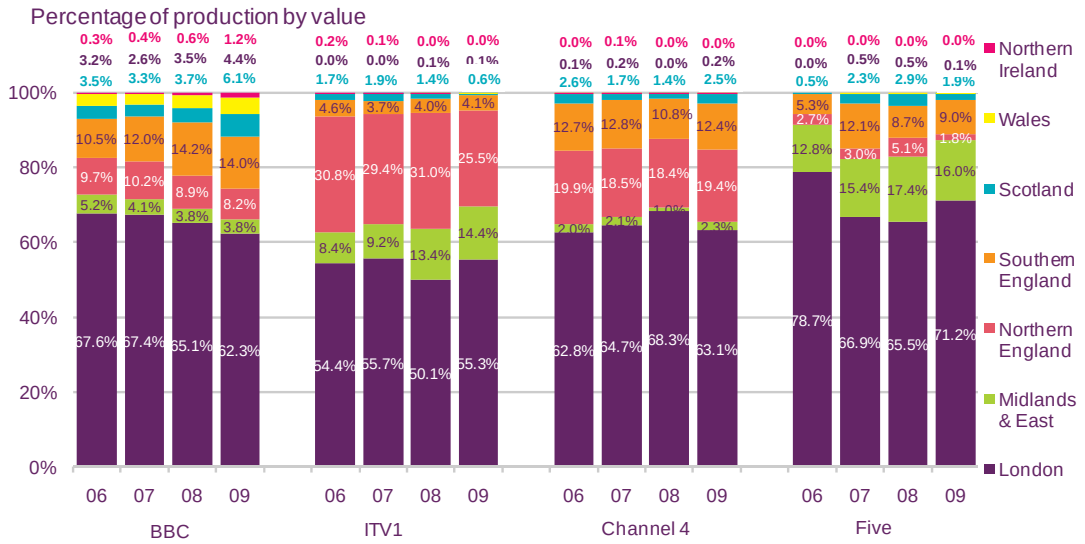
The BBC's spend in the nations has increased from 7% to 11.7% over the same period. Within this, Scotland's share rose from 3.5% to 6.1% in 2009.

On ITV1/STV/UTV, the proportion of out-of-London expenditure fell in 2009, from 45.6% in 2006 to 44.7% in 2009. Spend in the devolved nations has not shown signs of revival.

Channel 4's performance showed an improvement in 2009, with an increase in the proportion of out-of-London spend from 31.7% in 2008 to 36.9% in 2009. Increases were more significant in the English regions than in the devolved nations, although the proportion of spend in Scotland rose from 1.4% in 2008 to 2.5% of the channel's qualifying expenditure in 2009.

Five's proportion of expenditure on out-of-London productions fell to 28.8% in 2009, compared with 34.5% in 2008, and the proportion of combined spend in Scotland, Wales and Northern Ireland also dropped.

Figure 2.13 Breakdown of expenditure, by broadcaster



Source: Ofcom/broadcasters

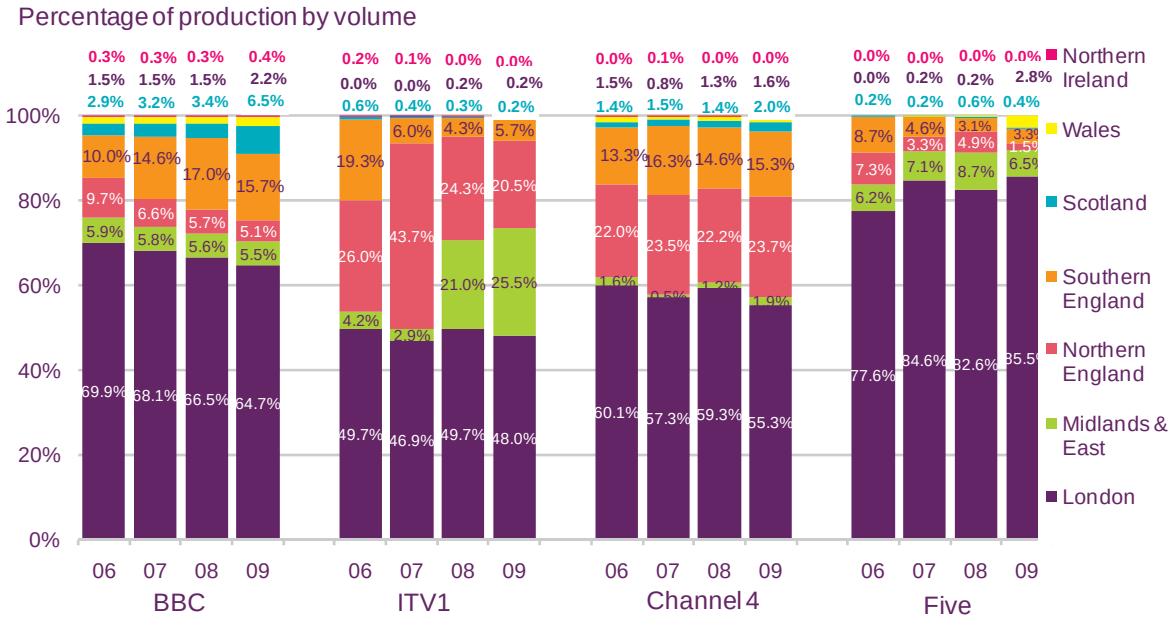
The volume of out-of-London production by broadcaster over the past four years is shown in Figure 2.14. The proportion of hours made or commissioned by the BBC in London has fallen each year, reducing by five percentage points from 69.9% in 2006 to 64.7% in 2009. The number of hours made in the devolved nations increased, and the percentage in Scotland rose to 6.5% from 2.9% in 2006.

While the proportion of hours from outside London that were broadcast by ITV1/STV/UTV in 2009 was a little higher, at 52% in 2009 compared with 50.3% in 2006, the levels in the devolved nations did not show any growth.

The proportion of Channel 4's hours made in London fell by five percentage points, from 60% to 55%, during the period, with small increases in the proportions in Scotland and Wales. The aggregated figure for the nations was 3.6% in 2009, compared with 2.9% in 2006.

On Five, the percentage of out-of-London production by volume fell to 14.5%, its lowest level since quotas were introduced. The proportions in the nations were mostly lower, with the exception of Wales where the figure went up to 2.8%.

Figure 2.14 Breakdown of production volume, by broadcaster



Source: Ofcom/broadcasters

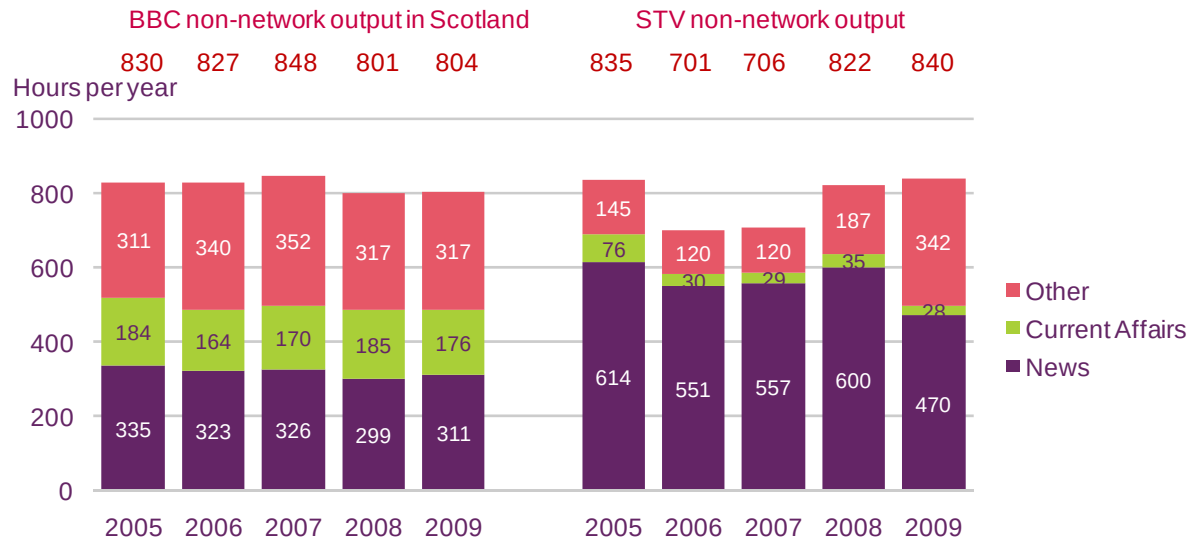
Non-network production in Scotland

The volume of non-network programmes broadcast over the past five years is illustrated in Figure 2.15. Hours shown by BBC Scotland on BBC One and Two declined by 3% between 2005 and 2009, from 830 hours per year to 804 hours. The levels of news and current affairs each reduced – by 7% and 4% respectively over the period, while other non-networked hours rose marginally from 311 hours in 2005 to 317 hours in 2009. (Note that these figures have been re-stated from those published in previous years and exclude Gaelic programmes which are now shown in Figure 2.6).

STV's hours of non-network programming decreased in 2006 and 2007 to just over 700 hours a year, from 835 hours broadcast in 2005. The revival seen in 2008 continued in 2009, as total non-network hours rose to 840. Output has been consolidated during this time, with more programmes shown across both the Central and North Scotland regions. As a result of Ofcom's second *PSB Review*, it was agreed that while the volume of non-network news programmes during peak time would be a priority, the volume of news broadcast during the daytime could be reduced. The weekly quota figure of 5 hours 20 minutes a week was cut to 4 hours a week from 2009. Figure 2.15 shows the effect of this change; news output falling from 600 hours in 2008 to 470 hours in 2009.

The quota for non-news programmes was also reduced as part of the Review, from 4 hours to 1.5 hours a week, although peak time, near-peak and current affairs elements within this quota were unchanged. Despite the reduction in quota, STV chose to broadcast a higher volume of own-productions for viewers in Scotland, stepping away from ITV network output and substituting new series such as *The Football Years* and *Made in Scotland.* The introduction of the weekday magazine, *The Five Thirty Show,* which became *The Hour* part-way through the year, also contributed to the increase in output levels. As a result, non-news volumes rose by 67% in 2009, from 222 hours in 2008 to 370 hours in 2009.

Figure 2.15 Non-network output in Scotland, 2005-2009



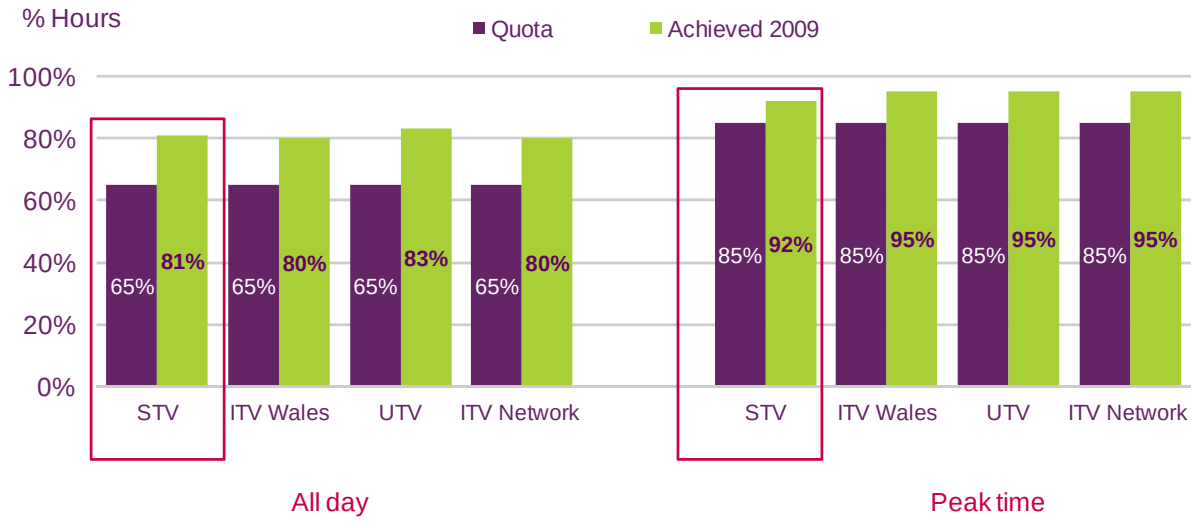
Source: Ofcom/broadcasters
Note: Figures exclude repeats and Gaelic programming

Other quota compliance matters

In 2009, STV decided to opt out of some ITV network material, particularly in peak-time slots, replacing programmes with its own productions and some acquired material. STV stated that the policy was driven by cost, the relevance and appeal of the programmes to its viewers, and the time slot. In terms of compliance with the relevant network quotas, these changes did not affect STV's ability to meet its licence commitments. Information on STV's delivery in 2009, compared with the ITV network performance and the position in Wales and Northern Ireland, is shown in Figure 2.16 to Figure 2.18.

The original production quota for the full 24-hour day is set at 65% of all hours. STV achieved 81% in 2009, slightly above the figure of 80% achieved by the ITV network. In peak time, STV reached 92%, again well above the quota of 85%, compared with the ITV figure of 95% (Figure 2.16).

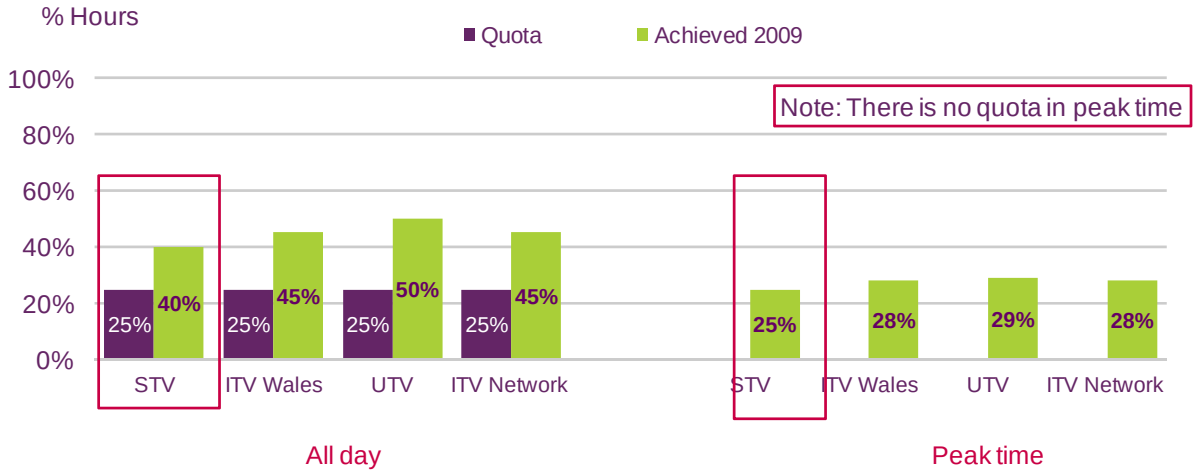
Figure 2.16 STV performance against original production quotas, 2009



Source: Ofcom/broadcasters

STV exceeded the 25% independent quota, although the proportions reached all day and in peak were lower than those for other ITV licensees (Figure 2.17). STV achieved 40% by volume of hours in total, compared with a figure of 45% reached by the rest of ITV, apart from UTV which delivered 50%. In peak time, the proportion for STV was 25%, against the ITV network figure of 28% (Note that there is no separate quota for peak time, but the proportions achieved are provided here for information).

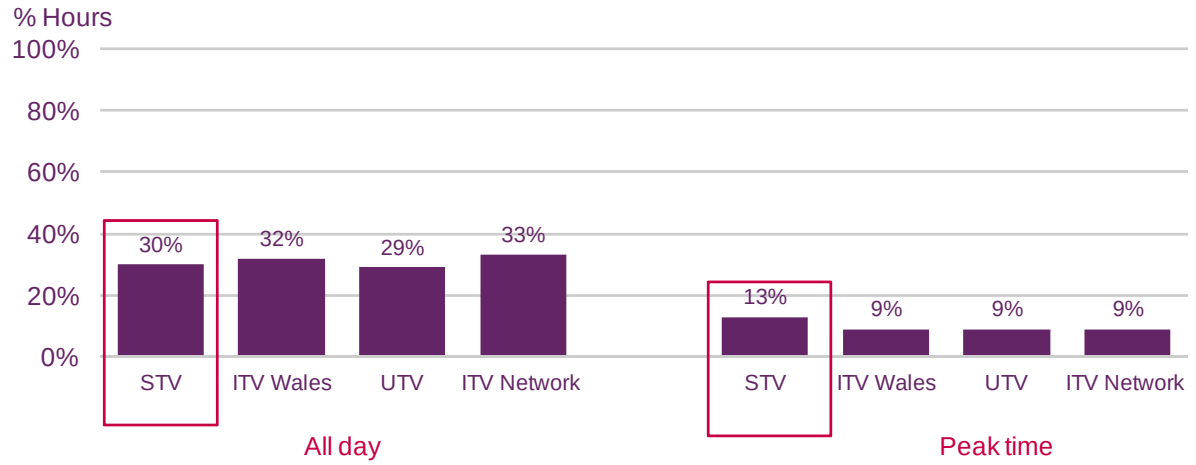
Figure 2.17 STV performance against the independent quota, 2009



Source: Ofcom/broadcasters

There are no quotas limiting the number of repeats. But, given the views expressed by viewers in surveys such as Ofcom's *Media Tracker*[14], information is provided here to illustrate the position in the nations. Across the whole schedule, the proportion of repeats broadcast by STV in 2009 was three percentage points lower than ITV (30%, compared with 33%) as shown in Figure 2.18. In peak time the opposite was true, with STV broadcasting a higher proportion of repeats than the rest of ITV – 13%, compared with 9% for the network.

Figure 2.18 Proportion of repeats broadcast by STV, 2009



Source: Ofcom/broadcasters

[14] Ofcom's Media Tracker is an annual survey of viewers' perceptions and attitudes to television. In 2009, of the respondents who said that they felt programme standards had got worse, the most popular reason cited was "more repeats" at 65%.

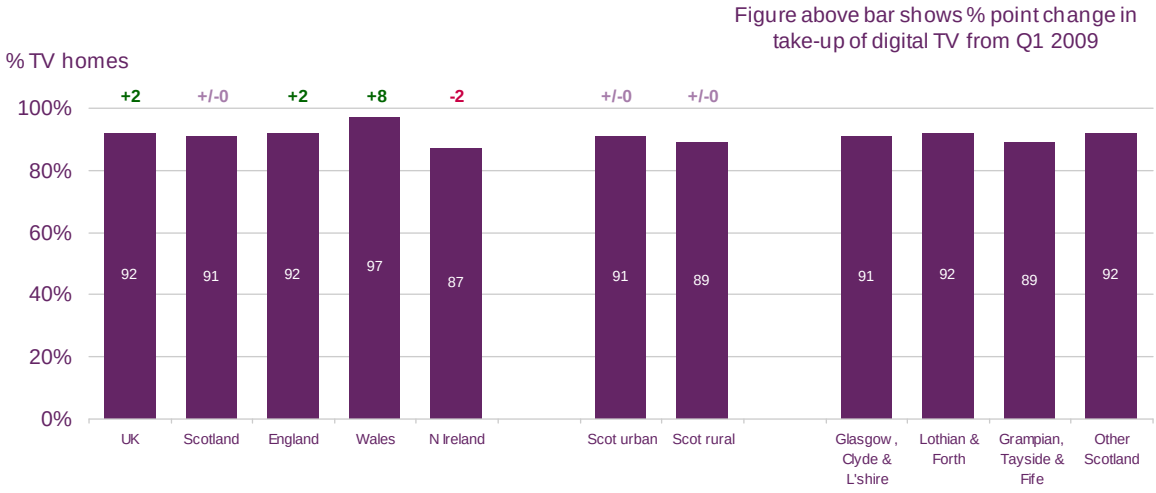
2.1.6 Digital television take-up in Scotland

Number of DTV households

Digital television take-up in Scotland stood at 91% in Q1 2010; take-up was stable on the year before and still broadly in line with the UK-wide average of 92%. With digital switchover complete in the Borders region, the rest of Scotland will enter the digital switchover programme during 2010/2011.

Rural and urban DTV take-up in Scotland were broadly comparable at 91% and 89% respectively in Q1 2010. Take-up across the regions of Scotland was fairly even, ranging from 89% in Grampian, Tayside, and Fife to 92% in areas such as Lothian and Forth Valley. (Figure 2.19).

Figure 2.19 Digital television take-up in Scotland



Source: Ofcom research, Q1 2010.
Base: All adults aged 15+ with a TV in household (n = 8858 UK, 1060 Scotland, 5600 England, 1452 Scotland, 746 Northern Ireland, 796 Scotland urban, 264 Scotland rural, 340 South East Scotland, 356 South West Scotland, 364 North/ Mid Scotland) QH1a. Which, if any, of these types of television does your household use at the moment?

Satellite is the most widely-used TV platform in Scotland, closely followed by DTT

When asked which platform they considered to be their main type of television, the most widely-used primary platform in Scotland was satellite (pay and free) at 39%, closely followed by DTT (pay and free) at 37%. With cable the main platform in 13% of homes in Scotland, the share of the three largest platforms largely reflected that of the UK as a whole.

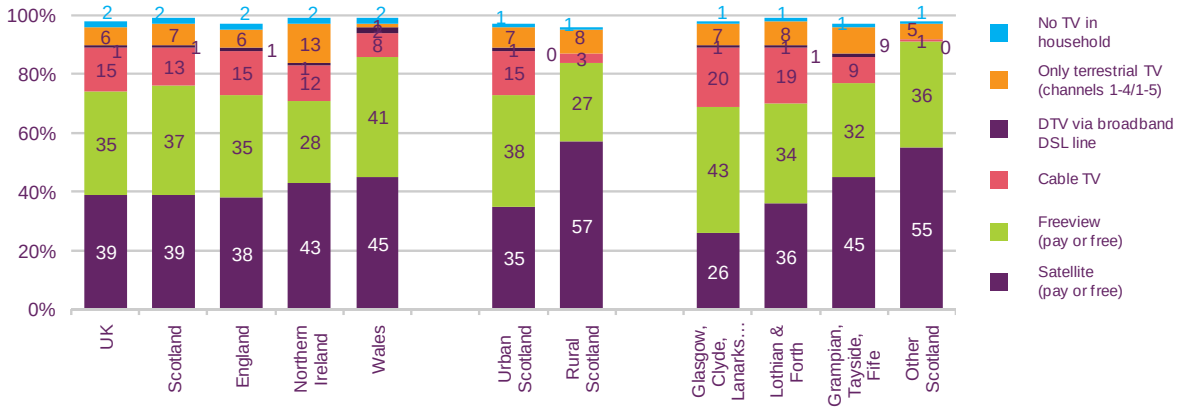
Seven per cent of homes in Scotland still relied on terrestrial signal as their primary viewing platform, with 2% of homes in Scotland saying they did not own a TV. There were, however, some variations to this pattern in the regions of Scotland. People living in rural areas were much more likely to use satellite services (57%) compared to 35% in urban areas. Other differences between urban and rural Scotland included take-up of Freeview (38% versus 27%) and cable (15% versus 3%), probably influenced by greater coverage and availability of Freeview and cable in urban areas.

Within the different regions of the country, satellite was more widely used in Grampian, Tayside and Fife (45%) and the 'other' areas of Scotland (55%) with lower use in the Glasgow, Clyde, and Lanarkshire areas (26%). By comparison, Freeview was most widely

used in the Glasgow, Clyde, and Lanarkshire areas (43%). Cable was also most widely used here, at 20%, and was also higher than average in the Lothian and Forth Valley areas, at 19%.

