The Communications Market in Northern Ireland

1 The market context

1.1 Northern Ireland: setting the scene

Key facts

Figure	Nation	UK
Population	1.775m (*estimated mid-2008*); population is estimated to have risen by 5.1%, or 86,000 people, since census in 2001	Approximately 3% of UK population
Population density	131 people per sq km, compared to 130 in 2007 and128 in 2006.	246 people per sq km
Urban versus rural	Approximately 580,000 people live in the Belfast metropolitan area – around a third of population 35% of population live in a rural area	n/a
Language	Approximately 170,000, or 10.4%, have some knowledge of Irish Approximately 30,000, or 2%, claimed to be able to speak Ulster Scots.[1]	Ulster Scots is the first language for 0.1% of the UK population Gaelic is the first language for <0.1% of the UK population
Unemployment	6.6% of working population	7.2% of working population
Income and Expenditure	Weekly household income: £616 Weekly household expenditure: £479.70	Weekly household income: £669 Weekly household expenditure: £459.70

Source: Northern Ireland Statistical Research Agency, Office for National Statistics, 2001 Census, http://www.statistics.gov.uk/downloads/theme_social/Family-Spending-2008/FamilySpending2009.pdf

Research

A note on the Northern Ireland survey data

We conducted face-to-face surveys of 9,013 adults in the UK, with 761 interviews conducted in Northern Ireland. Fieldwork took place in January and February 2010.

Some of the survey data in this report are split by geographic areas of Northern Ireland.

The Belfast Metropolitan Area is defined as the city councils of Belfast and Lisburn and the borough councils of Carrickfergus, Castlereagh, Newtownabbey and North Down. It was identified by the Planning Service, an agency of the Department of the Environment, to provide a planning framework to facilitate growth and high-quality development.

[1] 1999 Northern Ireland Life and Times Survey. Research undertaken by the Ulster Scots Agency, however, puts the figure as high as 100,000.

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 report refers to data from a range of other sources, including data provided to Ofcom by stakeholders.

A direct comparison between 2009 and 2010 data from specific geographic areas is not possible as they vary between years.

Figure 1.1 Map of research areas in Northern Ireland

Based on Ordnance Survey data, National Statistics Postcode Directory and data from Northern Ireland
Source: Ordnance Survey © Crown copyright 2010; Office for National Statistics; 2008 NISRA - Northern Ireland Statistics and Research Agency

1.2 Northern Ireland's communications market in the UK context

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

1.2.1 Availability of communications platforms and services in Northern Ireland

All homes in Northern Ireland are connected to a broadband-enabled telephone exchange, although speeds and services may vary

Figure 1.2 illustrates the availability of communications services in Northern Ireland. 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 Northern Ireland changed little between 2009 and 2010.

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

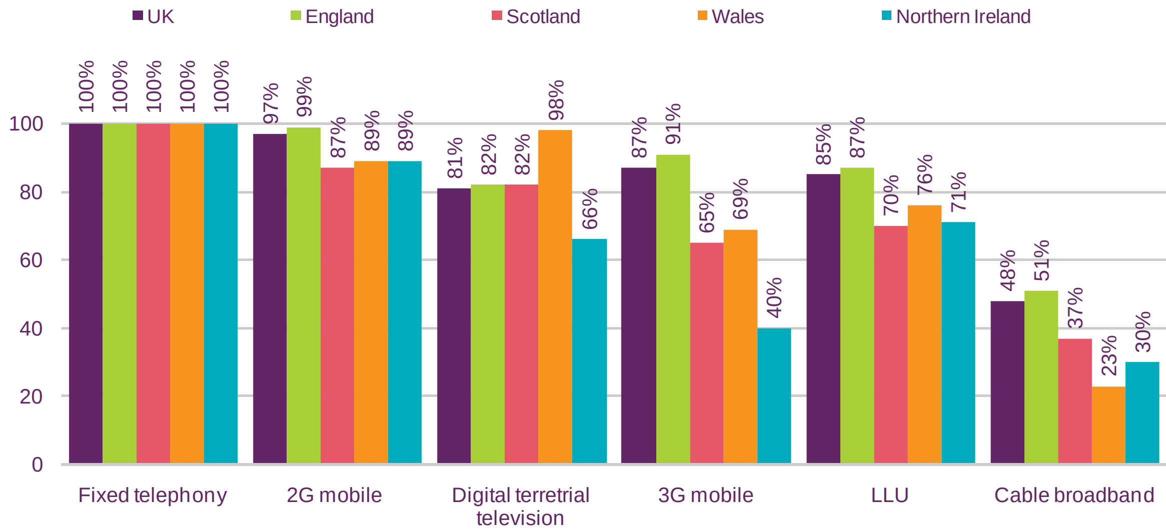
- Digital terrestrial television availability offering the full channel line-up was available to 66% of Northern Ireland's population in 2010. This figure is the lowest among the UK nations, and coverage is now near-universal in Wales, where the switchover process has been completed. Switchover in Northern Ireland, scheduled for 2012, will result in rising levels of coverage as the DTT signal power is increased.

- Broadband is available to all homes and commercial properties in Northern Ireland – normally delivered over a standard fixed phone line. But factors such as line length and contention influence the actual broadband speed at customer premises. Those living long distances from the local exchanges will not be able to get broadband, but subsidised satellite broadband is available as an alternative. Cable broadband, offering access to a high-speed internet service, is available to 30% of homes in Northern Ireland, the second lowest coverage level in the UK.

- 2G mobile services were available to available to 89% of people in Northern Ireland; this was second only to England (99%). 3G population coverage is lower than 2G (at 40%), and coverage in Northern Ireland was the least extensive among the four UK nations.

- The universal service obligation on fixed line telephony services and dial-up internet access means that it is available to all premises in Northern Ireland, 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 17 services from; figures based on 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 Northern Ireland

Take-up of DAB sets in Northern Ireland is low relative to the UK average

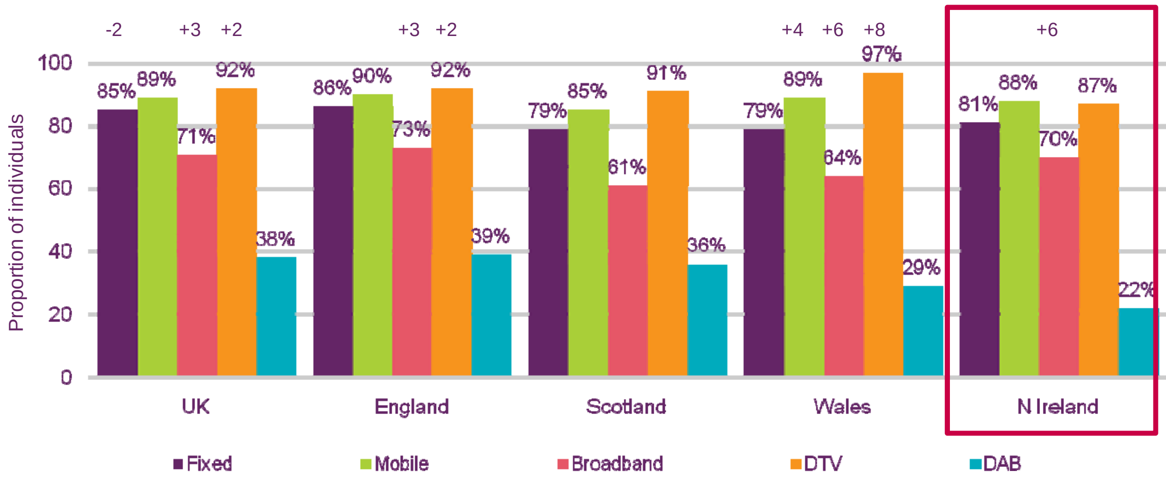
Take-up of communications services in Northern Ireland remained relatively flat year on year (Figure 1.3):

- Just over eight in ten (81%) of people in Northern Ireland claimed to have a fixed telephone line at home. This compares to the UK-wide average of 85%, and is broadly on a par with Scotland and Wales. Take-up in England, by contrast, stood at 86%. The gap with the UK-wide average narrowed by two percentage points year on year.

- Broadband take-up in Northern Ireland is highest among the smaller nations; in England take-up stood at 73% in Q1 2010. The figure rose by six percentage points year on year – a rate of growth comparable to that in Wales, and the highest among the UK's four nations. As a result, the margin between this figure and UK-wide take-up narrowed by three percentage points.

- Mobile phone take-up in Northern Ireland, at 88% of individuals, was broadly comparable to the UK-wide average of 89% in Q1 2010. Ownership of mobile handsets in Northern Ireland was in line with take-up in England and Wales, and higher than that in Scotland. There continued to be a one percentage point difference in take-up with the UK-wide figure.

