



**Superfast
Broadband**
Digital Scotland

**Delivering on our
commitment in**

SCOTLAND

Rest of Scotland contract as of March 2018

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Fay Wilkie and Eve Thompson at the programme's first cabinet launch in Kirkton of Skene, Aberdeenshire, back in April 2014

1 Foreword by Sara Budge, DSSB Programme Director

Ambitious, groundbreaking and innovative – just some of the ways to describe the award-winning¹ £442m Digital Scotland Superfast Broadband (DSSB) programme in the 'Rest of Scotland' area. It supports Scotland's longstanding reputation for innovation and application, and we're really proud of the people who've worked in such strong collaboration to support its success.



From the very outset we recognised that extending superfast broadband across the country was about so much more than simply supporting economic growth. It's also been about enhancing quality of life for everyone in Scotland – and as one of the largest infrastructure projects in Europe, DSSB (alongside commercial coverage and the Highlands and Islands Programme) represents a major success on many levels. This means over 95% of Scotland has access to fibre broadband, compared to just 66% before we began – in some Local Authorities as little as 25.1%.

In achieving our goals we've introduced some pioneering technologies, and applied genuine innovation to overcome complex geographical and engineering challenges. For example, in the rare cases where traditional cabinets couldn't uphold our ambition, we used fibre-to-the-premises (FTTP) technology to support thousands of homes and businesses.

At the height of our transformation programme, more than 5,500 homes and businesses were connected to fibre enabling infrastructure each week, and we've connected properties from as far north as Portsoy in Aberdeenshire, to Drummore in the country's far south-west. All the while, our commitment to marketing and communications has encouraged and expedited fibre 'take-up', helping us achieve, for example, a 40% adoption rate against our initial target of 20%.

Thanks to a combination of forward-thinking approaches to encouraging fibre adoption, we were able to invest an extra £15.6m of clawback funding known as 'Gainshare' back into the programme across Scotland. This ensured more homes and businesses will continue to benefit from

access to fibre, and will support continuous deployment into 2019. From here, DSSB has laid a fantastic foundation for future programmes that will ultimately ensure every home, business and organisation in Scotland can access superfast broadband.

This document explains in detail what the DSSB programme promised from the outset in 2013 – for the 'Rest of Scotland' – what it has achieved until the end of contract one in March 2018, and the remarkable benefits it has secured.

I believe it showcases the outstanding united and collaborative attitude of everyone involved, and our dedication to ensuring access to fibre for people who live and work in the Rest of Scotland areas. It also highlights how we've risen to the many and varied challenges through innovation, collaboration, and sheer determination!

I am very aware that until every home and business in Scotland enjoys access to fibre, there is more to do. That's why this programme is fully committed to deployment until our successor programmes take over and help the country reach 100% coverage and universal service standards.

With best wishes and sincere thanks to all our investing partners, and to our delivery partner Openreach, who have ensured we not only did what we set out to do, but also far exceeded it.

Sara Budge
DSSB Programme Director

¹ Award 'Highly Commended' in the Infrastructure Category at the Connected Britain Awards 2018.

2 Purpose of this document

This document sets out the details of the DSSB programme's aims, and its achievements across the Rest of Scotland² area. It is fully transparent about what the programme has accomplished as of the close of contract 1 in March 2018. Thanks to the success of the contract, we have secured additional funding to continue the programme into 2019.

In 2013, the DSSB programme boldly set out to ensure that, when combined with commercial coverage, 85% of Scotland could enjoy access to fibre broadband by the end of 2015 – and that 95% had access by the end of 2017. Thanks to the partnership

approach among our contractual partners – The Scottish Government, UK Government, BT Group, Scotland's local authorities, and the European Regional Development Fund, and our 14 contributing authorities, Aberdeenshire Council, Angus Council, Clackmannanshire Council, Dumfries & Galloway Council, East Ayrshire Council, East Lothian Council, Fife Council, Midlothian Council, North Ayrshire Council, North Lanarkshire Council, Perth & Kinross Council, Scottish Borders Council, South Ayrshire Council, Stirling Council, West Lothian Council, and, of course our delivery partner, Openreach – the programme met both commitments on time.



The Scottish Government met its target of providing access to fibre broadband to 95 per cent of premises in Scotland by 31 December 2017.

Superfast broadband for Scotland, Audit Scotland, September 2018

3 DSSB programme background

The procurement process for a supplier was conducted through Broadband Delivery UK's (BDUK) next-generation access framework. The DSSB programme was the largest BDUK framework programme at the time of procurement, following a procurement process that complied fully with State Aid requirements and met all governance and assurance stipulations.

The DSSB programme was a collaborative project led by the Scottish Government on behalf of the 27 Local Authorities in the Rest of Scotland intervention area (IA). The overarching aim was to address the market failure in respect to Next Generation Access (NGA) as far as possible, with minimum targets of:

- **85% of premises across the whole of Scotland receiving NGA**
- **75% of premises in each Local Authority receiving NGA.**

The project also sought to provide access to basic broadband, through alternative initiatives, for premises within the IA where NGA is not yet deemed possible.

² The DSSB programme is divided into two projects - one covering the Highlands and Islands, and one for the 'Rest of Scotland'. Each have dedicated teams, but both are part of the DSSB programme.

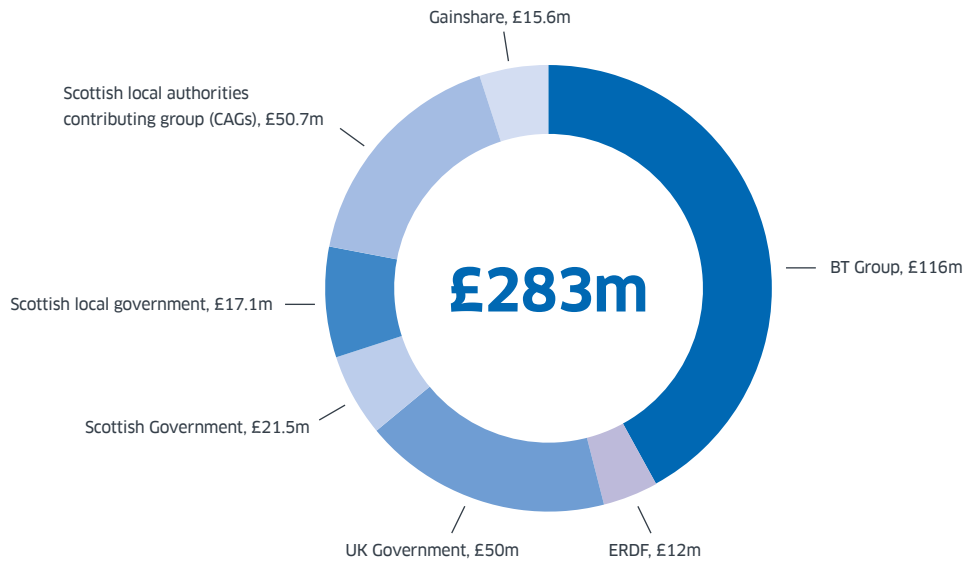


Community officer
Stephen Chambers

4 Our investors

We have a range of partners at local, national and European levels contributing to making the programme a success. The 'Rest of Scotland' project is funded to the value of £283m, which includes £15.6m of 'clawback'³ funding.