Figure 2.20 Main set TV share in Scotland, by platform

Proportion of respondents (%) main set share



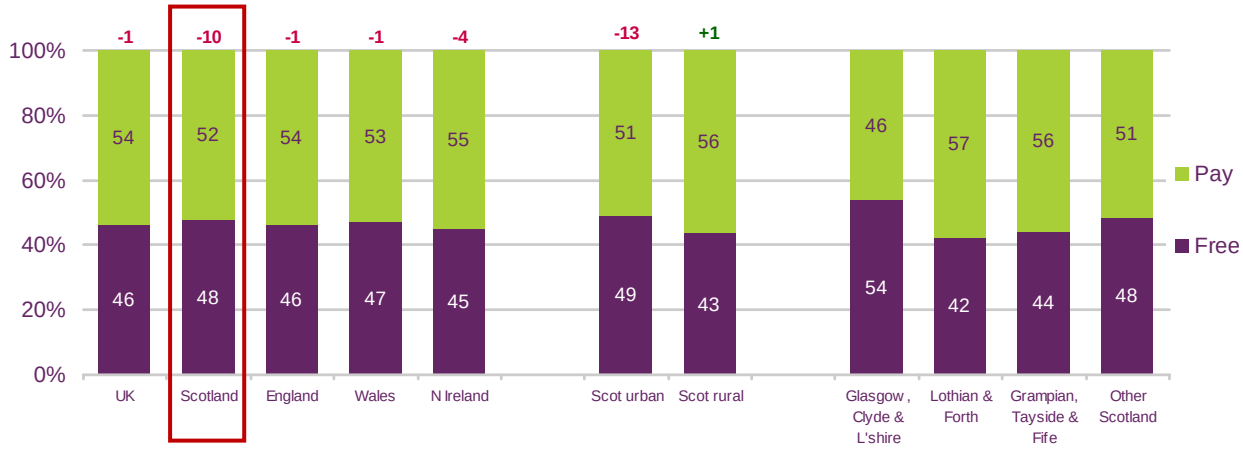
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley, 363 Grampian Tayside & Fife, 380 other Scotland).
QH1a. And which of these do you consider is your main type of television?
Note: Figures may not add to 100% due to rounding, also an element of survey respondents not differentiating between digital and analogue TV.

Over half of all homes in Scotland (52%) take a pay-TV service

Fifty-two per cent of DTV homes in Scotland took a pay-television service such as Sky or Virgin Media in Q1 2010, slightly lower than the UK-wide average of 54%. Take-up of pay-TV was higher in rural areas of Scotland (56%) than in urban areas (51%), possibly reflecting the historically higher take-up of satellite in rural regions. Of the regions in Scotland, take-up of pay-TV was lower in Glasgow, Clyde and Lanarkshire (46%), and highest in Lothian and Forth Valley (57%).

Figure 2.21 Proportion of homes with free and pay television

Proportion of TV homes (%) (Figures above bar shows % point change in Pay-TV from Q1 2009)



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ with a TV in the household (n = 8858 UK, 1452 Scotland, 5600 England,

1060 Wales, 746 Northern Ireland, 1158 Scotland urban, 294 Scotland rural, 364 Glasgow, Clyde & Lanarkshire, 352 Lothian & Forth Valley, 359 Grampian Tayside & Fife, 377 other Scotland)
QH1a. Which, if any, of these types of television does your household use at the moment?

2.1.7 Broadcast television viewing

Viewers in Scotland watched the most TV in the UK in 2009

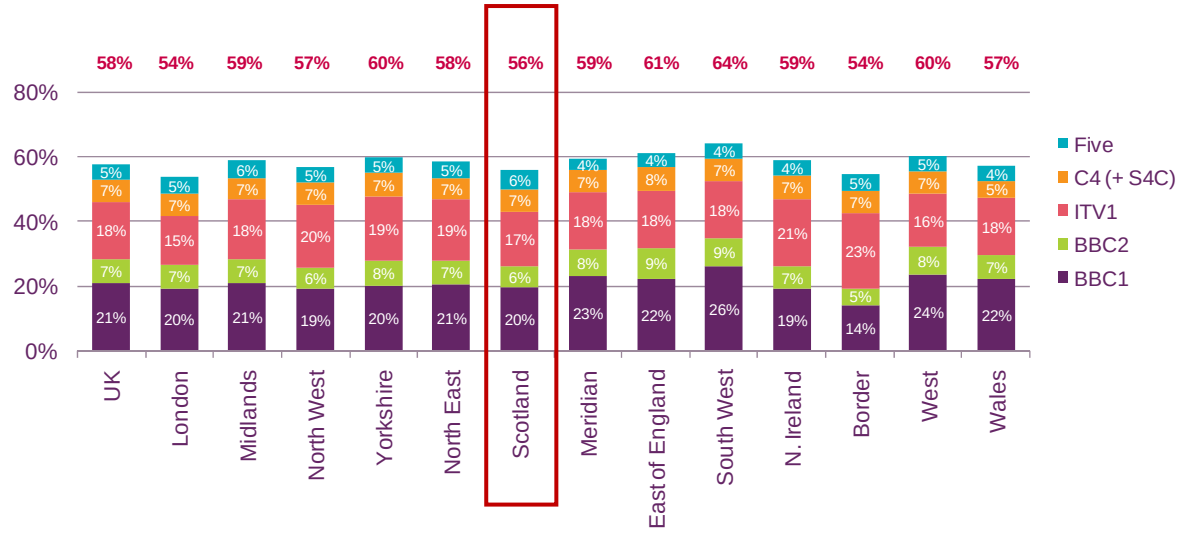
During 2009, people in Scotland[15] spent more time watching television than anywhere else in the UK. Viewing stood at 4.2 hours per head per day, higher than the UK average of 3.8 hours; these were the only viewers in the UK to watch over 4 hours a day. Compared to 2004 levels, the average levels of viewing by people in Scotland have increased by 1%, the same as the UK increase.

Weekly TV reach[16] in Scotland during 2009 was 93%, the same as the UK average, having remained relatively stable compared to 2004. The combined reach figure of the main PSB channels[17] in Scotland in 2009 was 89%, marginally higher than the 88% UK average.

The main PSB channels held a 56% share of total viewing in Scotland in 2009, two percentage points lower than the UK average (58%). BBC One, BBC Two and STV each attracted an audience share one point lower than the UK average, at 20%, 6% and 17% respectively, although Five was slightly more popular in Scotland (6%) than in the UK as a whole (5%). Channel 4 was equally popular in Scotland as the UK average (7%).

Figure 2.22 Share of the five terrestrial networks, all homes, 2009

Audience share in all homes (%)



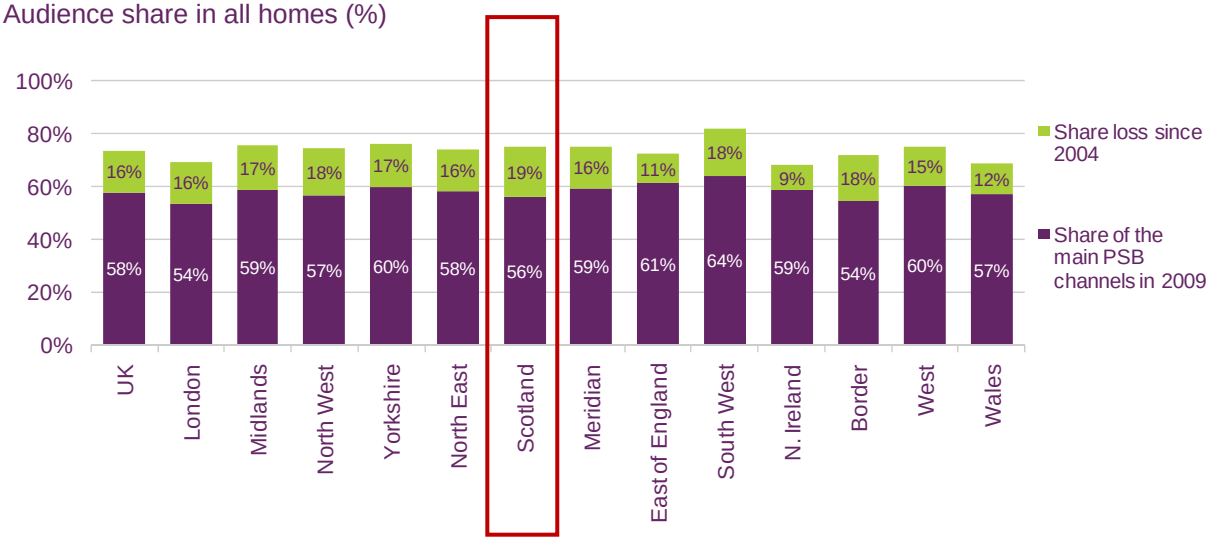
Source: BARB
Note: Labels refer to the ITV region where the audiences are resident as defined by BARB.

Since 2004, the main PSB channels' combined share of viewing has fallen by 19 percentage points in all homes in Scotland (Figure 2.23). This reduction in share between 2004 and 2009 in Scotland is greater than anywhere else in the UK, and three percentage points more than the UK average reduction (16 percentage points). The 19 percentage point share loss

[15] This is based on people who live in the ITV1 Scotland region as defined by BARB.
[16] Reach is defined as the proportion of viewers that watched TV for at least fifteen consecutive minutes over a period of a week.
[17] The main PSB channels consist of BBC One, BBC Two, ITV1/STV/UTV), Channel 4 (& S4C) and Five.

in Scotland compares to a nine percentage points reduction in Northern Ireland and twelve percentage points reduction in Wales.

Figure 2.23 Reduction in combined share of the main PSB channels, 2004 –2009
Audience share in all homes (%)



Source: BARB
Note: Labels refer to the ITV region where the audiences are resident as defined by BARB.

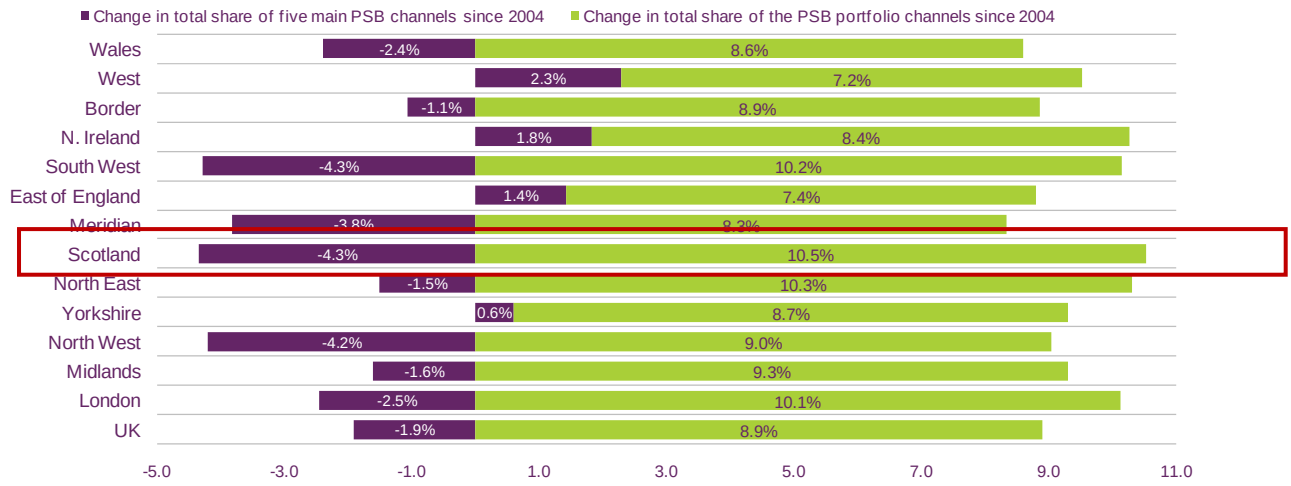
PSB portfolio channels gain most share in multichannel homes in Scotland - offsetting loss of main PSB channel shares

The main PSB channels also lost share in multichannel homes in Scotland, shedding four percentage points between 2004 and 2009. This was a greater decline than anywhere else in the UK (with exception of the South West of England, which also lost four percentage points of share) and more than the UK average decline of two percentage points. However, the PSB portfolio channels[18] saw strong share growth in Scotland, at 11 percentage points, a greater increase than anywhere else in the UK and ahead of the UK-wide share rise of nine percentage points (Figure 2.24).

In multichannel homes in Scotland, the most viewed channel, apart from the main PSB channels, was ITV2, with a 3% viewing share (marginally higher than the average secured by ITV2 across the UK), followed by E4 with an audience share of 2% (also marginally higher than E4's share across the UK).

[18] PSB portfolio channels include all the PSB channels except the main channels. For example, BBC Three, ITV2, E4, Fiver.

Figure 2.24 Net change in the audience share of the main PSB channels and the PSB portfolio channels in multichannel homes, 2004 - 2009



Source: BARB.
Note: PSB Portfolio channels include all PSB channels except the main PSB channels.

Local and regional news viewing is popular in Scotland

Viewers in Scotland watch the highest volumes of early evening television news bulletins in 2009, viewing an average of 22 hours per head per year, over four more hours than the UK average of 17.9 hours (Figure 2.25).

Figure 2.25 Combined total hours of viewing of early evening regional news bulletins, all homes, 2004 to 2009

Source: BARB. Analysis done on BARB genre of Regional News, start time 17:55-18:35, programmes with 10 mins+ duration, channels BBC One and ITV1 (STV/UTV) combined, Monday to Friday.

In 2009, STV's early evening news bulletins were more popular with viewers in Scotland than Channel 3 was, on average, across the UK, attracting a 24% share compared to the UK average of 19% (Figure 2.26).

BBC One, on the other hand, secured an early evening news bulletin of 27%, which was one percentage point lower than the UK average of 28%.

Figure 2.26 BBC One and ITV1/ STV/UTV early evening news bulletin shares, 2009

Audience share in all homes (%)

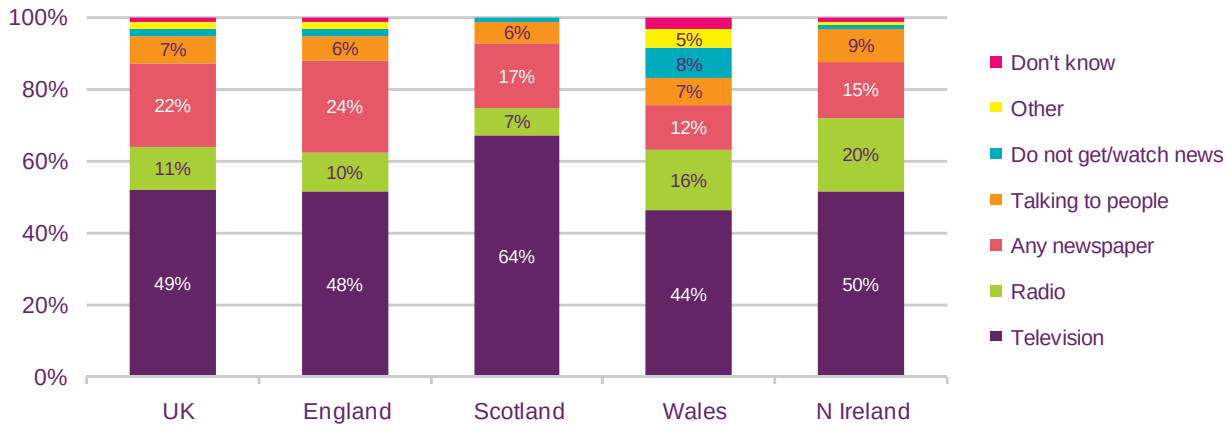
Source: BARB
Note: Labels refer to the ITV region where the audiences are resident as defined by BARB.

Sources of local news in Scotland

As figure 2.26 illustrates, 64% of people in Scotland claimed that television was their main source of local news; this is much higher than the UK average of 49%. Conversely, just 7% of people in Scotland preferred radio; less than the UK average of 11%. Seventeen per cent of people in Scotland stated that newspapers were their main source of local news, less than the UK average of 22%.

Figure 2.27 Sources of local news, by nation, 2009

% of respondents



Q85 Can you tell me what, if anything, is your main source of news about what is going on in your own LOCAL AREA? By this I mean news of local and regional significance.
Base: All adults 15+. n = 2044 (UK), 1713 (Eng) 180 (Sc), 113 (Wa), 108 (NI)
Only responses ≥ 5% labelled
Source: Ofcom 2009 Media Tracker survey. Fieldwork carried out by Continental Research, April and October 2009.

2.1.8 Audio-visual content viewing over other platforms

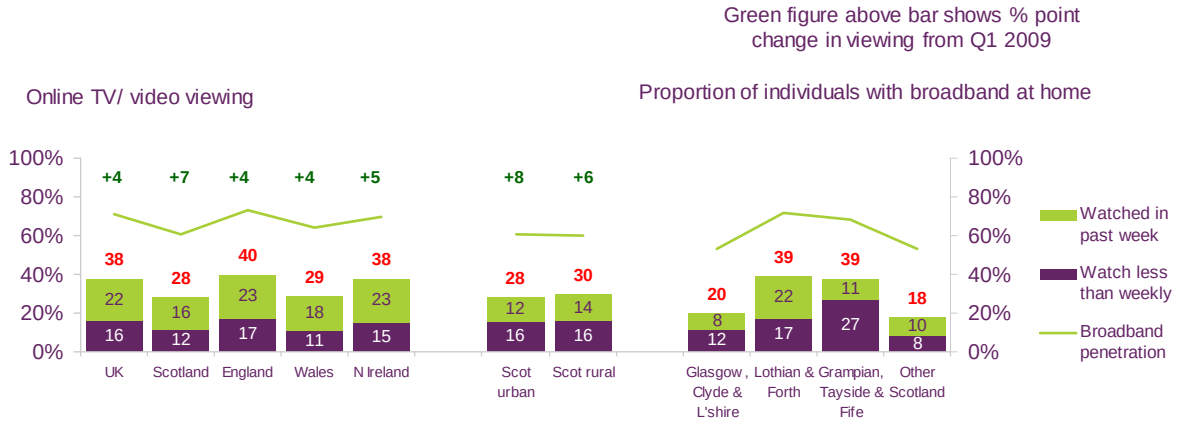
Over a quarter of households in Scotland used the internet to watch video online

Audio-visual content online can include catch-up TV, user-generated content, music videos and video on demand. 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, Sky Player and ITV Player has shown that there is also an appetite for made-for-television content delivered online.

Over a quarter of adults in Scotland (28%) said that someone in their home had used the internet to watch television or video content, an increase of seven percentage points on Q1 2009. This was lower than the UK average of 38% (34% in Q1 2009). Sixteen per cent of adults in Scotland had watched video content online in the last week.

Watching video content in this way was more prevalent in areas of Scotland with higher broadband ownership, with the most prevalent online video viewing found in Lothian & Forth Valley, where 22% of adults had done this in the last week and 17% had done it less recently.

Figure 2.28 Proportion of adults living in a household that has used the internet to watch TV or video content



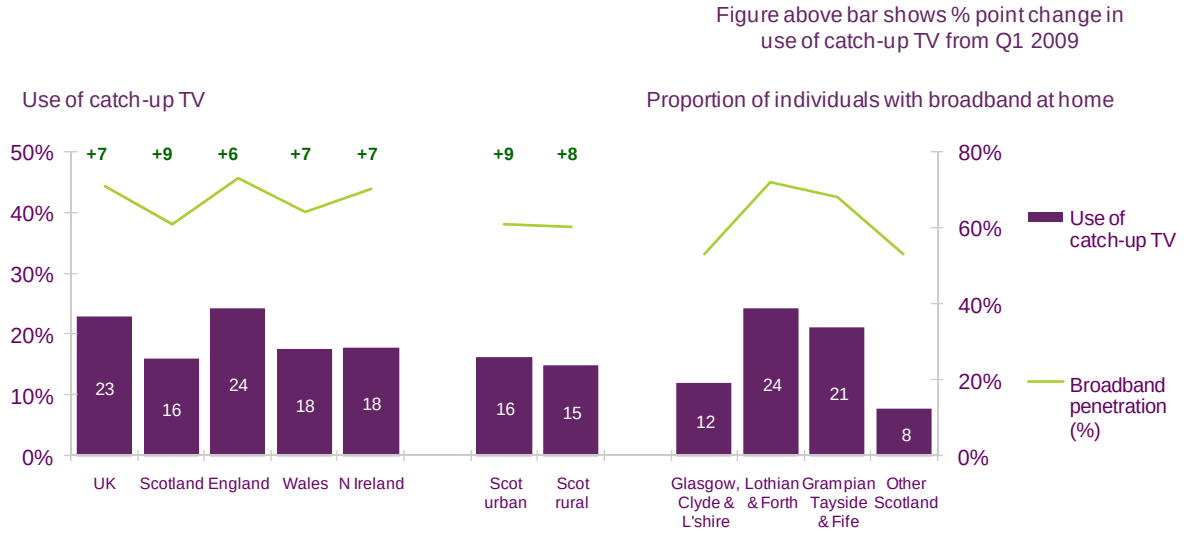
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QE12. Which, if any, of these do you or members of your household use the internet for whilst at home? And, which, if any, of these activities have you or members of your household used the internet for in the last week?

A quarter of people in Lothian and Forth Valley have used the internet to watch catch-up TV

Catch-up TV formed a significant part of the consumption of TV content online during the past year. Across the UK just under a quarter (23%) of adults claimed that someone in their household used the internet to watch catch-up TV online. Take-up was highest in England (24%) and lowest in Scotland (16%). In Northern Ireland and Wales the figure stood at 18%. Lower levels of use outside England may be a result of lower broadband take-up in those areas. Use of catch-up TV has grown rapidly over the past year, with its popularity growing by at least six percentage points in each nation. Growth was fastest in Scotland, at nine percentage points.

Using the internet to watch catch-up TV by people in Scotland varied from 24% in Lothian and Forth Valley to just 8% in 'other Scotland'. But there was little difference in take-up between rural and urban areas – both saw strong growth over the year, at eight and nine percentage points respectively. Unsurprisingly, levels of internet take-up appeared to correlate quite strongly with watching online catch-up TV.

Figure 2.29 Proportion of adults living in a household that has used the internet to watch catch-up TV (e.g. iPlayer or Sky Player)



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
QE10A. Which, if any, of these do you or members of your household use the internet for whilst at home?

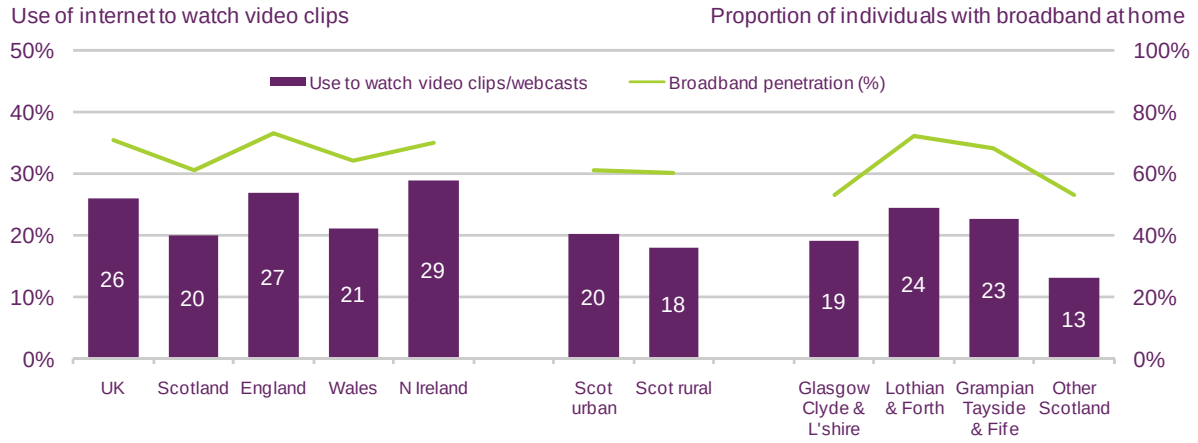
One-fifth of homes in Scotland use the internet to watch video clips and webcasts

Despite the rapid growth in watching catch-up TV online in some areas, it still forms only a part of consumers' engagement with audio-visual content online. Many people's main engagement with online content is through sites offering video clips or short webcasts. Examples of this sort of content include YouTube and webcasts of programmes like Big Brother.