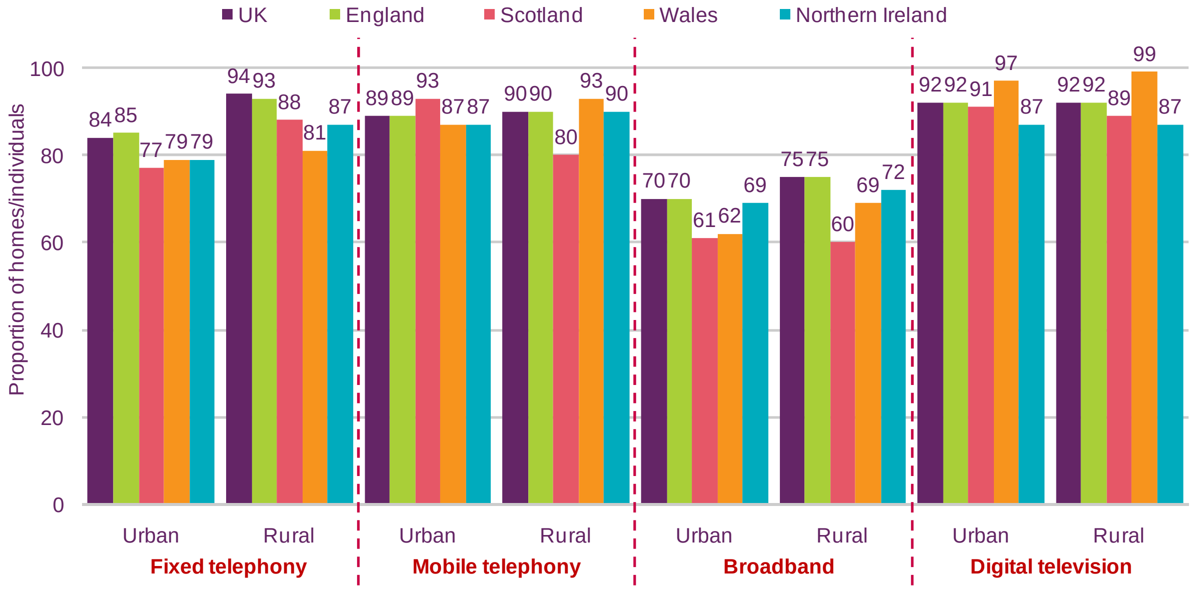
Figure 1.3 Patterns of communications service adoption across the nations of the UK, 2010



Source: Ofcom research, Q1 2009
Fixed line base: All adults aged 15+ (n = 6090 UK, 3437 England, 1014 Scotland, 987 Wales, 652 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+ with a TV in the household (n= 6001 UK, 3389 England, 1002 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 = 6090 UK, 3437 England, 1014 Scotland, 987 Wales, 652 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= 5016 UK, 2819 England, 780 Scotland, 848 Wales, 569 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 = 6090 UK, 3437 England, 1014 Scotland, 987 Wales, 652 Northern Ireland)
Mobile question: Do you personally use a mobile phone?

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 Northern Ireland is higher among homes situated in rural locations (87% versus 79% in urban locations). Take-up of broadband (fixed or mobile) is also higher in rural locations (69% versus 72%). Mobile take-up among people in rural locations, at 90% was a little higher than among urban dwellers (87%). There is no material difference in the proportion of homes with digital television.

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 Northern Ireland

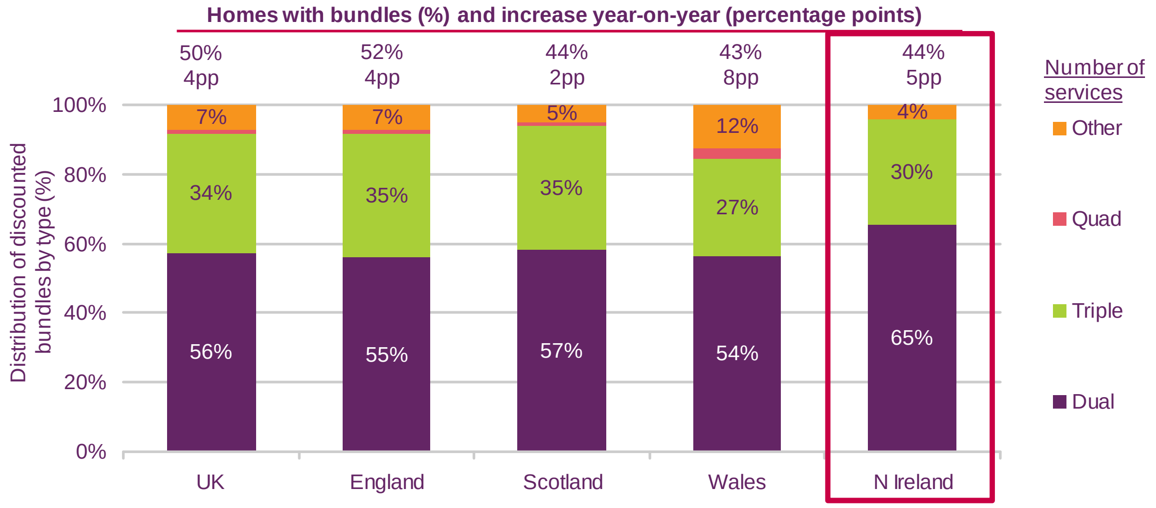
44% of homes in Northern Ireland took a bundle of communications services, up by five percentage points year-on-year

Across the UK, 50% of homes took a bundle of communications services in Q1 2010. This was up by four percentage points year on 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 Northern Ireland, 44% of homes took a bundle. Their popularity grew during 2009, with take-up rising by five percentage points over the year. As a result, the gap with the UK-wide average narrowed by one percentage point to six percentage points. Bundles were marginally more popular in Northern Ireland than in Wales and on a par with take-up in Scotland; a larger proportion of homes in England took bundles (52%).

The distribution of bundles by type in Northern Ireland was noticeably different from the UK-wide average. Sixty-five per cent of those who bundled chose the dual package, in contrast to 56% of those who bundled across the UK. Triple-play and other bundles were less popular compared to the UK-wide figures.

Figure 1.5 Take-up of bundles, by nation

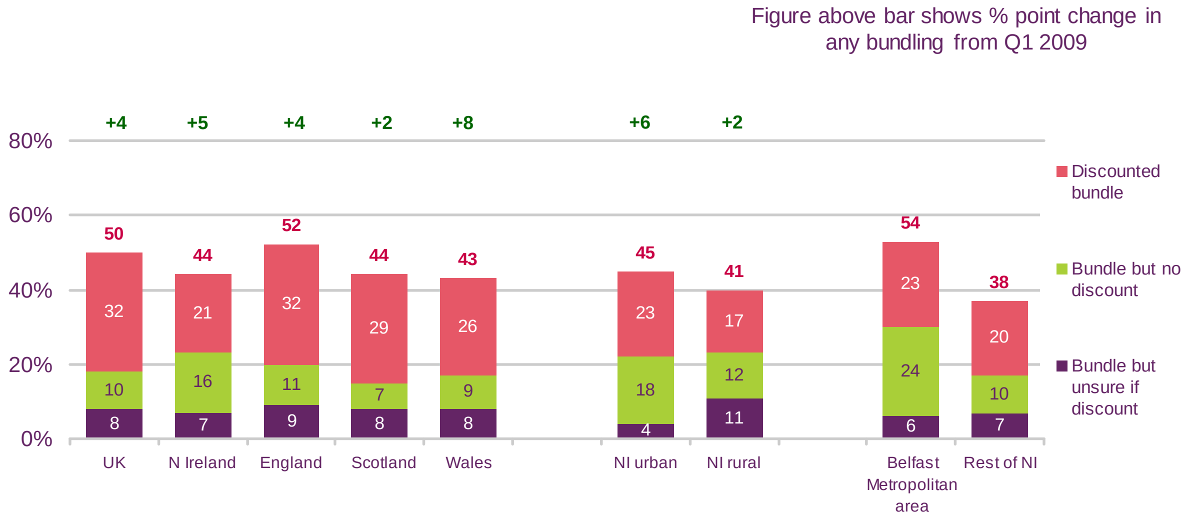


Source: Ofcom research, Q1 2010
Source: Ofcom research, Q1 2010
Base: All adults aged 15+ with a package of services regardless of whether or not these include a discount (n = 4167 UK, 2793 England, 605 Scotland, 437 Wales, 332 Northern Ireland)
Notes: 1. Remaining percentages are Don't know responses. 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 the Belfast metropolitan area most likely to take bundles of communications services

Across Northern Ireland, take-up of bundles is lower in rural (41%) than in urban (45%) 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. Take-up peaked at 54% of homes in the Belfast Metropolitan Area (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?

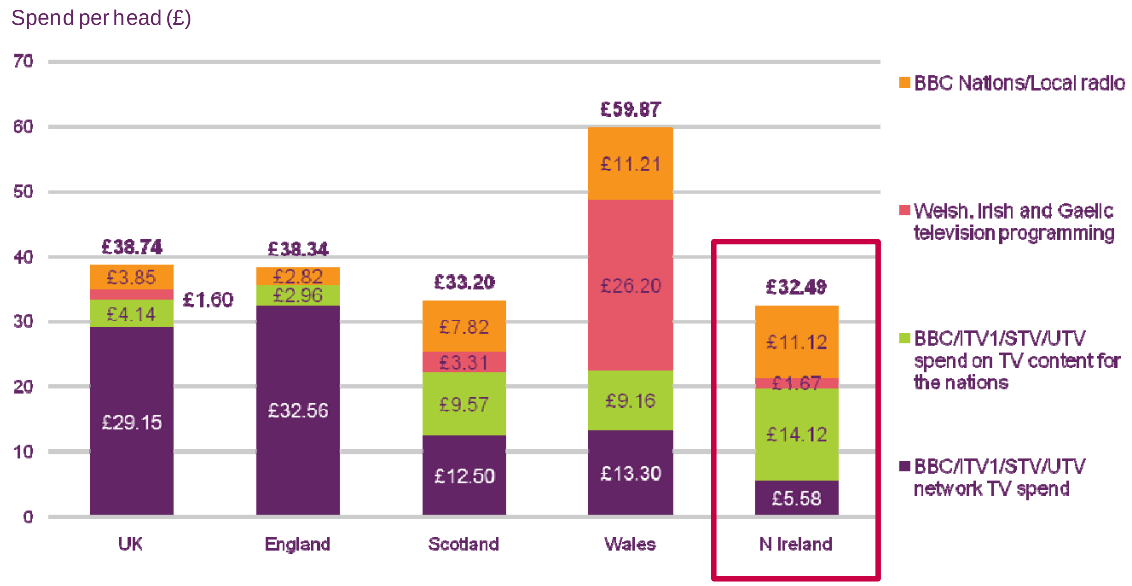
1.2.4 Spending by public service broadcasters on television and radio content in Northern Ireland

Figure 1.7 illustrates patterns of expenditure in Northern Ireland 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 Northern Ireland – programmes that are produced in Northern Ireland, which are then broadcast to all UK viewers.
- BBC spending on radio services for listeners in Northern Ireland (such as BBC Radio Ulster/Foyle).
- Spend by the BBC and UTV on television programmes specifically for viewers in Northern Ireland.
- Irish language television programmes.