Finances and deployment were assured quarterly, reviewing the total capital expenditure and claims against the project finance model. This has ensured the programme's financial management remained contractually robust throughout, and appropriate across all funding sources.



³ Due to the early success of the initial DSSB programme, which saw stronger than expected take-up, an additional £15.6m has been reinvested back into the programme to extend the build until 2018.



Pupils from Inverkeithing Primary school celebrate the arrival of fibre broadband

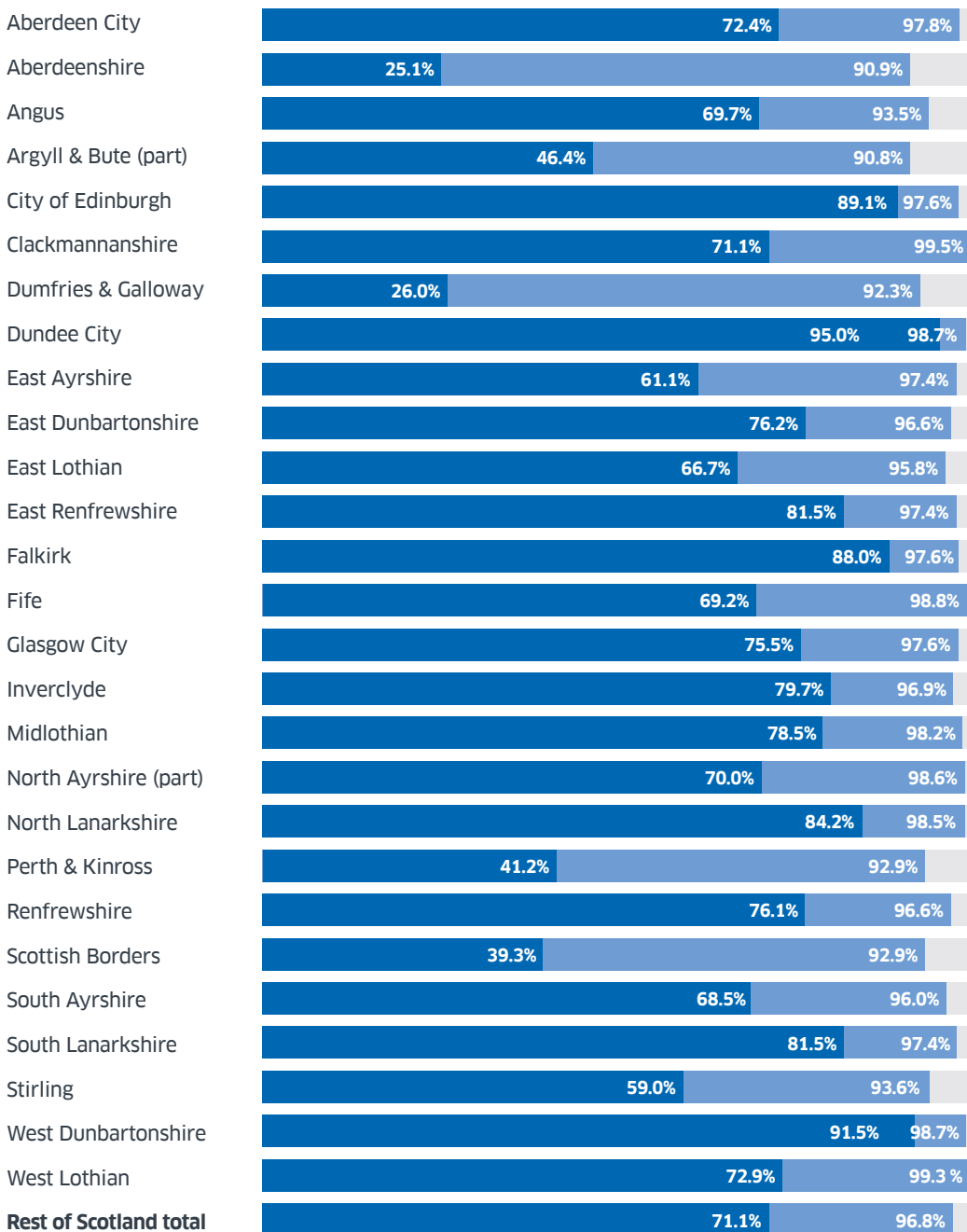
5 Deployment

Before the Rest of Scotland (RoS) and Highlands and Islands Enterprise (HIE) programmes began deployment in Scotland, less than 66% of the country appeared to have access to fibre broadband through commercial deployment⁴. The DSSB RoS programme has since achieved the following:

5.1. Coverage

■ Assumed % of premises connected to fibre broadband through commercial deployment (starting point) (OMR 2012)

■ End of contract 1 coverage



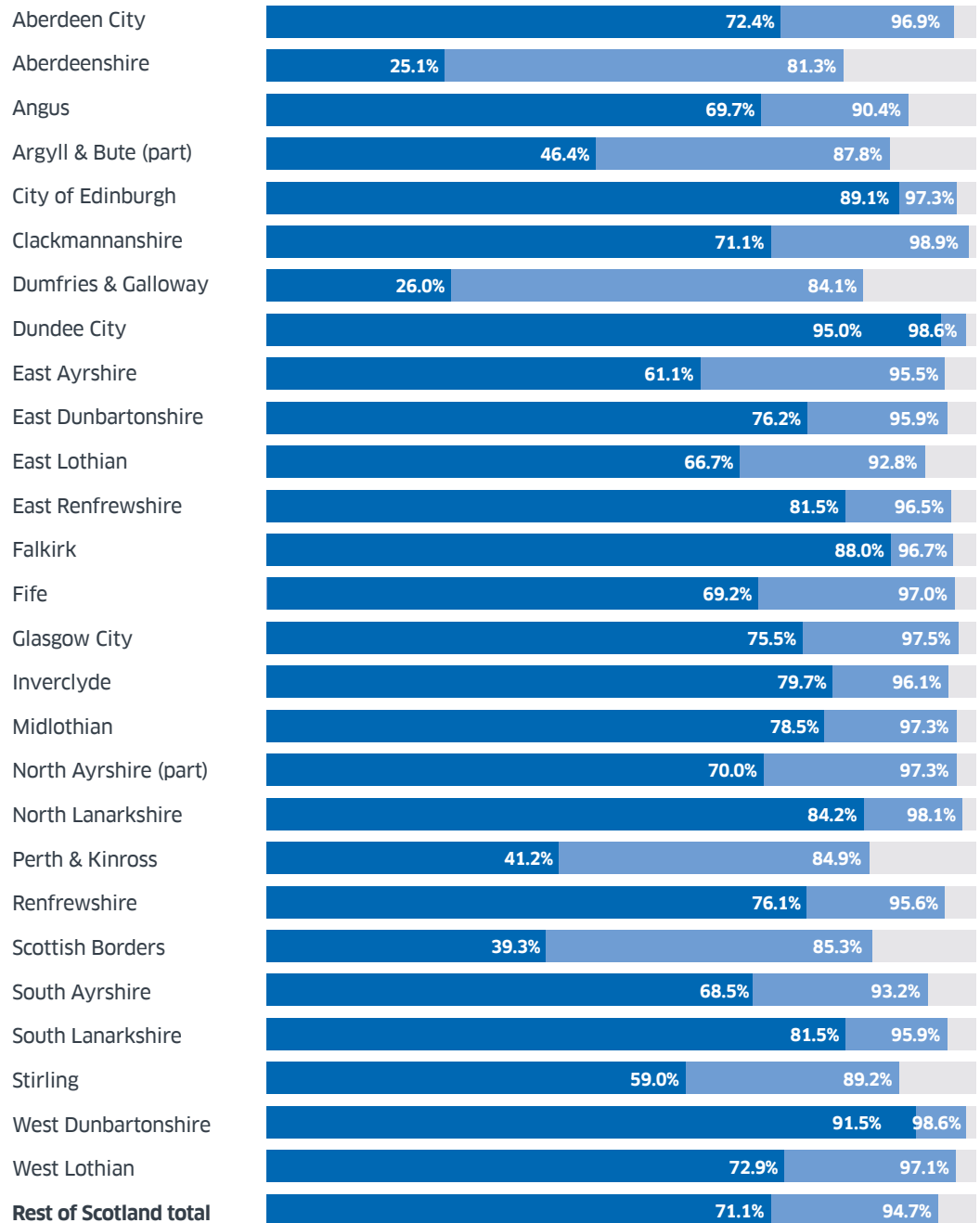
⁴ According to an OMR carried out in 2012.