But the boundary with long-form and broadcast content is beginning to blur. Both Channel 4 (in October 2009) and Five (in December 2009) have signed deals with YouTube to make their broadcast catch-up content available on the site. In June 2010 STV signed a deal with YouTube to provide at least 2500 hours of new and archive material.

Across the UK use of the internet to watch video clips and webcasts ranges from 20% of households in Scotland to 29% in Northern Ireland, possibly reflecting the younger population skew in Northern Ireland. The UK's average take-up was 26%. Within Scotland watching video clips and webcasts online correlated strongly with levels of internet access. Watching video clips was highest in Lothian and Forth Valley, at 24% of households, and lowest in 'other Scotland' (13%). Despite having the same low levels of broadband penetration (53%), people in Glasgow, Clyde and Lanarkshire were more likely than people in 'other Scotland' to watch video clips in this way, by 19% to 13%. There was little difference between rural and urban areas.

Figure 2.30 Use of the internet to watch video clips and webcasts



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
QE10A. Which, if any, of these do you or members of your household use the internet for whilst at home?

Take-up of games consoles in Scotland was below the UK average

Watching audio-visual content online is not restricted to computers. As the capabilities of games consoles have developed, they have developed from being focused purely on computer games to become integrated audio-visual media devices. Consumers can play games online, access the internet, and download and stream films and other content. In particular, in recent years, broadcasters and content owners have struck deals with console manufacturers to offer another avenue for consumers to watch their content.

Sky Player is available to Xbox 360 owners, and consumers can now watch BBC iPlayer on the Wii and PS3. And consoles account for a small but significant share of total iPlayer viewing. Data from the BBC suggest that 7% of total iPlayer viewing in the UK takes place on these two devices.

Figure 2.31 shows the take-up of games consoles (and handheld games consoles) across Scotland, where the level, at 46%, was lower than the UK average of 48%. Ownership of handheld consoles such as the Sony PlayStation Portable (PSP) and the Nintendo DSi were also lower in Scotland (24%) than in any of the other nations.

Across Scotland take-up of games consoles was highest in Lothian and Forth Valley (50%) and lowest in Glasgow, Clyde and Lanarkshire (47%).

Figure 2.31 Take-up of games consoles

Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QB4. Which games console/s do you or does anyone in your household have at the moment?

The Communications Market in Scotland

3 Radio and audio content

3.1 Radio and audio content

3.1.1 Recent developments in Scotland

Bauer Radio Scotland

Bauer's Scottish stations attract 1.8 million listeners every week – 40% of the population covered[19]. Its DAB services cover Ayr, Glasgow, Edinburgh, Dundee, Perth, Aberdeen and Inverness.

Over the past year, Bauer Radio has introduced a new management structure in Scotland including a Scotland MD, seven station directors, and directors of AM Scotland, regional programming, commercial, regional sales, and finance.

During 2009 Bauer was part of the Scottish News Network (which bid for the IFNC pilot in Scotland). Bauer contributes to public service radio in the form of news and sport journalism in eight locations, resulting in 198 news bulletins per day and representing 20 hours of news output each week.

Real Radio

Real Radio claims the largest weekly audience of the commercial stations in Central Scotland. The station has a policy of making most of its content "live and local". This includes its music content; Real Radio uses local research to enable it to support Scottish artists and bands.

The owner, GMG Radio, introduced a higher level of networked (non-local) programming two years ago, but listener demand led to a change in approach, and Real reverted to broadcasting all but three programmes each week from Glasgow. The station now carries live through-the-night local programming every day of the week.

The GMG Scotland news team provided full coverage of the 2010 general election. The three GMG stations, Real, Rock and Smooth, all provided live updates and reports for listeners in Scotland.

Real Guides give several updates on local events throughout the day, including Gala Days and concerts. The station supports local charities through its 'Real Action' feature, which provides local charities with £5,000 of airtime each week. Over £150,000 has been raised this year for Real Radio's nominated charity, the Children's Hospice Association Scotland.

Community radio

Community radio licences are awarded to small-scale operators working on a not-for-profit basis to serve local geographic areas or particular communities. The number of community stations has increased over the past three years, with a total of 228 licence awards since the start of community radio licensing in March 2005.

Twenty community licences have been awarded in Scotland, with two of these handed back, leaving 18 still active (Figure 3.1). Scotland has the second most community stations per head, at an average of 3.5 stations per million people. Northern Ireland has the most, at an average of 7.3 stations per million, higher than the ratio in Wales (3.0) and England (3.3).

[19] Based on RAJAR audience of 15 plus.

In June 2010, Awaz FM became the first community radio station in Scotland to win the Queen's award for voluntary service, which recognises outstanding contributions to local communities made by volunteer groups[20].

Figure 3.1 Community radio stations in Scotland

Community station	Location	On-air date
shmuFM	Aberdeen	20/10/2007
Speysound Radio	Badenoch & Strathspey	06/12/2009
Pulse FM	Barrhead	28/07/2009
Revival Radio	Cumbernauld	03/09/2006
Alive Radio	Dumfries	01/09/2009
Dunoon Community Radio	Dunoon, Argyll	01/12/2009
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
Super Station Orkney	Orkney	14/01/2008
Bute FM	Rothesay, Isle of Bute	15/07/2009
3TFM	Saltcoats & Adrossan, N Ayrshire	19/04/2008
Brick FM	St Boswells, Borders	22/01/2008
Mearns FM	Stonehaven & the Mearns	06/06/2009

Source: Ofcom

Gaelic

The BBC's Radio nan Gàidheal is Scotland's principal Gaelic radio service. MG ALBA provided a training grant to Moray Firth Radio during 2009-10 for three part-time trainees in radio production, which led to the broadcast of a monthly live show.

Cuillin FM on Skye has a duty to provide three hours of Gaelic programming per week, and aims to increase this to at least six hours in the near future.

Two Lochs Radio, covering the Gairloch, Loch Ewe and Loch Maree areas, has a programming mix with a much stronger emphasis on Scottish and Gaelic music than might be found on a larger city station.

[20] http://www.direct.gov.uk/en/NI1/Newsroom/DG_188059

SHMU (Station House Media Unit) in Aberdeen

ShmuFM (pronounced 'shmoo') is a full-time community radio station based in the Woodside area of Aberdeen. It launched in October 2007, having secured a five-year community radio licence from Ofcom to broadcast on 99.8 FM. ShmuFM also has an online presence.

It is part of Station House Media Unit (SHMU), a community-managed, needs-led organisation whose mission is to contribute to social, economic and digital inclusion in its target communities. It aims to encourage personal development and community building through participation in community media production.

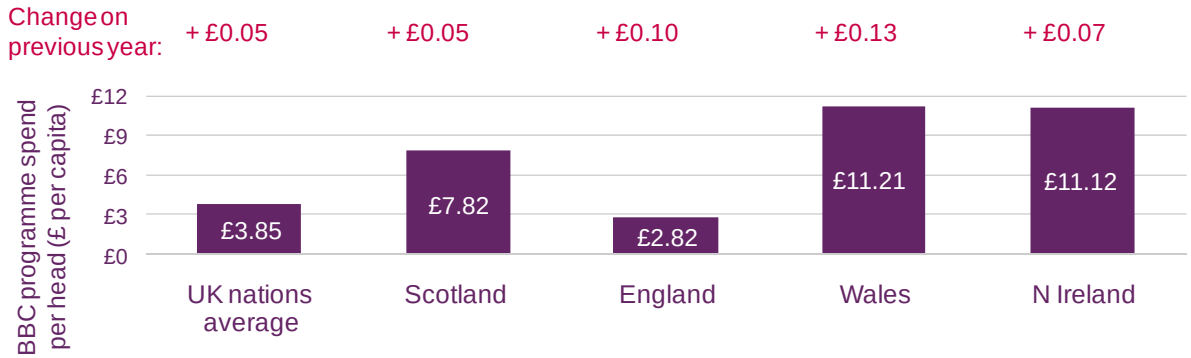
It is the only cross-platform community media resource operating in Scotland, comprising video and radio production, paper-based and on-line publications. Since its launch, the station has developed a diverse programme of live broadcasting featuring local news, community profiles, radio plays, interviews, recordings of local bands and musicians, magazine-format shows and a mix of informal chat and music.

3.1.2 The radio industry

BBC Radio funding in Scotland

The BBC spent £7.82 per head on Scotland's national radio services in 2009/10. Total spend was £38.7m in 2009/10, up by £0.6m (1.6%) from £38.1m in 2008/09, and taking average spend per head to £7.82 in 2009/10. This compared to spending per head in England of £2.82, in Wales of £11.21 and in Northern Ireland £11.12 (Figure 3.2).

Figure 3.2 BBC spend on national / local radio programming 2009-10



Source: BBC Annual Report and Accounts 2009/10. Note: The revenue data above have been compiled by the BBC to illustrate UK public services expenditure by service.

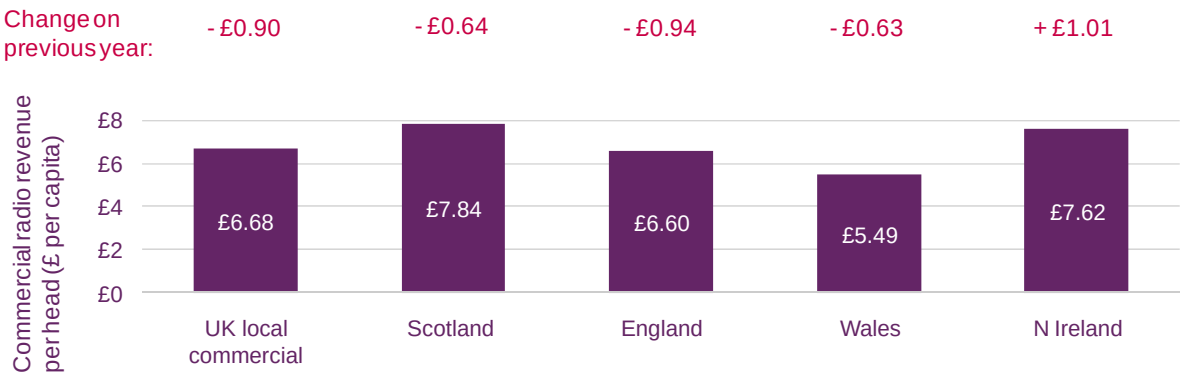
Commercial radio revenues per head higher in Scotland

Over half (51%) of the local commercial radio services in Scotland are independently owned. This is a higher proportion than the other UK nations, amounting to 20 of the 39 stations in Scotland. Of the commercial radio groups, Bauer Radio holds the most licences, with 15 (38%). By comparison, in Northern Ireland Northern Media owns 60% of all licences, while in Wales the two main radio groups together 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 £38.4m in 2009, down by 8% from £42m in 2008. This revenue was equivalent to around 9.9% of the UK local commercial total of £389m. Adjusting for population size, local commercial revenue in

Scotland was equivalent to £7.84 per head in 2009, as shown in Figure 3.3; down by £0.64 on £8.48 in 2008. This was the highest revenue per head of the UK nations, and £1.16 (17%) above the UK average of £6.68 per person.

Figure 3.3 Local commercial radio revenue, per head, 2009



Source: Source: Ofcom, operators 2009
Note: Chart shows net broadcasting revenues as based on returns received by Ofcom for the year 2009. The UK total shows the average for local commercial radio revenues across the four nations and excludes revenues for the UK-wide commercial stations.

3.1.3 Radio service availability

FM availability in Scotland

Listeners in Scotland can access radio services through a variety of platforms and technologies. The BBC provides two national services for Scotland; BBC Radio Scotland, in English on AM and FM, and BBC Radio Nan Gàidheal in Gaelic on FM. Analogue radio services are available to approximately 98% of people in Scotland, with ownership of analogue radio devices almost universal. There are 39 local commercial analogue radio services licensed in Scotland, equivalent to around 13% of the UK's total of 300. This compares to the 11 local commercial services in Northern Ireland, 16 in Wales and 234 in England. In addition Scotland currently has 18 community radio licences serving local populations across the country on FM/AM.

DAB availability in Scotland

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.

National coverage of DAB digital radio has steadily increased, with the installation of further transmitters by Digital One and the BBC. In March 2008 Digital One estimated that its overall coverage of the UK population had reached 90%, and in March 2010 the BBC announced plans to expand its national digital radio network by installing a further 60 transmitters at sites across the UK. The BBC aims to complete this installation programme by the end of 2011, as part of its wider target to reach 90% of the UK population. New transmitters will include previously un-served areas as well as boosting existing coverage areas. This programme will include 15 new transmitters for Scotland – including improvements in coverage for Glasgow and Dundee, and bringing coverage to Shetland and the Western Isles for the first time.

The BBC's DAB transmitter launches in Scotland so far in 2010 included sites at:

- Balgownie, Aberdeen, in April
- Mormond Hill, Aberdeenshire, in March
- Grantown, Morayshire, in March
- Kingussie, Inverness-shire, in March
- Stranraer, Dumfries and Galloway, in February
- Barskeoch Hill, Dumfries and Galloway, in February
- Cambret Hill, Dumfries and Galloway, in February
- Cow Hill, Fort William, Inverness-shire, in January
- Oban, Argyll, in January

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

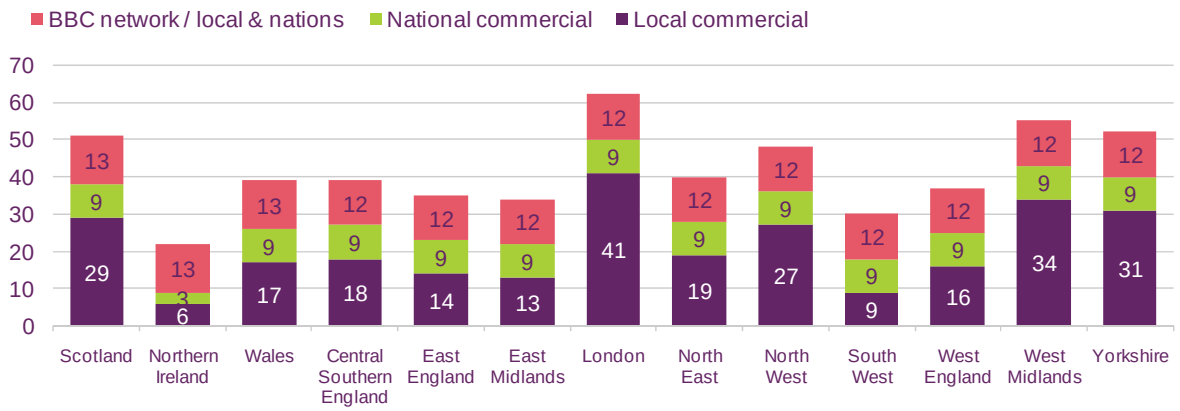
In July 2010, as part of the government's Digital Radio Action Plan, Ofcom was asked to lead a process to consider the future spectrum planning requirements of digital radio, in order to prepare for the digital radio upgrade and to make recommendations to Ministers. This process will establish the current levels of FM coverage, which will provide the benchmark for future planning, and determine the most technically efficient way of matching DAB coverage to FM. This process is likely to consider appropriate DAB field strengths, which will be needed to calculate accurately the existing coverage of all national and local multiplexes, and to work out what steps are required to improve coverage. This process is likely to be completed by the end of Q2 2011.

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 nine national stations across Scotland, England, and Wales, including Classic FM, talkSPORT, Absolute Radio, Planet Rock, BFBS, UCB UK, Absolute 80s, Amazing Radio, and Premier.

DAB station choice higher in larger cities

Digital radio listeners in the Glasgow area have the greatest DAB choice with 37 stations, including the 20 national services, plus BBC Radio Scotland / BBC nan Gàidheal, and 15 commercial stations available through local or regional multiplexes. Listeners in Edinburgh and Central Scotland had access to a similar number, with 36 DAB stations available. Station choice was lowest in Inverness at 26, with three local commercial stations available on DAB. (Figure 3.4).

Figure 3.4 Availability of DAB stations, by area



Source: Ofcom. July 2010
Note: This 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.

3.1.4 Patterns of listening to audio content

Hours of radio listening per head lower in Scotland than in other UK nations

Radio services reached 87.3% of the adult population in Scotland on a weekly basis in the year to Q1 2010, (very similar to a year ago at 87.4%); this was 2.6 percentage points lower than the UK average of 89.9%. Average listener hours per week in Scotland were 21.0 in Q1 2010, down from 21.6 last year and below the UK average of 21.9 hours per week (Figure 3.5).

Figure 3.5 Levels of radio listening in 2010

Average weekly listening hours and percentage reach of population

	Scotland	England	Wales	Northern Ireland	UK TOTAL
Average weekly listening	21.0 hours	21.9 hours	22.7 hours	22.0 hours	21.9 hours
Reach	87.3%	90.1%	90.5%	89.6%	89.9%

Source: RAJAR, year to Q1 2010

Over half of all radio listening in Scotland is to local commercial radio

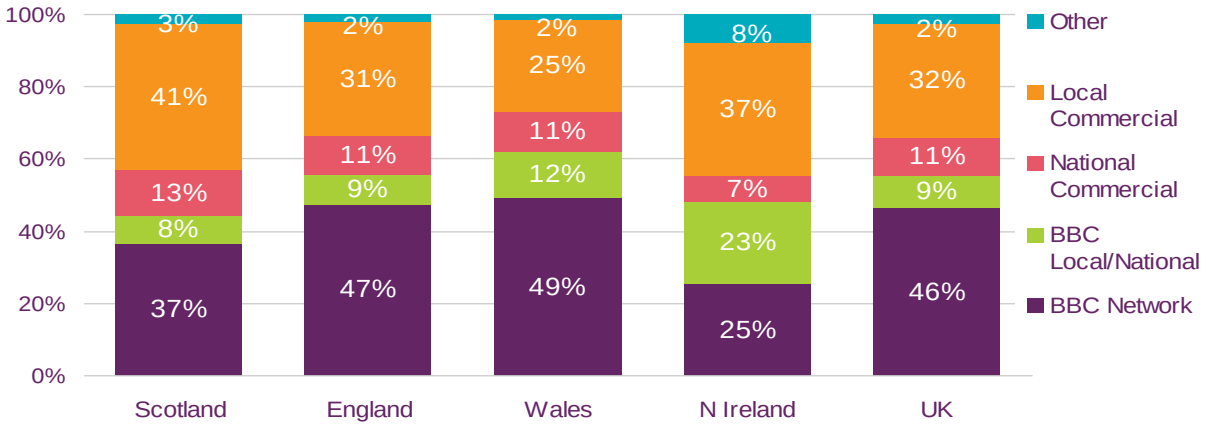
Figure 3.6 shows that listening to commercial radio stations accounted for over half (54%) of all listening in the year to Q1 2010; this was up 2% in a year and significantly higher than the UK average share of 43%. Of this total, local commercial radio in Scotland accounted for a share of 41%, compared to an average of 32% across the UK, with many local commercial stations in Scotland attracting higher-than-average audiences.

Listening to BBC stations accounted for 45% of radio listening in Scotland in Q1 2010. Of this, 37% was to BBC network services, much lower than the UK average of 46%. Listening to BBC Radio Scotland / nan Gàidheal accounted for a 8% share, (down by 1 percentage

point on a year before), similar to local radio share in England (9%), but lower than in Wales (12%) and Northern Ireland (23%).

Figure 3.6 Audience share for BBC and commercial stations, local /national

Audience share for local/national stations



Source: RAJAR, year to Q1 2010

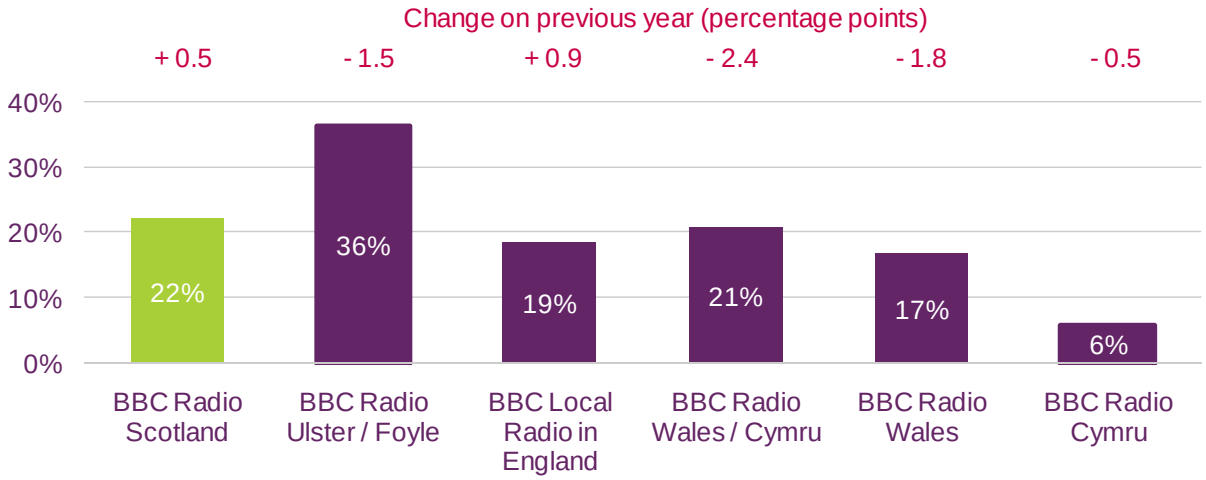
BBC nations' radio listening in Scotland

Almost a million (955k) adults listened to BBC Radio Scotland/ Radio nan Gàidheal in an average week in Q1 2010. This equates to over one in five (22%) of the adult population using the national services every week. Audience reach was up by 0.5 percentage points on the year, and total listening hours to the national BBC stations in Scotland accounted for 8% of all radio listening hours in Q1 2010.

By comparison, the audience reach for BBC services in Wales was down by 2.4 percentage points in the year and Northern Ireland down 1.5 percentage points, with local radio reach in England up 0.9 percentage points. The weekly audience reach of BBC Radio Scotland / Radio nan Gàidheal (22%) is now higher than that of BBC Radio Wales / Cymru (21%) and higher than local BBC radio in England (19%).

Figure 3.7 Weekly reach for national / local BBC services, Q1 2010

Percentage of adult population reached per week



Source: RAJAR, weekly reach Q1 2010

3.1.5 Digital device ownership

One in three own a DAB digital radio set

Research carried out in Q1 2010 (Figure 3.8) showed that 36% of respondents who listened to the radio in Scotland claimed to own a DAB digital radio set. This was similar to the UK average of 38% and higher than in Wales (29%) and Northern Ireland (22%). Take-up was even across rural and urban Scotland. Within the regions of Scotland, take-up was higher in the Glasgow, Clyde and Lanarkshire area at 41%, compared to 24% in lower take-up areas.

Figure 3.8 Ownership of DAB digital radios

Percentage of radio listeners, (figure above bar shows % point change in DAB sets in household from Q1 2009).

