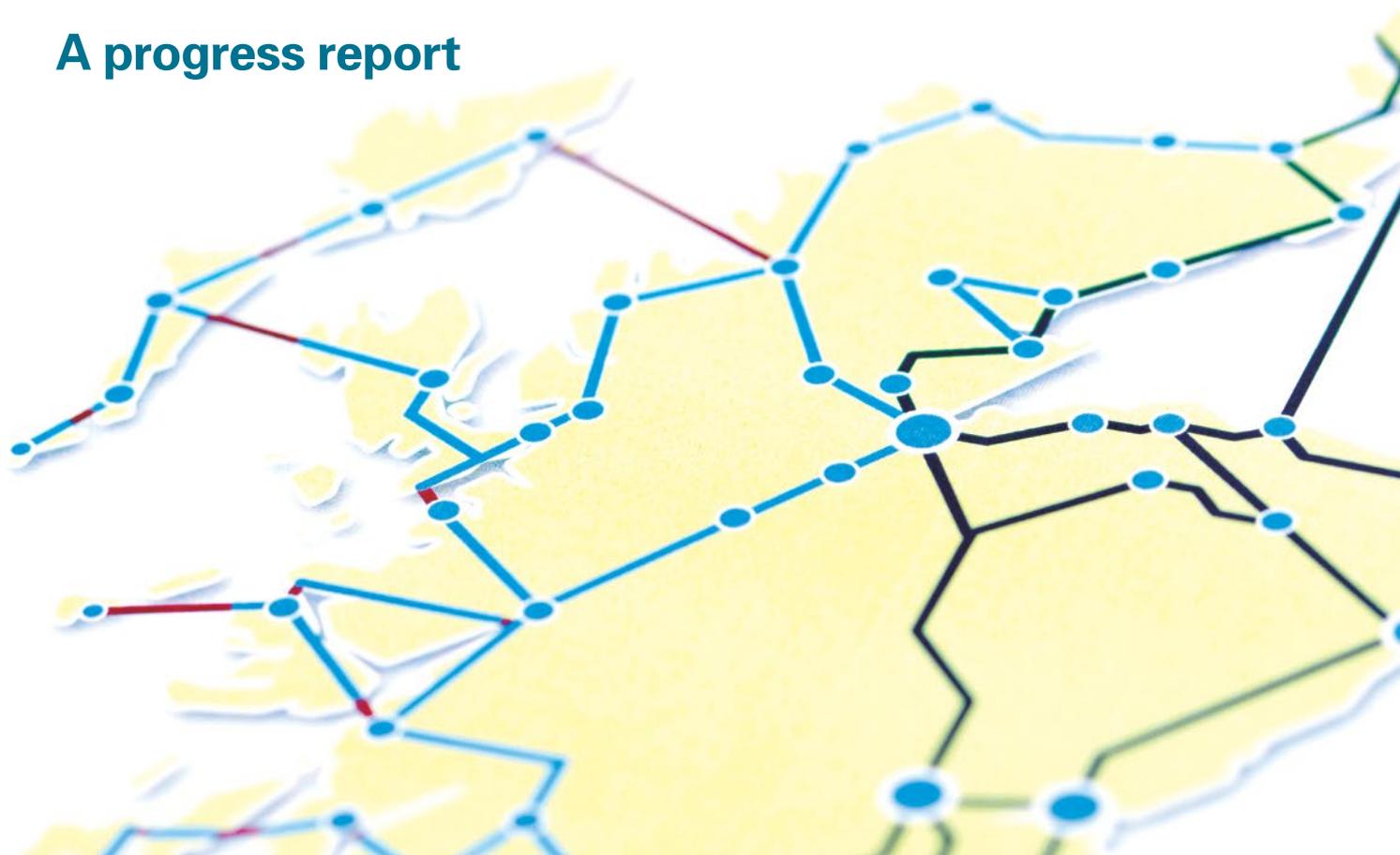


# Superfast broadband for Scotland

A progress report



 AUDITOR GENERAL

Prepared by Audit Scotland  
February 2015

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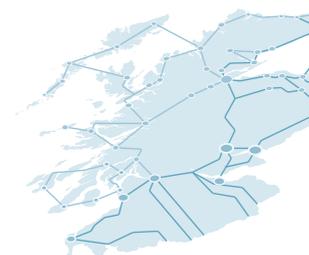
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## Cover image

The map shows the broadband network across Scotland. Black lines show the existing network; blue and red show the network being built.



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## Exhibit data

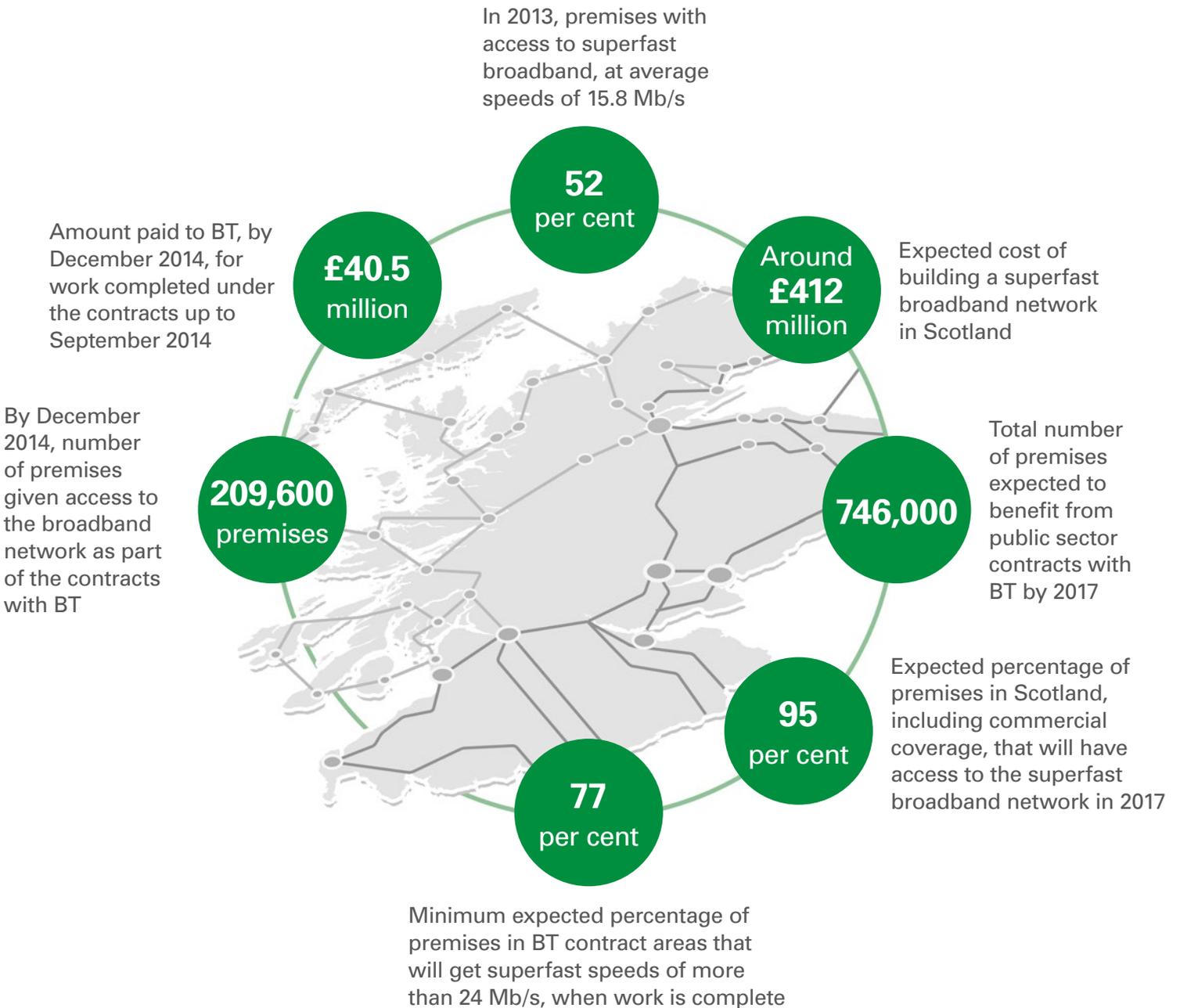
When viewing this report online, you can access background data by clicking on the graph icon. The data file will open in a new window.

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# Key facts



In 2013, premises with access to superfast broadband, at average speeds of 15.8 Mb/s

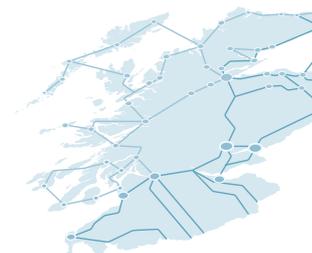


Note: Megabits per second (Mb/s) refers to the amount of information transferred through the broadband connection in a second. This is sometimes referred to as the download or upload speed.

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# Summary

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## Key messages

- 1** The Scottish Government's ambition is to develop a superfast broadband infrastructure network with the capacity to deliver speeds of 40–80 Mb/s to 85–90 per cent of premises in Scotland by March 2016, and to extend this to over 95 per cent by the end of 2017. British Telecommunications plc (BT) is responsible for installing the infrastructure through two contracts (the Highlands and islands contract and the rest of Scotland contract). The contracts do not guarantee speeds of 40–80 Mb/s to all users, and about a quarter of premises may need to rely on further technological advances or new investment to get speeds of more than 24 Mb/s. Because detailed roll-out plans are reliant on the completion of survey work, the Scottish Government and Highlands and Islands Enterprise (HIE) cannot yet state with certainty what broadband speeds they expect their contracts with BT to ultimately deliver.
- 2** The combined cost of building and maintaining the network as set out in the contracts with BT is £412 million, with the Scottish public sector contributing £165 million of this. BT was the only final bidder for each contract. The two project teams used a variety of approaches to obtain assurance that BT's bids offered value for money, such as benchmarking with other UK broadband projects. According to benchmarking, the rest of Scotland contract costs are in line with those of other UK broadband projects, while costs in the Highlands and islands are higher. It is difficult to conclude whether the Scottish contracts represent value for money because BT is also the sole contractor for all other UK broadband projects.
- 3** Based on progress to December 2014, and assuming that BT delivers only its contractual targets from December 2014 to March 2016, we calculate that the Scottish Government will achieve its interim target to provide access to 85 per cent of premises across Scotland by March 2016. So far, BT has exceeded its contractual targets to provide access to the broadband network by 57,000 premises, although it is about 14,000 premises short of where it expected to be against its original implementation plans.
- 4** Arrangements for scrutinising BT's progress against the contracts are good. The procedures are complex, which increases the risk that, as workloads increase in the future, project teams may not be able to manage in busier periods. The Scottish Government and HIE have still to fully develop plans to measure the wider benefits of their broadband investment.

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the Scottish public sector is spending £165 million to develop a superfast broadband network in Scotland

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## Key recommendations

### The Scottish Government should:

- improve ways of reporting the range of speeds its investment will deliver and, in particular, seek to report publicly what its contracts with BT for superfast broadband are expected to deliver in terms of coverage and speed, by each of:
  - the interim target date (March 2016)
  - December 2016 and December 2017 (when the Highlands and islands and rest of Scotland contracts are due to complete)
  - December 2020 (the date when the Scottish Government expects superfast broadband to be universally available).

### The Scottish Government and HIE should:

- encourage take-up of superfast broadband to maximise the benefits of their investments and identify what further work is needed to realise these benefits
- develop clear plans, by June 2015, for the planned investment of a further £42 million in superfast broadband, announced by the UK and Scottish Governments in February 2014. These plans should strike an appropriate balance between extending coverage in areas where there is no access to superfast broadband, and increasing speeds in premises with low speeds. The plans should also:
  - take account of the costs and value of extending coverage to the 132,000 premises in the most remote parts of Scotland that will either not be covered by the current superfast broadband contract arrangements or where BT is unable to say if they will be included
  - consider the costs and value of improving speeds to those premises not expected to get maximum speeds of more than 24 Mb/s
  - assess the technological challenges associated with both increasing speeds and extending coverage, and how these might be overcome
  - use the above information to set clear priorities and a timetable for further investment in superfast broadband
  - include an assessment of how the existing investment can best be used to help contribute towards meeting the EU aspiration of 50 per cent uptake of ultrafast broadband (speeds faster than 100 Mb/s) by households in Europe
  - identify communities excluded from the current BT contracts, so that these communities can make an informed choice to consider other options.
- review work programmes and payment profiles and make any changes necessary to ensure that payment is closely linked to successfully achieving the agreed targets

- keep staffing levels and workloads under review and alter the skills mix and number of staff when needed, to ensure that project teams are able to fulfil their contract management and monitoring roles well
- further develop their performance measurement frameworks, by including measures that address speeds delivered, the unit cost of providing access to superfast broadband to each premise and levels of take-up, as well as measures that allow benchmarking with other countries' implementation of superfast broadband. Both bodies should report publicly on these measures each year.

## Introduction

**1.** The Internet is now regarded as an everyday necessity. It enables businesses to develop and compete internationally. It helps people to learn and improve their skills, and provides access to online services so that, for example, they can pay their council tax or register to vote. The Internet can also help reach and widen opportunities for people unable to access services and information in other ways, because of where they live or because they face other barriers, such as being in poor health. Broadband is the means by which people access everyday Internet services. Unlike earlier generation dial-up connection services, broadband is high speed and always-on.