5 Deployment

5.2. Speed

■ Assumed % of premises connected to fibre broadband through commercial deployment (starting point) (OMR 2012)

■ End of contract 1 coverage \geq 24Mbps



All Local Authorities in the RoS intervention area achieved over 90% fibre broadband coverage - in many cases achieving way above the indicative coverage set at the start of the contract.

5.3. Premises reached

- Over 715,000 homes⁵ and businesses with access to fibre infrastructure
- 97% of homes and businesses⁶ with access to fibre infrastructure
- 3,764 cabinets erected
- 1,464 Exchange-only (EO) cabinets erected
- 293 PONS (FTTP) built

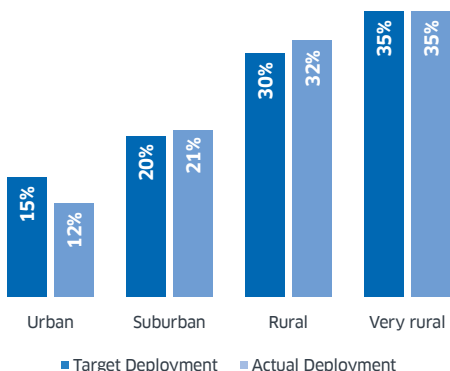
In recognition of our ambitions for nationwide fibre broadband, we planned our infrastructure build carefully to cover the country.

Achieving this has required considerable innovation and recognition of the investment required to achieve the best fibre reach to our more remote rural areas.

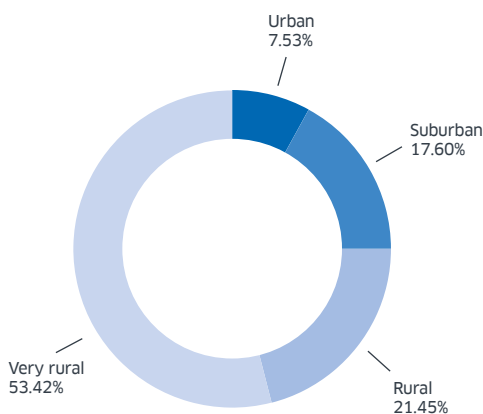
In accommodating the rural need, it has been crucial to focus on balancing the urban versus rural need - in line with that originally modelled - to support our commitment to investors in terms of value for money. This has also been key to ensuring the rural build benefits from the appropriate level of investment.

The proportions of actual coverage against what we originally planned, are indicated below.

Target -v- Actual Deployment by Classification



Percentage Rural and Urban Spend



premises connected to fibre enabling infrastructure by DSSB

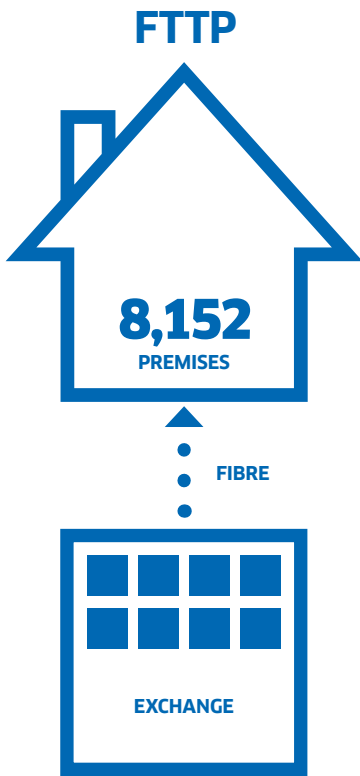


premises connected to fibre broadband by DSSB RoS capable of receiving speeds $\geq 24\text{Mbps}$

⁵ Implementation Plan THP - total number of premises connected thanks to the programme

⁶ When DSSB deployment combined with commercial coverage

5 Deployment



5.4. Technology types

The DSSB programme has applied Fibre to the Cabinet (FTTC) and Fibre to the Premise (FTTP) technology to provide over 715,000 homes and businesses with connections to fibre-enabled infrastructure. The technology mix was chosen on a value-for-money basis, ensuring fibre access extended as far as possible within the available funding.

The vast majority of deployment was by Fibre to the Cabinet (FTTC), where fibre runs from an exchange to a local fibre cabinet (often referred to as a DSLAM) which is then connected by copper wiring to the existing copper cabinet (called a PCP), and from there the existing copper wiring connects to the individual premises. The speed benefits come from the extending of fibre infrastructure further into the community. At the outset, not all exchanges had been upgraded as part of commercial plans, so deployment by DSSB is 'fibre enabling' exchanges as part of the programme.

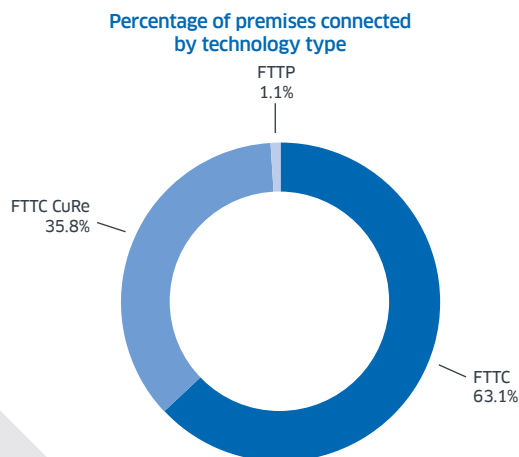
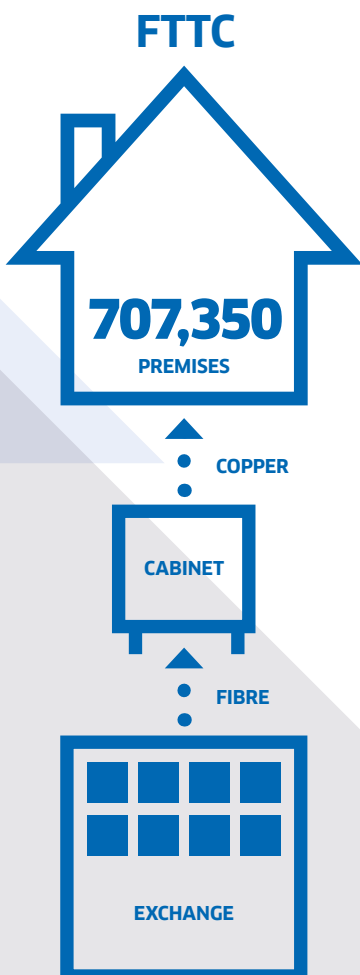
In many cases, there were no existing copper cabinets and premises were served directly from the exchange by copper wiring. To overcome this, existing copper wires in the network were intercepted and rearranged to create a new PCP, using a process known as copper rearrangement, or 'CuRe' for short. The new PCP was then connected to a DSLAM, as described above, to create a FTTC EO. The overriding objective in placing these new PCPs has been to secure a balance between the number of premises covered, maximising the speeds available, and cost. The programme has converted over 220,000 EO lines across the Rest of Scotland project area.