Total spending per head on broadcast-based output in Northern Ireland totalled £32.49 in 2009, up from £31.71 twelve months earlier. This represents the lowest spend per head across the four nations.

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



Source: Ofcom analysis, broadcasters

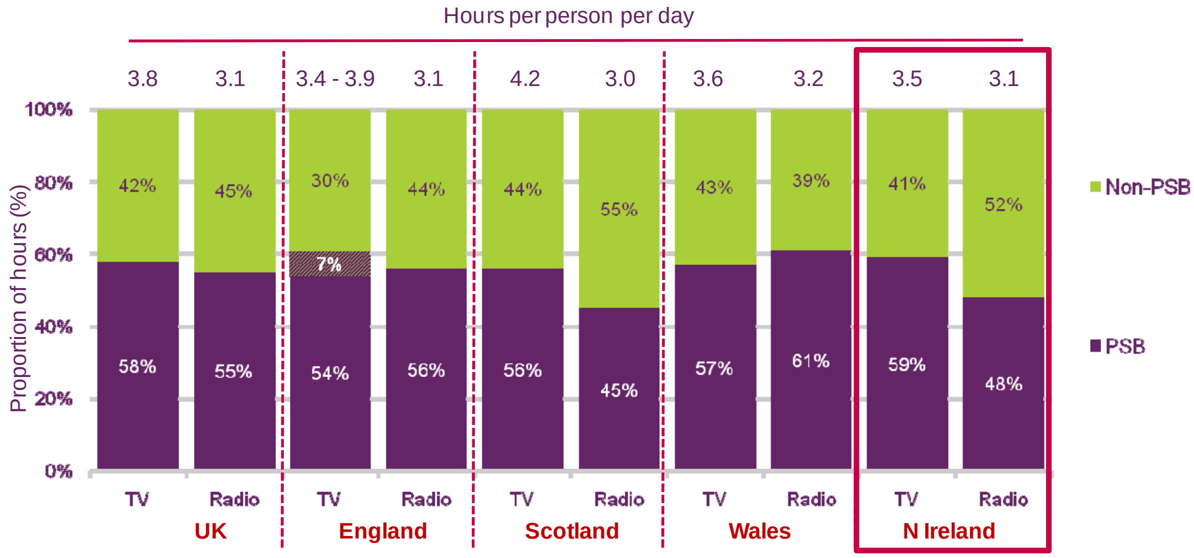
1.2.5 Consumption of television and radio services by people in Northern Ireland

UK-wide BBC radio services less popular with listeners in Northern Ireland

People in Northern Ireland spent a total of 6.6 hours a day watching television and listening to the radio. This was below the UK-wide average of 6.9 hours per day, and was driven by lower levels of television viewing per head in Northern Ireland. Levels of radio listening in Northern Ireland were broadly comparable to the UK-wide average (3.1 hours/day). Television viewing per head was marginally below the UK average (3.5 versus 3.8).

The BBC's UK-wide radio services were less popular in Northern Ireland than in England or Wales, commanding a 48% share of listening in 2009, compared to the UK average of 55%. PSB channels on the television took a 59% share of all viewer hours in Northern Ireland – broadly in line with the UK figure of 58%. In terms of station choice, there are ten local commercial stations broadcasting within Northern Ireland, equivalent to around 3% of the UK total of 296. This compares to the 15 local commercial stations licensed in Wales, 39 in Scotland, and 232 in England. BBC services include BBC Radio Ulster and Foyle, both available to listeners in Northern Ireland. In addition Northern Ireland currently has 11 community radio licences serving local populations across the country, with a further two (one for Bangor and Lisburn), still to go on air.

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



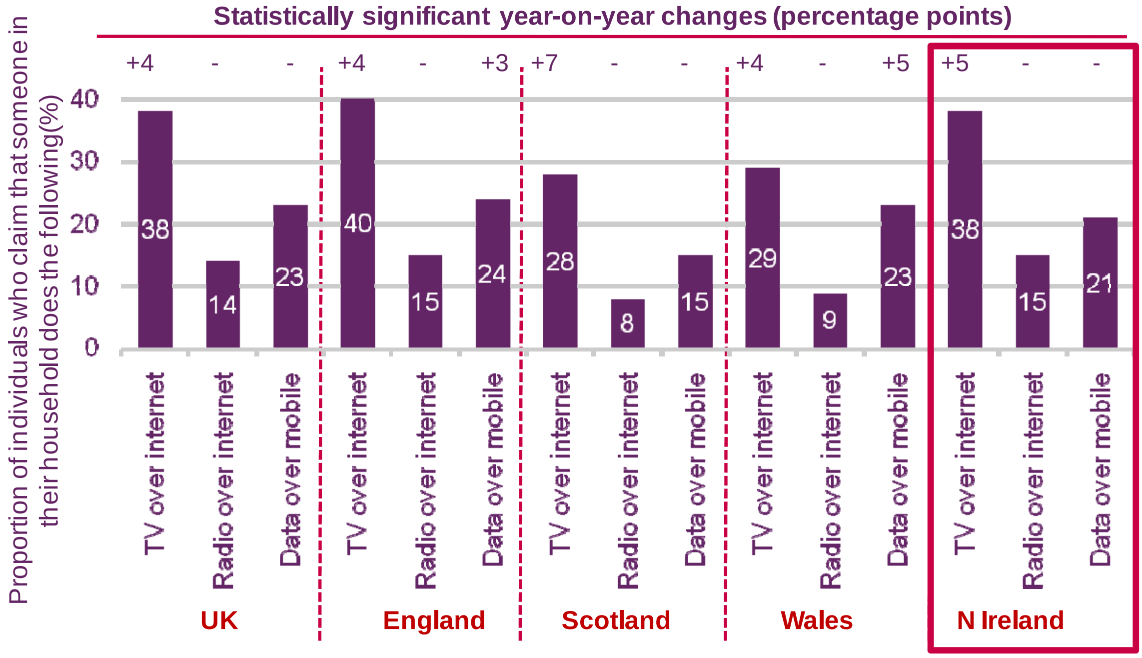
Source: BARB and RAJAR analysis

1.2.6 Use of converged platforms and devices by people in Northern Ireland

Over a third of internet users in Northern Ireland use the web to watch television content – in line with the UK-wide average

Over a third of the population of Northern Ireland (38%) claimed to be using their internet connection to watch television services; broadly in line with the UK-wide average. Fifteen per cent of respondents also claimed to use the internet to listen to the radio, again level with the UK. A fifth (21%) of people in Northern Ireland used their mobile handset to access data services (including the internet) – also broadly in line with the UK-wide average of 23%.

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, accessing the internet, connecting to the internet using Wi-fi,, using VoIP service, download a new video clip, video streaming, TV streaming, accessing/ receiving, sports/ team news/ scores, accessing/ receiving news, use IM/ Instant messaging

1.3 Northern Ireland communication markets and the economy

1.3.1 Introduction

Since the last *Communications Market Report: Northern Ireland* was published in August 2009, the UK economy has shown signs of recovery, following 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 this study to update the findings and assess the extent to which consumer spending and attitudes towards communications services in Northern Ireland have changed over the past 12 months.

1.3.2 Consumer spending on communications services

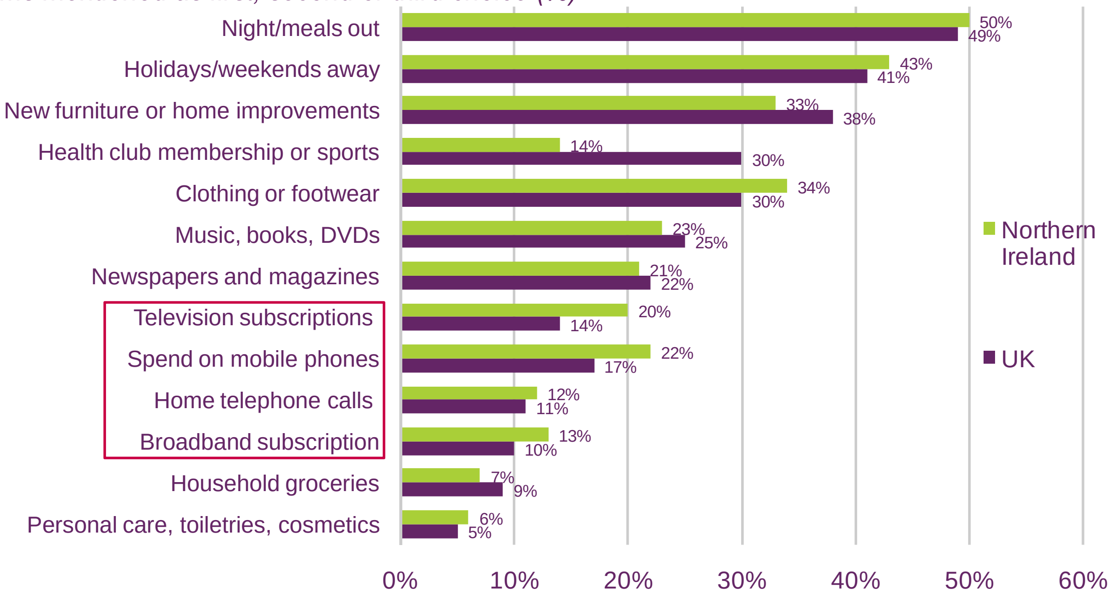
Consumers in Northern Ireland are more inclined than people in the UK as a whole to review their spending on mobile phones

As shown in Figure 1.10, consumers in Northern Ireland place a significant value on communications services in comparison to expenditure on other items. When asked to select three products or services where they could make savings, respondents in Northern Ireland were more likely to reduce spend on holidays/weekends away (43%) and nights/meals out (50%) than on any communications services. Only household groceries (7%) and personal care products (6%) ranked as more important than communications services. These findings are consistent with the UK-wide results and with research we conducted in Northern Ireland in 2009.