**2.** In June 2013, Ofcom reported that 52 per cent of premises in Scotland had access to superfast broadband. While access to superfast broadband in Scotland is growing – in 2012, the equivalent figure was 45 per cent – it is behind many other parts of the UK. Overall, across the UK, 73 per cent of premises were in areas with access to superfast broadband in 2013. Comparative figures for the other countries of the United Kingdom in 2013 were:

- 95 per cent access to superfast broadband in Northern Ireland
- 76 per cent access to superfast broadband in England
- 48 per cent access to superfast broadband in Wales.<sup>1</sup>

**3.** There is no agreed definition of what speed is 'superfast', although the Scottish Government's aim is to ultimately provide speeds of 40–80 Mb/s. In comparison, the UK Government's rural broadband programme now aims to provide access to Internet speeds of more than 24 Mb/s to 95 per cent of premises by 2017. The European Commission's ambition is for all member states to provide access to speeds in excess of 30 Mb/s by 2020, with 50 per cent of European households subscribing to ultrafast speeds of more than 100 Mb/s. Other countries are more ambitious: Germany aims to provide speeds of 50 Mb/s to all households by 2018, while Sweden aims to provide access to speeds of 100 Mb/s to 40 per cent of premises by 2015, and 90 per cent by 2020.<sup>2</sup>

## Creating a superfast broadband network in Scotland

**4.** The Scottish Government set out its aim, in January 2012, to establish a network making broadband speeds of 40–80 Mb/s available to 85–90 per cent of premises across Scotland by 2015, and universally available by 2020. The Scottish Government considered that a range of factors would affect the actual speed received at individual

premises, and outlined that the 40–80 Mb/s target was intended to signal the extent of the change required, rather than being regarded as a precise measure.<sup>3</sup>

**5.** The policy intent of the broadband programme is to address the digital divide by providing more even access to superfast broadband across Scotland. The Scottish Government intends to use public money to bridge the gap between what commercial operators will provide and its policy ambitions. For example, HIE has estimated that, without public sector intervention, only 21 per cent of premises in the Highlands and islands could expect to receive access to a broadband network. Some council areas in the Highlands and islands would not have access to superfast broadband at all.

**6.** In May 2012, the Scottish Government restated its objective, outlining that the network built would have the 'capacity to deliver' speeds of at least 40 Mb/s to 85–90 per cent of premises by 2015.<sup>4</sup> In practice, this means that the network BT is building across Scotland will not provide superfast speeds to all premises. It will provide a backbone which BT, the Scottish Government and HIE believe can be upgraded later, to provide speeds of at least 40 Mb/s. The Scottish Government and HIE expect that the network they are currently building will:

- provide speeds of more than 40 Mb/s to some premises
- improve the broadband speeds that other premises get, although they will not get speeds as fast as 40 Mb/s
- provide broadband, albeit at low speeds in some instances, to premises that do not currently have broadband at all.

In this report we refer to the network that BT is building as a 'superfast broadband network' to distinguish it from the network that was previously available.

**7.** In 2013 the Scottish Government and HIE separately appointed BT to build the superfast broadband network across Scotland at a cost of £412 million, to cover the cost of building, operating and maintaining the network over an 11-year period. The public sector is providing £286 million (69 per cent) of the funding. The Scottish public sector will provide £165 million (40 per cent), with other contributors being the UK Government, through Broadband Delivery UK (BDUK), the European Union (EU) and BT.

**8.** Although the public sector is mainly funding the broadband infrastructure being built, BT will ultimately own the network and will be responsible for maintaining it beyond the end of the contracts. BT will generate income from its investment in Scotland by selling access to Internet service providers so that they can offer superfast broadband to households in Scotland.<sup>5</sup>

**9.** The Scottish Government has a number of other projects in place to help expand broadband coverage beyond what BT is expected to deliver. However, it does not yet have detailed plans to achieve its vision of universal availability by 2020. Key steps taken so far include:

- Establishing Community Broadband Scotland (CBS) to manage a £6.2 million start-up fund to bring broadband to remote communities. This will require CBS to target its funding at those communities that are not included in BT's work.

- Earmarking at least £42 million of additional investment to extend coverage of the superfast broadband infrastructure in Scotland and/or boost speeds. The Scottish Government, BDUK and HIE are still discussing how the additional funding will be used.
- Asking the Scottish Futures Trust (SFT) to help develop a plan to achieve a world-class 2020 digital infrastructure. SFT will look at the requirements of a world-class infrastructure and possible funding approaches.
- Setting up a number of other programmes such as support for the Business Excellence Partnership, to develop programmes that help businesses to adopt digital technology; introducing a skills investment plan for the digital/ICT sector; and funding the Scottish Council for Voluntary Organisations' (SCVO) work to support its efforts to get people online.

## How superfast broadband reaches users

**10.** Devices such as computers and mobile phones send and receive information through channels within the Internet connection. Broadband speeds depend on the type of connection to the Internet and the number of channels used to connect to the Internet. The more channels the connection has, the faster information is transferred. Fibre optic cables provide the fastest Internet connections but laying new cables is more expensive than reusing existing copper wiring to link to the Internet. Fibre also gives better speeds than copper as it does not slow down over long distances, or as more people use the service.

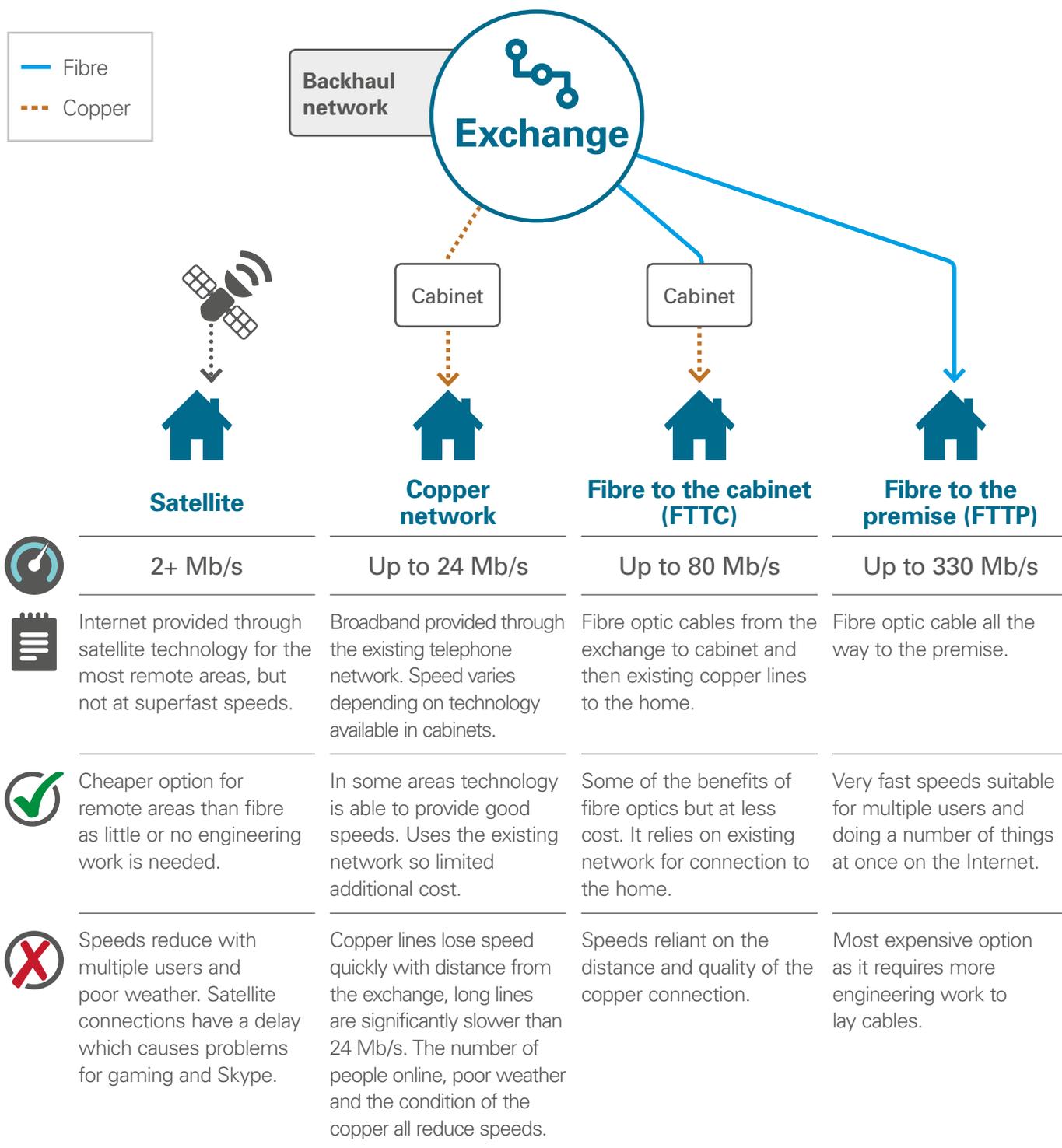
**11.** BT's contracts suggest it will use a combination of fibre optic cables, existing copper wiring and, to a lesser extent, satellite to establish the broadband network. BT cannot say definitively how much of the network will be built using each technology, as it is aiming to balance coverage and speed and will determine this through ongoing survey work. Both contracts work on the principle of installing a fibre network where possible:

- A large proportion of the network BT is building for the Scottish Government and HIE will use fibre cables that link exchanges to a network of existing and new locations (known as cabinets) that are close to homes and businesses. Existing copper wires then provide the final connection to premises. This is known as fibre to the cabinet (FTTC).
- A smaller proportion of premises will receive fibre all the way, known as fibre to the premise (FTTP). FTTP is generally used in less densely populated areas where it is not cost effective to build a cabinet.
- BT is trialling fibre to the remote node (FTTRN) in England. This involves attaching small electronic boxes to existing overhead or underground infrastructure to help provide better coverage in remote areas. If the trials are successful, and approved for use by BDUK, then BT may use the technology to extend the network in Scotland.
- In some areas, because of the terrain and cost, it will not be possible to use either FTTC or FTTP. Depending on its affordability, BT expects to use satellite to make basic broadband (up to 2 Mb/s) available to some properties in these areas ([Exhibit 1, page 10](#)).

### Exhibit 1

#### How superfast broadband reaches users

BT is replacing parts of the copper network with fibre to the premise and fibre to the cabinet. However, in very remote areas BT may need to use alternative technology (such as satellite) to provide basic broadband speeds.



Note: In some instances pre-existing local exchanges will not be used. Instead FTTC and FTTP will connect to the network through handover points.

Source: Audit Scotland

**12.** In the Highlands and islands, BT needs to first create a ‘backhaul network’ to bring broadband from the core out to exchanges and other handover points across the area. This involves laying 20 subsea cables and 800 km of land cables across the Highlands and islands. Commercial providers have already built most of the backhaul network that covers the rest of Scotland. The need to build a significant backhaul network is a unique feature of HIE’s contract with BT. Our report cover shows the existing and new backhaul network.

## About the audit

**13.** This audit assesses whether the Scottish Government and HIE have clear plans and arrangements in place to build their superfast broadband network in Scotland. It looks at:

- the targets, aims and objectives of the Scottish Government’s investment programme in superfast broadband
- the procurement and subsequent contract management of the two projects (in the Highlands and islands and the rest of Scotland)
- what has been delivered to date and what else is needed to realise the Scottish Government’s world-class vision by 2020.

**14.** During our audit we:

- reviewed documents such as Scottish Government strategies, project business cases, tender evaluations, implementation plans and relevant progress reports and papers
- interviewed representatives from the project teams in the Scottish Government and HIE, and other stakeholders such as BT
- interviewed representatives from partner organisations and interest groups such as councils, the Convention of Scottish Local Authorities (COSLA), BDUK, SFT, the Carnegie UK Trust and the SCVO
- liaised throughout the project with other stakeholders including Ofcom, the Wales Audit Office and the National Audit Office, and used benchmarking data from their work where appropriate
- a detailed methodology is in [Appendix 1](#). [Appendix 2](#) lists members of our project advisory group, who gave advice and feedback at important stages of the audit.

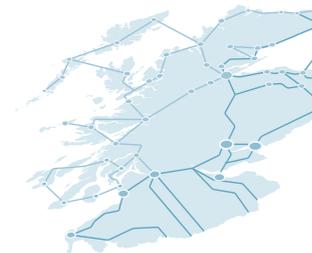
**15.** This report has two parts:

- [Part 1](#) looks at the development of the superfast broadband network in Scotland.
- [Part 2](#) examines the progress made in delivering superfast broadband in Scotland.

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# Part 1

## Developing a superfast broadband network



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### Key messages

- 1** The Scottish Government set out a timetable to make superfast broadband available across all of Scotland by 2020. It set interim targets to provide an infrastructure that ultimately could provide superfast broadband (at speeds of 40–80 Mb/s) to 85–90 per cent of premises by March 2016.
- 2** The Scottish Government and HIE appointed BT using two separate contracts to develop the infrastructure that people need to get superfast broadband. When the work is complete in December 2017, the Scottish Government and HIE expect that at least 95 per cent (2.5 million) of premises in Scotland will be covered by the superfast broadband network. This includes at least 746,000 premises covered by the BT contracts, as well as 1.73 million premises covered by commercial providers.
- 3** The contracts with BT do not guarantee that all premises will get target speeds of 40–80 Mb/s. About three-quarters of the premises in the areas covered by the contracts can expect to receive access to maximum speeds of more than 24 Mb/s. The remaining 23 per cent of premises may need to rely on technological advances or further investment before being able to get superfast broadband speeds. Because detailed roll-out plans are reliant on the completion of survey work, the Scottish Government and HIE cannot yet state with certainty what broadband speeds the contracts with BT will ultimately deliver.
- 4** The total cost of the work associated with the contracts is £412 million, including the Scottish public sector's spend of £165 million and BT's ongoing operating and maintenance costs. The Scottish public sector is contributing 40 per cent of total costs. Final total spend will not be known until 2025.
- 5** BT was the only final bidder in each area. Project teams used a variety of approaches to obtain assurance that BT's bids offered value for money, such as benchmarking with other UK broadband projects. According to benchmarking, the rest of Scotland contract costs are in line with those of other UK broadband projects, while costs in the Highlands and islands are higher. Because BT is the sole contractor for the other UK broadband projects, it is difficult to conclude from this whether the Scottish contracts represent value for money.