Fibre cabinets can serve over 400 premises, but when this falls below 128 there is an option to combine a new fibre and copper cabinet into one structure, termed an All In One (AIO) cabinet. If the number of premises served is fewer than 16, it can make more sense to create a Fibre to the Remote Node (FTTRN), which is in effect a 'mini DSLAM' that can be installed on a pole or below ground. All these fibre cabinet options require power from the electricity network.

FTTC technology can achieve speeds up to 80Mbps⁷, depending on the distance from the cabinet to the premises. Generally speaking, if more than a kilometre of copper wire connects a property to a fibre cabinet, broadband speeds can fall below the 24Mbps 'superfast' specification.

FTTC has accounted for around 65% of contract 1 deployment, with FTTP EO around 30%.

Fibre to the Premise (FTTP), meanwhile, has no requirement for a local cabinet or power supply. As the name suggests, fibre runs directly from the exchange to premises. FTTP is a much more expensive technology to deploy than FTTC, as it involves installing new fibre networks further into communities, but it can provide broadband speeds of up to 100Mbps.



⁷ These are wholesale speeds, those offered by service providers may vary.

⁸ When combined with commercial coverage.

5.5. Cabinet information

3,764 cabinets erected.

5.6. Speeds achieved⁸

90% of homes and businesses capable of receiving speeds of 24Mbps or higher.

5.7. Meeting the challenges

Building a broadband network is a complex engineering challenge, with countless factors to consider as we design and build the network that will deliver on its promises within ambitious timelines.

By the project's very nature, and due to its unprecedented scale, many challenges only become clear when engineers arrive on site to lay cables, build cabinets, or build the nodes that take fibre direct to a customer's front door. Of course, if the existing network is in a suitable condition, and there is sufficient space underground in undamaged ducting for more cables, then we can be cost and time-efficient in providing superfast broadband. But where nature or other infrastructure development has taken its toll, and damaged ducts or restricted access, the projected timelines can slip while we make sure we achieve what we pledged to. Building new ducts, digging up roads, removing tree branches... the list is extensive!

So while we've factored in that not everything would run like clockwork, we can never know precisely where or when the challenges may arise - or to what extent. This means that, as much as we want to, we can't always tell people exactly when they can order and enjoy faster broadband.

For increasing numbers of premises in the latter stages of the roll-out, Fibre to the Cabinet (FTTC) technology simply isn't feasible from an engineering perspective, so we take a Fibre to the Premises (FTTP) approach - and with this comes a fresh set of variables to consider, including local topology and geography, planning requirements, existing engineering infrastructure, and the availability of suitable technologies to provide a fibre service. However, as it is a purely fibre connection, with no copper telephone wires involved, FTTP is actually faster than FTTC, providing speeds of up to 1,000 Mbps download and 220 Mbps upload. So there is a silver lining for customers receiving FTTP connections.

Ninety per cent of premises connected through the contracts are now estimated to be able to receive speeds of 24 Mbps and above. The Scottish Government has still to fully assess the economic impact of its investment.

Superfast broadband for Scotland, Audit Scotland, September 2018

Factors which affect your broadband speed

Outside your premises

- The length of copper between the premises and the cabinet or exchange.
- The quality of wiring to your premises.
- The number of neighbouring premises online at the same time.

Inside your premises

- The internet package bought from your internet service provider (ISP).
- The number of people online at the same time.
- The quality of your internal wiring and router.
- Whether your connection is via Wi-Fi or direct to your computer.
- Compatibility of your computer equipment.
- Thickness of walls, particularly in older properties.

Source: Audit Scotland Report



of homes and businesses capable of receiving speeds of 24Mbps or higher

6 Local authority operations

Local Authority Operations is the key link between the DSSB programme and the 30 approval bodies (comprising the 27 Local Authorities, two National Parks, and Transport Scotland) liaising with Openreach and its project teams. Any issues or concerns from the approval bodies – and from Councils and other infrastructure and planning bodies – go through Local Authority Operations. For example, problems with cabinet locations, roadworks noticing, substandard workmanship, or concerns regarding delayed survey responses, go through this function.

In effect, Local Authority Operational Management serves as an even-handed mediator, balancing the requirements of the

relevant Local Authority against the quality standards and roll-out commitments of the DSSB programme.

Local Area Operations also keeps authorities continuously updated on overall programme progress, and seeks to resolve issues proactively and fairly. It has been undeniably instrumental in supporting timely fibre deployment across the country.

We would like to formally recognise the significant contribution made by the Council's 'Single Point of Contact' (SPoC) and other officials in technical, economic development, planning and roads departments in resolving potential issues and enabling smooth progress.

7 Alternative solutions



The DSSB programme administers the UK Government's Better Broadband Subsidy Scheme in Scotland. The scheme, originally named the Basic Broadband Scheme, has been running since 2014, and aims to ensure that the small percentage of homes and businesses not covered by the current DSSB programme can access a minimum broadband speed of 10Mbps by satellite or fixed wireless options while they wait for 100% superfast coverage.

Applicants who meet the criteria are encouraged to apply through the programme for a grant of up to £350 towards the installation of the required equipment. This initiative incorporates 30 partner suppliers across the country.

	Number of applications received	Number of codes issued to applicants*	Number of codes taken up by applicants**	%
Rest of Scotland	3,520	3,040	1,440	47.37

All data up to Q4 17/18

* Voucher codes are issued to all applicants who satisfy the eligibility criteria for the Better Broadband Subsidy Scheme.

** Applicants who have chosen to use their voucher codes to access the subsidy scheme.



An engineer explains to school children how a cabinet works

8 Benefits of the DSSB programme

The DSSB programme has commissioned Analysys Mason (who also assessed the economic benefits of the programme before procurement in 2012) to produce an updated appraisal of its economic impact. In defining the benefits of NGA broadband, we should caveat that these will differ between individuals and geographic areas, and change over time. Also, we must consider that many uses and benefits are yet to be discovered, so this does not constitute the full picture.

Identifying the full extent of NGA's economic benefits is challenging. The study reviews available evidence of generic impacts from the literature to identify any likely scale of impact - and if so, to quantify it using Scottish data.

We anticipate publication of the Benefits Realisation Report by summer 2019. The publication will be available to view and download at the DSSB website.