Total owning DAB	**38%**	**36%**	**39%**	**29%**	**22%**	**36%**	**36%**	**41%**	**40%**	**34%**	**24%**

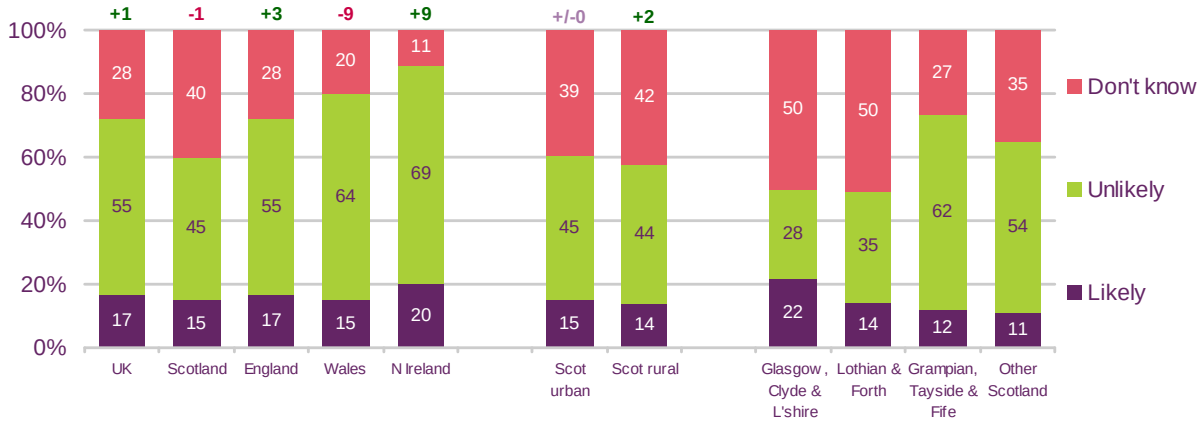
Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who listen to radio (n= 7017 UK, 1034 Scotland, 4476 England, 854 Wales, 825 Scotland urban, 209 Scotland rural, 253 Glasgow, Clyde & Lanarkshire, 239 Lothian & Forth Valley, 284 Grampian Tayside & Fife, 258 other Scotland)
Note: Remaining percentages are Don't know responses
QP9. How many DAB sets do you have in your household?

Likelihood to purchase DAB radio set lower in Scotland and Wales

Around 15% of respondents in Scotland without a DAB radio set said they were likely to purchase one within the next twelve months, slightly lower than the UK-wide average figure of 17%. This was also down from around 24% in Scotland last year. Within the regions of Scotland, people in Glasgow, Clyde and Lanarkshire expressed the greatest interest, with 22% intending to buy. This figure was lowest in Grampian, Tayside, Fife and the 'other areas' of Scotland surveyed, at 11% (Figure 3.9).

Figure 3.9 Intention to purchase DAB radio

Percentage of radio listeners
(figure above bar shows % point change in DAB sets in household from Q1 2009).



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who listen to radio and do not have a DAB set (n= 4445 UK, 661 Scotland, 2690 England, 594 Wales, 500 Northern Ireland, 531 Scotland urban, 130 Scotland rural, 142 Glasgow, Clyde & Lanarkshire, 139 Lothian & Forth Valley, 188 Grampian Tayside & Fife, 192 other Scotland)
QP12: How likely is it that your household will get a DAB radio in the next 12 months?

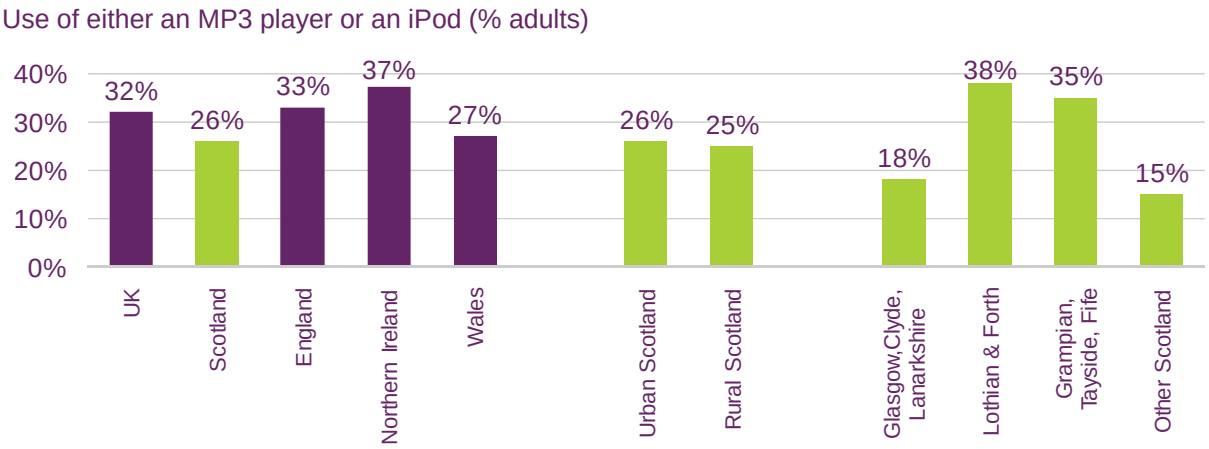
Reasons for not purchasing DAB radio set

The most popular reason for being unlikely to get digital radio was that the respondent did not think he or she needed a digital radio; this equated to 61% of those who were unlikely to acquire DAB in Scotland, and was higher than the UK average (55%). About a third (32%) of those unlikely to acquire DAB said they were happy with the existing analogue service (UK figures 32%). Only 3% in Scotland pointed to poor reception as their reason for not getting a DAB digital radio set; this was similar to the UK average of 4%. And 4% of respondents in Scotland said that the cost of DAB would make them unlikely to buy, compared to 2% for the UK as a whole.

Ownership of MP3 players lower than average in Scotland

Just over a quarter (26%) of respondents in Scotland claimed to personally use an MP3 player or iPod, below the UK average of 32% (Figure 3.10). Thirty-three per cent of respondents in Scotland claimed that they, or someone in their household, owned an MP3 player / iPod, compared to the UK average of 40%. MP3 use was highest in the Lothian and Forth Valley area (38%) and was also above the UK average in Grampian, Tayside, and Fife (35%). It was much lower in the Glasgow, Clyde, and Lanarkshire areas, at 18%, with 'other' areas of Scotland lowest at 15%.

Figure 3.10 Use of either an MP3 player or an iPod (% of adults)



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1075 Scotland, 5709 England, 1468 Scotland, 761 Northern Ireland, 810 Scotland urban, 265 Scotland rural, 348 South East Scotland, 360 South West Scotland, 367 North/ Mid Scotland).
QB2. Do you personally use: MP3 player / IPod?

3.1.6 Radio listening through DAB, DTV, online, and mobile phone

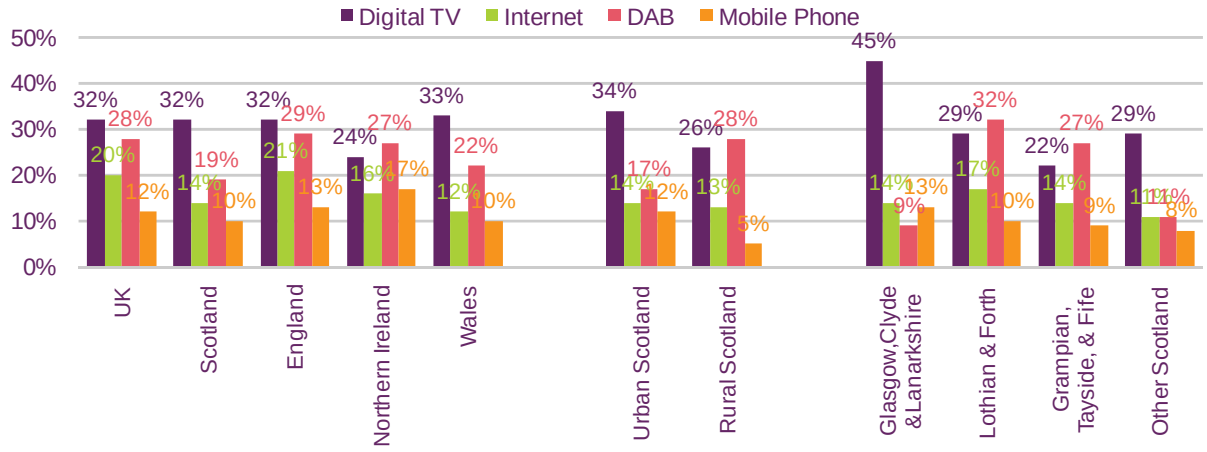
By Q1 2010 almost a third (32%) of people in Scotland claimed to be using digital TV to listen to radio channels; this was the most popular way of accessing digital radio, similar to the other nations and in line with the UK average. Listening via DTV was higher in urban areas and was particularly high in the Glasgow, Clyde and Lanarkshire area, at 45%.

Listening online had been tried by 14% of respondents in Scotland; lower than England (21%) and, Northern Ireland (16%), but higher than in Wales (12%). Online listening varied little across Scotland, with urban areas (14%) and rural (13%) being comparable. The Lothian and Forth Valley region was above average, at 17%.

Levels of listening to digital radio via a DAB set were also below average at 19%, compared to 29% in England, 27% in Northern Ireland and 22% in Wales. Listening was higher in rural areas of Scotland, at 28% versus 17% in urban areas. DAB listening was particularly low in the Glasgow, Clyde and Lanarkshire area, at just 9%, possibly due to the higher number of people listening via DTV in this area.

Figure 3.11 Listening to radio via DTV, internet, mobile phone

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

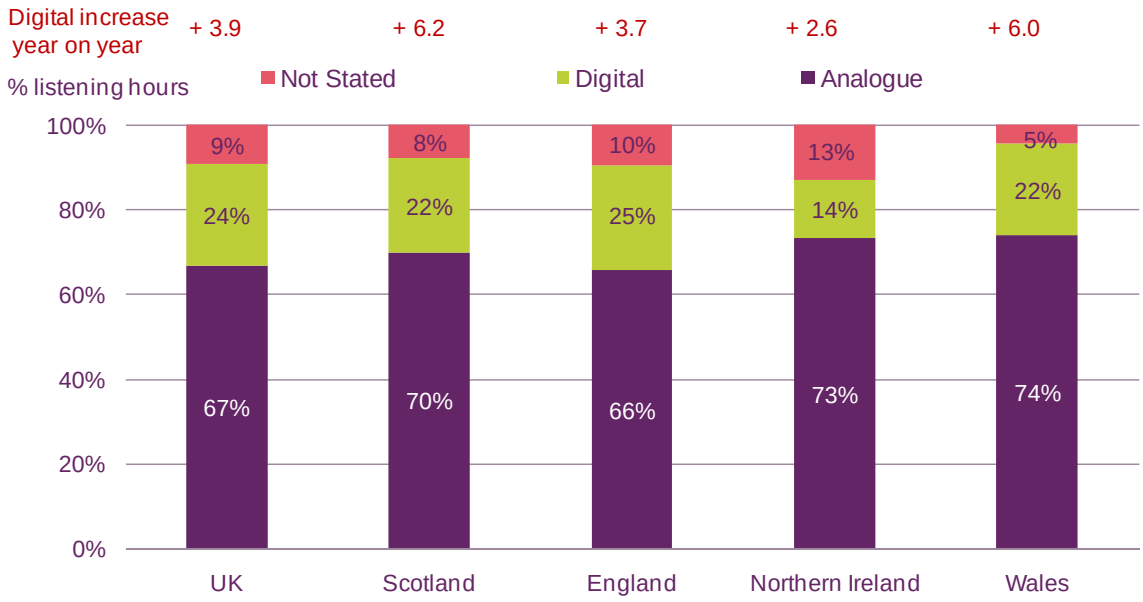


Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who listen to radio (n= 7017 UK, 854 Scotland, 4476 England, 1034 Scotland, 653 Northern Ireland, 623 Scotland urban, 231 Scotland rural, 251 South East Scotland, 277 South West Scotland, 326 North/ Mid Scotland)
QP3. How often, if at all, do you access the radio via – Digital radio via: TV, Internet, DAB radio, mobile phone?

Over a fifth (22%) of radio listening hours in Scotland are via digital platforms

In Q1 2010, radio listening via digital platforms (including listening via DAB set, DTV, or online), accounted for over a fifth (22%) of all radio listening hours in Scotland. It was up by six percentage points on the previous year, but was still two percentage points below the UK average digital share of 24% of hours. It was highest in England, where a quarter of all radio hours were via a digital platform, and lowest Northern Ireland at 14%. This reflected the general pattern of take-up and availability of digital radio across the nations (Figure 3.12).

Figure 3.12 Share of radio listening hours via digital and analogue platforms



Source: RAJAR / Octagon, Q1 2010
Note: 'Not Stated' category refers to listening where the respondent did not specify the platform used.

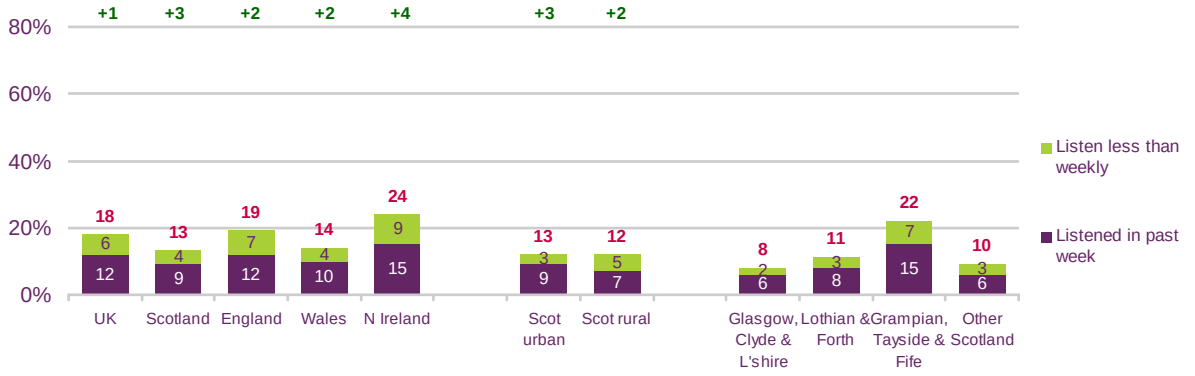
Listening to audio via mobile phone less popular in Scotland (13% of total) than across the UK (18%)

When asked to consider the wider range of audio content, such as digitally stored music and podcasts, as well as radio, 13% of adults in Scotland had used a mobile phone handset to listen to audio content such as radio, pre-recorded digitally stored music and podcasts. This reflects the versatility of phones as audio devices and the ease of listening to audio content without either paying data charges or needing lots of storage space. This figure was lower than the UK average of 18% (Figure 3.13).

In Grampian, Tayside and Fife, listening to music on a mobile phone was much more common than in the rest of Scotland. Almost a quarter (22%) of adults used a mobile phone in this way, with 15% having done so in the week when we asked them.

Figure 3.13 Use of a mobile phone to listen to audio

Proportion of respondents (%) who have used their mobile to listen to audio content
(Figure above bar shows % point change in likely to purchase from Q1 2009)



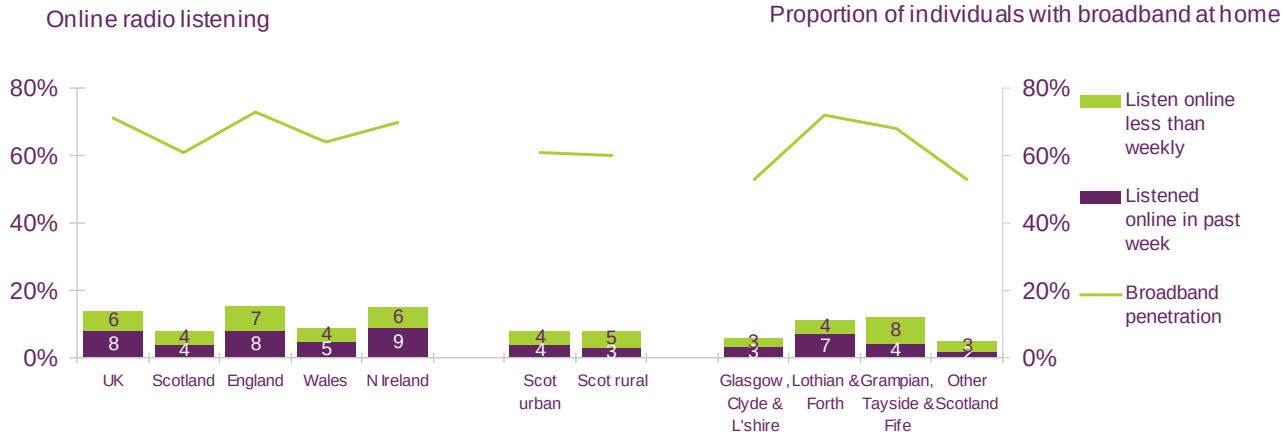
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland). QD28. Which, if any, of the following activities, other than making and receiving calls, do you use your mobile for?

3.1.7 Listening to music online

Frequency of listening to online radio is lower in Scotland than in England and Northern Ireland

Four per cent of respondents in Scotland said they listened to radio over the internet on a weekly basis, lower than the 8% average across the UK. A further 4% of listeners in Scotland said they listened online less than weekly (UK average 6%). Online listening was highest in Lothian and Forth Valley, with 7% listening weekly and 4% less frequently.

Figure 3.14 Proportion of respondents (%) who have listened to online radio



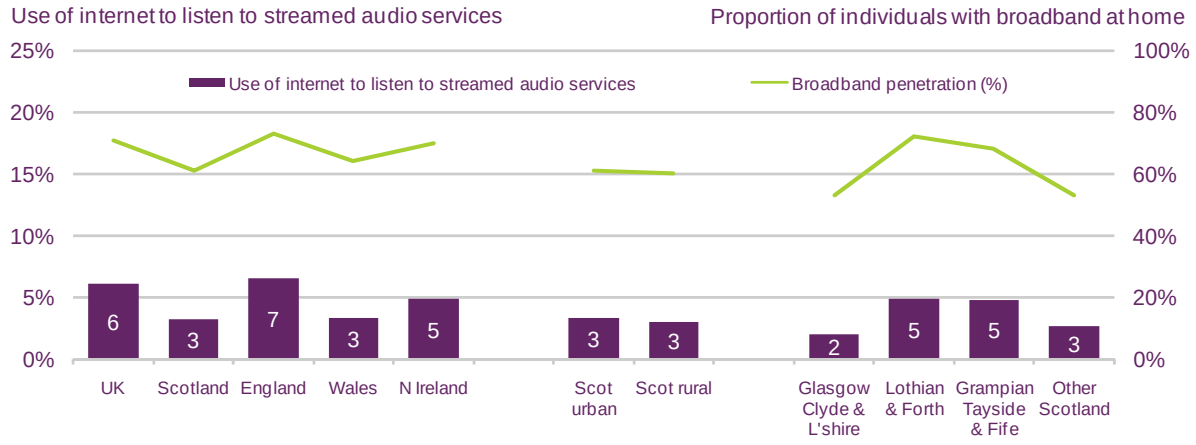
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1075 Scotland, 5709 England, 1468 Scotland, 761 Northern Ireland, 810 Scotland urban, 265 Scotland rural, 348 South East Scotland, 360 South West Scotland, 367 North/ Mid Scotland).
QE5A-B. Which, if any, of these do you or members of your household use the internet for whilst at home?/ And, which, if any, of these activities have you or members of your household used the internet for in the last week?

Listening to streamed audio services is still a niche activity

During the past year several on-demand streaming services have grown in popularity and profile as an alternative means of consuming music online. Instead of listening to online radio stations, or paying to download individual tracks from services such as iTunes, services such as Spotify, We7 and Last.fm allow users to stream music on demand to their computers (and in some cases mobile devices). The basic tier of these services is usually advertising-supported and provided to consumers free of charge. But most services also offer premium subscription tiers without adverts and with advanced or mobile functionality.

Streaming services have received significant media attention over the past year. But Ofcom research shows that take-up is still relatively low. Across the UK just 6% of consumers claim to have accessed these services using the internet. Take-up was lowest in Scotland and Wales (both at 3%), and higher in Northern Ireland (5%) and England (7%). In Scotland use of these services ranged from 2% in the Glasgow area to 5% in the Lothian and Grampian areas.

Figure 3.15 Use of the internet to listen to streamed music services



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)
QE10A. Which, if any, of these do you or members of your household use the internet for whilst at home?

3.1.8 Satisfaction with radio services

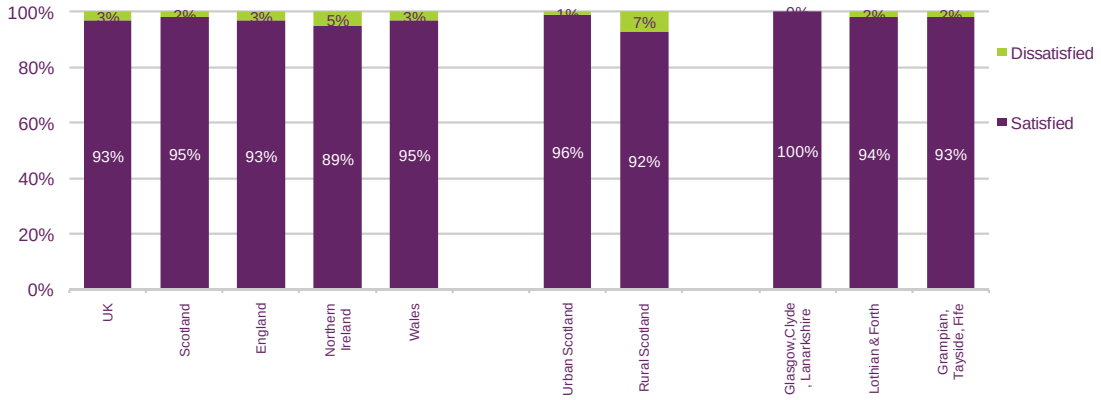
Satisfaction with choice of radio services high in Scotland

Satisfaction with the choice of stations available in Scotland was relatively high at 95%, and above the UK average of 93%, with only 2% of respondents in Scotland saying they were dissatisfied with station choice in their area. Satisfaction with station choice was, however, generally lower in rural areas, with 7% saying they were dissatisfied with local choice compared to only 1% in urban areas.

This was reflected in very high satisfaction in the Glasgow, Clyde, and Lanarkshire area, at 100%. Satisfaction levels in the Lothian and Forth Valley areas were also high, at 94% and Grampian, Tayside, and Fife at 93%. It was lower in the 'other' areas of Scotland, at 90% (Figure 3.16).

Figure 3.16 Satisfaction with choice of radio services

Proportion of radio listeners (%)



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who listen to radio (n= 7017 UK, 854 Scotland, 4476 England, 1034 Scotland, 653 Northern Ireland, 623 Scotland urban, 231 Scotland rural, 251 South East Scotland, 277 South West Scotland, 326 North/ Mid Scotland).
Note: Remaining percentages in chart are 'Don't know' answers.
QP4: How satisfied are you with the choice of radio stations available in you area?

The Communications Market in Scotland

4 Internet and web-based content

4.1 Internet and web-based content

4.1.1 Recent developments in Scotland

UK Digital Champion

In June, Martha Lane Fox was appointed by the Prime Minister as the UK Digital Champion.[21] Her role includes encouraging as many people as possible to get online in the lifetime of the Parliament, as well advising the government on how efficiencies can best be realised through the online delivery of public services.

In July, Race Online 2012, headed by Martha Lane Fox, launched a manifesto[22] for a 'Networked Nation'. The manifesto noted that one fifth of the population in the UK, 10 million people, are missing out on consumer savings, access to vital information and educational success as a result of not being online.

The manifesto called for urgent action to get millions more online by the end of 2012, with key roles for government, industry and charities and the aim "to get everyone of working age online by the end of this Parliament, so that everyone who then retires will have skills to enjoy the benefits of the web"[23].

Race Online 2012 aims to sign up 10,000 partner organisations and individual advocates to help achieve its goal of making the UK one of the first developed countries in the world to achieve near-total internet use by 2012.[24]

Digital Participation Scotland Network (DPSN)

This year saw the Media Literacy Network in Scotland evolve into the Digital Participation Scotland Network (DPSN).