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three-quarters of premises will get access to broadband speeds of 40–80 Mb/s through the contracts with BT

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## The Scottish Government set out a timetable to deliver superfast broadband in Scotland by 2020 but it is not clear what speeds will be delivered

**16.** In 2009, HIE started planning to introduce superfast broadband across the Highlands and islands, when it first sought consultants' advice on the costs and benefits of establishing a network that would extend coverage beyond the 21 per cent of premises that commercial operators were expected to provide. A year later, the Scottish Government published *Digital ambition for Scotland* setting out its timetable for introducing superfast broadband across Scotland. This was followed, in March 2011, by the Scottish Government's digital strategy, to create what it has termed a world-class digital Scotland.<sup>6</sup> The vision is to offer connectivity anywhere, anytime and through any device, in a country where people and businesses are able to make the most of this connectivity. The strategy set out four programmes to build a world-class digital Scotland. These were to:

- deliver digital public services, by finding new and improved ways for people to do things online
- promote a digital economy, by providing skills and helping business to adopt digital technology
- encourage digital participation, by making broadband affordable and encouraging and helping people to use it
- build digital connectivity: that is, ensuring the infrastructure is in place to enable people to go online anytime, anywhere, using any device.

**17.** The Scottish Government outlined how it would deliver the fourth programme, to build digital connectivity, in its digital infrastructure action plan, published in January 2012.<sup>7</sup> The action plan set three specific milestones for the programme:

- to deliver a world-class, future-proofed digital infrastructure across the whole of Scotland by 2020
- to make superfast broadband (at speeds of 40–80 Mb/s) available to 85–90 per cent of premises by 2015
- to extend the reach further and deliver the best possible speeds for those where delivery of 40–80 Mb/s is not possible.

**18.** In May 2012, the Scottish Government published its digital infrastructure procurement plan.<sup>8</sup> This provided an update on progress in creating a superfast broadband network in the Highlands and islands, and set out how the Scottish Government would identify a supplier for the rest of Scotland area. The plan restated the Scottish Government's position on what broadband speeds it expected from the new network, by recognising that not all premises in Scotland will immediately be able to receive speeds of 40–80 Mb/s when the superfast network is installed. The procurement plan stated that:

'The core requirement of this procurement is to invest in infrastructure that will have the capacity to deliver speeds of 40–80 Mb/s for between 85–90 per cent of premises, with a significant uplift in speeds for those where delivery of 40–80 Mb/s is not possible at this stage, including those areas where there is currently no level of service.'

**19.** Because there is likely to be a variation in the speeds that individual premises receive, the Scottish Government has not detailed what speeds it expects the BT contracts to deliver. For example in a statement to the Scottish Parliament's Infrastructure and Investment Committee in June 2013, when the rest of Scotland contract was still to be signed, the then Cabinet Secretary for Infrastructure, Investment and Cities said 'the ambition.... is to give 85–90 per cent of households across Scotland speeds of between 40–80 Mb/s'. In the June 2014 briefing to the committee, the then Cabinet Secretary stated 'We remain focused on achieving our target of 85 per cent of premises with access to fibre broadband by 2015-16 and 95 per cent by 2017-18' without referring to what speeds might be delivered.

**20.** The June 2014 statement is the first public reference to the financial year as the target date for achieving the Scottish Government's aim. Previous public documents and the Scottish Government's Digital Scotland website refer to 2015, implying the interim target date is December 2015. The Scottish Government's contract with BT is phased to achieve the interim target in March 2016. Because of this, [Part 2](#) of this report measures progress against the interim target using this date.

### **The Scottish Government and HIE have separate contracts with BT to build the superfast broadband infrastructure**

**21.** There are two contracts in place to build the superfast broadband infrastructure:

- HIE signed the Highlands and islands contract with BT in March 2013. Geographically, the contract covers the three island councils (Orkney and Shetland Island Councils and Comhairle nan Eilean Siar), Highland and Moray Councils, and parts of North Ayrshire and Argyll and Bute. HIE expects to complete the work to install its superfast broadband network over four years, by December 2016.
- The Scottish Government signed the rest of Scotland contract with BT in July 2013. Work under this contract is due to finish in just under five years, by December 2017, and covers the remaining council areas.

**22.** Two separate contracts were developed because HIE had already started work to introduce superfast broadband in the Highlands and islands before the Scottish Government published its *Digital ambition for Scotland*. As a result, in December 2012, when the Scottish Government started its procurement process for a superfast broadband infrastructure in the rest of Scotland, HIE was already close to signing its contract with BT.

**23.** The Scottish Government worked with councils to agree a single contract for the rest of Scotland area because it considered this approach would benefit from lower costs due to economies of scale. It considered establishing a single contract for the whole of Scotland but decided against this because:

- HIE was at an advanced stage in its procurement discussions, so negotiating a single contract could have delayed completion of both projects
- both projects are already large and complex with different challenges, so an even larger project might have proven unmanageable.

**24.** There are significant differences between the two contracts. For example, they have different start and end dates, and the two bodies have different arrangements for marketing the advantages of superfast broadband once the work is complete. We highlight other differences throughout the report and summarise them in [Appendix 3](#).

**25.** Both contracts contain two sets of targets, which we refer to as the 'contractual target' and the 'implementation plan target':

- The contractual target is the minimum number of premises that BT must provide with access to the superfast broadband network each quarter to be paid for the work it does.
- The implementation plan target represents BT's assessment of what it aims to deliver each quarter.

**26.** The number of premises that BT is expected to provide with access to superfast broadband each quarter under the implementation plan is greater than the contractual target because it includes a 'buffer' of premises that do not count towards the contractual target. For example, BT may provide superfast broadband access to some premises classified as urban as part of its work to reach nearby rural premises. Because of state aid rules ([paragraph 29](#)), BT cannot count these urban premises towards its contractual target, and the public sector will not pay for this type of work.

**27.** For Scotland as a whole, the contractual targets require BT to provide access to about 84 per cent of premises by March 2016. Coverage will be higher in the rest of Scotland area than the Highlands and islands:

- The contractual targets for the rest of Scotland require BT to provide access to the broadband network to about 355,000 premises by March 2016. Once commercial provision is included, this equates to 86 per cent of premises in the rest of Scotland area.
- In the Highlands and islands, the contractual targets require BT to provide access to about 109,000 premises by March 2016. Once commercial provision is included, this equates to 65 per cent of premises respectively.

### **The Scottish public sector will contribute £165 million towards the likely total contract cost of about £412 million**

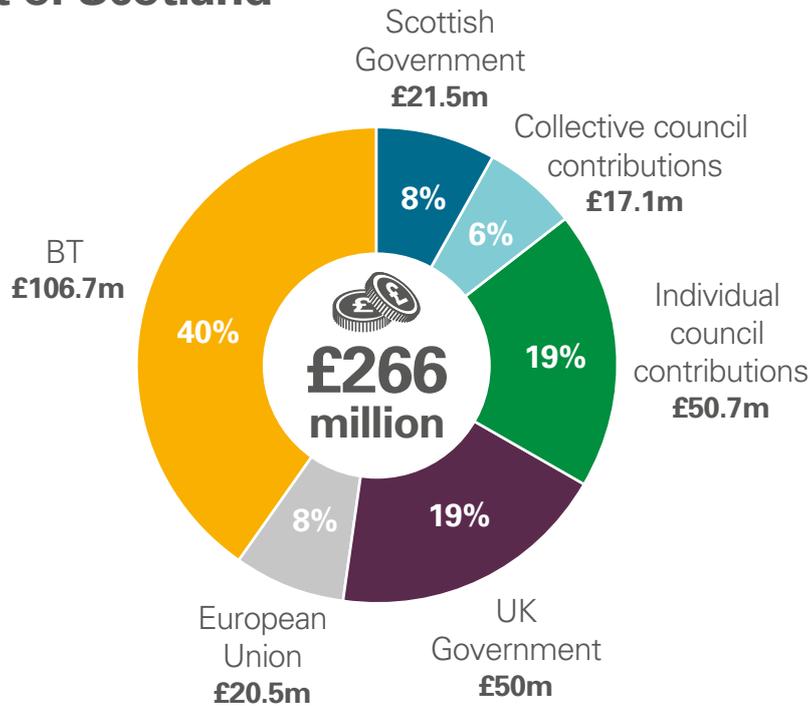
**28.** The two contracts have a combined value of about £412 million over the 11-year period from 2013 to 2025. The Scottish public sector, the EU and UK Government will spend £286 million on building the network over the first five years of the contract. BT is investing £126 million over the lifetime of the contracts. This comprises £47 million of capital costs in the first five years and £79 million for the operation and maintenance costs associated with the network for an 11-year period. At least £146 million is expected to be invested in the Highlands and islands (35 per cent), and about £266 million (65 per cent) in the rest of Scotland ([Exhibit 2, page 16](#)). The final amount to be invested in each area will not be known until 2024 in the Highlands and islands and 2025 in the rest of Scotland, as there are clauses in the contracts designed to promote take-up and generate additional funds for reinvestment ([paragraph 42](#)).

## Exhibit 2

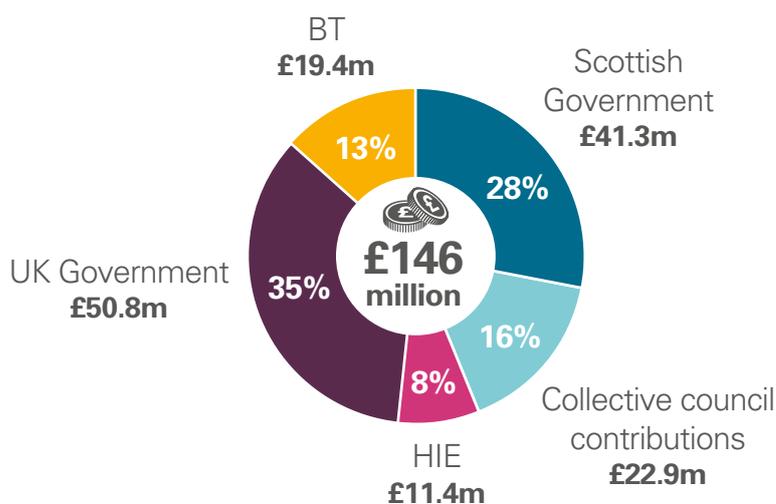
### Funding of superfast broadband in Scotland by source and project

The Scottish public sector is contributing £165 million over a five-year build period towards total contract costs of about £412 million.

#### Rest of Scotland



#### Highlands and islands



Note: Figures include a £16 million innovation fund and £2.2 million allocated for 'demand stimulation' work to encourage people to make use of broadband in the rest of Scotland contract. The Scottish Government has not formally apportioned the collective council contributions and its own funding across the two projects.

Source: Scottish Government and Highland and Islands Enterprise

**29.** The public sector's financial contribution to the superfast broadband projects has to comply with EU regulations governing the provision of state aid. These effectively allow member states to intervene in the free market only where there is an economic necessity. In practice, the rules typically limit public sector investment in superfast broadband to rural areas where the private sector had no plans to install broadband before 2015.

### The total Scottish public sector contribution is expected to be £165 million

**30.** The Scottish Government is the largest single Scottish public sector contributor to the new superfast broadband network. It plans to contribute £21.5 million to the rest of Scotland contract and £41.3 million to the Highlands and islands. HIE will also provide £11.4 million to the Highlands and islands contract. The Scottish Government's funding for the rest of Scotland includes £2.2 million for BT to market the benefits of superfast broadband and stimulate demand for it. HIE will undertake demand stimulation work in its own area by linking this with other development activities. By promoting broadband as it becomes available, this is expected to result in an income flow that the Scottish Government and HIE can use to reinvest in the network ([paragraph 42](#)).

**31.** The rest of Scotland contract includes a £13.5 million 'innovation' fund, to be used as deployment progresses and survey work confirms the best approach. The Scottish Government may use this money as a contingency if expected EU funding is not realised in full ([paragraphs 35–38](#)). If not required for this purpose, the Scottish Government and BT plan to use the money to improve coverage or speeds in the rest of Scotland area. The Highlands and islands contract also includes an innovation fund of £2.5 million which aims, subject to state aid requirements, to extend broadband coverage.

**32.** As a result of UK government spend in councils in England, it announced, in February 2012, that Scottish councils would receive additional funding of £40 million through the Barnett funding mechanism.<sup>9</sup> The Scottish Government agreed with COSLA to keep this money centrally and invest it collectively in the superfast broadband network, rather than distribute it to individual Scottish councils. The Scottish Government expects that £17.1 million of this funding will be invested in the rest of Scotland, and £22.9 million in the Highlands and islands. COSLA asked the Scottish Government to ensure that the additional funding would provide at least 75 per cent of premises in each council area with access to superfast broadband.

**33.** In addition, 14 of the 27 councils in the rest of Scotland are also investing a total of £50.7 million to bring superfast broadband to more premises in their areas. Individual councils made this investment where it was in line with their local economic development plans. Each council agreed to a reduction in the Scottish Government grants it will receive over the next two or three financial years, to pay for the additional broadband coverage.