8.1. Mobile connectivity

Although not directly linked to mobile rollout, new fibre routes provided by the DSSB programme have the potential to enhance mobile connectivity, thanks to the availability of new backhaul - i.e. the new connections between the exchange and the core network.

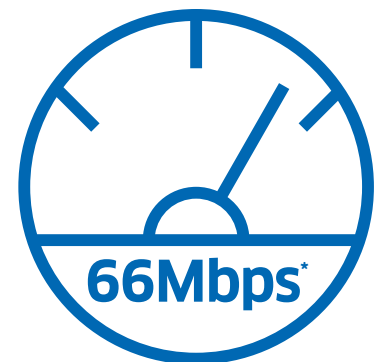
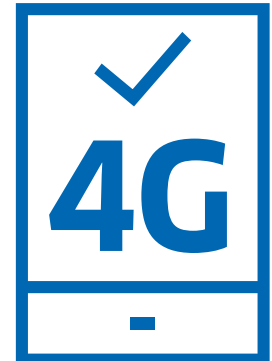
Commercial deployment of mobile infrastructure has increased significantly in the last four years, with all mobile network operators investing heavily in 4G rollout to meet coverage obligations set by the UK Government and Ofcom. Premises-level coverage of voice and data services is high in Scotland, at 90% and 87% respectively, while geographic coverage of voice and data services lags behind at 80% and 42% respectively.

	Voice: Premises (indoor) (availability of all operators)	Voice: Geographic (outdoor) (availability of all operators)	Data: Premises (indoor) (availability of all operators)	Data: Geographic (outdoor) (availability of all operators)
All Scotland	90%	50%	87%	42%

Source: Ofcom Connected Nations Spring 2018

What can you do with superfast broadband?				
	10 Mbps	30 Mbps	300 Mbps	1 Gbitps
Streaming music	Yes	Yes	Yes	Yes
Downloading an album	1-2 minutes	30-60 seconds	Less than 10 seconds	Less than 5 seconds
Streaming an HD movie	Yes	Yes	Yes	Yes
Downloading an HD movie	1-1.5 hours	30 minutes	Less than 5 minutes	Less than 2 minutes

Source: Ofcom connected nations



Average download speed of premises connected by DSSB (RoS)

*These are wholesale speeds. Those offered by service providers may vary.



of premises connected to fibre infrastructure

9 Keeping our partners and stakeholders informed and engaged

9.1. About our stakeholders

The programme has a vast range of stakeholders, from senior business representatives to private individuals across the full demographic range – all seeking information and updates on how the programme will affect them (and in some cases, their own stakeholders). Accordingly, we designed and implemented a multi-faceted communications strategy to engage meaningfully with them all – including letting everyone know exactly what the programme was achieving, and when fibre broadband had arrived in their local area.

How we engaged with them

We ensured that local communications and media campaigns supported all the ‘feet on the street’ community engagement events, and our encouragement to adopt fibre in each local area. We also highlighted national milestones and announcements to raise stakeholders’ awareness and engagement levels.

Through research, we identified that messages worked best when they were localised and current. In other words, people are understandably more interested in when fibre would be available to them than, for example, the higher-level messages about overall programme targets and progress. We also discovered a widespread misconception that upgrading to fibre happened automatically, so we factored this and other insights into our communications.

Our communications and stakeholder team organised:

- Launches and photo calls with senior representatives of the programme’s partners and investors.
- Photo calls and cabinet launches across Scotland.
- Quarterly news releases on major deployment milestones at local and national level.
- Joint events and publications with partner organisations, and with Local Authority business and community partnerships.
- Promotion of case studies benefiting from fibre – through local press, and traditional and social media.
- Over 100 MP and MSP constituency meetings, as well as ‘drop-ins’ to update politicians on deployment.
- Regular informal drop-ins at Holyrood to answer queries, and more formal updates at Holyrood and Westminster.
- Our quarterly ‘In the Loop’ newsletter, plus website and digital campaign updates.
- Internal communications through Local Authority distribution points.
- Quarterly SPOC updates on all aspects of the programme for Local Authority partners.

Our Single Points of Contact (SPOCs) are subject matter experts within each local authority, and integral members of our extended DSSB programme team. Their role includes engaging with their colleagues and elected members about a range of technical, deployment and stakeholder matters. They’re the ‘go to’ people for all DSSB activity within their Local Authorities.



9.2. Case studies

Since the very beginning of the programme we've used case studies to show how the arrival of fibre broadband has helped improve people's lives and supported small businesses.

Case studies feature prominently in our marketing and communications activity, giving meaningful context to our challenges and achievements. Here are a few examples:

Andy Weir from Innerleithen in the Scottish Borders runs a business giving mountain bike tours and training. Working from home and 'in the field' was a big challenge for him... until DSSB reached his area: www.scotlandsuperfast.com/media/1705/andy-weir.pdf

Iain Burnett, 'The Highland Chocolatier' runs his business from Pitlochry. Before fibre, he struggled with slow internet - but with speeds now in excess of 60Mbps he can communicate more proactively and regularly with clients, market more effectively, and export internationally more easily: www.scotlandsuperfast.com/media/1694/iain-burnett-chocolatier.pdf

Farmer Willie Harper lives and farms in Renfrewshire. While he doesn't quite get superfast speeds, around 18Mbps is a big improvement, allowing him to download useful information and access websites about farming payments. Meanwhile, his teenage daughters can be online at the same time without grinding things to a halt: https://www.scotlandsuperfast.com/media/1595/dssb_case_study_willie_harper_v1.pdf

9.3. Stakeholder outcomes

The programme has consistently gained significant national and local coverage across print, broadcast and social media.

The purpose and outcome of this was to raise awareness and understanding of the programme's outputs and benefits - specifically, to inform people when fibre would become available in their area, and how to access it. Another key aim was to give those not in the scope of the DSSB programme as much information as possible on their options and their future potential for receiving faster broadband.

The interactive/self-service map on the DSSB website has been very popular and effective, giving members of the public and enquirers up-to-date information about the fibre journey to their communities and premises. The map was used over 240,000 times during the programme.

Finally, with so many competing messages from such a wide range of organisations about fibre, we had a duty to ensure people had clear and correct information about the partners and investors involved in DSSB, and their respective roles in providing faster broadband across the Rest of Scotland area.

As well as checking regularly to ensure our media coverage was conveying our key messages to our intended audiences, we used a very simple measure to assess these messages' value. The Advertising Value Equivalent (AVE) equates the coverage gained to the cost of buying the equivalent volume of advertising space in the same publications and channels. By this measure, the value of media coverage secured was over £3m.

Iain Burnett, The Highland Chocolatier, whose Pitlochry business has benefited from fibre broadband



9 Keeping our partners and stakeholders informed and engaged

9.4. Stakeholder enquiries

One of our many firm commitments throughout the DSSB programme was to keep the public continuously informed of our roll-out progress – and wherever possible, of how our roll-out plans might affect their individual premises.

Our Enquiries Service focused on dealing with queries from the public by providing them with a 'live' view of when they might expect access to fibre broadband. Between 6 March 2015 and 31 March 2018, our Enquiries Team responded to almost 10,000 enquiries.