Much of Ofcom Scotland's work went into strengthening the place of digital participation on the agenda in Scotland; politically, and among practitioners and policy makers. DPSN produced a strategy with the aim of generating discussion, and a list of actions to help broaden and deepen Scotland's digital engagement[25]. The result of this has been confirmation of a co-ordinating role at Ministerial level for digital participation and a number of other agencies coming forward with strategy documents and suggestions. This is a considerable step forward, and will help to mitigate changes to the entire digital participation programme at a UK level as a result of public spending cutbacks.

Given the role of libraries in Scotland in performing the same role as UK Online centres in England, it is important to understand more about their capacity and how other partners can support them.

[21] http://www.number10.gov.uk/news/statements-and-articles/2010/06/letter-of-appointment-to-martha-lane-fox-52045
[22] http://raceonline2012.org/manifesto
[23] http://raceonline2012.org/sites/default/files/resources/manifesto_for_a_networked_nation_-_press_release.pdf
[24] http://raceonline2012.org/why-get-involved
[25] http://digitalparticipation.com/sites/default/files/national-plan/Digital%20Participation%20in%20Scotland.pdf

Scottish Parliament Cross Party Group

A Scottish Parliament cross-party group (CPG) on digital participation was also launched, supported by Ofcom Scotland, to provide a political platform for the issues surrounding digital participation and digital inclusion. The group provides a forum for MSPs to engage with a range of organisations on issues relating to digital participation. It will provide an opportunity to consider how best Scotland can maximise the social and economic benefits derived from the development of digital technologies.[26]

Following the publication of the DPSN Strategy document and the re-scoping of the digital participation project, it was decided to merge the DPSN hub and members of the cross-party group, as some of their functions overlapped. The CPG partners will run events and projects as and when required, while maintaining the CPG as a platform for sharing best practice, looking at the broader digital agenda and showcasing innovative projects and ideas.

Health portal

A new secure website allowing patients to access and update their own health records online was launched in a £175,000 pilot earlier this year in Ayrshire and Arran. The online Patient Portal is being trialled in two GP practices - Townhead Surgery in Irvine and the Kilwinning Medical Practice. It allows registered patients to log in from their own home - or anywhere else with an internet connection - to undertake a number of tasks, such as booking appointments online or monitoring their blood pressure.

Firelink

Scotland's eight fire and rescue services have become the first in Britain to begin operating a new state-of-the-art digital communication system.

The Firelink system is now operational in over 1,100 fire service vehicles and 368 fire stations nationwide, coordinating emergency responses using both voice and data communication. The £38m Scottish Government-funded system is part of a UK-wide project and will cover 90,000 square miles, from urban areas to the most remote rural communities.

Caledonian Mercury Launched

The Caledonian Mercury is Scotland's first truly online national newspaper, featuring unique content from specialist writers in Scotland. It was launched in January 2010 and is read by 150,000 users a month, from Scotland, England and the US. In the 2010 UK Newspaper Awards, it was “Highly Commended” in the Best Digital Service category, alongside the Guardian[27].

4.1.2 Broadband take-up

The growth of the internet has provided another platform over which content can be delivered to consumers. Rapid take-up of fast broadband connections means that the majority of households can now receive content in this way (though by no means all do). As a result, in recent years the internet has had a significant impact on how content can be consumed. For example:

- it allows **existing services** such as some government services, banking and other information services to be delivered to citizens and consumers online; and

[26] http://www.scottish.parliament.uk/msp/crosspartygroups/DigitalParticipation.htm
[27] http://www.newspaperawards.co.uk/index.php?pid=6

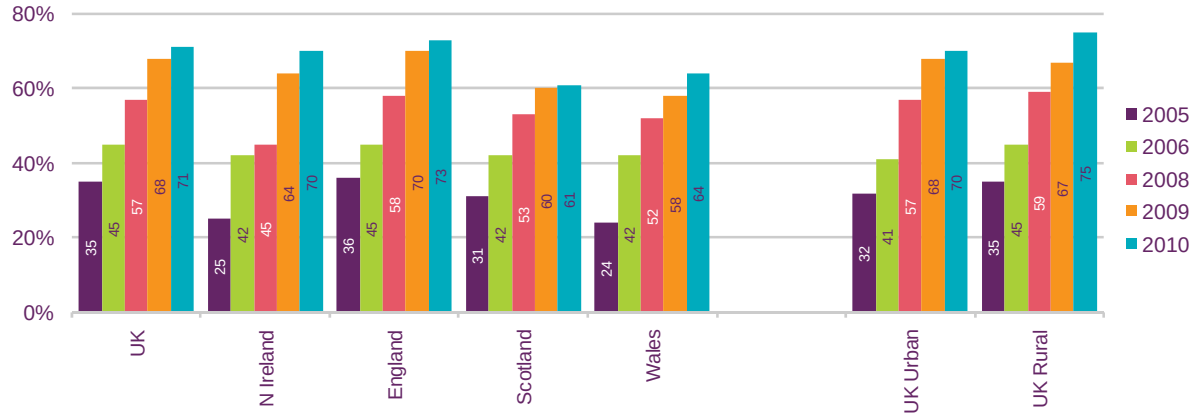
- it has allowed **new, specifically internet-based forms of content** to emerge (such as social networking sites, blogs and other user-generated content).

Scotland has the lowest level of broadband penetration in the UK, at 61%

Figure 4.1 shows that despite take-up having doubled in the last five years, Scotland has the lowest level of broadband take-up in the UK, at 61%.

But within Scotland take-up varies widely (see Figure 5.12, page 117). In Lothian and the Forth Valley, take-up is on a par with the UK average, at 72%, but in the Glasgow, Clyde and Lanarkshire region it is significantly lower at 53%. This is consistent with findings in previous years, when we identified that take-up of broadband in the city of Glasgow was among the lowest in the UK. There is little difference in take-up between rural and urban areas.

Figure 4.1 Broadband take-up trend in Q1, 2005-2010



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK)
QE9. Which of these methods does your household use to connect to the internet at home?
Source: Ofcom research, Q1 2005 - 2010

In common with the rest of the UK, internet take-up in Scotland is higher among younger people than among older consumers, and higher in ABC1 social groups than C2DEs.

Mobile broadband is especially high in Grampian, Tayside and Fife

Over one in ten adults (12%) in Scotland use a mobile broadband connection (either through a USB 'dongle' or a similar device built-in to a laptop), with that number rising to almost one in five (18%) in the Grampian, Tayside and Fife area.

Figure 4.2 Mobile broadband take-up

Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QE9. Which of these methods does your household use to connect to the internet at home?

Across the UK awareness of mobile broadband services is increasing (Figure 4.3), and in Scotland just over six in ten adults (61%) say they are aware of these services. Awareness is higher in urban areas and highest in Lothian and Forth Valley (at 71%). Awareness is also higher in urban areas of Scotland than rural areas.

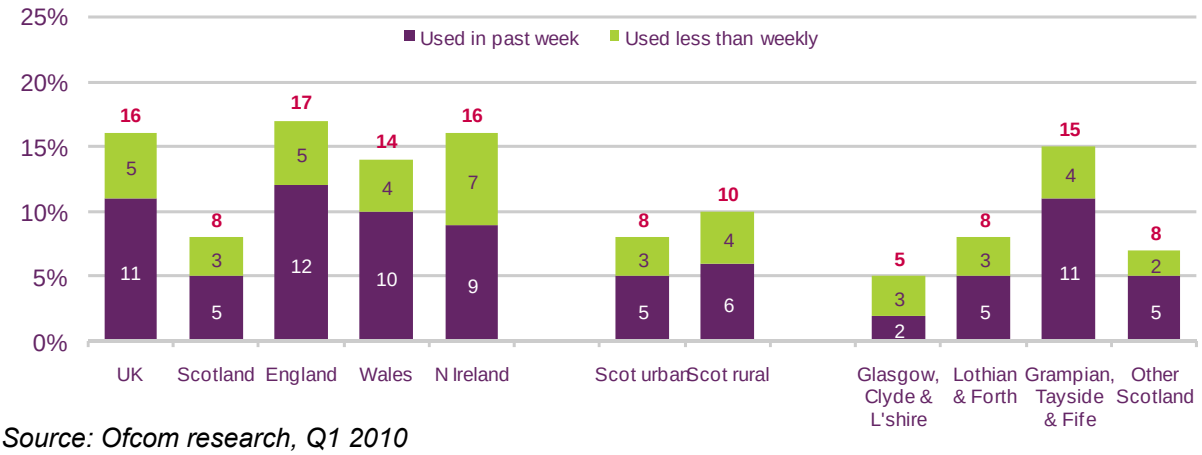
Figure 4.3 Awareness of mobile broadband

Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QE21. Before now, were you aware that you can access broadband services on your PC or laptop by using a mobile network?

At 8%, Scotland has the lowest proportion of people who have accessed the internet via a mobile phone

The proportion of adults in Scotland who have accessed the internet using a mobile phone is below the UK average (8% compared to 16% across the UK) (Figure 4.4). In Grampian, Tayside and Fife 15% claimed they have accessed the internet in this way, with 11% having done so in the past week.

Figure 4.4 Proportion of adults who have used a mobile phone to access the internet



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QD28. Which, if any, of the following activities, other than making and receiving calls, do you use your mobile for?

Non-ownership of broadband

There are a variety of reasons why people may not have the internet, 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 comes about where consumers do without a service, but not through choice; this is mainly due to cost and availability. In the following analysis, where consumers gave multiple responses which fell into both categories, these have been reported as 'involuntary'.

In Scotland 15% of adults said that they did not have access to the internet at home for involuntary reasons such as cost or lack of availability - the highest number of any UK nation and above the UK average of 9%. There was little difference in reasons for non-ownership of the internet between rural and urban areas. Involuntary non-ownership of internet services was highest in 'other' Scotland (18%), which includes areas such as the Highlands and Islands, Dumfries and Galloway and the Borders.

Figure 4.5 Non-ownership of internet services

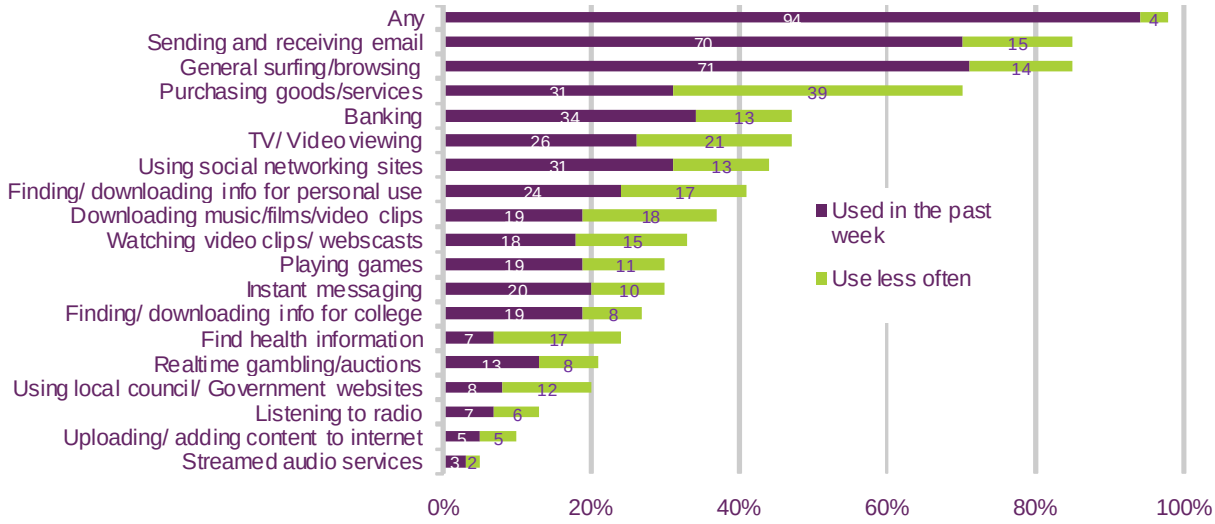
QE24. How likely is it that your household will get internet access at home in the next 12 months?/ QE25. Why are you unlikely to get internet access at home in the next 12 months?
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth , 363 Grampian Tayside & Fife, 380 other Scotland)

4.1.3 Regional use of the internet to access services

Sending emails and web browsing are the most popular internet activities in Scotland

Broadband users in Scotland use the internet for a variety of activities, as shown in Figure 4.6. The most common internet uses are sending/receiving email (85%) and general surfing/browsing (85%). However, many of Scotland's broadband users also use higher-bandwidth services such as streaming video content (51%) and downloading audio and video files (37%).

Figure 4.6 Use of online applications among Scotland's broadband users



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QE5. Which, if any, of these do you or members of your household use the internet for while at home?

Increasingly, people with a broadband connection are going online to access and engage in activities that historically were conducted 'off-line'. Accessing services and content in this

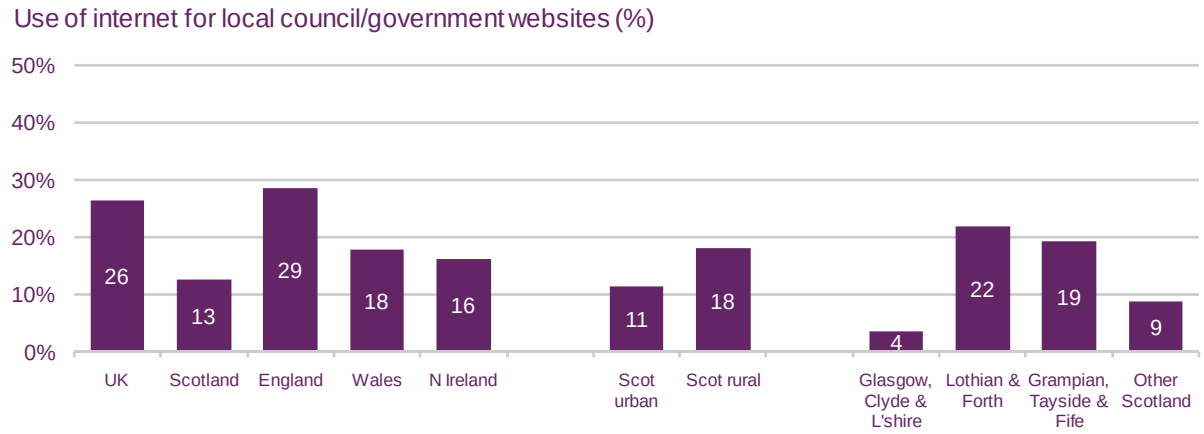
way has the potential to bring benefits to consumers in terms of time and money saved, and enhanced service interactivity and functionality. For the first time in this report we present some of the findings of our consumer research into three of these topics: accessing government services, online banking, and accessing information on health-related issues.

People in Scotland are less likely to use the internet to access government services

Almost all local, regional and central government departments, agencies, executives and bodies have a presence online. And as well as providing information, some services such as driving licence renewal are increasingly being delivered online. Looking at the regional coverage (or proportion of unique online persons) of government websites is one way of assessing engagement with these services in the nations and regions.

Ofcom research shows that across the UK, 26% of adults with internet access at home visited a government or local council website in Q1 2010. In Scotland the figure stood at 13%, the lowest of any nation in the UK. Within Scotland, claimed use of government services online varied widely. Twenty-two per cent of people in Lothian and Forth Valley claimed to use these sites, close to the UK average of 26%. But in Glasgow, Clyde and Lanarkshire the figure was just 4%, most likely due to lower broadband take-up in this area. People in rural areas of Scotland appeared slightly more likely to access these sites than those in urban areas, by 18% to 11%.

Figure 4.7 Use of the internet to access local council/government websites



QE5A-B. Which, if any, of these do you or members of your household use the internet for whilst at home?
Source: Ofcom research, Q 1 2010
Base: Adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)

Three in ten households in Scotland use online banking services (compared to 43% across the UK)

Online banking allows people to manage their money from the comfort of their own homes, allowing them to check balances, pay bills, open accounts and transfer money.

Our research shows that across the UK, just over four in ten (43%) people visited a banking website in the first quarter of 2010. Use of these sites was highest in England (45%), followed by Wales and Northern Ireland (36%). In Scotland just under three in ten (29%) people claimed to use these sites.

People in rural areas of Scotland were much more likely to claim to use online banking than those in urban areas (by 37% to 27%). This may be because people in urban areas have better access to high street branches of banks and so feel less need to do their banking online.

The data suggest that a number of internet users are not using online banking regularly. This may be because of concerns about security, the less than universal penetration of formal banking services, and the fact that under-18s are less likely to have a bank account.

Figure 4.8 Use of the internet to access banking websites

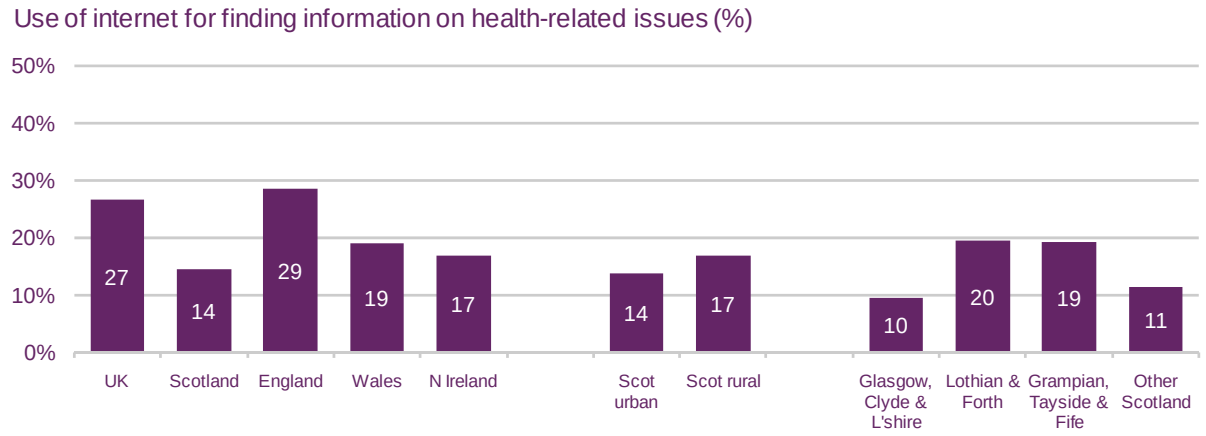
QE5A-B. Which, if any, of these do you or members of your household use the internet for whilst at home?
Source: Ofcom research, Q1 2010
Base: Adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)

In Scotland 14% of households claim to visit websites for health-related information (compared to 27% across the UK)

The internet has also had an impact on the provision of information about health issues. It offers information providers a way to reach their target audience easily and cheaply, and it offers individuals a vast array of information on almost any health issue. This brings both advantages and disadvantages. For instance, during the swine flu outbreak, concerned individuals could get advice through portals like *NHS24.com,* which may have kept some infectious individuals away from surgeries. But the sheer amount of available information on the internet has also raised concerns about inaccurate self-diagnosis.

Twenty-seven per cent of internet users in the UK claimed to use the internet to find health information. The figure ranged from 14% in Scotland to 29% in England. Within Scotland, there was little difference between rural (17%) and urban (14%) areas. Use of the internet to find health-related information was lowest in Glasgow, Clyde and Lanarkshire (10%) and highest in Lothian and Forth Valley (20%).

Figure 4.9 Use of the internet to access information on health-related issues



QE5A-B. Which, if any, of these do you or members of your household use the internet for whilst at home?
Source: Ofcom research, Q1 2010
Base: Adults aged 15+ (n= 9013 UK, 5709 England, 1468 Scotland, 1075 Wales, 761 Northern Ireland)

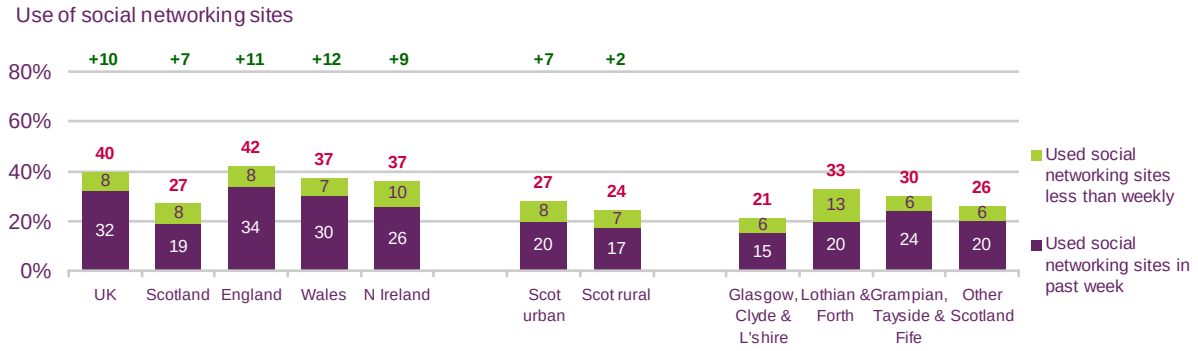
4.1.4 Social networking

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.

The use of social networking sites in Scotland has increased since 2009 (by seven percentage points) but people in Scotland were still less likely than anyone else to use one (27% compared to the 40% UK average). Use was slightly higher in urban areas, with use in Lothian and Forth Valley the highest in Scotland, at 33%. The majority of those who accessed these sites did so frequently (19% of adults in Scotland had used one in the past week).

Our UK report shows that Facebook is the most popular SNS by some distance, and is likely to be responsible for much of the growth found in our research. All major SNS have now been optimised for mobile phones, and it is likely that this will be an area of future growth, particularly as smartphones become more widespread.

Figure 4.10 Number of households where someone has used a social networking site



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QE5a. Which, if any, of these do you or members of your household use the internet for whilst at home?

The Communications Market in Scotland

5 Telecoms and networks

5.1 Telecoms and networks

5.1.1 Recent developments in Scotland

BT's fibre-based broadband now available to more than 30,000 homes and businesses

An increasing number of areas in Scotland now have access to BT's super-fast broadband; fibre-to-the-cabinet (FTTC) technology that delivers download speeds of up to 40Mbit/s – with the prospect of 60Mbit/s in the future. Upload speeds will also be faster. These will enable households to run multiple bandwidth-hungry applications at the same time. For example, some members of a family could be watching different high definition (HD) movies, while others are gaming or working on complex graphics or video projects. Music tracks could potentially be downloaded in less than five seconds.

By the end of July 2010, BT had upgraded 11 exchange areas in Scotland:

- Halfway, Western, Bridgeton, Giffnock, Newton Mearns and Bothwell in the Glasgow area;
- Dean, Corstorphine and Craiglockhart in Edinburgh;
- Livingston Station, and
- Dalgety Bay.

Dunfermline is due for completion by the end of August.

The total number of homes passed in Scotland is around 82,000, with a further 20,000 to be added when Dunfermline is completed[28].

Improving broadband access

In a separate project, BT is investing £3m in a programme of upgrades to 81 rural and remote exchanges across Scotland, which are all experiencing capacity issues. The programme, which is now three-quarters complete, is scheduled to be complete by the end of November 2010.

On 1 July 2010, the Cabinet Secretary for Rural Affairs and the Environment announced that rural communities will be able to bid for a share of a €1m fund to bring enhanced broadband to their areas. The new investment is being delivered by the LEADER scheme which supports small-scale, community-driven projects in rural areas and is aimed at improving coverage and bringing faster broadband to rural communities.

Pathfinder now live

In February 2010 the Pathfinder North network, a seven-year, £70m contract, part-funded by the Scottish Government, went live. This connects 801 sites between five Highlands and Islands local authorities: Moray, Argyll and Bute, Orkney Islands and Shetland Islands. As a result of this project, these five authorities have been able to move closer to providing connectivity that enables all schools, libraries and council office sites to benefit from high-speed broadband. The next-generation network, run on the Cable & Wireless Worldwide IP

[28] Source: BT Scotland

virtual private network (VPN), allows teachers to share resources and children to learn in new ways, such as accessing online libraries and video conferencing with subject experts.