However, when asked to select three products or services to generate savings respondents in Northern Ireland were more likely to review their spend on mobile phones (22% Northern Ireland vs. 17% UK) or pay TV subscriptions (14% Northern Ireland vs. 20% UK). This result mirrors another finding of our research (see below), that consumers in Northern Ireland perceive mobile providers are offering better deals than 12 months ago.

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

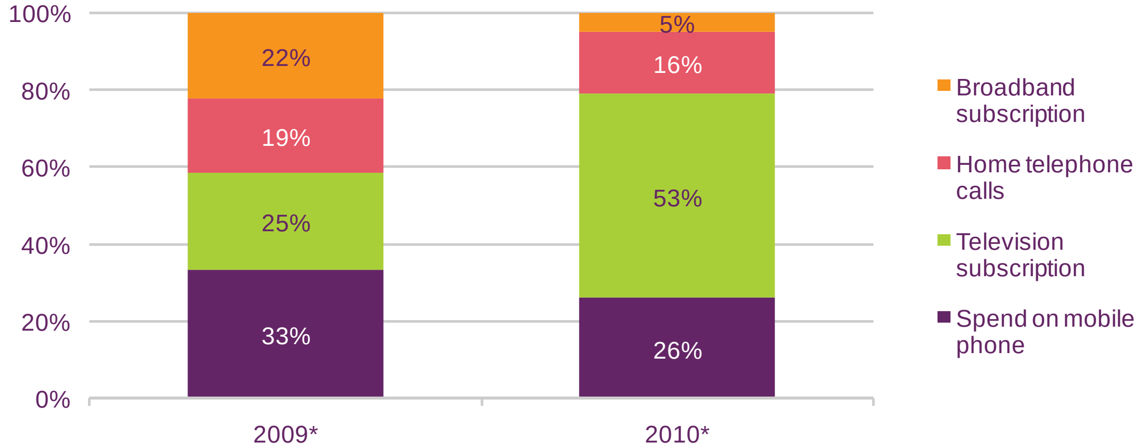
Items mentioned as first, second or third choice (%)



Source: Ofcom-commissioned research
Base: Total sample UK (n=2444), Northern Ireland (n=229)
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 Northern Ireland with all four communications services were most likely to cut their pay TV subscription, as just over half (53%) of respondents in Northern Ireland chose this item. This represents an increase of 28 percentage points in comparison with 2009 (although care must be taken in making comparisons owing to the small sample sizes for this question). In contrast, a much smaller proportion of respondents in Northern Ireland (5%) chose their broadband subscription, a decrease of 17 percentage points in comparison to 2009.

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



Source: Ofcom-commissioned research
*Base: Those with all four communications services, 2009 (n=63) 2010 (n=70) *Note small base: results should be taken as indicative only.*
Question: Which ONE of the following would you be most likely to cut back spending on?

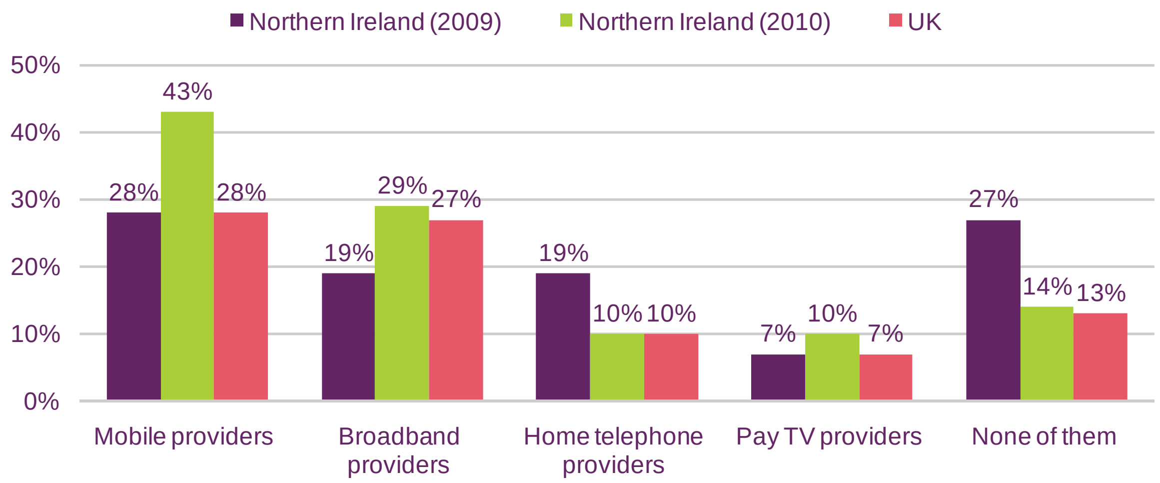
Consumers in Northern Ireland and throughout the UK believe that communications providers are offering improved deals now compared with 12 months ago

In 2009, more than a quarter of consumers in Northern Ireland believed that *no* communications providers were offering better deals; this figure dropped to 16% in 2010. This decrease is consistent with a similar drop 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.

In Northern Ireland this confidence appears to be driven by perceptions that broadband and mobile phone providers are offering better deals than a year ago, which perhaps explains why respondents are prepared to review their expenditure on these services this year. Forty-three per cent believed that mobile phone operators are now offering better deals, up 15 percentage points on last year. Perceptions that broadband providers are offering better deals increased by ten percentage points; from 19% to 29% year on year. Conversely, fewer respondents in Northern Ireland believed that home telephone providers have better customer offers available now than a year ago.

Figure 1.12 Proportion of consumers in Northern Ireland 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) Northern Ireland (2009 n=185, 2010 n=229)
Question: And which of the following providers, if any are offering better deals than they were 12 months ago?

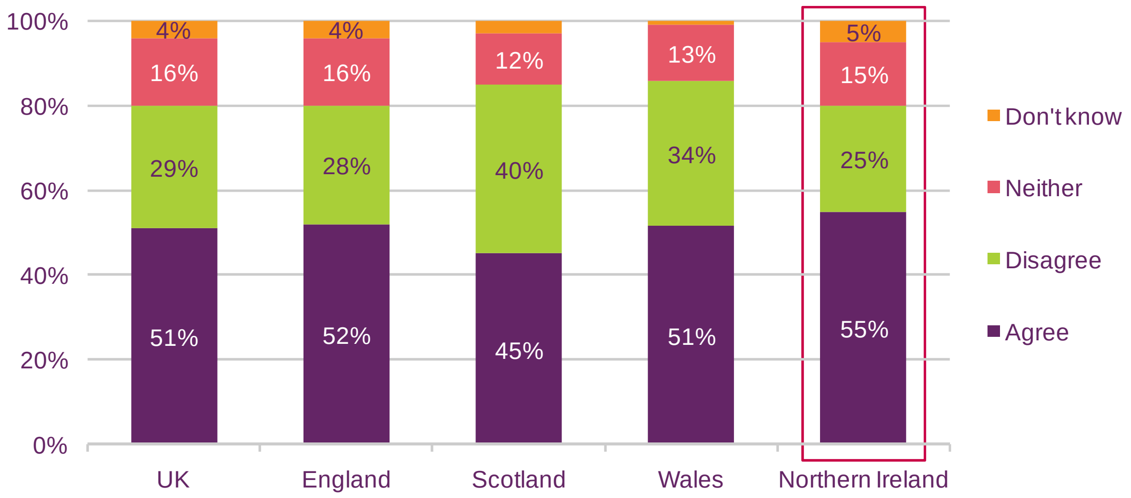
1.3.3 Bundled services

Consumers in Northern Ireland are more likely to purchase communications services in bundles now than 12 months ago

Last year's results indicated that purchasing multiple communications services from a single supplier was popular among consumers. In 2010 this trend continued across the UK, with just over half of consumers (51%) agreeing that they are more likely to buy communications services in a bundle now than 12 months ago. This represents only a small increase on the proportion of respondents agreeing with this statement in 2009, up four percentage points from 47%.

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

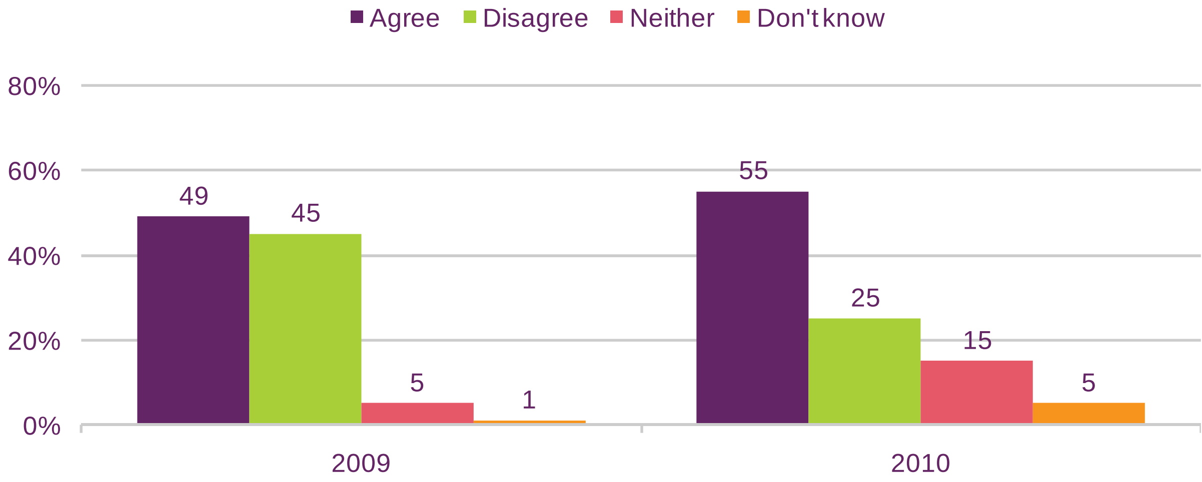
Proportion of respondents (%)



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 shown in Figure 1.14 below, the propensity to buy bundled services increased slightly in Northern Ireland year on year, from 49% of consumers thinking about signing up to bundled services in 2009, to 55% in 2010. This proportion is the highest in comparison to the other nations and regions results. Perhaps more notably, the proportion of respondents disagreeing with this statement fell by 20 percentage points compared to 2009 (from 45% to 25%).