Additional  
contribution  
by council

**34.** In return for their financial contributions, some councils specified priority areas, such as industrial estates, to receive broadband access. The agreements between the Scottish Government and each council did not specify either an absolute level of coverage, or what broadband speeds will be provided through this additional council funding because BT did not know what was possible at the time. The Scottish Government kept councils informed of likely coverage in their areas as more information became available during the procurement and contracting phases.

### The Scottish Government applied for £20.5 million of European Regional Development Funding but will not claim this in full

**35.** The Scottish Government planned originally to use £20.5 million funding from the European Regional Development Fund (ERDF) for the rest of Scotland project. Although the EU is still to formally approve the Scottish Government's application, it has indicated that any funding it provides:

- must be spent on work completed before December 2015
- can be claimed only where it has been used to connect small and medium-sized enterprises in remote, rural areas.<sup>10</sup>

**36.** The Scottish Government was aware, when developing its plans for the rest of Scotland, that the EU's conditions for using ERDF funding brought risks, in that:

- it may increase the project's total costs, by requiring BT to prioritise early work in more remote areas
- any delay in BT completing sufficient work in ERDF-eligible areas could mean that the Scottish Government would be unable to claim all of the funding. Any shortfall would need to be financed from other sources.

**37.** The Scottish Government attempted to find out how much its costs might increase if it used ERDF funding during the pre-tender negotiations, by asking potential suppliers to model costs for options which both included and excluded it. Suppliers indicated that this would add significantly to the time taken to submit their bids. As a result, the Scottish Government decided to proceed and apply for ERDF funding in the expectation that the benefits would outweigh the costs. It now expects to claim £13 million ERDF funding for work completed by the end of 2015, based on a better understanding of what level of funding from the ERDF would apply.

**38.** HIE decided not to apply for ERDF funding for superfast broadband due to the restrictions on its use, and because it considered that the expected funding, of £5 million, was unlikely to affect significantly the broadband coverage and speeds achievable.

### The UK Government is expected to contribute £101 million

**39.** The UK Government established its programme to bring superfast broadband to rural areas across the UK in December 2010. It set up BDUK within the Department of Culture, Media and Sport to manage the programme and provide funding to local bodies to develop a superfast broadband infrastructure. BDUK is providing £101 million to Scotland for this purpose, split broadly equally across the rest of Scotland and Highlands and islands projects.

**40.** BDUK is also providing a range of support and advice to public bodies across the UK which are procuring superfast broadband, including the Scottish Government and HIE. For example, it has established a framework agreement, including standard contract conditions, to speed up the procurement process by identifying and assessing the suitability of companies interested in tendering for the work. BDUK helps public bodies assess the competitiveness of the tenders they have received, reviews projects and advises on the use of contract monitoring processes once infrastructure installation starts. BDUK also ensures that projects meet state aid requirements.

### **BT is expected to contribute £126 million for work covered by the contracts**

**41.** Overall, BT expects to spend about £126 million on superfast broadband in Scotland over the next 11 years, not including any wider commercial investment. This means that the public sector will pay about 60 per cent of the total cost of the rest of Scotland project and 87 per cent of the Highlands and islands project. This is broken down into the cost of building the network and the cost of maintaining it. Over the five-year construction period, BT will contribute £47 million to the construction cost; £43 million in the rest of Scotland area and £4 million in the Highlands and islands. BT will continue to spend money after the contracts end, to make final connections to premises and for ongoing operating and maintenance costs.

### **The final amount to be invested will not be known until 2025**

**42.** The final amount to be invested in the Highlands and islands will not be known until 2024, and until 2025 for the rest of Scotland. This is because both contracts have clauses that are expected to produce additional funds for reinvestment. In particular:

- If BT's costs to install the superfast broadband network are lower than expected, BT must reinvest the savings in the projects.
- As part of the negotiations over the Highlands and islands contract, BT asked for an advance payment of £20 million. The Scottish Government gave HIE permission to make this payment. It is banked in a separate account, which BT can draw down with HIE's agreement, in line with work completed. The interest earned (£605,000 by December 2014) on the advance payment will be invested in the Highlands and islands project.
- In each contract area, if more than 20 per cent of premises connect to the network, the Scottish Government and HIE will receive – or claw back – a share of the additional income generated for reinvestment. The amount of claw-back takes into account how much BT invests and its expected profit margins. Similarly, the Scottish Government, HIE and BT will share equally the income generated from sales of additional services that BT was unable to offer before the network was in place, such as Ethernet business services. The Scottish Government and HIE will reinvest any money accumulated from these sources during the seven years after the contracts end.

### **Not all premises will get broadband speeds of 40–80 Mb/s**

#### **The maximum broadband speeds that premises receive will vary**

**43.** Although the Scottish Government's ambition is to develop a network that can deliver broadband speeds of 40–80 Mb/s, it acknowledges that not everyone will be able to receive these without further investment or technical advances. In practice, the broadband speed received will vary depending on:

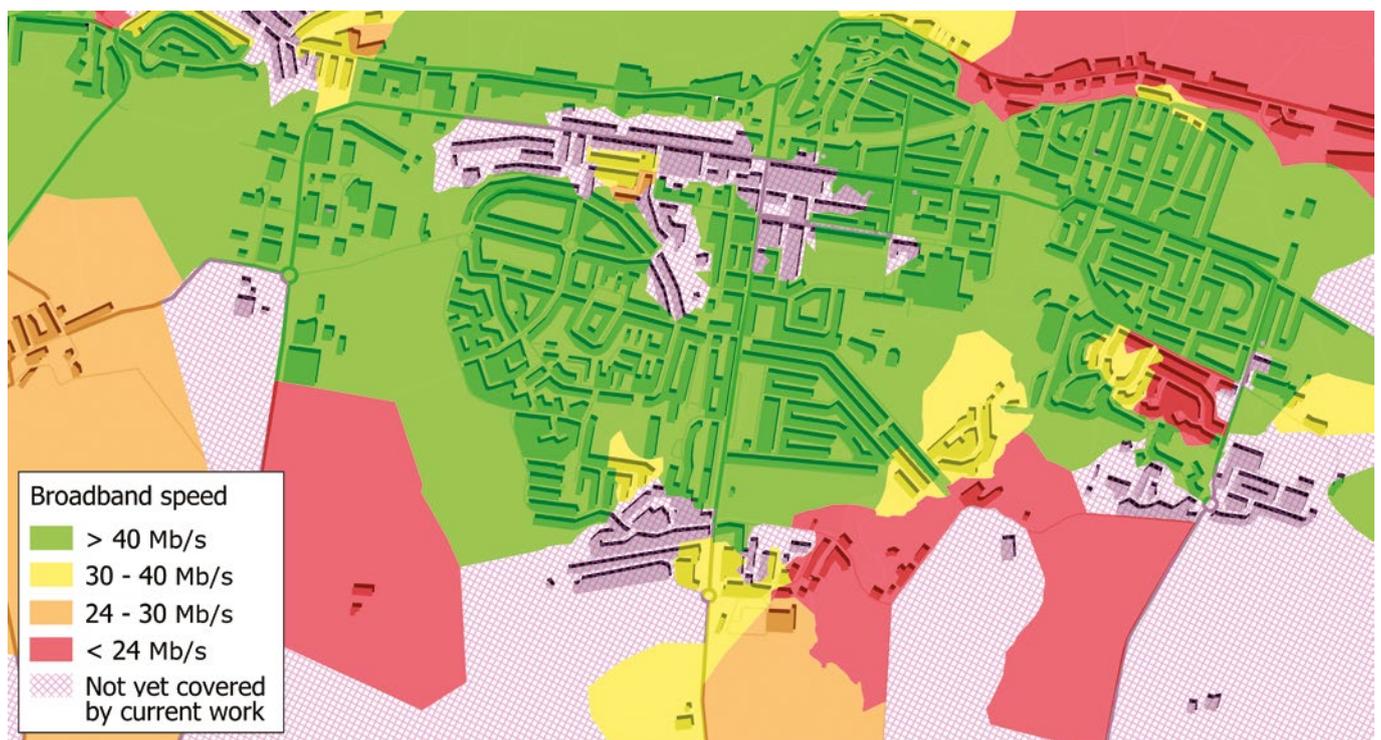
- the distance between the premise and the cabinet
- the quality of the copper wiring to premises
- the Internet package bought from the Internet service provider

- where copper wiring is used, the number of people connecting to the Internet at any one time
- the internal wiring of properties.

**44.** To illustrate the likely impact of this, we have plotted the download speeds that BT expects to deliver to premises in a Scottish town, based on work it has completed to date to bring superfast broadband to the area for the first time (**Exhibit 3**). BT has yet to complete work in this town, so our analysis is indicative and can be expected to change as BT undertakes further work in the area.

### Exhibit 3

**Maximum expected superfast broadband speeds for upgraded postcodes in a selected Scottish town**  
BT is still to complete the installation of superfast broadband in the town but, so far, it expects that properties in most postcode areas will be able to receive maximum speeds above 40 Mb/s. Some premises are likely to receive lower maximum speeds.



Source: Audit Scotland

**45.** Our analysis uses average maximum speeds across a postcode area. Speeds may be lower in practice if, for example, several users connect to the Internet at the same time. Of the 5,000 premises in this town provided with access to superfast broadband for the first time:

- 4,000 (80 per cent) are in postcode areas where the average maximum speeds for premises in the area will be more than 40 Mb/s (the speed that the Scottish Government aims to provide)

- 1,000 (20 per cent) will get speeds of less than 40 Mb/s, of which 650 (13 per cent) are in postcode areas where the maximum speed received for premises will, on average, be less than 24 Mb/s (the UK Government's target for superfast broadband).

### About three-quarters of premises are expected to receive maximum speeds of more than 24 Mb/s

**46.** When the contracts were signed, the Scottish Government did not require BT to commit to providing access to speeds of 40-80 Mb/s at 85-90 per cent of premises because it was concerned it would cost too much. In the contracts, BT commits to building an infrastructure that should provide modelled broadband speeds of more than 24 Mb/s (the UK target) to at least 77 per cent of premises across both contract areas.

**47.** Of the other 23 per cent of premises covered in the contracts:

- at present some will not be reached by the network at all
- some will get access to broadband services but at speeds of less than 24 Mb/s
- in some instances, BT is not able to predict what speeds it will provide until survey work is completed ([Exhibit 4](#)).

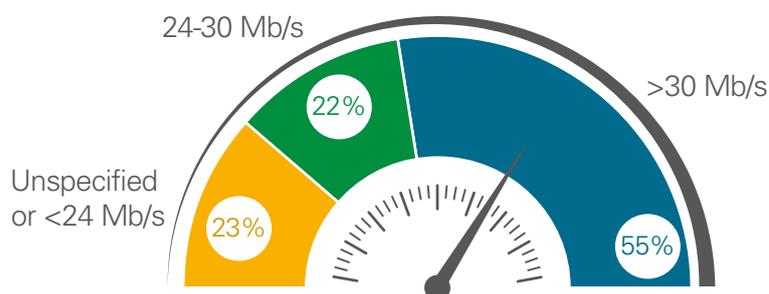
Opportunities will arise as the network is planned and built over time to achieve improvements in speeds and coverage for the remaining 23 per cent.

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## Exhibit 4

### Superfast broadband maximum speed expectations

In the contracts BT commits to building an infrastructure that should provide broadband speeds of more than 24Mb/s (the UK target) to at least 77 per cent of premises across both contract areas.



Note: We are unable to report what percentage of premises is expected to receive speeds in excess of 40 Mb/s, as this is not stipulated in the contract for the rest of Scotland area. BT is aiming to cover as much of Scotland as possible with the broadband network and provide the highest speeds possible within the funding available.

Source: Speed coverage templates in both contracts

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**48.** BT is aiming to cover as much of Scotland as possible with the broadband network and provide the highest speeds possible within the funding available. Much of the roll-out of superfast broadband across Scotland involves the installation of new infrastructure, such as cabinets and fibre cabling, the location of which is only finalised once detailed survey work is undertaken. Because of this, the Scottish Government and HIE report that it is difficult to state with certainty the speeds that will be provided to individual areas or premises, until work is completed.

### **By December 2017, about 95 per cent of premises will be in areas with access to a superfast broadband network**

**49.** The Scottish Government aim is to provide a superfast broadband network across as much of Scotland as possible, although it cannot guarantee what speed individual premises will get. A high proportion of premises in certain areas, such as Dundee and Edinburgh, already have access to superfast broadband from commercial providers. The main beneficiaries of the public sector's investment are, therefore, rural areas where access to commercially provided superfast broadband is low or non-existent.

**50.** The work BT is completing as part of the rest of Scotland contract is the main means by which the Scottish Government hopes to achieve its coverage target of at least 95 per cent across Scotland by December 2017. The Highlands and islands contract is not designed to provide the level of coverage set out in the Scottish Government's ambitions for Scotland as a whole. HIE's strategy is to improve coverage across the Highlands and islands to achieve, as far as possible, an equitable minimum level of coverage in each council area.