Connected Communities

The Connected Communities broadband network in the Outer Hebrides is one of the largest wireless networks in the UK, providing broadband services to people in eleven islands spanning over 200 kilometres. Coverage includes many of the smallest villages and hamlets on the islands, including the village of Rhenigidale in the Isle of Harris. Due to the village's remoteness and the surrounding mountainous terrain, broadband is now provided by a combination of underground fibre and wireless. As well as enhancing coverage within the Connected Communities area, the service provides broadband to many areas already enabled by BT, but which are so far from an exchange that it would not be possible to receive ADSL services.

The network connects hospitals, schools, health centres, fire services, airports and learning centres, as well as business and residential subscribers. Transport Scotland has recently delivered an integrated solution across the network to serve many of the transport hubs on the islands. This allows ticketing machines on buses to synchronise data on passenger numbers and fare categories on each route, which in turn automates payments to bus operators for subsidised fares.

Airwave in Strathclyde Partnership for Transport Subway

Glasgow's subway is the world's third oldest underground railway, after London and Budapest. It forms a small circle in the centre-west of Glasgow, with fifteen stations over a 10 km route constructed with twin tunnels.

By 2006 its existing sub-surface radio system was obsolete, and it needed a new communications system. SPT Glasgow Subway decided that a single TETRA (Terrestrial Trunked Radio) Communications system, encompassing interoperability, was the solution.

SPT-GS applied to Ofcom and obtained all the licences necessary to operate an encrypted Airwave TETRA system within the Glasgow subway, to enable operational and emergency communications.

Migration to this digital system is well advanced and trains are now fitted with Airwave cab radios which give good quality communications to the control room. Airwave handsets are being introduced for station staff, engineering staff and management. They will enable effective communications in co-ordinating and improving the service to the public on a daily basis and help greatly in the case of major incidents.

5.1.2 Availability

Fixed voice telephony and narrowband internet availability

Fixed voice telephony over the public switched telephony network (PSTN) is available to all of the UK population under the universal service obligation (USO) which is provided by BT and Kingston Communications, the incumbent operator in Kingston upon Hull. Under the USO, BT and Kingston Communications are required to provide a connection to the fixed telephony network upon reasonable request, meaning that all households have access to a fixed line, although where installation will cost over £3,400 the customer is required to pay the excess costs (plus the standard connection charge).

A narrowband internet connection is defined as one which has a connection speed of less than 128kbit/s, which is not 'always on' and which does not allow simultaneous voice calls. The USO also includes the provision of a narrowband connection capable of 'functional internet access', i.e. a connection speed of at least 28.8kbit/s.

The requirements to connect to the internet using a narrowband connection are a standard fixed telephony line, a suitably equipped PC and a narrowband account with an internet service provider. The availability of narrowband internet access is therefore virtually identical to that of fixed telephony services and there are no significant issues regarding the availability of narrowband internet services in the UK.

Broadband internet availability

Narrowband internet connections have largely been superseded by higher-bandwidth broadband connections, and we estimate that at the end of 2009 around 92% of UK residential internet connections were broadband, compared to 42% five years earlier.

In the UK the two main technologies for supplying broadband internet services are a digital subscriber line (DSL) over a standard copper telephone line connected to a DSL or LLU-enabled local exchange, or a cable modem connected to a cable provider's hybrid fibre-coaxial network. The first UK fibre deployments are currently being rolled out, but these account for only a small proportion of total UK broadband connections, as do those using satellite and fixed wireless technologies, which are typically used in remote areas, or to fill coverage not-spots.

DSL broadband availability

Almost all homes in Scotland are connected to a DSL-enabled local exchange but not all of these will be able to receive broadband

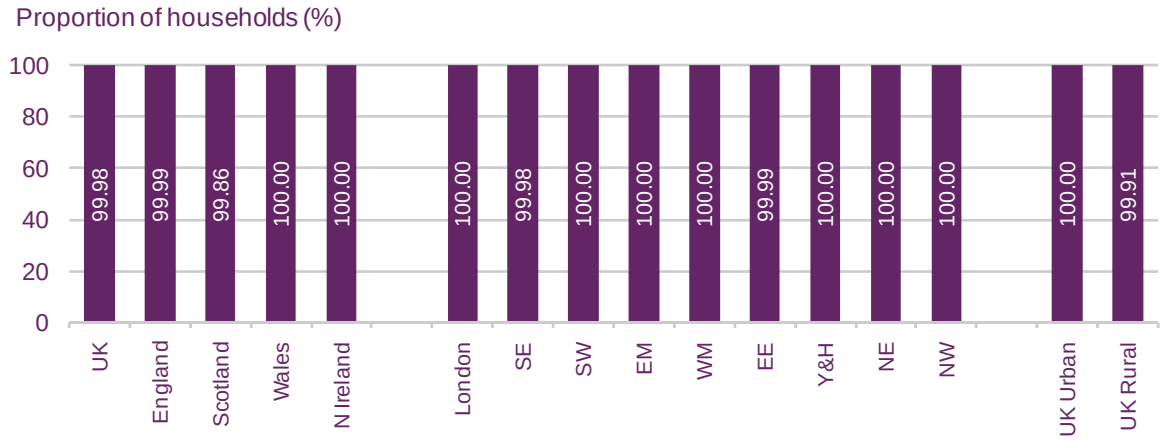
As the UK availability of DSL broadband is higher than that of cable-based services, it provides a good proxy for overall broadband availability. At the end of December 2009 over 99.9% of UK households were connected to a DSL-enabled BT local exchange (Figure 5.1) and only 27 of BT's 5,587 local exchanges were not DSL-enabled (down from 28 at the end of 2008).

In Scotland over 99.8% of homes were connected to a DSL-enabled local exchange at the end of 2009, a slightly lower proportion than the UK average of 99.98%. Wales and Northern Ireland were the only nations where all local exchanges were DSL-enabled, and Scotland had the lowest proportion of households that were connected to a DSL-enabled exchange.

However, not every household served by a DSL-enabled exchange will be able to receive broadband services, or may only be able to do so at low speeds. This is due to factors such as the distance from the exchange, poor network quality and local technicalities. People

living in these areas (known as not-spots) will not be able to fully benefit from the rapidly growing number of online services that require higher connection speeds, such as the streaming of audio-visual content. Not-spots are considered in more depth in section 1.4 of this report.

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



Source: Ofcom / BT, December 2009 data

LLU broadband availability

Under LLU an alternative provider sites its own equipment in the BT (or Kingston Communications) local exchange. This is then connected to the LLU provider's core network and to the end-user's premises using the local loop, which is leased from either BT or Kingston Communications and is used to provide DSL broadband services (and fixed voice services in the case of full LLU). There are three main benefits to LLU:

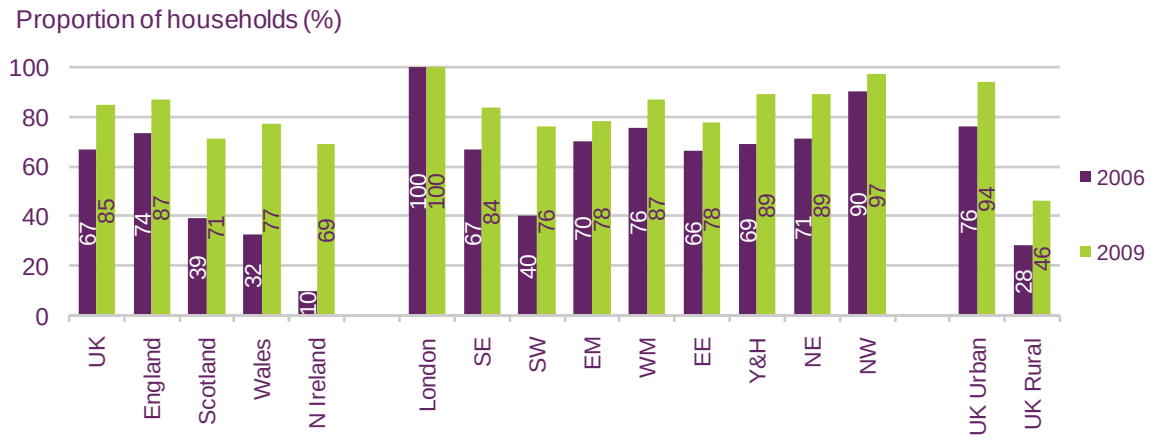
- it allows the LLU provider to take advantage of economies of scale that are not available to it when using wholesale services from BT or Kingston Communications purchased on a per-unit basis;
- it enables LLU providers to be more innovative with their products and tariffs; and
- it increases the choice of services available to the end-user.

At the end of 2009 LLU-based connections accounted for 35% of all UK non-corporate broadband connections, up from 32% a year previously, and in 2009 LLU accounted for 90% of net non-corporate broadband additions.

85% of UK homes are connected to an LLU-enabled local exchange

At the end of December 2009, 85% of UK households were connected to an LLU-enabled local exchange (Figure 5.2), less than one percentage point higher than the figure at the end of 2008 and up from 67% three years previously. Scotland had the third-highest proportion of households connected to an LLU-enabled exchange among the UK nations at the end of December 2009, at 71%. This represented a 32 percentage point increase since the end of 2006, the third-highest growth among the UK nations over the period.

Figure 5.2 Proportion of households connected to an unbundled exchange, 2006 and 2009



Source: Ofcom / BT, data as at December of each year

Urban households more than twice as likely as rural ones to be able to access LLU broadband services

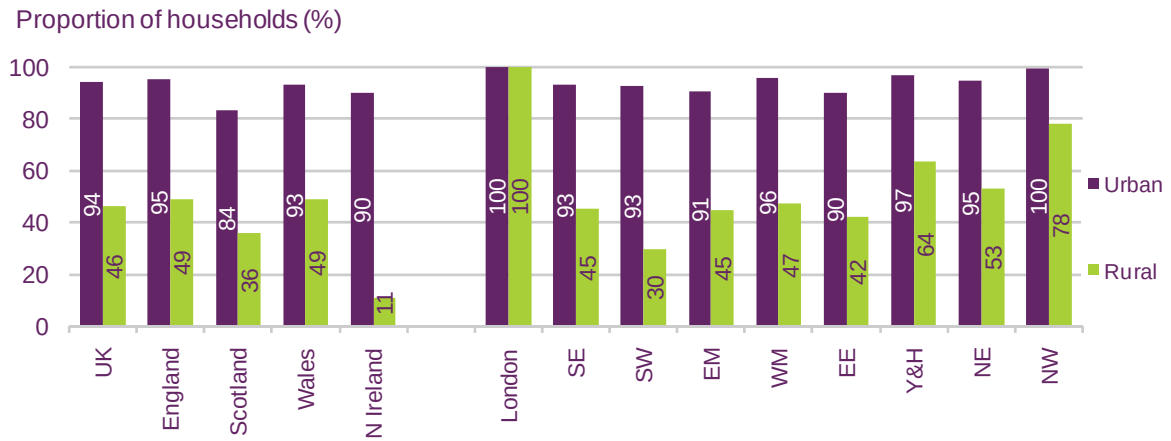
The availability of LLU-based DSL broadband services is higher in urban areas than rural ones. There are two reasons for this. Firstly, LLU deployment is characterised by high up-front costs and low per-unit costs, so operators have targeted exchanges with a large number of delivery points (which tend to be in urban areas) and secondly, because the maximum distance over which LLU broadband equipment can be backhauled to an operator's core network is approximately 40km (around 25 miles).

The results of this can be seen in Figure 5.3, which shows that at the end of December 2009, homes in urban areas were more than twice as likely as those in rural ones to be able to get LLU-based broadband services, with 94% of urban UK homes being in an unbundled area compared to 46% in rural areas.

The availability of LLU broadband services is higher in urban than rural areas in all of the UK's nations and regions, with the exception of London. The analysis used in this report designates an exchange area as being urban or rural according to where the exchange is cited, and in some cases this designation will differ from that of the area covered by the exchange. This is why several urban areas of London are classed as being rural in our analysis.

Among the UK nations, the proportion of urban homes connected to an LLU-enabled exchange ranged from 84% in Scotland to 95% in England, while in rural areas the proportion was lowest in Northern Ireland at 11% and highest in England and Wales at 49%. The comparatively low availability of LLU in both urban and rural areas of Scotland is partly due to the fact that, on average, exchanges in Scotland serve a lower number of households than in the other nations, making them less attractive to LLU providers.

Figure 5.3 Proportion of households in urban and rural areas connected to an unbundled exchange

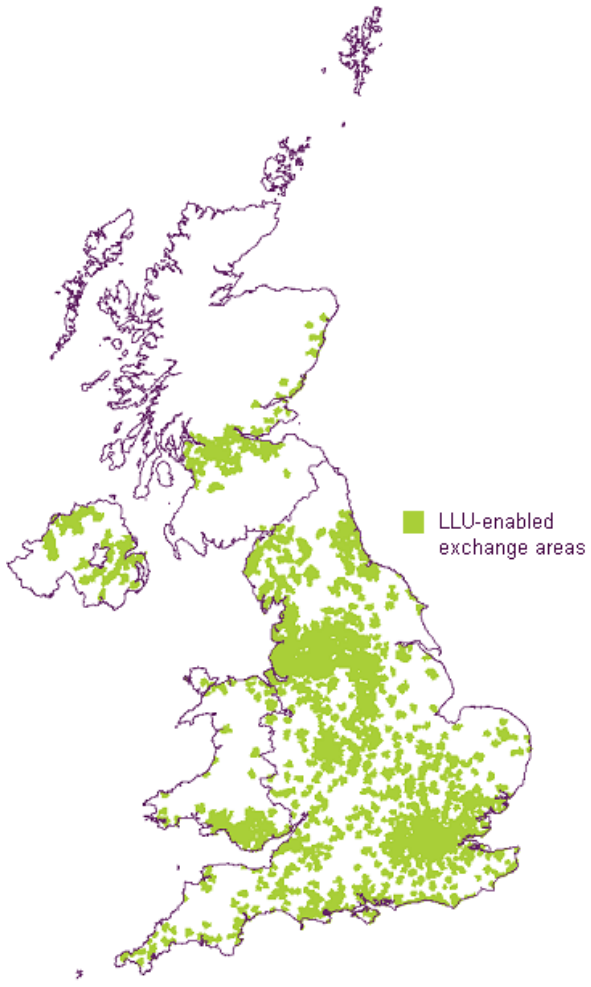


Source: Ofcom / BT, December 2009 data

Map of LLU DSL availability reflects higher availability in urban areas

The map in Figure 5.4 shows that the areas served by unbundled local exchanges tend to be in urban locations.

Figure 5.4 Map showing areas served by unbundled local exchanges



Source: Ofcom / BT, September 2009 data

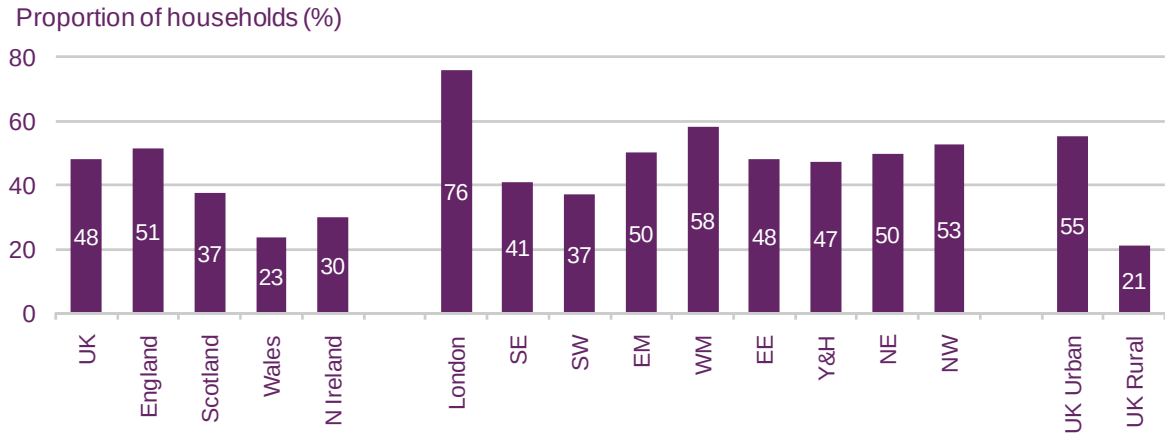
Cable broadband availability

Scotland had the second-highest cable broadband availability among the UK nations at the end of 2009

Just under half of all UK households (48%) were passed by Virgin Media's broadband-enabled cable network at the end of December 2009 (Figure 5.5). This figure has remained relatively stable over the past few years, as the high costs related to cable network roll-out have meant that Virgin Media has concentrated its efforts on upgrades to its existing network and increasing take-up in cabled areas. However, it is investing £100m on expanding its network to a further 500,000 homes and has announced[29] that it is to trial delivering broadband services over telegraph poles, having identified more than a million UK homes that could benefit from such deployments.

Among the UK nations, Scotland had the second-highest proportion of homes passed by Virgin Media's broadband network at the end of 2009, at 37%, while the proportion was highest in England at 51% and lowest in Wales at 23%. It is unclear as to where in the UK any future Virgin Media broadband network rollout will take place.

Figure 5.5 Proportion of households passed by Virgin Media broadband



Source: Ofcom / Virgin Media, December 2009 data

Scotland has the second highest proportion of both urban and rural homes passed by Virgin Media's cable broadband network

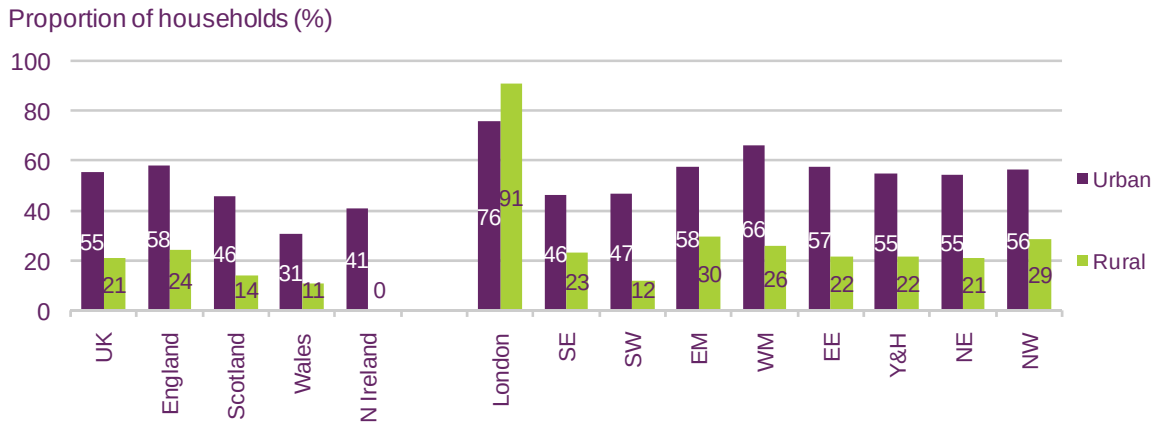
The majority of cable network roll-out in the UK took place in the 1980's and 1990's and was concentrated in urban areas in order to maximise the number of homes and businesses covered, and therefore turnover, for the operator's network spend. Figure 5.6 shows that 55% of UK households in urban areas were passed by Virgin Media's broadband network at the end of 2009, but it passed only 21% of households in rural areas.

In all of the UK nations and regions except London, broadband availability was higher in urban areas than in rural areas (for the data categorisation reason identified previously). Among the UK nations the proportion of urban households passed by Virgin Media's cable broadband network was highest, at 58%, in England, and lowest, at 31%, in Wales. Similarly, the proportion in rural areas ranged from 24% in England to 0% in Northern

[29] http://pressoffice.virginmedia.com/phoenix.zhtml?c=205406&p=irol-newsArticle&ID=1401380&highlight=

Ireland. In Scotland 46% of urban homes and 14% of rural ones were passed by Virgin Media's cable broadband network, the second highest proportion for each.

Figure 5.6 Proportion of households in urban and rural areas passed by Virgin Media broadband

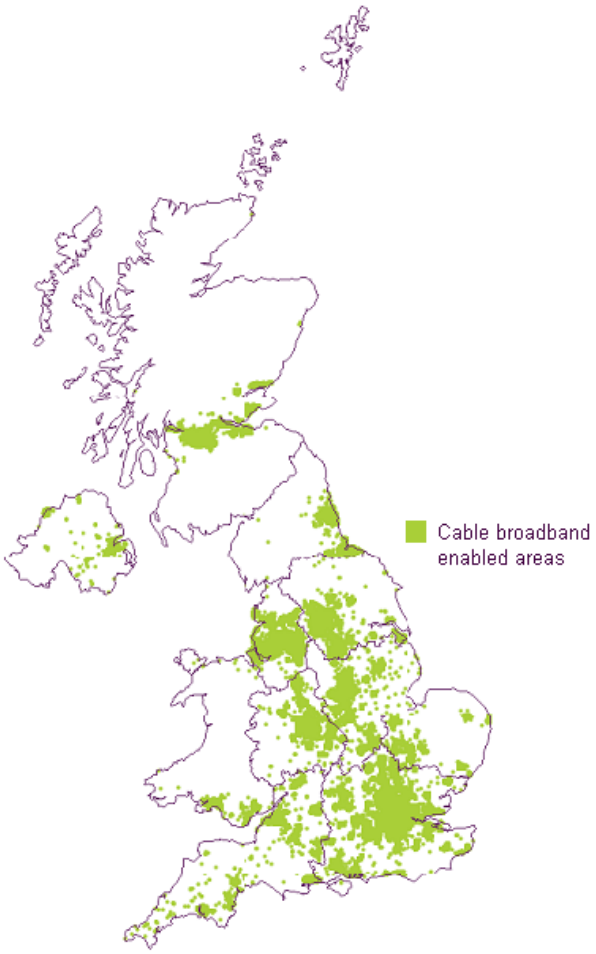


Source: Ofcom / Virgin Media, December 2009 data

As with LLU DSL, cable broadband availability is concentrated in urban areas

Similarly, the map in Figure 5.7 below shows that cable availability is concentrated in urban areas.

Figure 5.7 Map of the availability of Virgin Media cable broadband



Source: Ofcom / Virgin Media, September 2009 data

Mobile

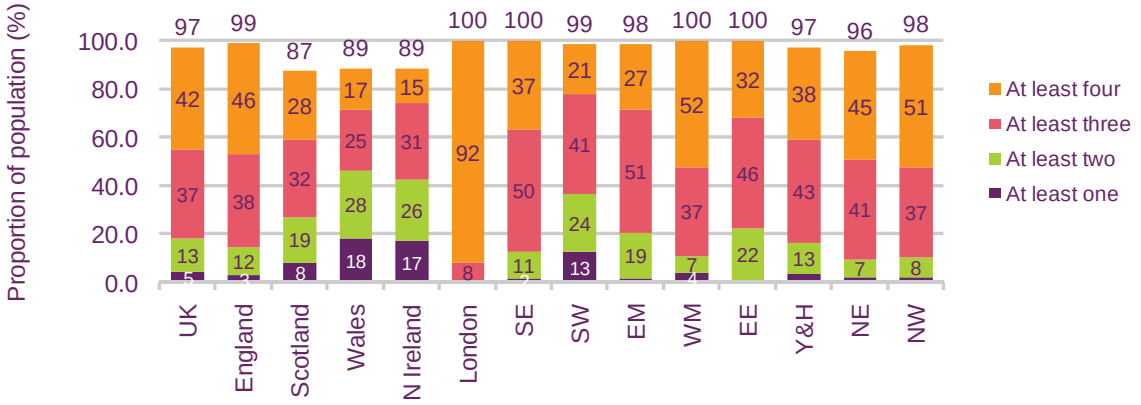
2G

As discussed in our coverage of not-spots in section 1.4 in this report, we evaluate the availability of mobile telephony across the UK by examining the number of mobile networks with second-generation (2G) and third-generation (3G) coverage in each postcode district.