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



Source: Ofcom-commissioned research
Base: Total sample (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

1.3.4 Acquisition of new communications equipment

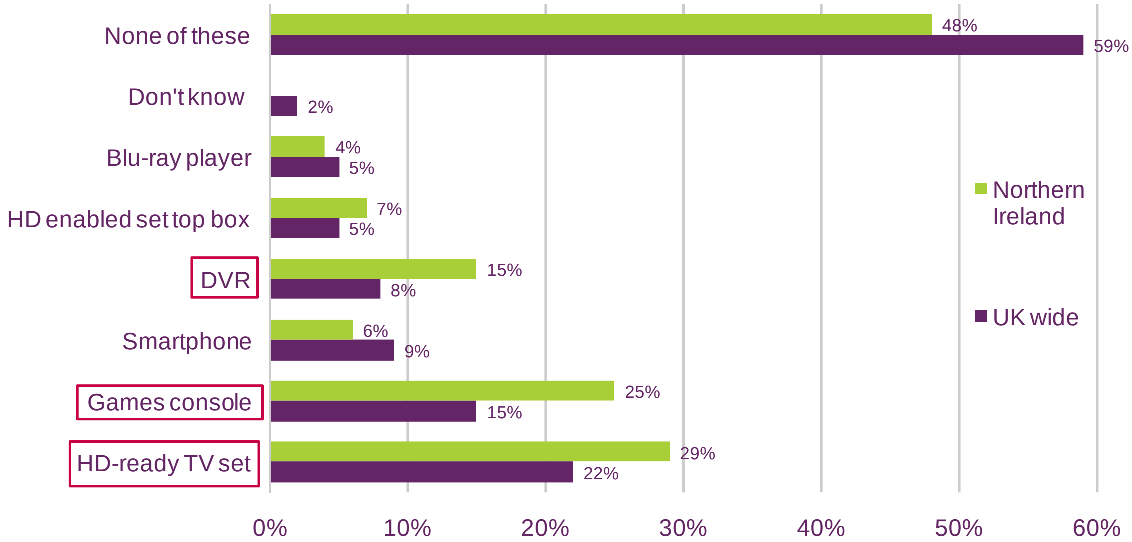
Consumers in Northern Ireland purchase digital and HD-ready TV products in spite of the economic downturn

Our research also looked at consumer spend on communications devices over the past year. The findings indicate that compared to the UK as a whole, more consumers in Northern Ireland have purchased new communications equipment. In the UK, 59% of respondents claimed not to have bought any of the communications devices listed below, but in Northern Ireland this figure was 48%

Survey respondents in Northern Ireland said they had purchased a range of media devices during the past year, with many buying digital TV products including HD-ready TV sets (29%) and digital TV recorders (15%). Games consoles were also popular with 25% saying they had bought one during the previous 12 months. Eighty-seven percent of all homes with a television[2] in Northern Ireland said they had access to digital TV on at least one set in their home by Q1 2010, this was lower than the UK average of 92% of TV homes, possibly as a result of switchover taking place later in Northern Ireland than many other parts of the UK.

[2] Note that approximately 2% of homes in the UK do not have a TV.

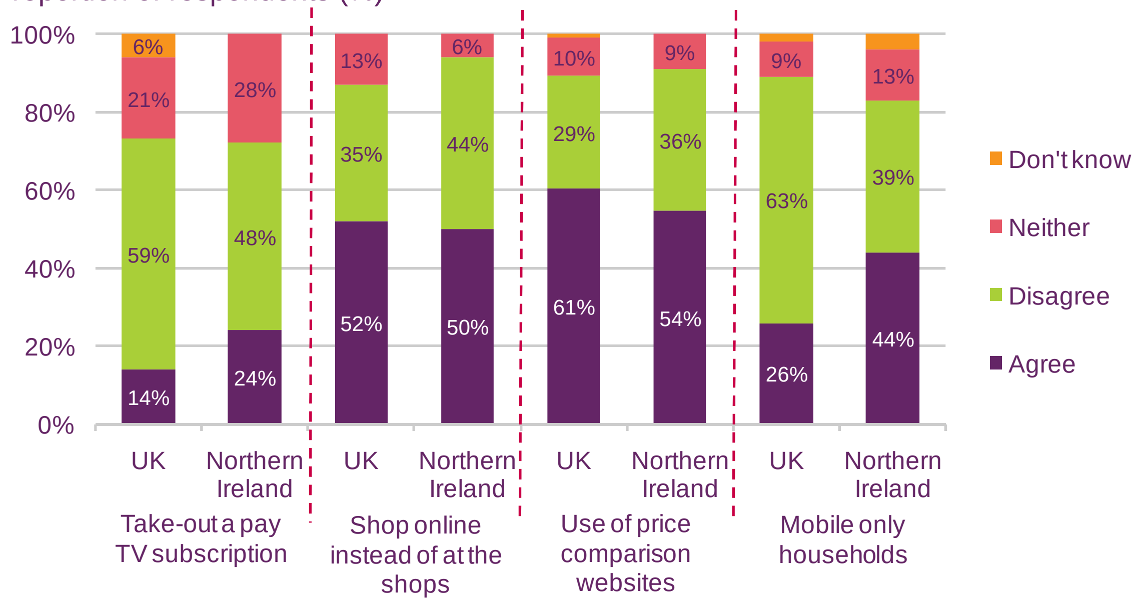
Figure 1.15 Selected communications devices bought in the past 12 months



Source: Ofcom-commissioned research
Base: Total sample (UK n=2444, Northern Ireland n=229)
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, consumers in Northern Ireland appear more likely to cancel their home telephone line rental and rely solely on their mobile phone for making calls and accessing the internet. While 63% of respondents across the UK disagreed that they are more likely to become a 'mobile only' household, only 39% in Northern Ireland disagreed with this statement, with 44% agreeing.

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



Source: Ofcom commissioned research
Base: UK (n=1300, 1554, 1554, 2099) Northern Ireland (n=108,122,122,203)
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.

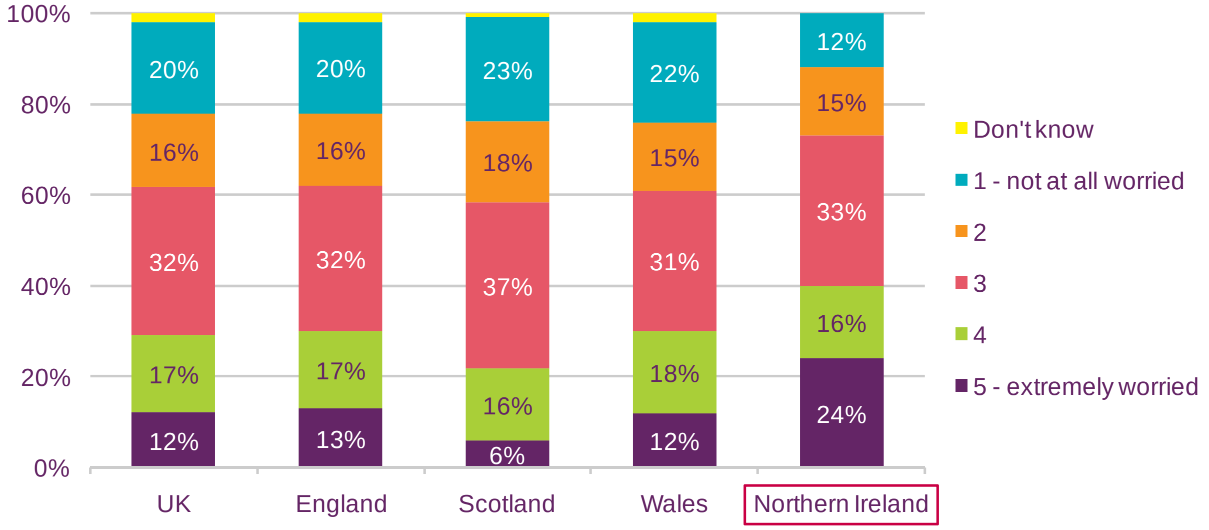
1.3.5 Attitudes of consumers in Northern Ireland towards the economy

Consumers in Northern Ireland are now more worried about the impacts of the recession than in 2009, and concerns are highest in Northern Ireland compared to the UK average.

Our research has revealed that consumer attitudes to the economic downturn are largely similar throughout the UK, but concerns increased in Northern Ireland between 2009 and 2010. Although the UK economy has now entered a slow growth period, more consumers in Northern Ireland are worried about the personal impact of the economic downturn compared to the UK as a whole, up 10 percentage points year on year to 40%. Across the UK, the proportion of people worried about the economic downturn has remained stable.

In comparison with other UK nations and regions, consumers in Northern appeared to display the highest level of concern. The large proportion of people in Northern Ireland working in the public sector may account for this apparent pessimism, due to the expected cuts in public expenditure.