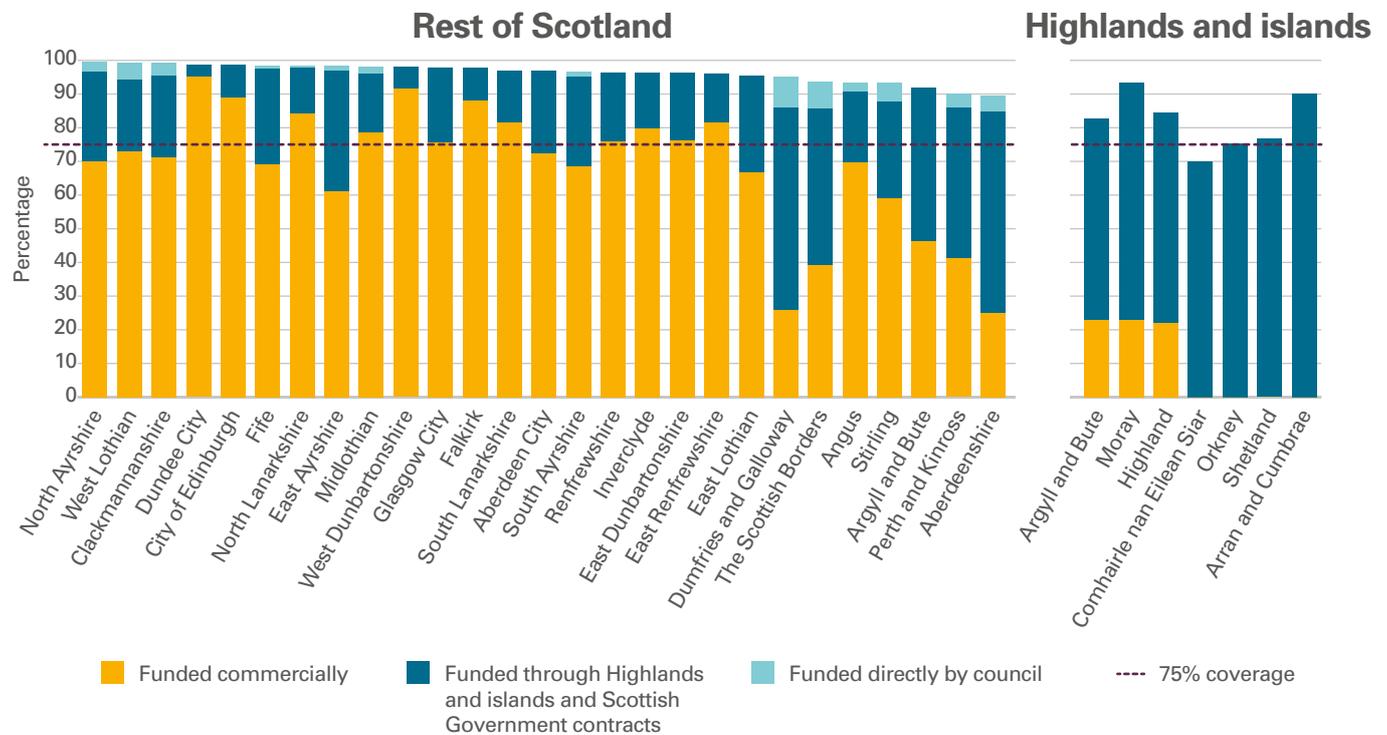
**51.** Our calculations show that overall, if BT meets the contractual targets, it will make broadband available to at least 746,000 more premises across Scotland. In addition to commercial provision to 1.73 million premises, this means that 95 per cent of premises in Scotland will have access to the broadband network. By December 2017, coverage will be higher in the rest of Scotland than in the Highlands and islands area:

- In the rest of Scotland, at least 96 per cent of premises will have access to the broadband network (71 per cent – 1.68 million premises – from commercial coverage and 25 per cent – 595,000 premises – through the rest of Scotland contract).
- In the Highlands and islands, at least 82 per cent of premises will have access to the broadband network (21 per cent – 51,000 premises – from commercial coverage and 61 per cent – 151,000 premises – through the Highlands and islands contract).
- At least 75 per cent of premises in 31 of the 32 councils will have access to the superfast broadband network. The exception is Comhairle nan Eilean Siar where 70 per cent of premises are expected to get access ([Exhibit 5, page 23](#)).

## Exhibit 5

### Percentage of premises expected to have access to superfast broadband by December 2017 by council area

Given current technology and levels of investment, the Western Isles is the only council area that is not expected to achieve 75 per cent coverage due to its remoteness and terrain.



Note: Two council areas cross the boundary between the HIE and Scottish Government contracts. Argyll and Bute is split across both contracts. Arran and Cumbrae falls within the area covered by the HIE contract area, while the rest of the North Ayrshire Council geographic area falls within the Scottish Government contract area.

Source: Rest of Scotland contract award recommendation report and HIE board papers

**52.** The contractual targets represent the minimum number of premises in both areas that BT is expected to provide with access to the broadband network. Both the Scottish Government and HIE expect BT to exceed these targets. For example, the implementation plan for the Highlands and islands shows that 156,000 premises will be connected to the broadband network. If the implementation plan target is achieved, it means that the proportion of premises in the Highlands and islands with access to the broadband network will have increased from 21 per cent to 84 per cent.

**53.** The level of coverage could also increase beyond the minimum levels set out in the contracts through the use of the innovation funds, and depending on how BT proceeds and if new technology becomes available. BT, in consultation with HIE and the Scottish Government, decides how it will proceed in each geographic area based on survey work, carried out on a rolling basis. This may mean that more premises will get access to superfast broadband than originally thought. Project teams and BT could also decide not to provide superfast broadband in certain areas or to postpone installation of the necessary infrastructure to later in the programme. Because the survey work is ongoing, the Scottish Government

and HIE do not know with certainty who will get what and when, until BT submits a quarterly report on the survey work completed. Work will then start soon after in the areas where BT will proceed next.

**54.** We calculate that about 132,000 premises (86,800 in the rest of Scotland area and 45,300 in the Highlands and islands) will not get superfast broadband at all under the contracts or will only get it if the survey work identifies a way of providing access to the broadband network ([www.digitalscotland.org/whereandwhen](http://www.digitalscotland.org/whereandwhen) ). Reasons for this include:

- The most remote parts of Scotland will not be included if it is too expensive or physically impossible to deliver broadband using fibre optic technology. BT, HIE and the Scottish Government will decide which areas will not receive broadband once BT has completed detailed survey work.
- The rest of Scotland contract allows 21,000 remote premises to be provided with standard broadband (with speeds of at least two Mb/s) using other technology, such as copper ADSL telephone lines.<sup>11</sup> Because of EU state aid rules, further public money can only be used to provide broadband to these premises if it will improve broadband speeds to more than 24 Mb/s. HIE did not include similar arrangements in its contract with BT as it decided to use its budget to ensure as many premises as possible received superfast broadband speeds.
- In areas where demand for a connection to the superfast broadband network is higher than expected, BT may not be able to provide immediate access to everyone that wants it. Some people in areas of high demand will need to wait until BT decides whether to invest its own resources, either to extend capacity of existing cabinets or build an additional one.
- Twenty thousand premises in Edinburgh, Glasgow and Aberdeen will not have access to superfast broadband. This is because the commercial sector has decided not to invest in these areas, and under EU state aid rules, they cannot be included in the rest of Scotland programme.<sup>12</sup>

## **BT was the sole bidder for both contracts**

**55.** HIE and the Scottish Government followed different procurement routes to identify a contractor to undertake the installation of superfast broadband:

- HIE followed an open 'competitive dialogue' procurement process that complied with EU competition requirements. Under this, HIE initially invited four companies for discussions in September 2011.<sup>13</sup> Three submitted an outline bid, detailing how they would meet the technological challenges of delivering broadband in the area. Based on their outline solutions, HIE allowed two companies to progress to the competitive dialogue stage. One of the companies withdrew in early 2012, leaving BT as the sole bidder.<sup>14</sup> HIE did not have the option to use BDUK's framework agreement for its procurement as the agreement was not in place when HIE started its procurement.

- The Scottish Government considered different approaches to its procurement of the rest of Scotland contract. It chose to use BDUK's framework agreement to reduce the cost and time taken, and to limit risk. The framework agreement identified BT and Fujitsu as potential suppliers. The Scottish Government began negotiations with both suppliers in December 2012, after three months of pre-tender negotiations. Fujitsu dropped out in February 2013, having concluded that its proposal would not be successful given the assessment criteria and weighting the Scottish Government's tender evaluation team would use.

### **Project teams used a variety of approaches to assure themselves that BT's bids offered value for money**

**56.** Although BT was the only final bidder in each area, both the Scottish Government's and HIE's project teams worked hard to make sure that BT's modelled costs were reasonable:

- At the project design stage, both teams employed consultants to advise on the technicalities of the projects and to offer specialist legal, financial and procurement advice. For example, the Scottish Government's Office of the Chief Economic Adviser undertook financial modelling to identify what it would cost to reach 75, 80 and 85 per cent of premises in each Scottish council area. This provided guidance to the project teams on both the total costs of the work and the incremental costs of extending coverage in different areas. In 2012, at HIE's request, one of the consultants, Atkins, estimated that the cost of installing fibre broadband across the Highlands and islands was likely to be £200–£300 million. The bid BT submitted in 2013 was below the range suggested.
- Consultants' reviews of BT's bids pointed out areas of weakness and risk, and offered advice on how to manage these risks. For example, in its review of the rest of Scotland bid, Grant Thornton commented on the lack of detail in BT's assumptions and unit costs. It also identified actions to mitigate risks in several areas, such as how best to apportion costs between the various work activities, and how to monitor activities that will be funded from ERDF grants.

**57.** BDUK helped project teams to assess the reasonableness of BT's tenders through comparison with other UK superfast broadband contracts. BDUK was able to do this because it holds information on the costs of all 43 broadband infrastructure projects in the UK. BDUK considers this information commercially sensitive so does not share detailed cost figures with individual project teams, although it is able to provide assurance to project teams that tendered costs are in line with other areas.

**58.** As well as the contract clauses outlined in [paragraph 42](#) of this report, a number of other measures included in the contracts are intended to provide additional assurance on value for money. For example, there is a cap of £1,700 on how much BT can spend to connect each premise. If it is likely to cost more, BT must seek agreement from the Scottish Government and HIE and, where relevant, with each contributing council, before proceeding to connect these premises. This provides an assurance that project teams know how their money is being used and allows them to assess if the connection represents value for money.

## The rest of Scotland contract costs are in line with those of other UK projects

**59.** An important element of the project teams' assurance on the value for money of BT's bids came from benchmarking against cost information from all projects within the UK rural broadband programme. BT was the supplier in each of these projects. BDUK used information it had gathered from two sources:

- One was the financial models that BT submitted as part of its bids for superfast broadband contracts in other parts of the UK. These contain commercially sensitive information such as the unit cost of connecting a premise to a cabinet (FTTC) and bringing fibre directly to a premise (FTTP). The models also show the total contract cost for each project and give a quarterly breakdown by type of work (for example, surveying and planning).
- The other was guideline costs. These were submitted by potential contractors when they applied to BDUK to be included in the framework agreement.

**60.** BDUK used this information to produce expected benchmark costs for a range of works activities, and used these to compare bidders' costs for individual broadband projects across the UK. The National Audit Office reviewed the rural broadband programme in England in 2013. Among other things, it looked at how much information BDUK had on BT's unit costs. It concluded that it was difficult to understand unit costs from BT's tender documents.<sup>15</sup> The NAO recently reported that BDUK has gathered further information on BT's value for money. A pilot exercise carried out for Suffolk suggests that BT charged the public sector approximately 20 per cent less than the estimated cost for an alternative supplier. BDUK will do further work to establish if this applies in other locations across the UK.<sup>16</sup>

**61.** The Scottish Government asked BDUK to assess the rest of Scotland bid against its benchmark costs. BDUK assessed the rest of Scotland bid against 20 other projects procured using its framework agreement; against seven open European competitive procurement projects; and against the guideline costs submitted when BT was included in the framework agreement. BDUK found that the rest of Scotland bid compared favourably against other bids, with no major risks identified. This comparison established that the contract costs charged by BT for the rest of Scotland are in line with the costs charged in other parts of the UK. We have not been able to confirm if BT could have reduced its costs across the board and offered better value for money in each of its bids.

**62.** BDUK could not provide assurance to HIE on the backhaul costs of its project, because there were no comparators at that time. HIE used Atkins to provide assurance over BT's backhaul costs. BT worked out the routes it would use and their estimated distances to allow Atkins to consider whether BT's costs were in line with expectations.

**63.** We compared the modelled bid costs for the Highlands and islands contract, the rest of Scotland contract and the guideline costs included in BT's submission for inclusion in the framework agreement. We looked at the average connection cost per premise for FTTC and for FTTP:

- In the rest of Scotland contract, the average cost per premise:
  - for FTTC links (which will be used for most of the network) is lower than BT's guideline cost in the framework agreement
  - for FTTP links is almost double BT's guideline cost in the framework agreement. BT aims to minimise the use of FTTP links, so these higher costs should have limited impact on total costs.
- In the Highlands and islands contract, the average cost per premise:
  - for FTTC links is almost double BT's guideline cost in the framework agreement
  - for FTTP links is almost three times BT's guideline cost in the framework agreement. BT aims to minimise the use of FTTP links, so these higher costs should have limited impact on total costs.

**64.** BT considers that the high modelled unit costs associated with both FTTC and FTTP in the Highlands and islands contract, and for FTTP in the rest of Scotland contract, are largely due to the rural characteristics of Scotland. While higher costs in rural areas are to be expected, we do not have sufficient information to conclude whether the scale of the increase in unit costs above BT's guideline costs is justified.