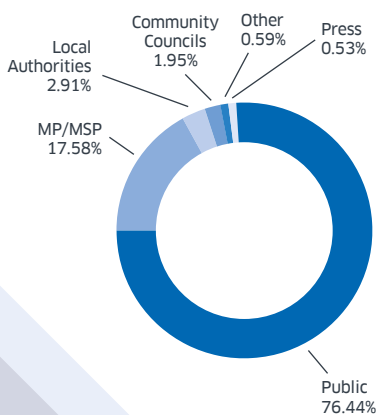
Understandably, the increasing complexities and challenges associated with deployment in the programme's later stages stimulated more, and more complex enquiries. As a result, the DSSB programme team members found themselves conducting deeper and more detailed investigations to ensure the information they provided was the most accurate and up-to-date. Despite this growth in the volume and complexity of enquiries, we responded to 63% of them within five days.

The vast majority of our enquiries come directly from members of the public. However, the team also deals with enquiries from Elected Members acting on behalf of their constituents, members of the press, and community representatives. Our enquiries team also carry out detailed research in preparation for ad-hoc meetings and events.

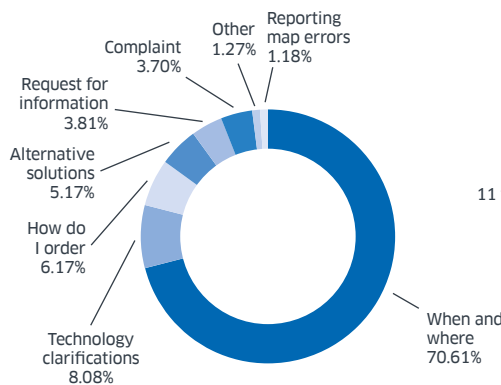
In 2015, by far the most common enquiries related to 'if' and 'when' people would be able to access fibre broadband.

As we provided more and more premises with that detail, and as we added more and more information to our website about the deployment journey, we noted an increase in questions about the associated technology, such as "What is a Long Line?" or "What is an EO line?" or "What is FTTC?" Then, in the later stages, more people began asking, "How do I order?" or, for those not yet in the scope of our programme, "How can I apply for alternative solutions?"

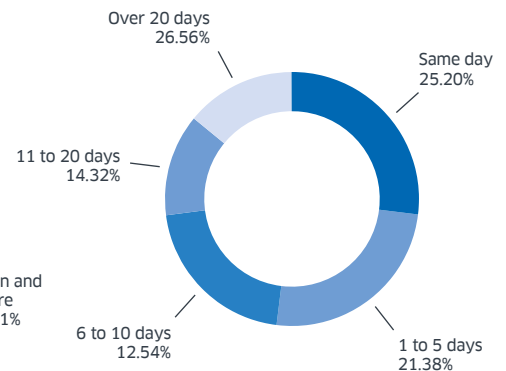
Where do our enquiries come from?



What did you write to us about?



How long did it take us to respond?



10 Encouraging fibre adoption and 'stimulating demand'

10.1 Encouraging fibre adoption

Encouraging businesses and members of the public to sign up for fibre services has been a priority throughout the DSSB programme. Not only because it helps 'close the digital divide', but also because the funding mechanism triggers the release of capital back into the programme when certain adoption levels are reached.

From the outset, we've targeted lower adoption-rate areas with local information campaigns and community events, media activity, and direct mail to premises with high-speed availability.

All initiatives have been backed by national advertising campaigns to raise general awareness and encourage people to find out if fibre is available to them. The team also provides Local Authority area updates on availability, to help reach a wide range of stakeholder groups

In March 2018, fibre adoption rates reached 40% across the 'Rest of Scotland' area – a tremendous achievement considering initial hopes for 20%. In total, 12 Local Authorities, including nine CAGs, achieved over 40%.⁹

In March 2017, thanks to having reached 20% take-up, the programme triggered £15.6m of re-investment by partner Openreach.

All Local Authorities have benefitted, but the reinvestment set-up means many premises – those in remote rural areas, or not benefitting from any uplift in speed, or 'new build' properties built between 2012 and 2014 – may now be able to access superfast broadband.

10.2. Events and campaigns

Our teams have worked tirelessly across Scotland from the programme's inception, giving key milestones and achievements the spotlight they deserve. We've liaised with colleagues in roads and planning departments, provided daily social media updates, news releases and marketing campaigns, and created case studies of how much improved connections have enhanced people's lives and livelihoods.

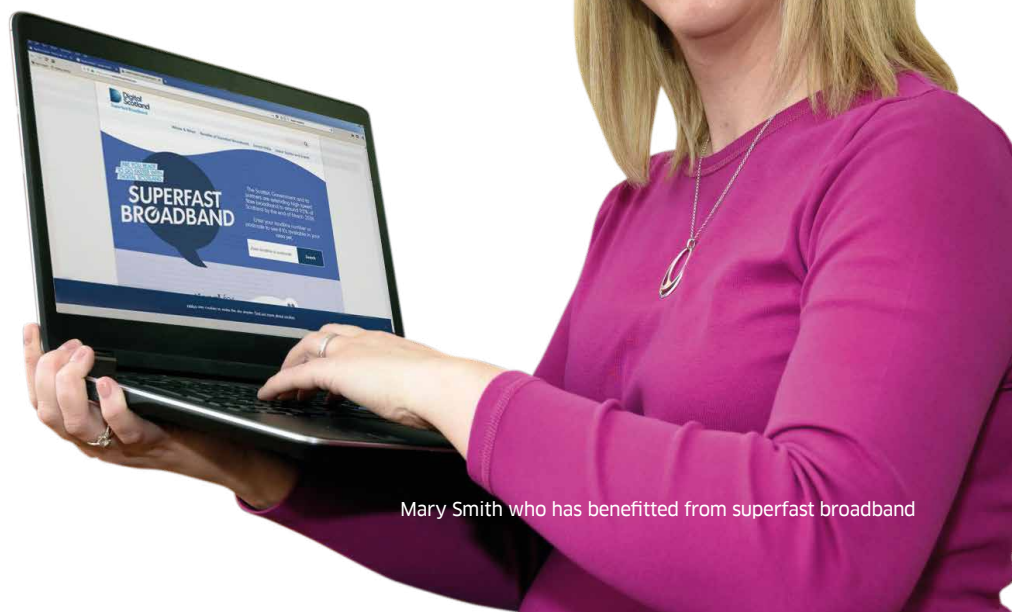
Meanwhile, our Demand Stimulation team has focused on encouraging adoption in key areas, and we've provided continuous availability updates for Local Authority areas.

Higher than expected take-up and lower than expected costs are expected to allow the programme to reach 60,300 more premises than planned.

Superfast broadband for Scotland, Audit Scotland, September 2018

Local Authority	Fibre adoption %*
Midlothian	47.4
Aberdeenshire	46.5
Clackmannanshire	46.2
Fife	45.4
Stirling	44.4
South Lanarkshire	44.4
Aberdeen City	43.9
East Ayrshire	43.9
Argyll & Bute	43.4

* Figures relate to DSSB programme take-up only, does not include commercial.