Figure 5.8 shows that 87% of the population in Scotland lived in a postcode district with at least 90% 3G area coverage from one or more of the mobile networks in Q2 2010. This is lower than the UK overall (97%), England (99%), Wales (89%) and Northern Ireland (89%).

Within those areas in Scotland with at least 90% coverage, two-thirds have the choice of three or four operators providing area coverage above the threshold, while the remainder are limited to one or two operators.

Figure 5.8 2G mobile phone population coverage, by number of operators

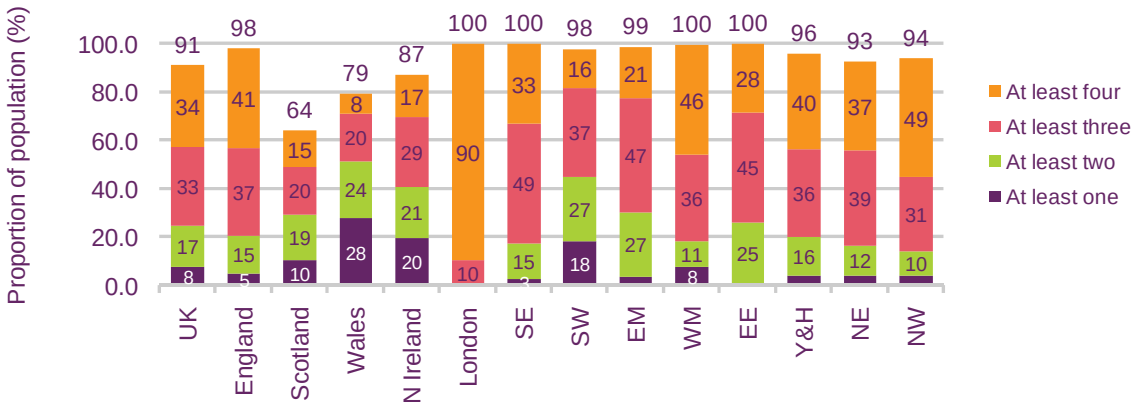


Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of population within postcode districts where at least one, two, three, four or five operators had at least 90% 2G area coverage; data not directly comparable to those published in the 2009 report.

Figure 5.9 shows the geographic coverage of 2G services (using the same 90% area coverage threshold) with 64% of postcode districts within Scotland covered by one or more mobile networks; 23 percentage points lower than population coverage. Scotland had the lowest geographic coverage among the nations, below Wales (79%), Northern Ireland (87%) and England (91%).

Just under half (45%) of postcode districts with 90% area coverage in Scotland were served by one or two providers, with the remaining 55% receiving 2G area coverage from three or four providers.

Figure 5.9 2G mobile phone geographic coverage, by number of operators



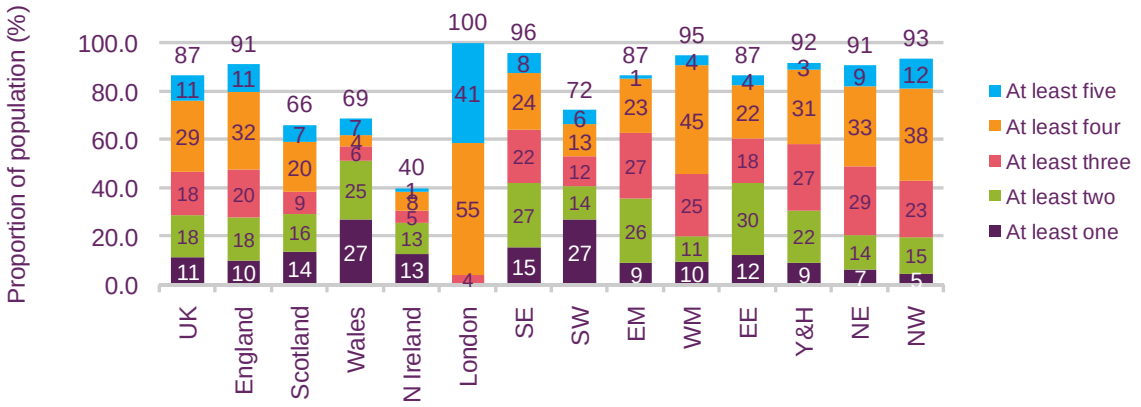
Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of postcode districts where at least one, two, three, four or five operators had at least 90% 2G area coverage; data not directly comparable to those published in the 2009 report.

3G

Figure 5.10 shows that 66% of the population in Scotland lived in a postcode district with at least 90% 3G area coverage from one or more of the mobile networks in Q2 2010; lower than England (91%) and Wales (69%), but higher than Northern Ireland (40%). Less than half (44%) of those covered in Scotland were limited to one or two providers exceeding the

threshold, while the remainder were living in an area where three or more providers offered 90% 3G area coverage.

Figure 5.10 3G mobile phone population coverage, by number of operators

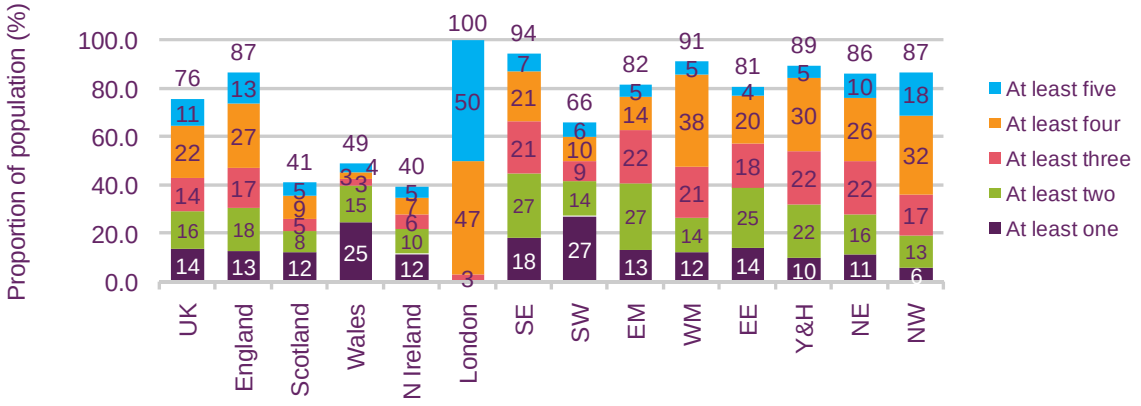


Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of population within postcode districts where at least one, two, three, four or five operators had at least 90% 3G area coverage; data not directly comparable to that published in the 2009 report.

Figure 5.11 shows the geographic coverage of 3G services by one or more mobile networks above the 90% threshold. Forty-one per cent of postcode districts in Scotland had 3G area coverage from one or more mobile networks, lower than the UK overall (76%) and Wales (49%), but higher than Northern Ireland (40%).

Just under a third (29%) of the covered districts in Scotland had 3G coverage at a 90% area threshold from just one 3G network, while one in three had coverage from at least four operators or more.

Figure 5.11 3G mobile phone geographic coverage by number of operators



Source: Ofcom/ GSM Association / Europa Technologies; Q2 2010
Note: Figures show the percentage of postcode districts where at least one, two, three, four or five operators had at least 90% 3G area coverage; data not directly comparable to that published in the 2009 report.

5.1.3 Service take-up

Fixed line take-up is lower in Scotland than the UK average

Household take-up of fixed-line telephony in Scotland is the same as in Wales (79%) and is lower than the UK average (85%) (see Figure 5.12).There was a significant difference in

fixed-line take-up between Scotland's urban (77%) and rural areas (88%). This is consistent with the higher use of fixed-line telephony in rural areas across the UK, with a greater proportion of homes in urban areas being solely reliant on mobile telephony. In part this may be due to a greater proportion of rented and shared accommodation in urban areas, where residents are more likely to rely on mobile telephony alone (mobile telephony is typically an individual purchase, whereas fixed telephony is a household purchase).

In general, younger households and households in lower socio-economic groups are more likely to be mobile-only, and a higher proportion of these households are in urban areas. Another potential factor may be that mobile coverage is typically better in urban than in rural areas, meaning that rural consumers may be less willing to rely on mobile for all their telephony needs.

Mobile phone ownership in Scotland, at 85%, was the lowest among the UK nations, with ownership at its lowest (80%) in Scotland's rural areas. Homes in Scotland's urban areas, particularly Glasgow, Clyde and Lanarkshire, were more likely than average to be without a fixed-line phone at home and to rely solely on mobile telephony.

Internet penetration, at 64% in Scotland, is below the UK average of 71%, although (in common with the UK), in Scotland most internet connections are now broadband, with take-up standing at 61%.

Within Scotland, broadband and internet take-up was highest in Lothian and Forth Valley (72%) and lowest in Glasgow, Clyde and Lanarkshire and 'other' areas of Scotland (53%).

Figure 5.12 Take-up of communications services, 2010

		UK	Scotland	England	Wales	N Ireland	UK Urban	UK Rural
Individual								
Voice telephony	Fixed Line	**85%**	79%	86%	79%	81%	84%	91%
	Mobile	**89%**	85%	90%	89%	88%	89%	90%
Internet	PC	**76%**	66%	77%	70%	75%	75%	80%
	Total Internet	**73%**	64%	75%	66%	73%	73%	77%
	Broadband (fixed and mobile)	**71%**	61%	73%	64%	70%	70%	75%
	Fixed Broadband	**65%**	54%	66%	57%	62%	64%	71%
	Mobile Broadband	**15%**	12%	15%	16%	14%	16%	11%

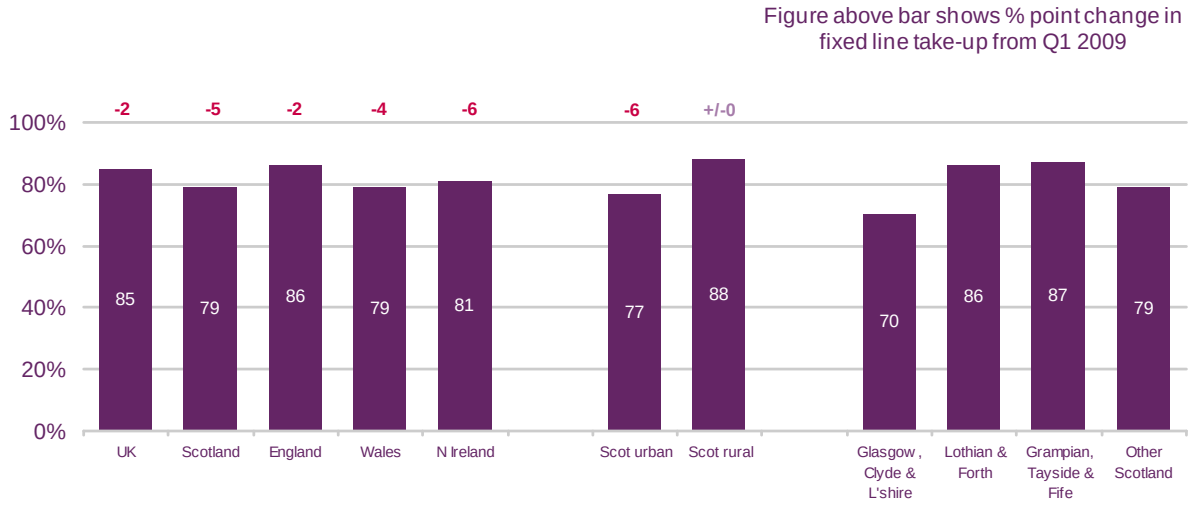
		Scotland	Scot urban	Scot rural	Glasgow, Clyde & L'shire	Lothian & Forth	Grampian, Tayside & Fife	Other Scotland
Individual								
Voice telephony	Fixed Line	**79%**	77%	88%	70%	86%	87%	79%
	Mobile	**85%**	86%	80%	84%	88%	87%	79%
Internet	PC	**66%**	65%	68%	58%	74%	74%	58%
	Total Internet	**64%**	63%	65%	57%	72%	71%	57%
	Broadband (fixed and mobile)	**61%**	61%	60%	53%	72%	68%	53%
	Fixed Broadband	**54%**	54%	58%	45%	67%	61%	48%
	Mobile Broadband	**12%**	13%	10%	10%	14%	18%	8%

Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QC1. Is there a landline phone in your home that can be used to make and receive calls?/ QD2. Do you personally use a mobile phone? / QE1. Does your household have a PC or laptop computer?/ QE2. Do you or does anyone in your household have access to the Internet/ World Wide Web at home? QE9. Which of these methods does your household use to connect to the Internet at home?

Fixed-line

Figure 5.13 shows fixed-line phone ownership has fallen across the UK in the last year. In Scotland it has fallen by five percentage points and now stands at 79% - joint lowest in the UK (with Wales). The decrease in fixed phone ownership has been heavily concentrated in Scotland's urban areas, with take-up in rural areas of Scotland remaining above the UK average, at 88%. Fixed phone ownership varies across Scotland. It is highest in Grampian, Tayside and Fife (87%) and lowest in Glasgow, Clyde and Lanarkshire (70%).

Figure 5.13 Fixed-line take-up



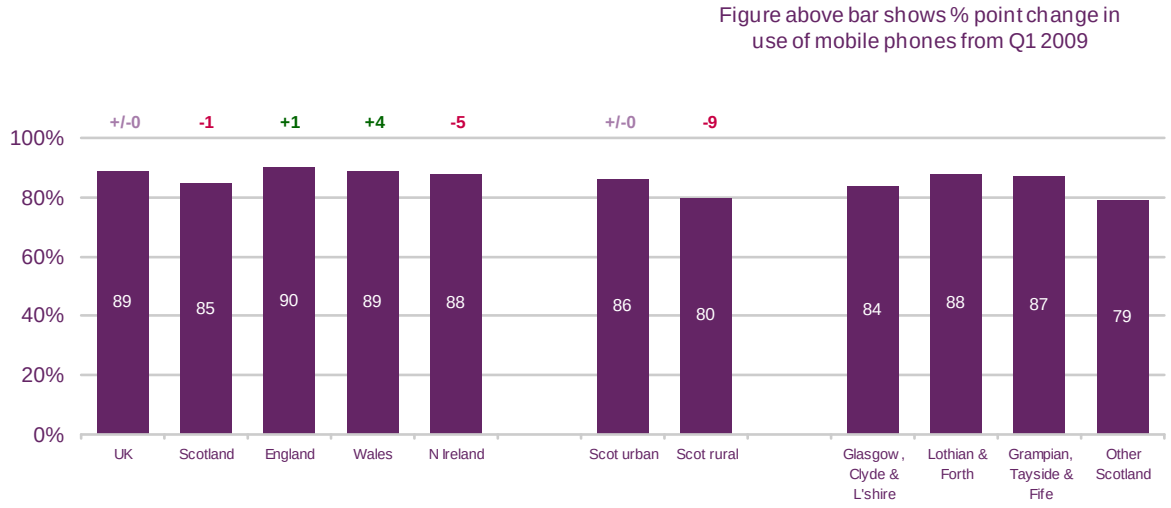
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QC1. Is there a landline phone in your home that can be used to make and receive calls?

Mobile

More homes in Scotland have mobile connections than fixed-line connections

More individuals in Scotland have a mobile phone (85%) than had a fixed-line connection at home (79%). However, this is driven by urban areas. The proportion of adults in Scotland's rural areas with a mobile phone stands at 80% (see Figure 5.14). Because of the relatively low population density in rural areas this has not had a significant impact on the overall take-up level in Scotland (the one percentage point fall is within the survey's error margins).

Figure 5.14 Mobile take-up

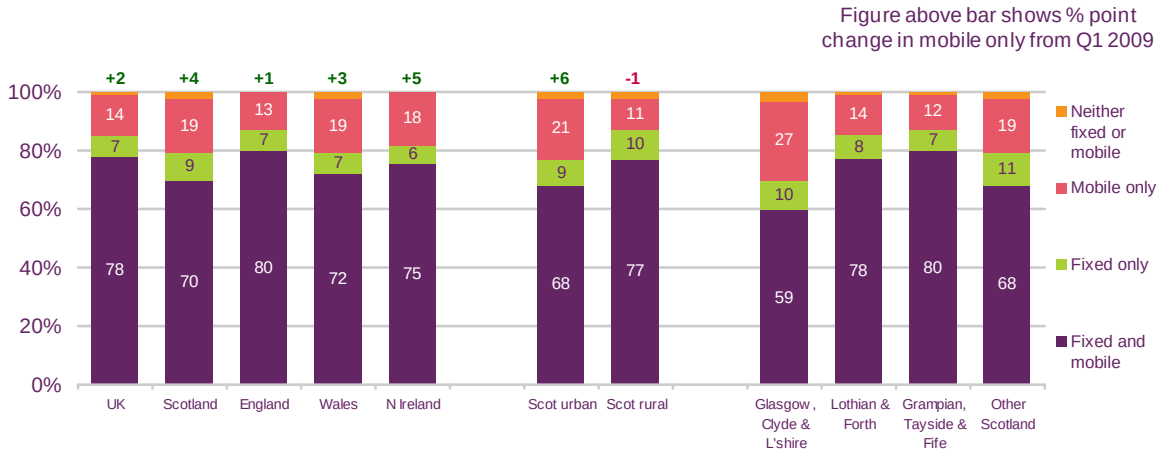


Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QD2. Do you personally use a mobile phone?

The number of mobile-only households continues to rise, reaching 19% in 2010 in Scotland

The proportion of homes in Scotland that rely solely on mobile telephony continues to increase, up by two percentage points this year to 19%. Nine per cent of homes in Scotland have a fixed line only, and seven in ten have access to both fixed and mobile telephones at home. As is found across the UK, homes in Scotland's urban locations (21%) are more likely to be mobile-only than those in rural areas (11%). Those in Glasgow, Clyde and Lanarkshire are the most likely to live in mobile-only homes (27%) (Figure 5.15).

Figure 5.15 Cross-ownership of household telephony services



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QC1. Is there a landline phone in your home that can be used to make and receive calls?/ QD1. How many mobile phones in total do you and members of your household use?

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

Figure 5.16 shows a higher proportion of mobile phone users in Scotland are on pre-paid pay-as-you-go plans (62%) than in the UK as a whole (54%). The mix of mobile phone subscription types has been relatively stable during the past year despite the continuing economic downturn.

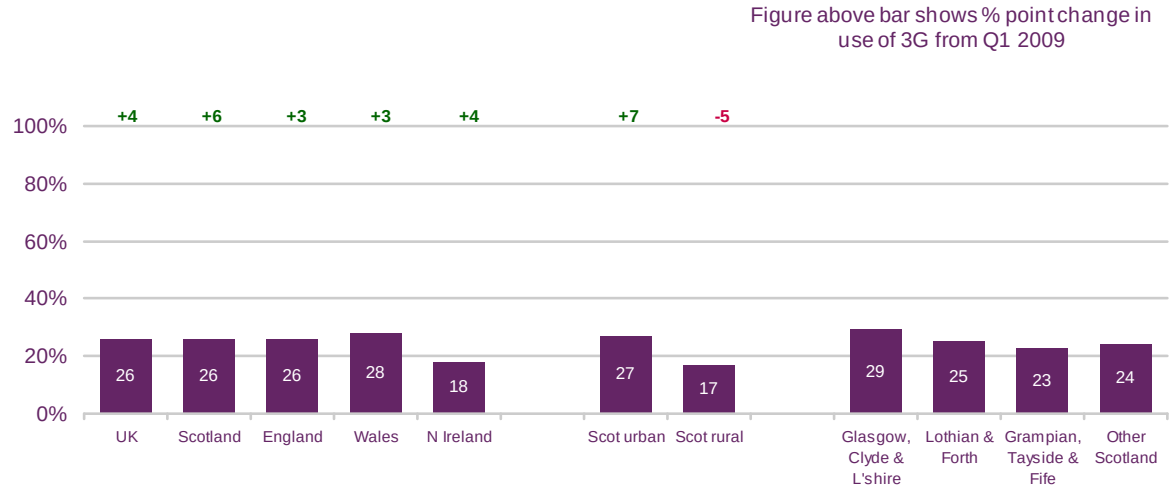
Figure 5.16 Type of mobile subscription

Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QD11. Which of these best describes the mobile package you personally use most often?

Take-up of 3G in Scotland is equal to the UK average of 26%

Claimed take-up of 3G phone services in Scotland is equal to the UK average of 26% (Figure 5.17). Scotland has seen the fastest increase of all of the nations in take-up of 3G phones in the past year, with a rise of six percentage points. Take-up was higher in Scotland's urban areas (27%) than in rural areas (17%). 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 5.17 Take-up of 3G telephony services



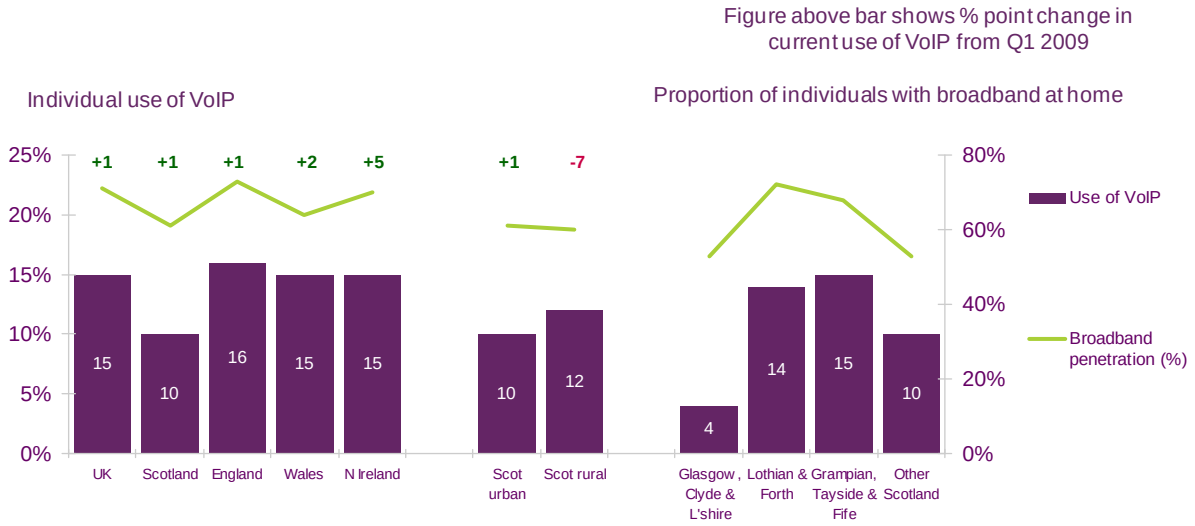
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
QD24B: Do you 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?

Internet and broadband

One in ten adults in Scotland use the internet to make voice calls

One in ten adults in Scotland used the internet to make telephone calls in Q1 2010 - lower than the UK average and the lowest of all of the UK nations. Use of VoIP has remained relatively stable in Scotland since last year, with an increase in use of one percentage point. (Figure 5.18). However, there were indications that take-up was higher in rural areas (12%) than in urban areas (10%), although use in Scotland's rural areas has fallen in the last year. Use of VoIP was particularly low in Glasgow, Clyde & Lanarkshire, at just 4%. In Lothian & Forth Valley (14%) and Grampian Tayside & Fife (15%) VoiP use is close to the UK average.

Figure 5.18 Proportion of adults living in a household that has used VoIP



Source: Ofcom research, Q1 2010
Base: All adults aged 15+ (n = 9013 UK, 1468 Scotland, 5709 England, 1075 Wales, 761 Northern Ireland, 1172 Scotland urban, 296 Scotland rural, 368 Glasgow, Clyde & Lanarkshire, 357 Lothian & Forth Valley , 363 Grampian Tayside & Fife, 380 other Scotland)
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?