**65.** We calculated the average total cost to the public purse of each premise provided with access to superfast broadband in Scotland. In the rest of Scotland area it is £230 and £475 per premise in the highlands and islands. However, these figures are affected by the level of investment that the public sector is making in each area; the public sector is meeting a higher proportion of total capital costs in the highlands and islands than it is in the rest of Scotland. If the public sector was contributing the same proportion of total capital costs in each area, the average public subsidy for the highlands and islands would reduce from £475 per premise to £385 per premise.

**66.** The Wales Audit Office (WAO) is auditing the Welsh Government's broadband infrastructure programme and expects to publish its report in Summer 2015. As part of its work, the WAO calculated that the average public subsidy for all 44 UK rural broadband projects is £240. The public subsidy in the rest of Scotland area is below this average while it is costing more in the highlands and islands.

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## Recommendations

### The Scottish Government should:

- continue to develop ways to report the range of speeds its investment will deliver and, in particular, seek to report publicly what its contracts with BT for superfast broadband are expected to deliver in terms of both coverage and speed by each of:
  - the interim target date (March 2016)
  - December 2016 and December 2017 (when the Highlands and islands and rest of Scotland contracts are due to complete)

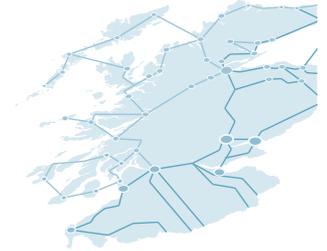
- December 2020 (the date when the Scottish Government expects superfast broadband to be universally available).

**The Scottish Government and HIE should:**

- work together to plan how they will invest further in superfast broadband. The plans should strike an appropriate balance between extending coverage in areas where there is no access to superfast broadband and increasing speeds in premises with low speeds. The plans should also:
    - take account of the costs and value of extending coverage to the 132,000 premises in the most remote parts of Scotland that will either not be covered by the current superfast broadband contract arrangements or where BT is unable to say if they will be included
    - consider the costs and value of improving speeds to those premises not expected to get maximum speeds of more than 24 Mb/s
    - assess the technological challenges associated with both increasing speeds and extending coverage, and how these might be overcome
    - identify which communities will be excluded from the current BT contracts, so that these communities can make an informed choice to consider other options.
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# Part 2

## Progress in delivering superfast broadband in Scotland



### Key messages

- 1 BT exceeded its contractual targets to provide access to the broadband network by about 57,000 premises at the end of December 2014. It has provided access to 44,000 premises more than its contractual targets in the rest of Scotland area and 13,000 premises more in the Highlands and islands. Although BT exceeded its contractual targets, it has not kept up with its implementation plan targets, meaning progress to December 2014 is slower than expected.
- 2 Overall, for Scotland as a whole, the contractual targets require BT to provide access to 84 per cent of premises by March 2016. This means that BT will need to exceed its contractual targets if the Scottish Government is to achieve its interim target to provide access to 85 per cent of premises. Based on the current position, even if BT delivers no more than the contractual targets over the next year, we calculate that the Scottish Government will achieve its interim target by March 2016. Delivery of the target is heavily dependent on the rest of Scotland contract, as the Highlands and islands contract is designed to provide a lower level of access than the Scottish Government's target for Scotland as a whole.
- 3 Arrangements for scrutinising and reviewing progress against the contracts are good, and project teams are following BDUK's monitoring processes. However, systems for checking reports of work done are complex and, while it is early days, there are risks that teams may not be able to manage as workloads increase.
- 4 The Scottish Government and HIE have still to fully develop plans to measure the wider benefits of their broadband investment.

although BT is still meeting its contractual targets, progress in the first year is slower than expected

### BT is meeting its contractual targets but progress against the implementation plan is slower than expected

67. The Scottish Government expects that, once commercial provision is included, about 95 per cent of premises in Scotland as a whole will have access to the broadband network by December 2017:

- The contractual targets set in the rest of Scotland contract will provide access to 96 per cent of premises, once commercial provision is included. The Scottish Government is focused on meeting its contractual targets, as this will deliver the level of coverage it seeks overall.

- The Highlands and islands contract is expected to provide access to only about a quarter of the premises included in the rest of Scotland contract. Once commercial coverage is included, the Highlands and islands contract will provide access to 82 per cent of premises across the area, based on the contractual targets. HIE is focused on achieving the implementation plan targets as it expects this will deliver access to 84 per cent of premises in the Highlands and islands.
- Owing to this difference in approach, we discuss progress to date against both the contractual and implementation plan targets in the next section.

### **So far, BT has exceeded its contractual targets by 57,294 premises**

**68.** At December 2014, BT had exceeded its contractual coverage targets in both the rest of Scotland and Highlands and islands areas:

- BT had provided access to the broadband network to 165,188 premises in the rest of Scotland area. The contractual target for this period was 121,205 premises.
- In the Highlands and islands, BT had provided access to the broadband network to 44,440 premises, against a contractual target of 31,129.
- For Scotland as a whole, this means that BT exceeded its contractual targets by 57,294 premises (27 per cent).

### **As at December 2014, BT was 14,253 premises behind its implementation plan targets for Scotland as a whole**

**69.** In the Highlands and islands, BT encountered delays in obtaining marine licences for the subsea cabling, although it still completed this element of its work in 2014. At the end of December 2014, the number of premises provided with access to superfast broadband in the Highlands and islands was 44,440. This is 1,250 less than the target of 45,690 set in the implementation plan ([Exhibit 6, page 31](#)). BT started 2014 well, exceeding the target set for January to March, but progress was slower in the remaining three quarters. At the end of September, BT was broadly on target against the implementation plan. But it encountered difficulties in getting final power connections to cabinets in the September to December 2014 period, causing a shortfall for the quarter and, overall, for the year.

**70.** In anticipation of this, BT and HIE agreed to reduce the implementation plan target for the quarter by 8,000 premises. BT completed more connections than expected, leaving a shortfall of 1,250 premises to be carried forward to January to March 2015.

**71.** In the rest of Scotland area BT made slower than expected progress against the implementation plan in the first two quarters, from March to September 2014 ([Exhibit 7, page 31](#)). In part, this was because BT experienced difficulties in meeting the more complex roll-out plans associated with targeting businesses in remote areas, to meet ERDF requirements. By December 2014, the cumulated deficit, when measured against its implementation plan target, was 13,003 premises:

- Between April and June 2014, BT provided 39,992 premises with access to the broadband network against an original implementation plan target of 48,816, resulting in a shortfall of 8,824 premises. Anticipating this shortfall, BT and the Scottish Government reduced the implementation plan target and added the shortfall to the target for the next quarter.

## Exhibit 6

### Progress in providing access to superfast broadband in the Highlands and islands

HIE and BT reduced their implementation plan target for September to December 2014 by 8,000 premises and increased the following quarter's target. Overall, HIE has finished the first year of installation work 1,250 premises behind its original implementation plan target.



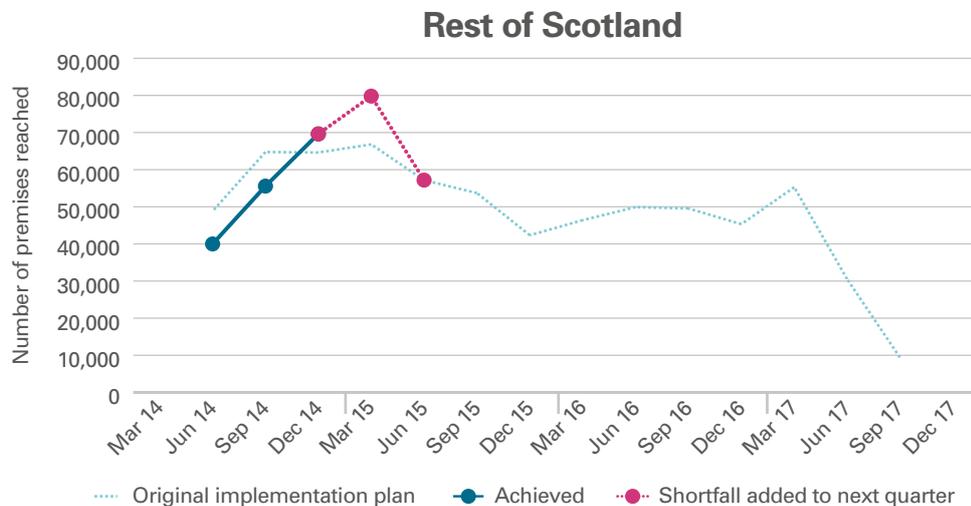
Note: HIE is still to verify data on the total achieved from September to December 2014.

Source: Audit Scotland analysis of Highlands and islands project monitoring reports

## Exhibit 7

### Progress in providing access to superfast broadband for the rest of Scotland

BT did not meet the original implementation plan targets for March to September 2014, but reduced some of the shortfall in the last quarter of 2014. The target for January to March 2015 now includes 13,000 premises not provided with access to broadband in 2014, as originally planned.



Note: The Scottish Government is still to verify data on the total achieved from September to December 2014.

Source: Audit Scotland analysis of rest of Scotland project monitoring reports

- The implementation plan target for the next quarter, June to September, was reduced again in September 2014 due to 'relief events' when, for example, BT had difficulty getting access to privately owned land. The effect was to reduce the revised implementation plan target for July to September 2014 from 73,747, to 53,024 premises. BT provided access to broadband to 55,570 premises in this quarter, leaving a cumulated shortfall of 18,011 premises against its original implementation plan target. This shortfall was added to the September to December target.
- In December 2014, BT reached a further 69,626 premises. The implementation plan target was adjusted again during the quarter, reducing the target by 24,181 premises, from 85,331 to 61,150. By the end of the quarter, the shortfall across the three quarters in the rest of Scotland had reduced to 13,000 premises.

### **Overall, the projects are on course to deliver the Scottish Government's interim target for Scotland as a whole by March 2016**

**72.** The two contracts require BT to provide access to a further 464,000 premises by March 2016, 355,000 in the rest of Scotland and 109,000 in the Highlands and islands. Once commercial provision in each area is included, this equates to 86 per cent of premises in the rest of Scotland area and 65 per cent of premises in the Highlands and islands. If BT achieves its contractual targets for March 2016, we calculate it will have provided access to about 84 per cent of premises by March 2016 for Scotland as a whole.

**73.** On this basis, if BT was to deliver only its contractual targets, the Scottish Government will not achieve its interim target to provide access to the broadband network to at least 85 per cent of premises across Scotland by March 2016. However, BT is currently exceeding its contractual targets; it provided access to 57,000 more premises than expected in the period to December 2014. Assuming it delivers its contractual targets over the period January 2015 to March 2016, we calculate that the Scottish Government will exceed the interim target by about 34,000 premises by March 2016.

**74.** Up to December 2014, BT was providing access to the broadband network to an average of 55,000 premises a quarter in the rest of Scotland and 11,000 premises a quarter in the Highlands and islands. According to the contractual targets, the rate at which premises are provided with access to the broadband network is expected to be slightly higher overall during 2015 than achieved so far. The Scottish Government, HIE and BT remain confident that the contractual targets will be met, and that they will achieve the overall target to provide access to the broadband network to about 95 per cent of premises in Scotland as a whole by December 2017. The achievement of both the interim and overall target is dependent on the delivery of the rest of Scotland contract. The Highlands and islands contract is expected to provide a lower level of access than the Scottish Government's target for Scotland as a whole.

### **So far, the proportion of premises capable of receiving maximum speeds of more than 24 Mb/s is greater than set out in the contracts**

**75.** So far, BT is exceeding the speed targets set out in its contracts ([Exhibit 4, page 21](#)):

- In the Highlands and islands, BT estimates that 88 per cent of the premises connected between April and September 2014 should receive



How we calculated whether the interim target will be achieved.

maximum speeds of more than 24 Mb/s and 75 per cent should receive maximum speeds of more than 30 Mb/s. Under the terms of the contract, BT is required to deliver speeds of more than 24 Mb/s to 64 per cent of premises, and speeds of more than 30 Mb/s to 59 per cent of premises. BT is currently working in the more accessible parts of the Highlands and islands where higher speeds can be expected. It acknowledges it may be harder to continue to provide speeds of more than 24 Mb/s to a high proportion of premises when work starts in less accessible areas.

- In the rest of Scotland, BT estimates that 86 per cent of the premises connected between April and September 2014 should receive maximum speeds of more than 24 Mb/s and 83 per cent should receive maximum speeds of more than 30 Mb/s. The target figures in the contract are 80 per cent and 54 per cent respectively.

### **Payments to BT are £27 million less than originally planned**

**76.** The contracts require the Scottish Government and HIE to pay an agreed proportion of BT's eligible costs each quarter, on condition it meets its contractual targets for the number of premises reached by the network. If BT does not meet its contractual premises target for any period, the contracts allow the Scottish Government and/or HIE to withhold all payment for that quarter. The amount paid is determined by how much eligible cost BT can claim, provided it is less than the maximum that could be paid according to the agreed payment profile. Costs are deemed eligible when the work is fully complete, which can delay payments for several months.

### **The Scottish Government has paid BT £1.2 million less than planned**

**77.** The Scottish Government considered its options in September 2014 when BT was falling behind its implementation plan targets for the rest of Scotland. It decided to ask BT to provide an action plan by 31 October 2014, showing how it would get back on course during 2015. The Scottish Government considered that other options, such as reviewing the programme, delaying payments and, potentially, negotiating new targets with BT, could lead to further delays in progress.

**78.** The Scottish Government was to pay £15.6 million for the work completed in the nine months January to September 2014, provided BT met its contractual target and could claim sufficient eligible expenditure for work completed up to that point. While BT met its contractual target for the period, it claimed only £14.3 million for the work done. The difference (£1.2 million) is work in progress and will be claimed later.