⁹ As at 31 March 2018. Adoption continues to rise across all Local Authorities

Mary Smith who has benefitted from superfast broadband

10 Encouraging fibre adoption and ‘stimulating demand’

Our stakeholder engagement initiatives have been focused and extensive, and have included high-profile cabinet launches with members of the Scotland rugby team, top athletes such as Calum Hawkins, local rugby clubs, Scottish authors, RNLI crews, ‘yarn bombers’, dance squads, ‘Rob Roy’, Roman soldiers, gala queens, MPs, MSPs, DJs, and even an AC/DC tribute act!

We must also mention the invaluable input from elected members, and the countless schoolchildren, local community groups and businesses that have helped us raise the profile of the programme at local, regional and national levels.

The team has also attended events such as the Royal Highland Show, the Stewartry Show and the Ideal Home Show. Also, the Demand Stimulation and Communications teams have run several high-profile national marketing campaigns, including:

- four phases of the ‘Up your Street’ campaign, combining traditional

advertising with social media, TV and radio advertising, a branded advance touring the deployment areas, and press awareness.

- ‘feet on the street’ activities and events in villages and towns, including cabinet stickering and distributing leaflets in high streets, libraries and local shops.

The ‘Up your Street’ campaign enjoyed nearly two million Facebook appearances and reached over half a million people. Between 1 June and 31 December 2017, our campaign landing page generated 67,160 sessions (36% of the main DSSB website’s total sessions for the same period), with 96% of visitors using the postcode checker feature.

The team has also visited community centres, hospitals and workplaces – often with the mobile showcase – and organised small fold-out booklets for Openreach engineers to pass on to curious members of the public.

11 The next steps – what about the areas DSSB hasn’t reached yet?

The DSSB programme was devised and designed to maximise the reach of fibre infrastructure across Scotland, and has achieved its bold ambition to achieve 95% fibre broadband coverage.

Meanwhile, the Scottish Government has committed firmly to providing superfast broadband access – speeds of at least 30Mbps – to every home and business in Scotland by the end of 2021. Unique in the UK, the Reaching 100% commitment builds on the success of the DSSB programme, and in December 2017 the initial £600m procurement was launched. Its focus is on ensuring that every part of Scotland will be within reach of accessible fibre – thereby creating a new ‘backhaul’ that will support a wide range of technologies, such as 4G mobile.

You can find out more about the procurement approach and associated activities here. <https://www.gov.scot/publications/digital-scotland-reaching-100-programme/> Meanwhile, the UK Government has confirmed that universal high-speed broadband will be achieved through a regulatory Universal Service Obligation (USO) to give everyone in the UK access to speeds of 10Mbps or higher by 2020.

You can find out more about the UK Government’s commitment to a regulatory USO <https://www.gov.uk/government/consultations/broadband-universal-service-obligation>.

Acknowledgements

We have delivered exactly what we said we would, and more – consistently achieving and exceeding our key fibre deployment, speed and take-up milestones along the way. This kind of achievement is only possible through innovation, endeavour and sustained partnership working, so we would like to formally acknowledge the considerable, invaluable and essential contributions of our contractual partners – The Scottish Government, UK Government, Highlands and Islands Enterprise, BT Group, Scotland’s Local Authorities, the European Regional Development Fund – and, of course, our delivery partner Openreach.