Figure 1.17 Consumer attitudes towards the recession by nation



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 consumer experience in Northern Ireland

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[3]. To reflect this, this section brings together in one place relevant data that have in the past featured throughout the *CMR: Northern Ireland* report.

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

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

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

Moreover, while mobile population coverage in Northern Ireland is comparatively high, the figure for geographic coverage is lower; meaning that a proportion of the landmass of Northern Ireland is not covered by a mobile service from any operator.

1.4.2 Fixed broadband services

In some parts of Northern Ireland, very slow 'broadband' speeds may inhibit internet use

All local telephone exchanges in Northern Ireland are now DSL-enabled, meaning that most homes in Northern Ireland 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 be long distances between homes and the local exchange. However, 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.

In Northern Ireland a subsidised satellite broadband is available as an alternative to broadband over copper telephone lines.

The previous UK Government's 2009 *Digital Britain* report[4] estimated that around 11% of UK households were unable to get a broadband service with a downstream speed of

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[3] Ofcom Annual Plan 2010/11:
http://www.ofcom.org.uk/about/accoun/reports_plans/annual_plan1011/annplan1011/annplan1011.pdf

[4] http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf

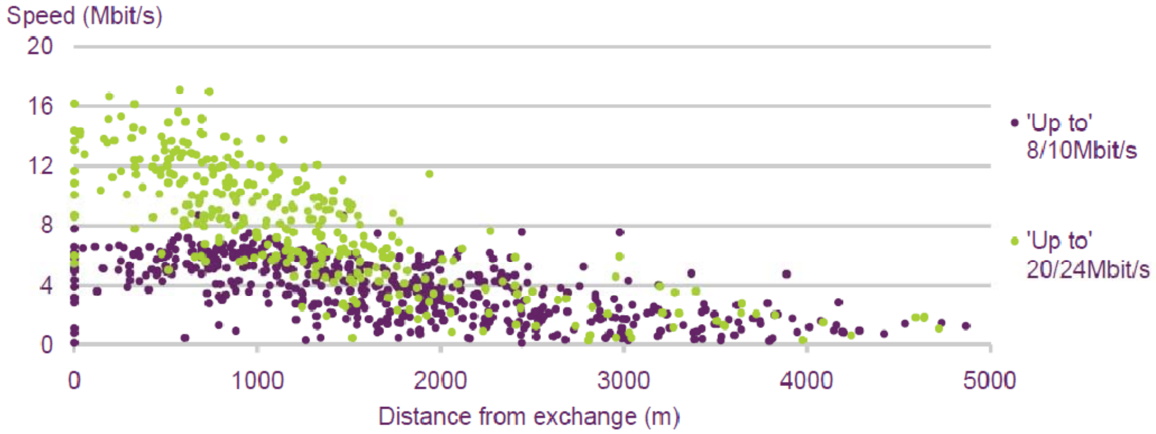
2Mbit/s or more. This is the connection speed the report believed was necessary to stream a TV programme and watch it online.[5]

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.[6] 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 1.18 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.

Figure 1.18 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



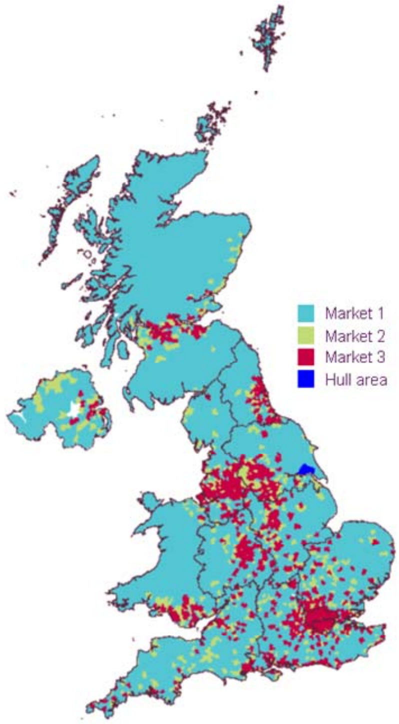
Ofcom UK Broadband Speeds Report, July 2010.
Source: SamKnows measurement data for all panellists with a DSL connection in May 2010.

The availability of broadband services provides an indicator of which areas are better served than others. The blue areas in Figure 1.19 below indicate those areas in which BT is the only operator (geographic market 1) – meaning that all broadband is delivered via BT's wholesale services (either through BT Retail or another operator). The green and red shading depicts areas where LLU operators have unbundled exchanges, thereby offering consumers a wider choice of services. LLU availability is concentrated in densely-populated areas of Northern Ireland, particularly around Belfast and Londonderry/Derry.

[5] Note, however, that the BBC recommends a minimum download connection speed o 0.5Mbit/s for its iPlayer service.
[6] http://stakeholders.ofcom.org.uk/market-data-research/telecoms-research/broadband-speeds/broadband-speeds-2010/

Figure 1.19 Distribution of UK exchanges by geographic market definition

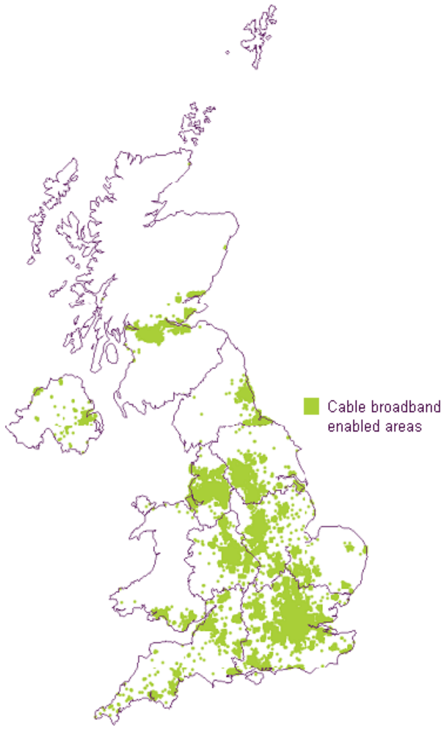
Market	Description	UK Exchanges	UK Coverage
The Kingston upon Hull area	Those geographic areas covered by exchanges where Kingston Communications is the only operator	14	0.7%
Market 1	Those geographic areas covered by exchanges where BT is the only operator	3,578	14.2%
Market 2	Those geographic areas covered by exchanges where there are 2 or 3 Principal Operators present (actual or forecast) AND exchanges where there are forecast to be 4 or more Principal Operators but where the exchange serves less than 10,000 premises	722	13.8%
Market 3	Those geographic areas covered by exchanges where there are currently 4 or more Principal Operators present AND exchanges where there are forecast to be 4 or more Principal Operators but where the exchange serves 10,000 or more premises	1,287	71.3%



Source: Ofcom, Review of the wholesale broadband access markets: Consultation on market definition, market power determinations and remedies, July 2010, *http://stakeholders.ofcom.org.uk/binaries/consultations/wba/summary/wbacondoc.pdf*
Note: Principal operators are those that provide broadband services over their own access networks (BT or Virgin Media) or have deployed LLU in more than 10% of the UK

Cable operators, providing high-speed broadband, also target areas of high population density. As shown in Figure 1.20, cable is available to approximately 50% of UK homes. In Northern Ireland, approximately 30% of homes – primarily in and around Belfast – are covered by Virgin Media's cable footprint.

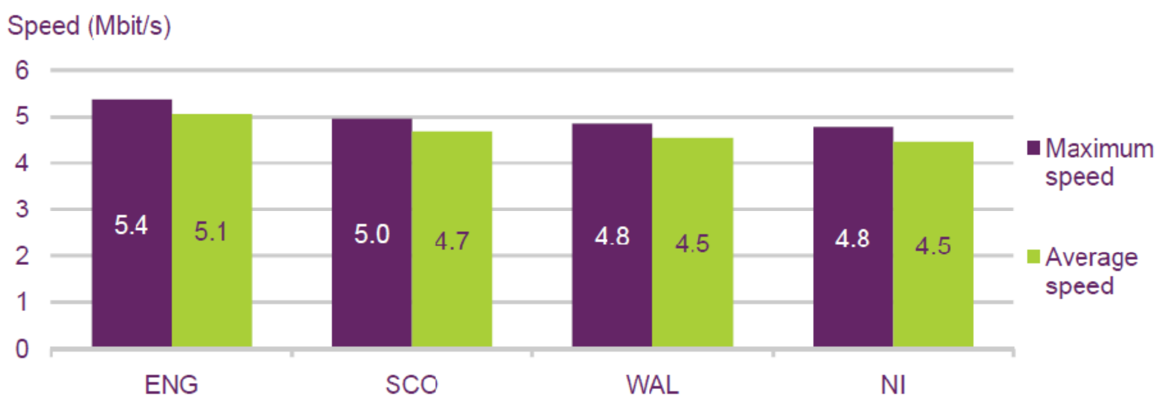
Figure 1.20 Map of the availability of Virgin Media cable broadband



Source: Ofcom / Virgin Media, September 2009 data

Lower availability and take-up of cable services, combined with longer average line lengths, mean that average broadband speeds in Northern Ireland are lower than in England and Scotland, and comparable to those available in Wales (Figure 1.21).