### **HIE has paid BT £26.1 million less than planned**

**79.** HIE paid BT a total of £26.2 million for work completed between September 2013 and September 2014, comprising £19.8 million for backhaul infrastructure and £6.4 million for work connecting premises. It originally planned to pay £52.3 million over this period, of which £38.9 million was to be for backhaul infrastructure and £13.4 million for work connecting premises.

**80.** HIE and BT negotiated revised payment schedules in March and September 2014 to take account of the arrangements between BT and its sub-sea subcontractors, and reflecting ongoing discussions about how best to report progress on installing the backhaul infrastructure. In the early days of the contract, BT did not have processes agreed with BDUK to allow it to report how much time BT staff were spending on specific backhaul installation tasks.

**81.** As a result, HIE did not have evidence of the eligible costs incurred and has not paid BT in line with the original payment schedule. Consequently, £12 million (17 per cent) of HIE's total planned expenditure on the project for 2014/15 will now occur in 2015/16. The Scottish Government, as fund holder for both projects, will retain the £12 million until it is required by HIE. The revised payment schedule also means that there will be additional money for investment in the Highlands and islands project due to the extra interest earned from HIE's advance payment of £20 million to BT.

### **Arrangements for scrutinising progress against the contracts are good although there are challenges in checking work done**

**82.** The Scottish Government and HIE have established appropriate governance arrangements for scrutinising the progress of both projects. Operational oversight of the projects is provided by programme boards in both the Scottish Government and HIE. The Scottish Government's Strategic Management Board and the HIE Board oversee their respective projects. At a national level, the Scottish Government's Infrastructure Action Plan Board scrutinises both projects. It considers significant risks that might affect the targets set for the infrastructure programme ([Exhibit 8, page 35](#)).

**83.** Both teams regularly report on progress. The rest of Scotland team uses a dashboard format while the Highlands and islands project board provides information in papers submitted to the HIE Board. Both approaches provide a useful summary of progress by reporting on delivery against the work plan, payments made and any issues arising.

### **HIE and the Scottish Government are using tried and tested systems to monitor BT's progress but there are challenges in checking work done**

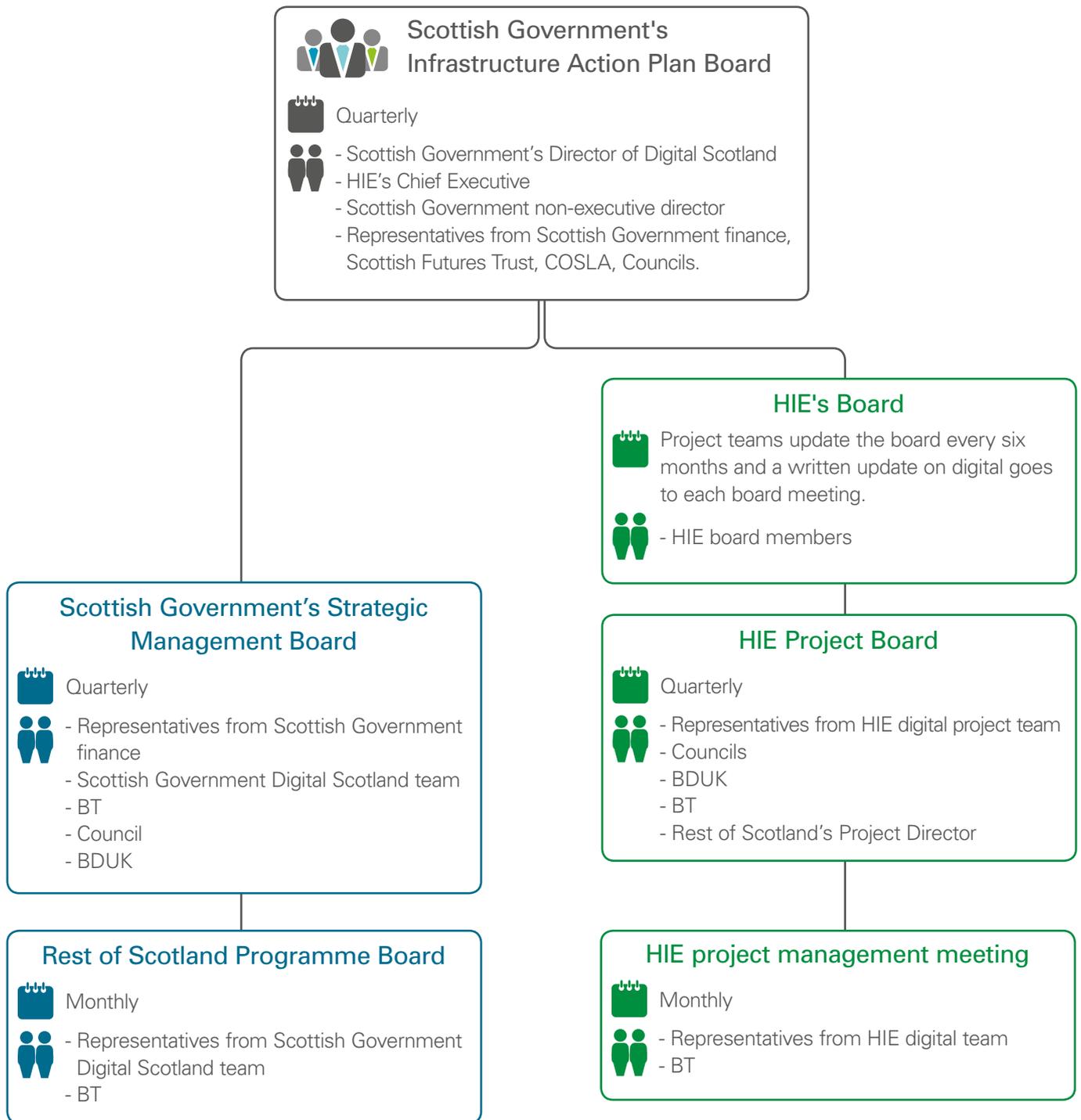
**84.** BDUK has designed a standard contract management approach to enable project teams to monitor and review BT's progress. BDUK based these processes on the early experiences of other UK broadband projects. It has also trained project team staff in the processes, and provided standard document formats to monitor and report on the work done.

**85.** The rest of Scotland project team is required to follow BDUK's processes as part of its use of the BDUK framework agreement. The Highlands and islands project team chose to follow these approaches, although it is not required to do so. For the most part, both bodies are using tried and tested systems to monitor BT's progress. Both project teams had trouble implementing some of BDUK's standard contract management arrangements. The main challenges teams face include:

- The system for reporting on progress in each area is complex. Each quarter, in line with BDUK requirements, BT produces reports that show the number of premises connected in each postcode area, the links made between exchanges and cabinets, and the outcome of survey work completed in the area. Project teams are still learning how best to use this information to monitor and report on their projects.
- The work requires very detailed checking of a large amount of invoiced work. The aim is to verify that BT is only claiming for eligible expenditure, and that costs are in line with those expected. Claims for work done that the project teams agree are then included in the payment made that quarter to BT. Payment for other items is deferred, and may be subject to further discussion with BT.

## Exhibit 8

### Governance arrangements for both projects



Meetings

Attendees

**86.** BDUK's standard processes require project teams to review between five and ten per cent of the reports which BT submits on work done. In November 2014, BDUK agreed to BT's request to reduce the number of works reports that the rest of Scotland project team reviews. This is because BT was finding it time-consuming and difficult to sustain providing detailed evidence in support of up to 200 reports that the project team selected to check each quarter. BDUK, BT and the Scottish Government agreed that a maximum of 100 reports will be provided, covering up to ten per cent of project costs for September to December 2014. This means that checking will focus on higher value works reports, which could make it easier for BT to identify which reports will be selected for checking. The Scottish Government and BDUK will review the impact of this change on the quality of the rest of Scotland project team's assurance work in January 2015.

**87.** Dedicated staff within each project team mainly do contract monitoring work. For the Highlands and islands project, the project manager does most of the checking with help, as needed, from a compliance manager and an implementation manager. The HIE project also draws on specialist teams such as communications, finance and corporate services when required. A team of two individuals leads the monitoring work in the rest of Scotland area, with assistance from others as needed. For both projects, the core teams for monitoring and checking the work are small and may not be able to complete the work fully if individuals are absent.

**88.** Despite the reduced level of checking in the rest of Scotland contract, the project plans suggest that workloads will increase significantly as the projects ramp up and BT completes work in progress ([Exhibits 6 and 7, page 31](#)). This, together with the complex processes in place, creates a risk that teams will not be able to manage in busier periods. It is important that project teams have the contract management skills and depth needed to manage the contracts throughout their duration. Two further risks apply to the rest of Scotland project, arising from:

- the slow progress made in the initial stages, which is likely to increase the project team's workload as work is reassigned to later quarters
- the additional work needed as the team monitors progress and submits claims for ERDF funding. The Scottish Government expects to make its first claim for ERDF in February 2015, based on a grant agreement with the Scottish ERDF managing agent. This allows the Scottish Government to draw down some of the money. The claim will not be paid until formal commission approval is obtained.

### **The expected benefits from the investment are not clear**

**89.** The Scottish Government expects superfast broadband to deliver significant benefits both to individuals and nationally. The Scottish Government and HIE expect superfast broadband to:

- help businesses remain competitive, compete in global markets, cut costs and improve customer service
- improve access to public services allowing these to be delivered in new, convenient and more cost-effective ways

- improve access to different forms of entertainment, education and social interaction
- help retain populations in more remote and fragile communities
- help reduce Scotland's carbon footprint
- make Scotland more attractive to tourists by making it easier for them to access information.

### The project teams have not updated early work to model the benefits expected from the superfast broadband network

**90.** In 2012, the Scottish Government used consultants to calculate the impact of the investment in superfast broadband on the Scottish economy. Analysys Mason predicted that the public sector investment in both areas would directly benefit the economy by £1 billion with a further £2 billion economic benefit by 2028. Anticipated direct benefits might include revenue raised from providing Internet services over the new network, and the knock-on effect from new jobs. Economic benefits might include savings from online efficiencies, increased productivity for businesses, the public sector and consumers, and environmental benefits and flexible working. Analysys Mason also predicted that the projects would create 870 jobs over the five-year roll-out period and a further 14,000 over a 15-year period.

**91.** The consultants' modelling assumed that 80 per cent of premises would connect to the superfast broadband network over 15 years. This is significantly more than the take-up rates used by BT when deciding how much to invest in the contracts. BT modelled its level of investment in both projects based on an assumed take-up rate of 20 per cent over five years. The project teams in HIE and the Scottish Government expect take-up in the Highlands and islands and the rest of Scotland to be higher, at 40 per cent and 30 per cent after two and 2.5 years respectively.

**92.** It is important that both HIE and the Scottish Government understand what benefits their investment in superfast broadband will bring, and use this when deciding how further funds are used. Neither the Scottish Government nor HIE have updated the consultants' work on the expected levels of benefits to take account of possible lower take-up rates.

### Project teams do not yet have fully developed plans to measure the benefits achieved once the network is completed

**93.** The Scottish Government and HIE need to fully develop their plans on how best to measure the wider economic and social benefits of their broadband investment. The Scottish Government published its digital performance framework in February 2014. This framework links to four of the high-level targets in the Scottish Government's National Performance Framework. They are to increase Scotland's rate of economic growth, improve productivity, improve economic participation and reduce inequalities in economic participation across Scotland.

**94.** The digital performance framework has 17 measures to assess performance on each of the four programmes in the Scottish Government's digital strategy ([Exhibit 9, page 39](#)). Several Scottish public bodies are involved in gathering the baseline and monitoring data required for each measure. So far, 11 of the 17 measures have an identified data source. Scottish Enterprise and HIE are

responsible for identifying how the impact on business performance will be measured. Knowing if businesses have improved their service delivery or expanded their business is important, as this was one of the key reasons put forward for the investment.

**95.** None of the performance measures assess the broadband speeds achieved, as either a maximum, mean or median. Ofcom collects some information on speeds across the UK from a sample of properties. However, the speed bands it uses for reporting do not separately measure speeds of more than 40 Mb/s. There are also no measures of take-up. Including measures on the speed achieved and of take-up in the digital performance framework would help the Scottish Government to assess the success of its investment in helping to improve digital connectivity.