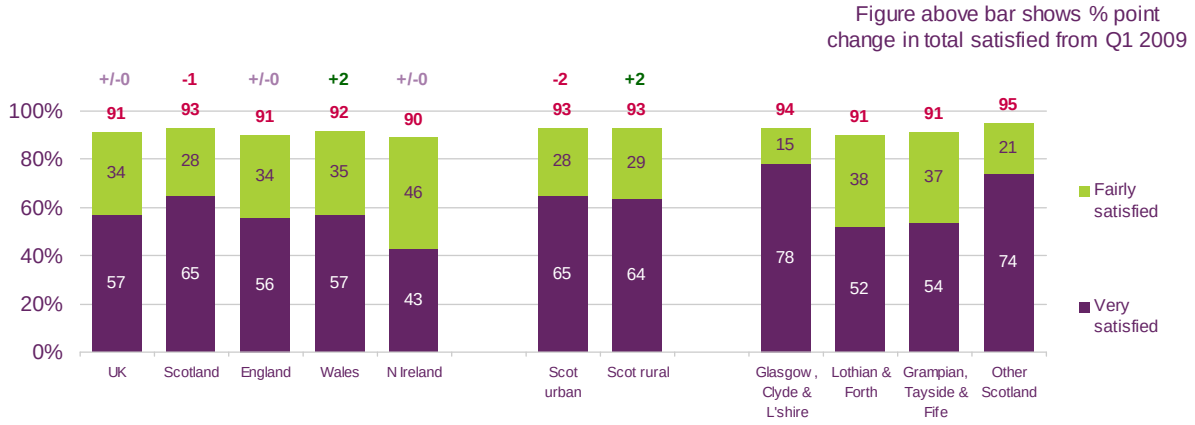
5.1.4 Satisfaction with telecoms services

Fixed-line

Overall satisfaction with fixed-line services in Scotland stands at 93%, similar to the UK average. The proportion who claimed to be very satisfied with their fixed-line service (65%) is by some distance the highest in the UK (Figure 5.19).

The overall level of satisfaction in Scotland has not changed significantly since last year and is fairly similar across Scotland, although the proportion that is very satisfied is slightly higher in Glasgow, Clyde and Lanarkshire and in 'other' areas of Scotland.

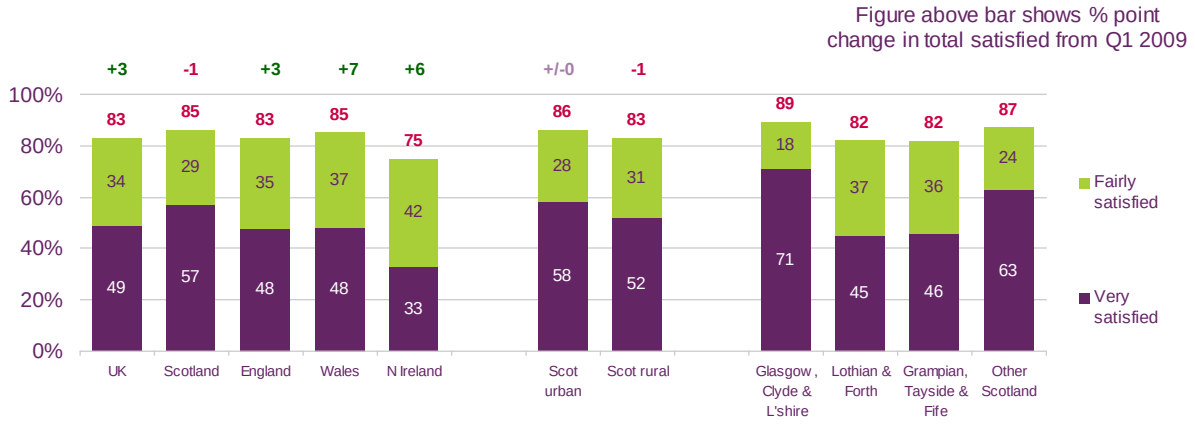
Figure 5.19 Overall satisfaction with fixed-line services



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a landline phone at home (n = 7494 UK, 1141 Scotland, 4851 England, 874 Wales, 628 Northern Ireland, 889 Scotland urban, 252 Scotland rural, 243 Glasgow, Clyde & Lanarkshire, 301 Lothian & Forth Valley, 309 Grampian Tayside & Fife, 288 other Scotland)
QC13a. Thinking about your home phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Scotland also has the highest level of satisfaction with value for money of fixed-line services, with 85% satisfied (57% very satisfied). Satisfaction is at its highest in Glasgow, Clyde and Lanarkshire and in 'other' areas of Scotland (Figure 5.20).

Figure 5.20 Satisfaction with value for money of fixed-line service

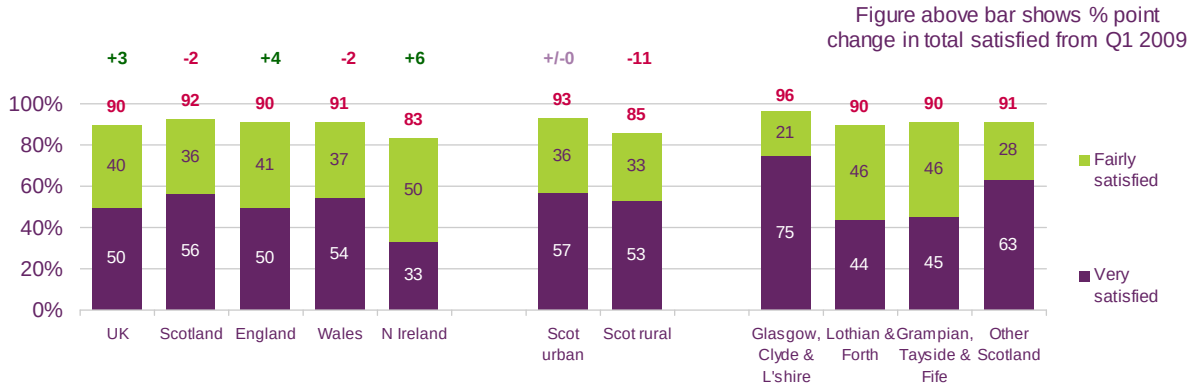


Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a landline phone at home (n = 7494 UK, 1141 Scotland, 4851 England, 874 Wales, 628 Northern Ireland, 889 Scotland urban, 252 Scotland rural, 243 Glasgow, Clyde & Lanarkshire, 301 Lothian & Forth Valley, 309 Grampian Tayside & Fife, 288 other Scotland)
QC13b. Thinking about your home phone service only, how satisfied are you with (main supplier) for the overall value for money from your service?

Fixed broadband

Overall satisfaction with fixed broadband services has fallen, driven by a large drop in satisfaction in rural areas (Figure 5.21). This is likely to be related to the fall in satisfaction with speeds. Satisfaction with broadband service in urban areas remains high in Scotland, with the highest satisfaction found in Glasgow, Clyde and Lanarkshire, where satisfaction is almost universal at 96%, and three-quarters reported that they were very satisfied.

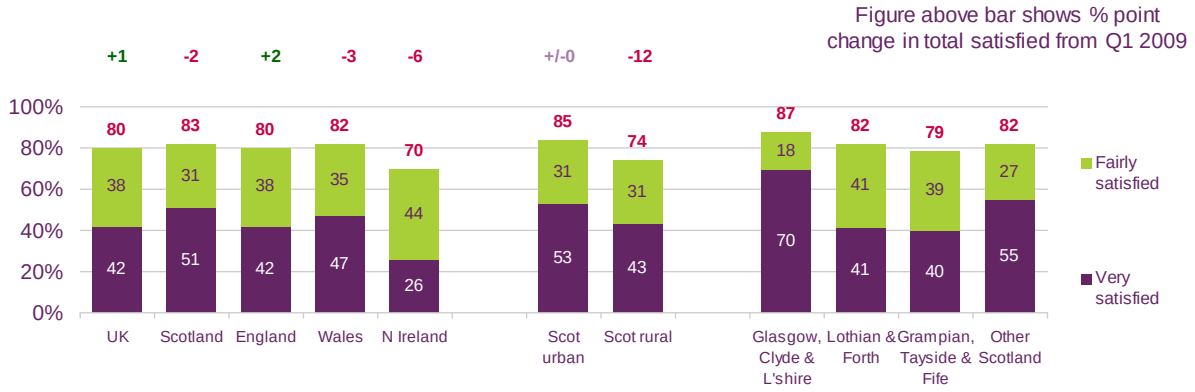
Figure 5.21 Overall satisfaction with fixed broadband service



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 778 Scotland, 3559 England, 604 Wales, 469 Northern Ireland, 612 Scotland urban, 166 Scotland rural, 154 Glasgow, Clyde & Lanarkshire, 233 Lothian & Forth, 216 Grampian Tayside & Fife, 175 other Scotland)
QE8a. Thinking about your fixed broadband internet service, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

Figure 5.22 shows that over eight in ten (83%) fixed broadband users in Scotland were either very, or fairly, satisfied with the speed of their broadband connection, a little higher than the UK average (80%). Satisfaction with broadband speed in Scotland's rural areas has fallen significantly in the past year, from 86% to 74%, perhaps signifying increased expectations of higher broadband speeds and the increased use of high bandwidth services, such as video streaming and downloading, where the user experience can differ vastly, depending on the speeds achieved.

Figure 5.22 Satisfaction with speed of fixed broadband connection

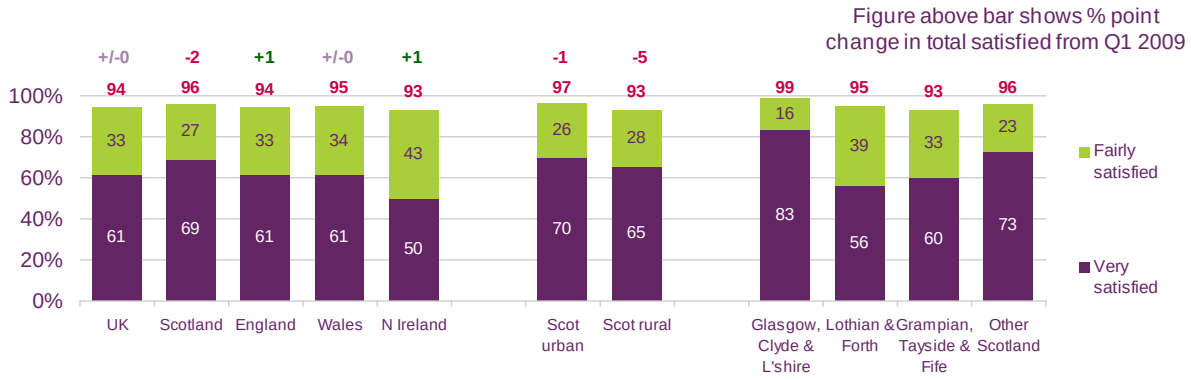


Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 778 Scotland, 3559 England, 604 Wales, 469 Northern Ireland, 612 Scotland urban, 166 Scotland rural, 154 Glasgow, Clyde & Lanarkshire, 233 Lothian & Forth Valley, 216 Grampian Tayside & Fife, 175 other Scotland)
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)?

Mobile

Overall satisfaction with mobile phone services among mobile users in Scotland was, at 96%, the highest in the UK. Satisfaction is particularly high in Glasgow, Clyde and Lanarkshire, where 99% of mobile phone users say they are satisfied with their overall service, including 83% who say they are very satisfied. Satisfaction is lower in Scotland's rural areas (93%) than it is in Scotland's urban areas (97%) (Figure 5.23); this is likely to be related to service coverage.

Figure 5.23 Overall satisfaction with mobile phone service



Source: Ofcom research, Q1 2010
Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 1237 Scotland, 5008 England, 923 Wales, 658 Northern Ireland, 1001 Scotland urban, 236 Scotland rural, 308 Glasgow, Clyde & Lanarkshire, 313 Lothian & Forth, 316 Grampian Tayside & Fife, 300 other Scotland)QD21a. Thinking about your mobile phone service only, how satisfied are you with (main supplier) for the overall service provided by (main supplier)?

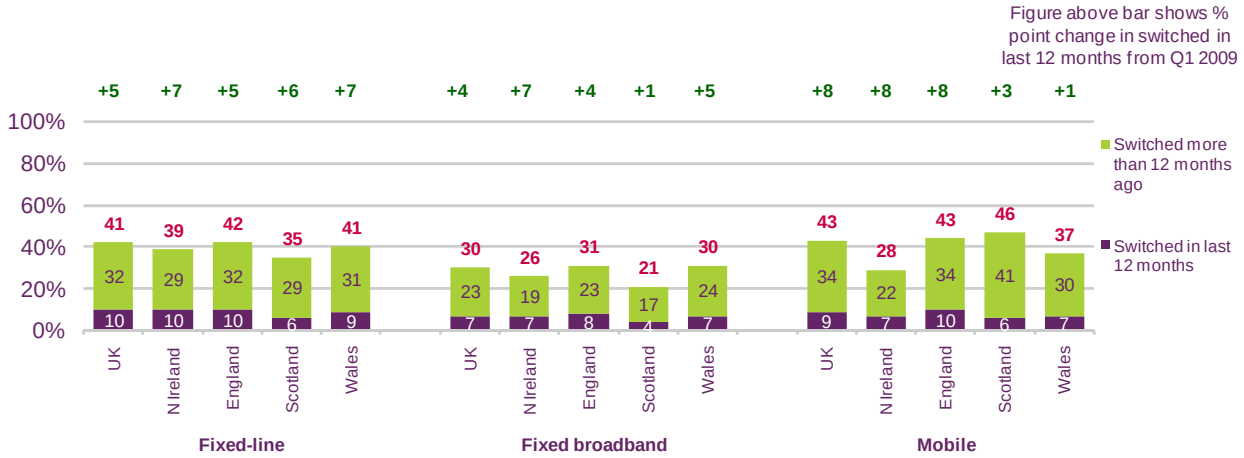
Switching

As shown in Figure 5.24, the proportion of fixed-line users who have switched provider was lower in Scotland (35%) than the UK average (41%) and all other nations in the UK. In particular, people in Scotland were less likely (at 6%) to have switched their landline supplier in the past 12 months than people living in England (10%), Northern Ireland (10%) or Wales (9%).

Twenty one per cent of people in Scotland have switched their fixed broadband supplier in the past – and 4% did so in the past year. This is much lower than the UK average (30%) and the other nations of the UK.

However, people in Scotland were more likely to have switched their mobile phone provider (46%) than the UK average (43%) and those living in England (43%), Wales (37%), and Northern Ireland (28%). In the past twelve months, fewer people in Scotland switched their mobile phone service (6%) than people living elsewhere in the UK (9%).

Figure 5.24 Fixed line, fixed broadband and mobile supplier switching



QC14a. Apart from when you moved house, have you or your household ever changed the company that provides any of your home landline phone, broadband and mobile services?
Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a landline phone at home (n = 7494 UK, 628 Northern Ireland, 4851 England, 1141 Scotland, 874 Wales, 402 Northern Ireland urban, 226 Northern Ireland rural, 291 Belfast metropolitan area, 337 rest of NI). Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 469 Northern Ireland, 3559 England, 778 Scotland, 604 Wales, 297 Northern Ireland urban, 173 Northern Ireland rural, 230 Belfast metropolitan area, 239 rest of NI). Base: Adults aged 15+ who personally use a mobile phone (n = 7826 UK, 658 Northern Ireland, 5008 England, 1237 Scotland, 923 Wales, 428 Northern Ireland urban, 230 Northern Ireland rural, 298 Belfast metropolitan area, 360 rest of NI)
Note: Figures above chart columns indicate the proportion of people with a personal mobile phone who have ever switched supplier.

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.

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.

Table of Figures

Figure 1.1 Map of Scotland 17
Figure 1.2 Communications infrastructure availability across the UK's nations, 2010 ... 19
Figure 1.3 Patterns of communications service adoption across the nations of the UK, 2010 20
Figure 1.4 Adoption of communications technology/service in urban and rural locations 21
Figure 1.5 Take-up of bundles, by nation 22
Figure 1.6 Proportion of customers buying bundled services, 2009-2010..... 23
Figure 1.7 Spend per head on UK-originated content broadcast by PSBs on TV and radio, 2010 24
Figure 1.8 Hours of daily viewing of television and radio, by nation, 2010..... 25
Figure 1.9 Consumers' use of converging platforms 26
Figure 1.10 Items where consumers are most likely to cut back their spending 28
Figure 1.11 The communications service where consumers would be most likely to cut spend..... 29
Figure 1.12 Proportion of Scottish consumers agreeing that communications providers offer better deals now than a year ago..... 30
Figure 1.13 Consumers' agreement / disagreement that they were more likely to take communications services in a bundle, by nation 31
Figure 1.14 Consumers' agreement / disagreement that they were more likely to take communications services in a bundle..... 32
Figure 1.15 Selected communication devices bought in the past 12 months..... 33
Figure 1.16 Consumers' agreement with a range of statements exploring changes in behaviour over the last 12 months 34
Figure 1.17 Consumer attitudes towards the recession, by nation..... 35
Figure 1.18 Percentage of 'bad lines' in Great Britain 37
Figure 1.19 Average line speeds versus distance of customer premises from the telephone exchange, May 2010 38
Figure 1.20 Map of the availability of Virgin Media cable broadband 38
Figure 1.21 Estimated average and maximum download speeds, by nation, May 2010.. 39
Figure 1.22 Overall satisfaction with fixed broadband service..... 40
Figure 1.23 2G mobile phone geographic and population coverage..... 41
Figure 1.24 2G mobile coverage map and population density, by postcode district..... 42
Figure 1.25 UK 2G mobile coverage map 43
Figure 1.26 3G mobile phone geographic and population coverage, by number of operators 44
Figure 1.27 3G coverage map..... 44
Figure 1.28 Proportion of UK adults with a mobile phone experiencing problems with coverage..... 45
Figure 1.29 Overall satisfaction with mobile phone service..... 46
Figure 2.1 Cumulative households switched in Scotland, by transmitter group 52
Figure 2.2 STV North and STV Central switchover transmitter maps 53
Figure 2.3 Spend on originated nations and regions output by the BBC, ITV1/STV/UTV, 2009 54
Figure 2.4 Spend by originated nations and regions output by the BBC, ITV1/STV/UTV, 2004 versus 2009..... 55
Figure 2.5 Change in investment, by genre and nation, 2004 – 2009..... 56
Figure 2.6 Investments per head made by the BBC and ITV/STV/UTV in regional and national output, 2009..... 57
Figure 2.7 Hours of regionalised output, by genre and broadcaster, 2009..... 58
Figure 2.8 The cost per hour of output for the nations, 2009..... 58
Figure 2.9 BBC ALBA originations, by hours and spend, 2009..... 59

Figure 2.10 Performance against the out-of-London production quotas 60
Figure 2.11 Expenditure on out-of-London production 61
Figure 2.12 Volume of out-of-London production 61
Figure 2.13 Breakdown of expenditure, by broadcaster 62
Figure 2.14 Breakdown of production volume, by broadcaster 63
Figure 2.15 Non-network output in Scotland, 2005-2009 64
Figure 2.16 STV performance against original production quotas, 2009 64
Figure 2.17 STV performance against the independent quota, 2009 65
Figure 2.18 Proportion of repeats broadcast by STV, 2009 65
Figure 2.19 Digital television take-up in Scotland 66
Figure 2.20 Main set TV share in Scotland, by platform 67
Figure 2.21 Proportion of homes with free and pay television Proportion of TV homes (%) (Figures above bar shows % point change in Pay-TV from Q1 2009) 67
Figure 2.22 Share of the five terrestrial networks, all homes, 2009 68
Figure 2.23 Reduction in combined share of the main PSB channels, 2004 –2009 69
Figure 2.24 Net change in the audience share of the main PSB channels and the PSB portfolio channels in multichannel homes, 2004 - 2009 70
Figure 2.25 Combined total hours of viewing of early evening regional news bulletins, all homes, 2004 to 2009 70
Figure 2.26 BBC One and ITV1/ STV/UTV early evening news bulletin shares, 2009 71
Figure 2.27 Sources of local news, by nation, 2009 71
Figure 2.28 Proportion of adults living in a household that has used the internet to watch TV or video content 72
Figure 2.29 Proportion of adults living in a household that has used the internet to watch catch-up TV (e.g. iPlayer or Sky Player) 73
Figure 2.30 Use of the internet to watch video clips and webcasts 74
Figure 2.31 Take-up of games consoles 75
Figure 3.1 Community radio stations in Scotland 79
Figure 3.2 BBC spend on national / local radio programming 2009-10 80
Figure 3.3 Local commercial radio revenue, per head, 2009 81
Figure 3.4 Availability of DAB stations, by area 83
Figure 3.5 Levels of radio listening in 2010 83
Figure 3.6 Audience share for BBC and commercial stations, local /national Audience share for local/national stations 84
Figure 3.7 Weekly reach for national / local BBC services, Q1 2010 85
Figure 3.8 Ownership of DAB digital radios 85
Figure 3.9 Intention to purchase DAB radio 86
Figure 3.10 Use of either an MP3 player or an iPod (% of adults) Use of either an MP3 player or an iPod (% adults) 87
Figure 3.11 Listening to radio via DTV, internet, mobile phone 88
Figure 3.12 Share of radio listening hours via digital and analogue platforms 89
Figure 3.13 Use of a mobile phone to listen to audio Proportion of respondents (%) who have used their mobile to listen to audio content (Figure above bar shows % point change in likely to purchase from Q1 2009) 90
Figure 3.14 Proportion of respondents (%) who have listened to online radio 90
Figure 3.15 Use of the internet to listen to streamed music services 91
Figure 3.16 Satisfaction with choice of radio services 92
Figure 4.1 Broadband take-up trend in Q1, 2005-2010 96
Figure 4.2 Mobile broadband take-up 97
Figure 4.3 Awareness of mobile broadband 97
Figure 4.4 Proportion of adults who have used a mobile phone to access the internet 98
Figure 4.5 Non-ownership of internet services 99
Figure 4.6 Use of online applications among Scotland's broadband users 99
Figure 4.7 Use of the internet to access local council/government websites 100
Figure 4.8 Use of the internet to access banking websites 101

Figure 4.9 Use of the internet to access information on health-related issues 102
Figure 4.10 Number of households where someone has used a social networking site 103
Figure 5.1 Proportion of households connected to a DSL-enabled BT exchange..... 109
Figure 5.2 Proportion of households connected to an unbundled exchange, 2006 and 2009 110
Figure 5.3 Proportion of households in urban and rural areas connected to an unbundled exchange..... 111
Figure 5.4 Map showing areas served by unbundled local exchanges 111
Figure 5.5 Proportion of households passed by Virgin Media broadband..... 112
Figure 5.6 Proportion of households in urban and rural areas passed by Virgin Media broadband 113
Figure 5.7 Map of the availability of Virgin Media cable broadband 114
Figure 5.8 2G mobile phone population coverage, by number of operators..... 115
Figure 5.9 2G mobile phone geographic coverage, by number of operators 115
Figure 5.10 3G mobile phone population coverage, by number of operators..... 116
Figure 5.11 3G mobile phone geographic coverage by number of operators 116
Figure 5.12 Take-up of communications services, 2010 117
Figure 5.13 Fixed-line take-up..... 118
Figure 5.14 Mobile take-up..... 119
Figure 5.15 Cross-ownership of household telephony services 119
Figure 5.16 Type of mobile subscription..... 120
Figure 5.17 Take-up of 3G telephony services..... 121
Figure 5.18 Proportion of adults living in a household that has used VoIP 122
Figure 5.19 Overall satisfaction with fixed-line services 123
Figure 5.20 Satisfaction with value for money of fixed-line service 123
Figure 5.21 Overall satisfaction with fixed broadband service..... 124
Figure 5.22 Satisfaction with speed of fixed broadband connection..... 124
Figure 5.23 Overall satisfaction with mobile phone service..... 125
Figure 5.24 Fixed line, fixed broadband and mobile supplier switching 126