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



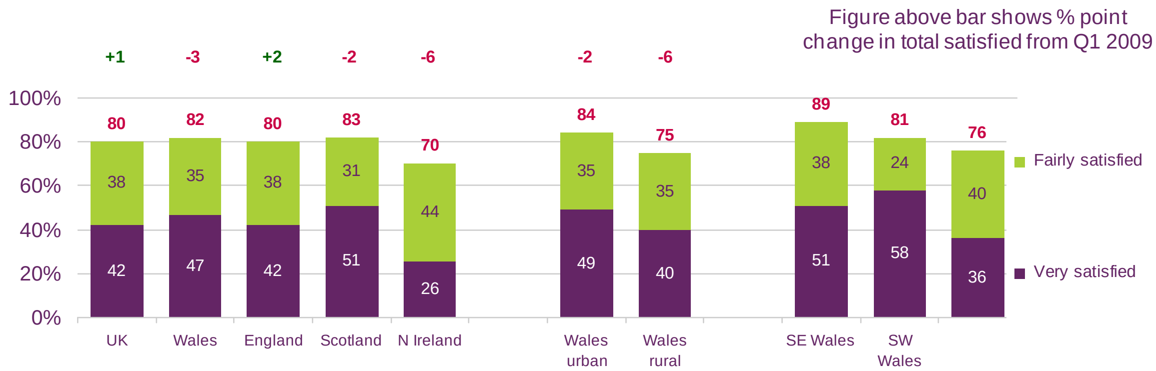
Ofcom UK Broadband speeds report, July 2010
Source: SamKnows measurement data for all panel members with a connection in May 2010. Panel Base: 1506.
Notes: (1) Data have been weighted by ISP package and LLU/non-LLU connections, rural/urban, geographic market classification and distance from exchange to ensure that they are representative of UK residential broadband consumers as a whole; (2) As sufficient sample sizes were not available for consumers on packages of 'up to' 2Mbbit/s or less, data collected for these packages in April 2009 has 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.

People living in urban areas in Northern Ireland are the most satisfied with their broadband service

As shown in Figure 1.22, 83% of consumers in Northern Ireland are satisfied or very satisfied with their fixed broadband service. This is below the UK average of 90% and the lowest of all of the UK nations.

Overall levels of satisfaction with fixed broadband services have fallen both in urban areas (down by nine percentage points from last year, to 84%) and rural areas (down by three percentage points to 79% - the lowest of any nation in the UK) in Northern Ireland. See Figure 5.21 in the Telecoms and Networks section below for satisfaction with fixed-line broadband speeds in Northern Ireland.

Figure 1.22 Overall satisfaction with fixed broadband service



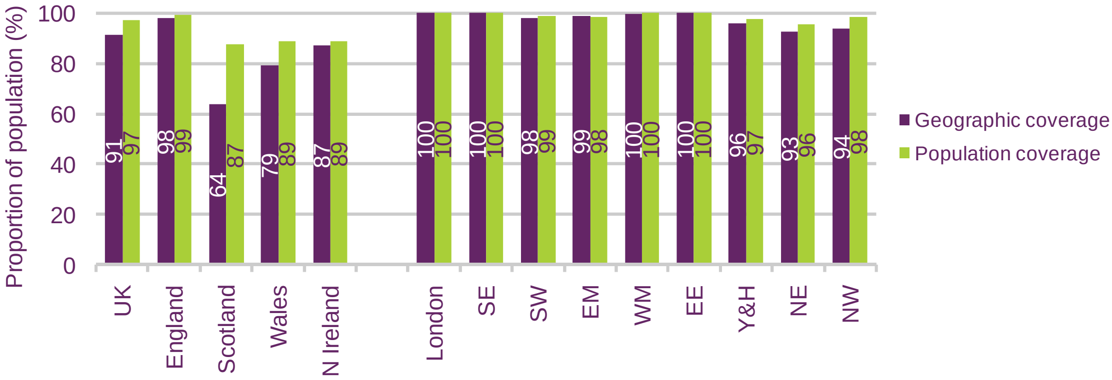
Source: Ofcom research, Q1 2010
Base: Adults aged 15+ with a fixed broadband connection at home (n= 5410 UK, 778 Scotland, 3559 England, 604 Wales, 469 Northern Ireland, 612 Scotland urban, 166 Scotland rural, 154 Glasgow, Clyde & Lanarkshire, 233 Lothian & Forth, 216 Grampian Tayside & Fife, 175 Other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

Our data shows that across Northern Ireland, 89% 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%) but level with Wales and higher than Scotland (87%). People in postcode districts in the remaining 11% of Northern Ireland 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 illustrates geographic 2G coverage (using the same 90% coverage threshold). Eighty-seven per cent of postcode districts in Northern Ireland had 2G area coverage from one or more mobile networks in Q2 2010; lower than population coverage (89%). 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.

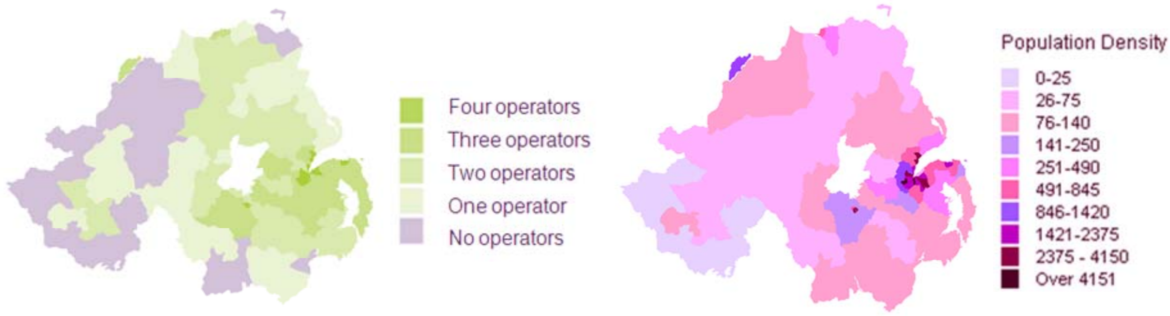
Figure 1.23 2G mobile phone geographic and population coverage



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 that published in the 2009 report.

The first map below shows where 2G services were available from one or more operators in Northern Ireland and where coverage was less than 90%; the second details the population density of each of the postcode districts covered in this analysis. In Northern Ireland, coverage is primarily concentrated around the major urban area of Greater Belfast while there are some areas, particularly in rural areas in the west, where coverage is less than 90%. This is a result of the networks concentrating build in areas of higher population density, whereas mobile coverage is largely lower in those areas with low population density.

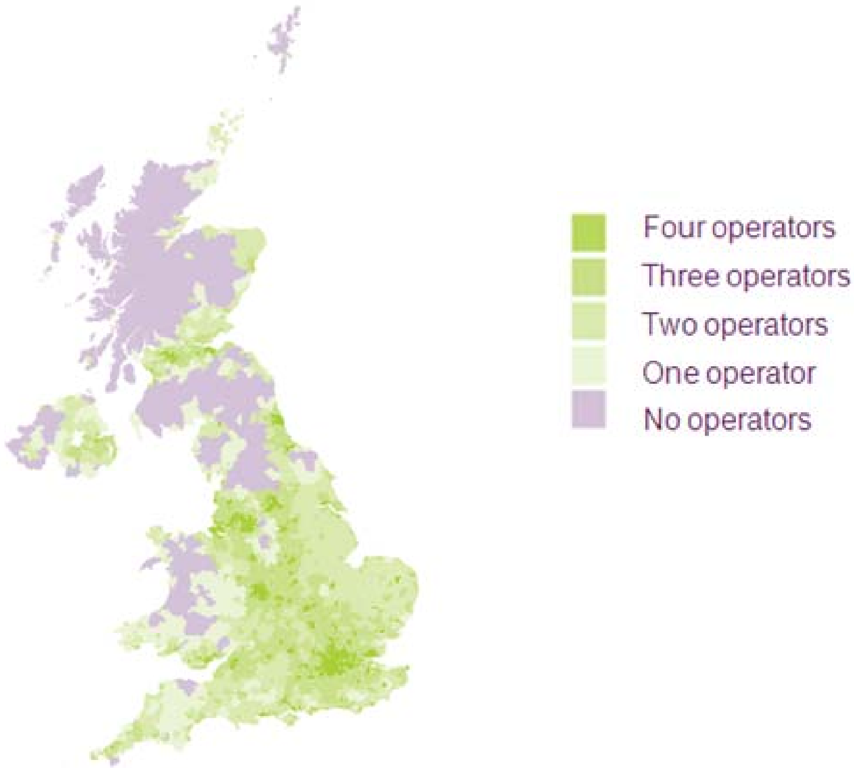
Figure 1.24 2G mobile coverage map and population density, by postal code district



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 that 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 the national parks in England have lower coverage.

Figure 1.25 UK 2G mobile coverage map

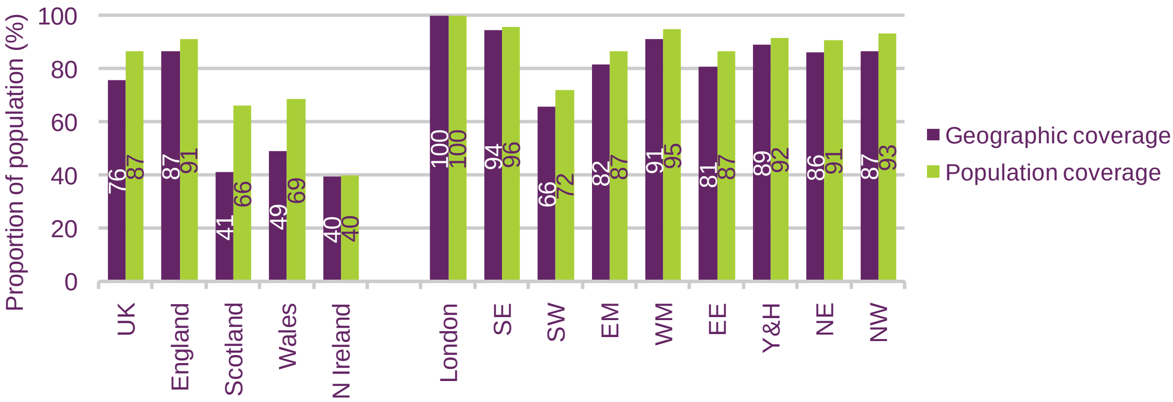


Source: Ofcom / GSM Association / Europa Technologies; Q2 2010
Note: Map shows the number of 2G operators with at least 90% area coverage; not directly comparable to data published in the 2009 report.