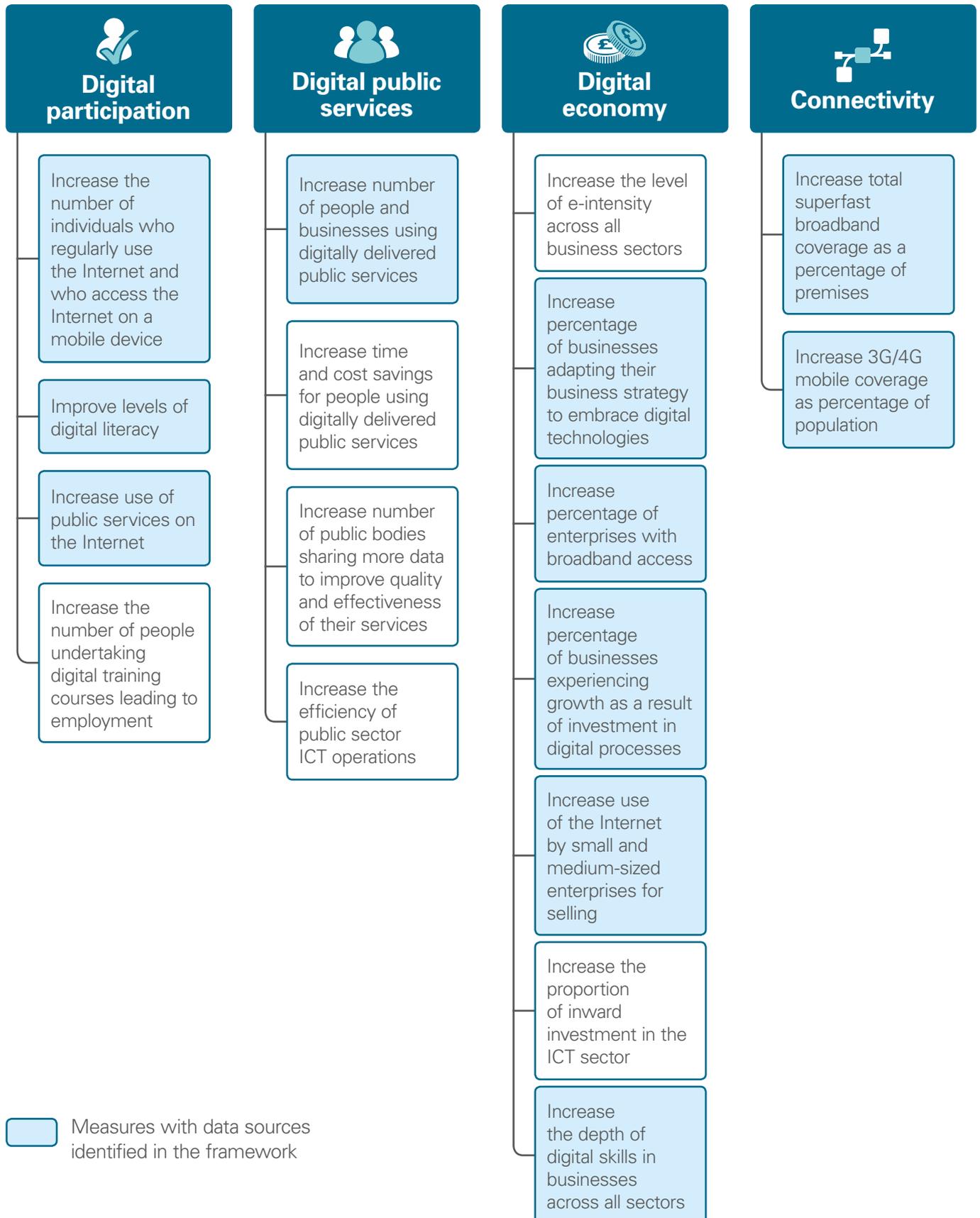
**96.** The rest of Scotland project team has identified a number of performance indicators to monitor the success of its work to stimulate demand for superfast broadband. One of these performance indicators measures the cost of demand stimulation work per premise that takes up access to superfast broadband. A similar measure for the whole cost of investment would help assess how unit costs change as take-up increases over time. It would also provide a comparator for public bodies to use when assessing the savings they have made by using superfast broadband to deliver public services.

**97.** BDUK has developed a scorecard that compares the UK's digital performance against that of other European countries. The coverage measure is similar to that on the Scottish Government's framework but the remaining three performance areas look at speed, take-up and price. The Scottish Government may find it useful to benchmark Scotland against other countries by adopting some of these measures.

**98.** The Scottish Council of Voluntary Organisations (SCVO) has also developed a framework to measure the impact of its digital participation work and to understand the effectiveness of its activities. However, SCVO and the Scottish Government have not agreed how they will collect the information and what measures they may use. This means it may prove difficult to get a clear picture of what is happening and lead to some duplication of effort.

## Exhibit 9

### The Scottish Government's digital performance framework



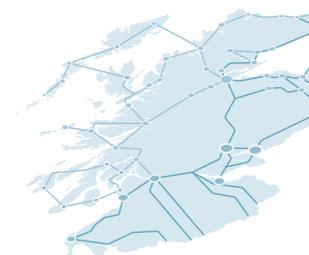
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## Recommendations

### The Scottish Government and HIE should:

- encourage take-up of superfast broadband to maximise the benefits of their investments and identify what further work is needed to realise these benefits
  - develop clear plans, by June 2015, for the planned investment of a further £42 million in superfast broadband, announced by the UK and Scottish Government in February 2014. These plans should strike an appropriate balance between extending coverage in areas where there is no access to superfast broadband, and increasing speeds in premises where access is already provided. These plans should:
    - set clear priorities and a timetable for further investment in superfast broadband
    - include an assessment of how the existing investment can best be used to help contribute towards meeting the EU aspiration of 50 per cent uptake of ultrafast broadband (speeds faster than 100 Mb/s) by households in Europe
  - review work programmes and payment profiles and make any changes necessary to ensure that payment is closely linked to successfully achieving the agreed targets
  - keep staffing levels and workloads under review, and alter the skills mix and number of staff when needed, to ensure that teams are able to fulfil their contract management and monitoring roles well
  - continue to develop their performance measurement frameworks, by including measures that address speeds delivered, the unit cost to provide access to superfast broadband to each premise and levels of take-up, as well as measures that allow benchmarking with other countries' implementation of superfast broadband. Both bodies should report publicly on these measures each year.
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# Endnotes



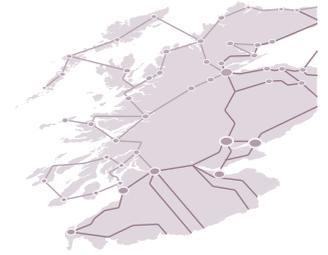
- ◀ 1 *Communications market report, Scotland*, Ofcom, August 2013. Ofcom/operators. Ofcom defines superfast broadband as speeds above 30 Mb/s.
- ◀ 2 [Digital Agenda for Europe – High Speed Broadband](#) .
- ◀ 3 *Scotland's Digital Future – Infrastructure Action Plan*, Scottish Government, January 2012.
- ◀ 4 *Scotland's Digital Future – Infrastructure Action Plan, Step Change 2015 Procurement Plan*, Scottish Government, May 2012.
- ◀ 5 BT must provide access to its infrastructure to all service providers at the same price and on the same terms as it sells to BT retail. This ensures households get the best choice of providers at affordable prices.
- ◀ 6 *Scotland's Digital Future*, Scottish Government, March 2011.
- ◀ 7 *Scotland's Digital Future – Infrastructure Action Plan*, Scottish Government, January 2012.
- ◀ 8 *Scotland's Digital Future – Infrastructure Action Plan, Step Change 2015 Procurement Plan*, Scottish Government, May 2012.
- ◀ 9 The UK Treasury uses the Barnett formula to adjust the amounts of public expenditure allocated automatically to Scotland in response to changes in the spending levels for similar public services in England, Wales or Great Britain, as appropriate. The formula takes account of the amount of additional money given, the relative population of each area and how much similarity there is with what the Scottish Government is responsible for delivering, when compared with its English counterpart.
- ◀ 10 ERDF can be used in Aberdeenshire, Angus, Dumfries and Galloway, East Ayrshire, East Lothian, Fife, Perth and Kinross, The Scottish Borders, South Lanarkshire, Stirlingshire, West Dunbartonshire and West Lothian.
- ◀ 11 ADSL stands for asymmetric digital subscriber line. These are standard copper wire telephone lines linked to boosters in the exchanges that improve their connectivity.
- ◀ 12 The European Commission published its [State aid](#)  notification for all BDUK projects in November 2012.
- ◀ 13 Competitive dialogue is a procurement process used for complex contracts where the buyer cannot define the technical solution in advance. Bidders develop their solutions through discussions with the buyer before submitting their tender.
- ◀ 14 The four initial companies were Fujitsu, Cable & Wireless, BT and Commendium. Fujitsu withdrew before submitting an outline solution and Cable & Wireless's solution was non-compliant. Commendium's solution was to deliver superfast broadband over powerlines. It, however, did not proceed past the competitive dialogue stage.
- ◀ 15 *The rural broadband programme*, National Audit Office, July 2013.
- ◀ 16 *The superfast (rural) broadband programme: update*, National Audit Office, January 2015.

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# Appendix 1

## Audit methodology

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We reviewed the following documents and papers:

- Scottish Government and HIE strategy and policy documents, reports and statistics
- contract documents, financial information and meeting minutes for both projects
- BDUK guidance papers
- reports and research by the Royal Society of Edinburgh, Carnegie Trust and other relevant organisations.

We interviewed staff and representatives from various public, private and third sector organisations including:

- Aberdeenshire Council
- BDUK
- Carnegie UK Trust
- Community Broadband Scotland
- Convention of Scottish Local Authorities
- Highlands and Islands Enterprise
- National Audit Office
- Ofcom
- Scottish Council for Voluntary Organisations
- Scottish Enterprise
- Scottish Futures Trust
- Scottish Government
- Wales Audit Office.

We used the information gathered to help develop the exhibits and data used in the report. Details of our approach are as follows:

### **Exhibit 3 showing maximum expected superfast broadband speeds**

BT provide the Scottish Government and HIE with a list showing the expected upload and download speeds for each premise in the areas where they are working each quarter. We used this information to calculate the average maximum download speeds, for the individual postcode area, that BT expects each premise to get.

We then converted the postcodes to grid references so we could use them in our GIS mapping software. This we plotted using the following bands:

- less than 24 Mb/s
- 24 to 30 Mb/s
- 30 to 40 Mb/s
- above 40 Mb/s.

We used an ordnance survey map background to plot the information.

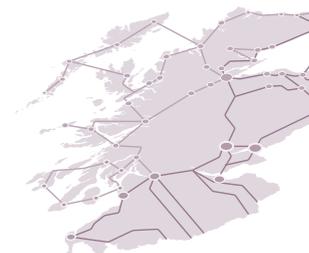
### **Exhibits 6 and 7 – Progress in providing access to superfast broadband**

These exhibits were developed from the project implementation plans and documents detailing changes from the original plans. They show the target number of premises for each quarter. We plot:

- the original target set out in the implementation plan in BT's bids
- the revised target after change controls are agreed
- and progress against the target, from BT's quarterly reports on this.

# Appendix 2

## Project advisory group



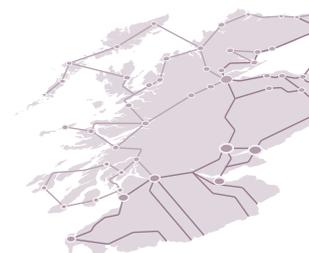
Audit Scotland would like to thank the members of the project advisory group for their input and advice throughout the audit.

Member	Organisation
Carroll Buxton	Highlands and Islands Enterprise
Colin Cook	Scottish Government
Sally Dyson	Scottish Council for Voluntary Organisations
Michael Fourman	University of Edinburgh / Royal Society of Edinburgh
James Fowlie	Convention of Scottish Local Authorities
Jeremy Morgan	Wales Audit Office
Raymond O'Hare	Institute of Directors

Note: Members of the advisory group sat in an advisory capacity only. The content and conclusions of this report are the sole responsibility of Audit Scotland.

# Appendix 3

## HIE and Scottish Government contracts – summary details



	Rest of Scotland	Highlands and islands
Contract signed	July 2013	March 2013
Construction period length	4 years 6 months	3 years 9 months
Work to build the network completed by	December 2017	December 2016
Number of premises that are expected to get access to superfast broadband through the contracts	595,000	151,000
Number of premises with access to broadband through commercial coverage, by 2015.	1,678,000	51,000
Area	27 councils in the south and east of Scotland, including parts of Argyll and Bute and North Ayrshire Council.	Orkney, Shetland and the Western Isles, Highland Council, Moray and parts of Argyll and Bute and North Ayrshire Council.
Coverage, based on contractual target	96 per cent overall; the lowest level of coverage is 89 per cent in Aberdeenshire. Five council areas, Dundee City, City of Edinburgh, West Lothian, Clackmannanshire and North Ayrshire, expect coverage of 99 per cent.	82 per cent, although HIE expect to exceed this and achieve 84 per cent; the lowest level of coverage is 70 per cent in the Western Isles and the highest is 93 per cent in Moray Council.
Total cost	£266.5 million over 11 years includes up to £13.5 million as an innovation fund and £2.2 million for demand stimulation.	£145.8 million over 4 years includes up to £2.5 million innovation fund.
Average amount the public sector is paying to bring superfast broadband to each premise	£230 per premise passed	£475 per premise passed

	Rest of Scotland		Highlands and islands	
Public sector funding sources over contract period	UK Government	£50m (19 per cent)	UK Government	£50.8m (35 per cent)
	EU	£20.5m (8 per cent)	Scottish Government	£41.3m (28 per cent)
	Scottish Government	£21.5m (8 per cent)	HIE	£11.4m (8 per cent)
	Individual council contribution	£50.7m (19 per cent)	Collective council contribution	£22.9m (16 per cent)
	Collective council contribution	£17.1m (6 per cent)		
BT contribution	£106.7 million, over 11 years		£19.4 million, over 11 years	
Procurement process	The Scottish Government used the BDUK framework. Fujitsu was involved in the procurement initially but then dropped out.		HIE's contract was awarded through a separate procurement that complied with EU rules. HIE had four companies interested; all but BT pulled out and only BT submitted a final bid.	
Backhaul cabling	Limited		400 km of subsea cables and 800 km of land cables	
Approach to sub 2 Mb/s premises	All premises to receive a minimum speed of at least 2 Mb/s using alternative technology.		No provision in contract for premises receiving lower than 2 Mb/s.	
Approach to marketing	£2.2 million allocated to BT for marketing and encouraging take-up of the service.		Led by HIE. £165,000 spend included in the Scottish Government's £2.2 million allocation for initiatives applying across all of Scotland.	

# Superfast broadband for Scotland

## A progress report

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