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

Northern Ireland's 3G population coverage (using the 90% postcode district threshold) is lower than 2G at 40%; this is far lower than the UK-wide average (87%), and lower than Wales (69%) and Scotland (66%). Geographic coverage of 3G is at the same level as population coverage. Under half (40%) 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%), Wales (49%) and Scotland (41%).

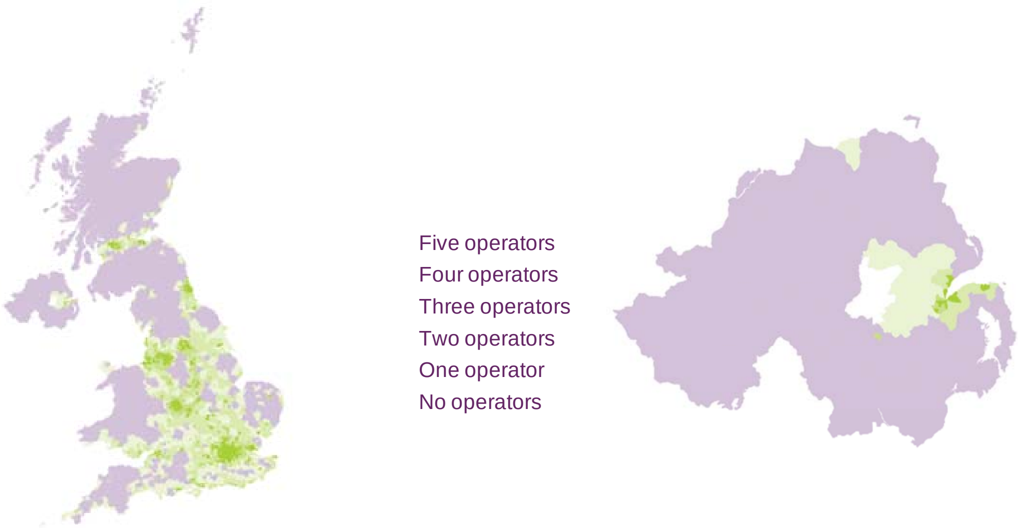
Figure 1.26 3G mobile phone geographic and population coverage, by number of operators



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; not directly comparable to data published in the 2009 report.

Figure 1.27 shows that within Northern Ireland the postcode districts with 90% 3G area coverage are largely concentrated around Greater Belfast, where population density is highest. In contrast there are large areas in the rest of Northern Ireland 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 that published in the 2009 report.

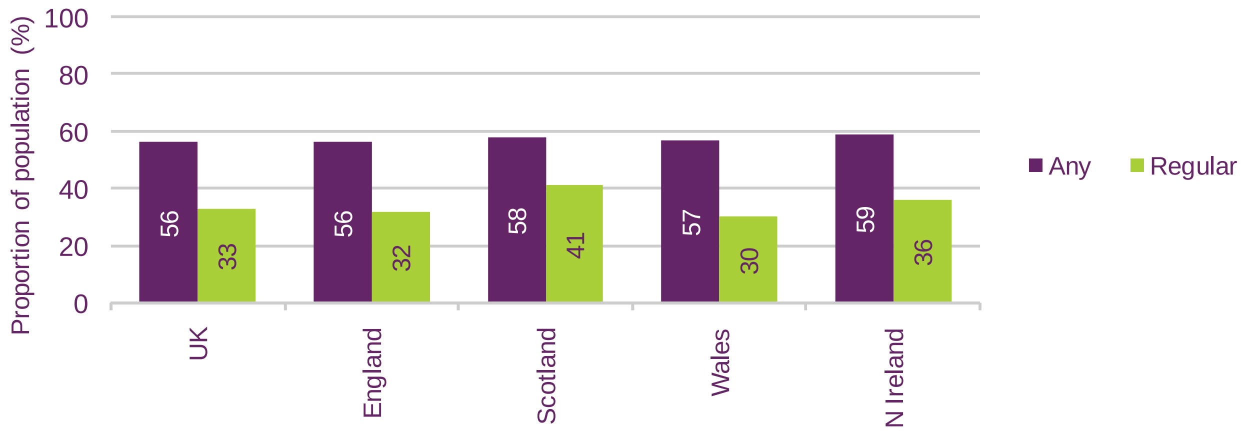
Over a third of mobile phone users in Northern Ireland claim to regularly experience mobile not-spots

Mobile phones are commonplace in Northern Ireland, with take-up at 88%, just below the UK average (89%). The importance of mobile coverage to consumers in Northern Ireland is reflected in the fact that there are more mobile-only households in the nation than elsewhere in the UK. In Q1 2010, the figure stood at 18% of all households, compared to 14% across the UK as a whole. However, consumers in Northern Ireland are less likely to claim that they use a mobile broadband service (14% of households, compared to the UK average of 15%). 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[7]. Its research (Figure 1.28) found that over half (59%) of people with a mobile phone in Northern Ireland had experienced problems with mobile coverage. This was higher than the UK average of 56%.

In addition, over a third (36%) of consumers in Northern Ireland claim to have experienced regular problems with mobile phone coverage. This is also higher than the UK average (33%).

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



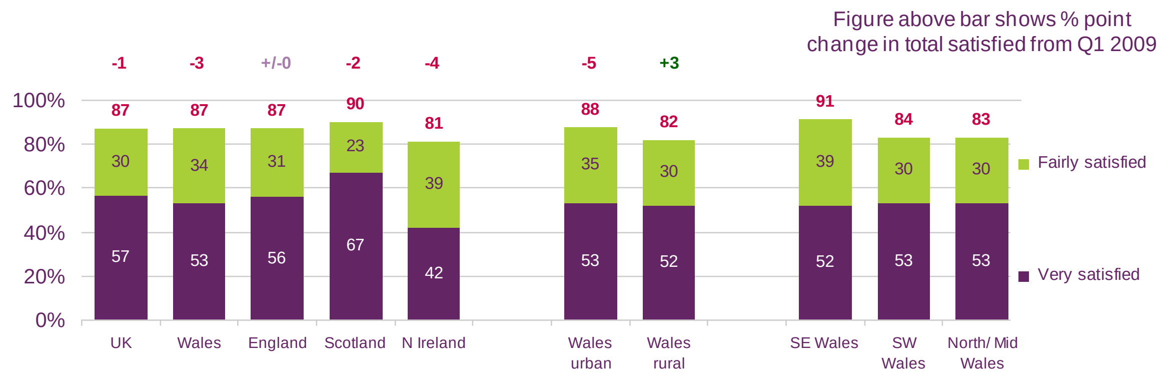
Source: Mostly Mobile, Communications Consumer Panel report
Question: Which of the following problems, if any, have you had in the past in terms of your mobile reception…? Which of them, if any, do you experience regularly?
Base: All those who use a mobile for personal use (UK n = 1716, England n = 1439,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

Most consumers in Northern Ireland are satisfied with their mobile phone service

Ninety three per cent of mobile phone users in Northern Ireland are satisfied, or very satisfied, with the service they receive. This is just below the UK average of 94%. People in rural parts of Northern Ireland are less likely to be satisfied (92%) than those living in urban areas (94%).

[7] *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, 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 not-spots in Northern Ireland

To better understand the consumer’s experience of not-spots in Northern Ireland, we commissioned some qualitative research based on a mixture of telephone and face-to-face interviews, and diary exercises, to explore the effect on the smaller numbers of people who cannot get a mobile signal.

In Northern Ireland, the research focused on the following areas:

- rural locations: Lough Erne Resort in County Fermanagh; and Hilltown and Kilkeel in County Down;
- urban residential locations: Lagan College area, Belfast; and

  commuter routes: Moyad Road (B27) between Kilkeel and Hilltown and commuter routes into Belfast.

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

> “The internet is essential today, so I don’t know what we would do without broadband. Because we live so far away from shops etc we use it for our food shopping every week.”
>
> “I used to feel like our village was in the dark ages because we had no broadband.”

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. The case study below illustrates the experience of a consumer in Northern Ireland who experiences mobile roaming in an area where his network operator has poor coverage.

Case study: Mobile roaming in not-spot areas in Northern Ireland

James is self-employed and works in the fish trade in Kilkeel, Co. Down. He regularly commutes along the coastal route from Kilkeel to Newry and occasionally uses his hands-free kit to make business phone calls while on the move. For much of the route the Republic of Ireland is clearly visible across a small stretch of water.

He thinks that the not-spots in this area occur because of the geographical location, which includes both mountains and coastline. In his opinion, this problem might be solved if an additional mobile phone mast were to be built somewhere nearby.

James' experience of mobile not-spots

James does not experience any coverage problems where he lives, but he frequently drives through not-spots areas when travelling along this route. As he is a regular commuter on the road, he knows where the not-spots are and is able to work around them by avoiding the need to make calls when he is in this area: *"I know where there are no reception areas, so I tend to make a call before I enter this area."*

He also experiences issues of inadvertent international roaming

Occasionally James' phone roams onto a network in the Republic of Ireland when his own network is unable to receive coverage while he is travelling along this road. He does not feel that this is a major problem but he suspects that it would be for people living in this area. James believes that they must face the choice of putting up with areas where they have no coverage, or paying higher roaming rates for calls and texts using a network from the Republic of Ireland.

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, emergency 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 service numbers using another mobile network operator if their own service provider does not offer coverage while an alternative provider does.

This means that in a situation that requires an emergency call to be made, people are now able to call 999 or 112 from their mobile phone using another network if their own network is not and an alternative provider has 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 note spots, this provides them with reassurance 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 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. As such, we are undertaking a programme of research to improve our understanding of 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 to consider whether there are any appropriate solutions, within the scope of our duties and powers, for improving coverage.

Fixed broadband not-spots

The 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 14% of people in Northern Ireland – 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.