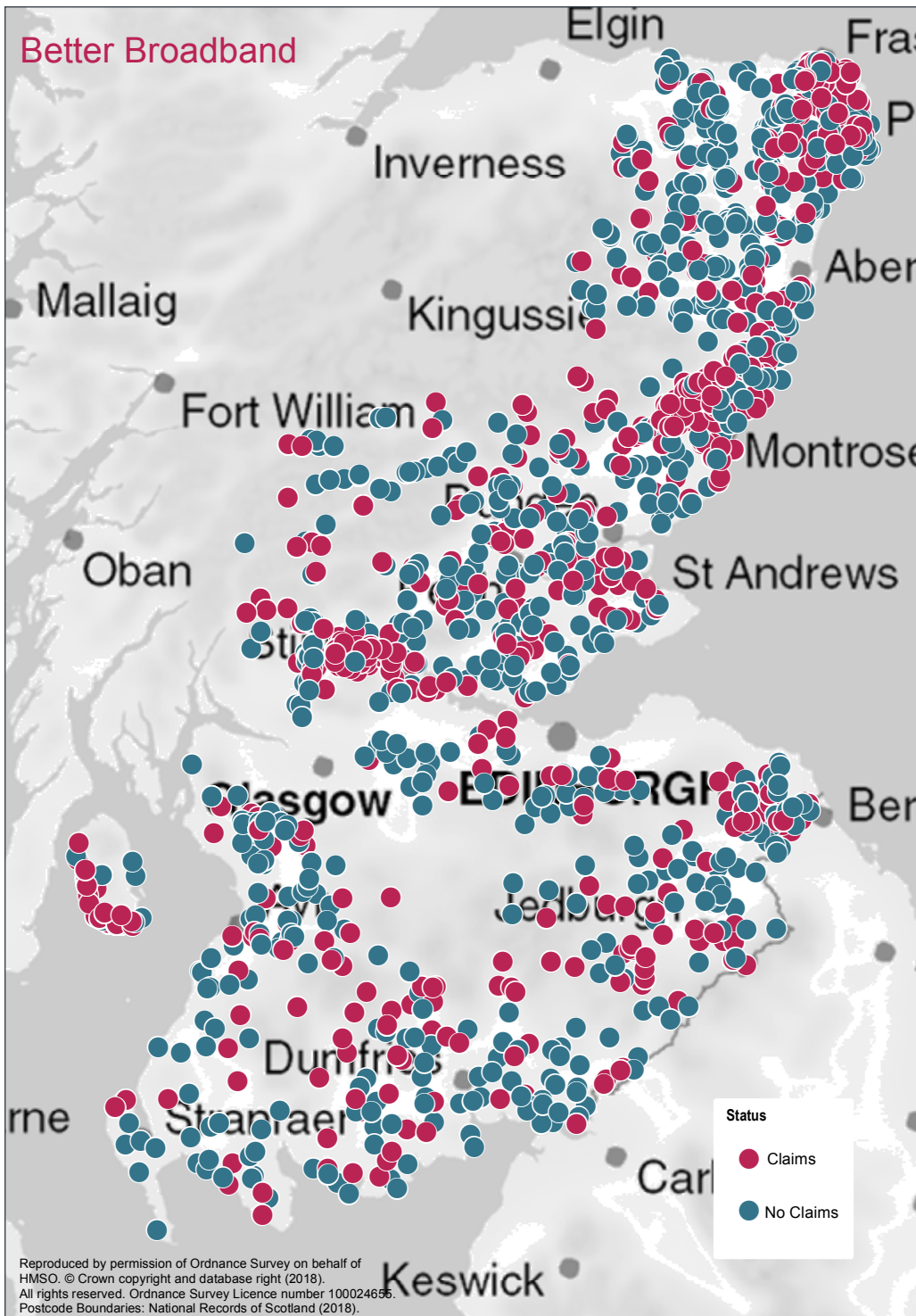
12 Appendix 1 – Programme acronyms

Acronym	Meaning
Agg Node/AN	Aggregation Node – split off from spine fibre
AIO	All in one Cabinet (combined DSLAM and PCP)
Backhaul Network	The connection between the Local Exchange and the Core Network
Basic Broadband	Broadband with speeds of more than 2Mbps
BBS	Better Broadband Scheme – the BDUK scheme is open to those unable to access a broadband service with a download speed of at least 2Mbps, and will not benefit from the current phase of DSSB. If an application for BBS is validated, a voucher up to the value of £350 towards installation costs is provided.
BDUK	Broadband Delivery UK – part of the Department for Digital, Culture, Media and Sport (DDCMS)
BT	British Telecom
BTG	BT Group
CAG	Contributing Authority Group – comprising the Local Authorities contributing additional local subsidies
Core Network	National infrastructure
CPO	Community Project Officer
CRFS	When a structure is CRFS, it means that the customer is ready for service and able to place an order
CuRe	Copper Rearrangement (moving existing lines from an exchange or a cabinet, to a new cabinet)
DDCMS	Department for Digital, Culture, Media and Sport
DP	Distribution Point – the point near a premise where the main cable from a PCP (see below) is split to provide service at one or more localised premises. A DP can be at the top of a telegraph pole (Overhead DP), under a walkway (Underground DP) or on the side of a building.
DSLAM	Digital Subscriber Line Access Module (street cabinet)
Ducts	Pipes through which cables or fibre run
EO	Exchange Only – typically a telephone line where the copper connection runs direct from the exchange to the premises, with no cabinet in between.
ERDF	European Regional Development Fund
Fluid Cabinet	A cabinet is fluid when any issues stalling progress are resolved and everything is in place to proceed.
FTTC	Fibre to the Cabinet
FTTC EO	Fibre to the Cabinet that accepts copper network through a new PCP or an AIO cabinet
FTTP	Fibre to the Premise
FTRN	Fibre to the Remote Node (a mini DSLAM Cab for up to 16 copper connections)

12 Appendix 1 – Programme acronyms

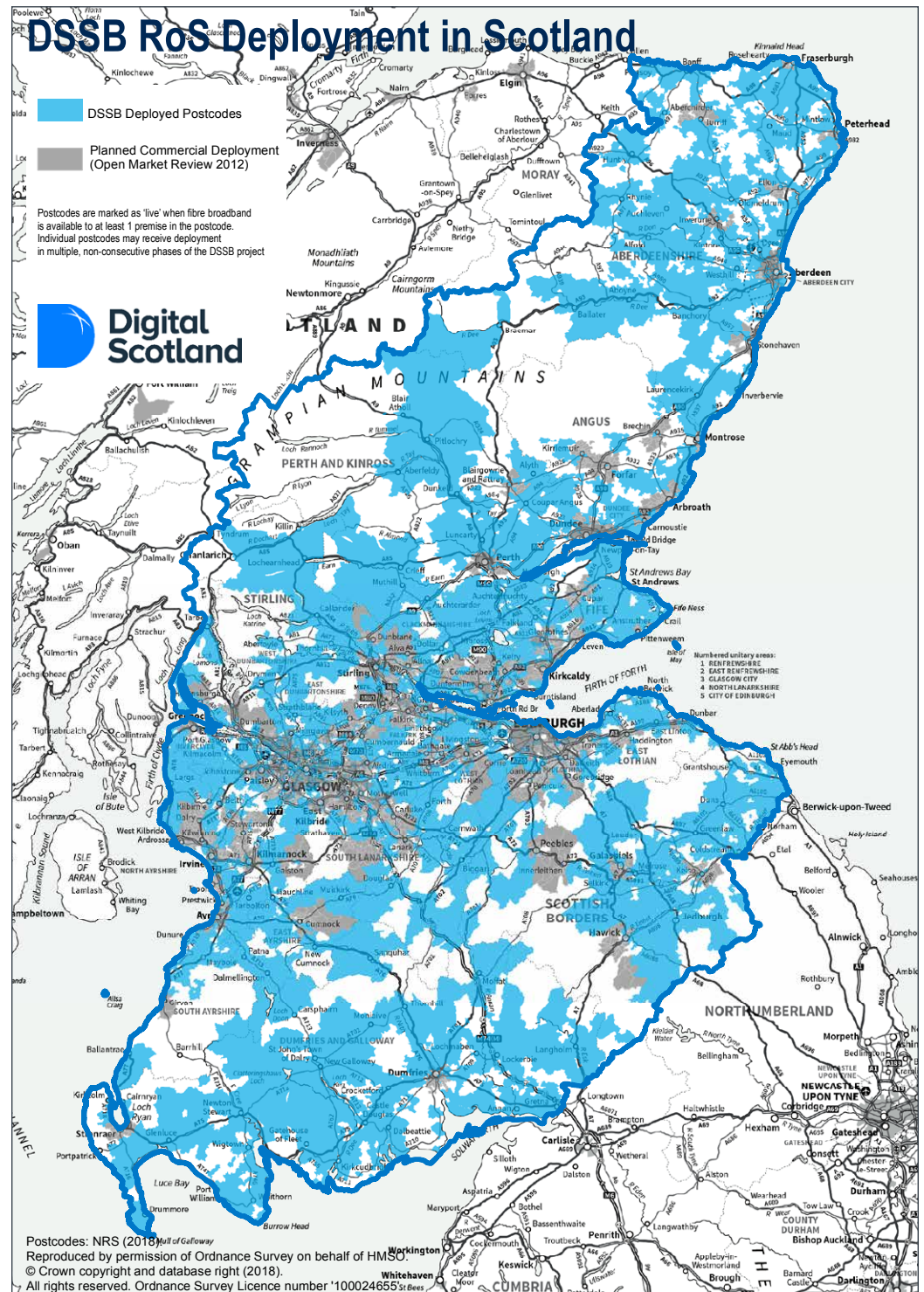
Acronym	Meaning
Headend	Headend is the common term for fibre exchange equipment that enables fibre broadband. Sometimes the actual exchange is referred to as the Headend, as this is where the equipment often is. However, only main exchanges are 'Headend' exchanges, acting as the 'feeder' for smaller exchanges.
HIE	Highlands and Islands Enterprise
IA	Intervention Area
IP	Implementation Plan (NB: can also refer to Internet Protocol, as in IP Address)
KNNS	KN Network Services – providers to the telecommunications industry
LA	Local Authority
LAOM	Local Authority Operations Manager
Long Lines	Long Lines occur when a cabinet is enabled for fibre but the premises are too far from the cabinet to benefit from an uplift of speed
MoA	Minute of Agreement
MUS	Morrison Utility Services, providers to the telecommunications industry.
NDA	Non-disclosure agreement – a legally binding contract designed to restrict unauthorised sharing of confidential information.
NGA	Next Generation Access – access networks which consist wholly or in part of optical elements and which are capable of delivering broadband access services with enhanced characteristics (such as higher throughput) as compared to those provided over existing copper networks.
NP	National Parks
O/R	Openreach
OMR	Open Market Review
PCP	Primary Connection Point (street cabinet)
PON	A passive optical network (PON) is a system that brings optical fibre cabling and signals all or most of the way to the end user.
RSP	Retail Service Provider
SCT	Speed Coverage Template
SMEs	Small-to-medium enterprises
Spine	Main fibre cable
SPoC	Single Point of Contact (within a Local Authority or National Park)
Superfast Broadband	Broadband with speeds of 24 Mbps and above.
THP	Total Homes Passed (includes residential and business)

13 Appendix 2 – maps



Better Broadband vouchers issued and claimed by postcode

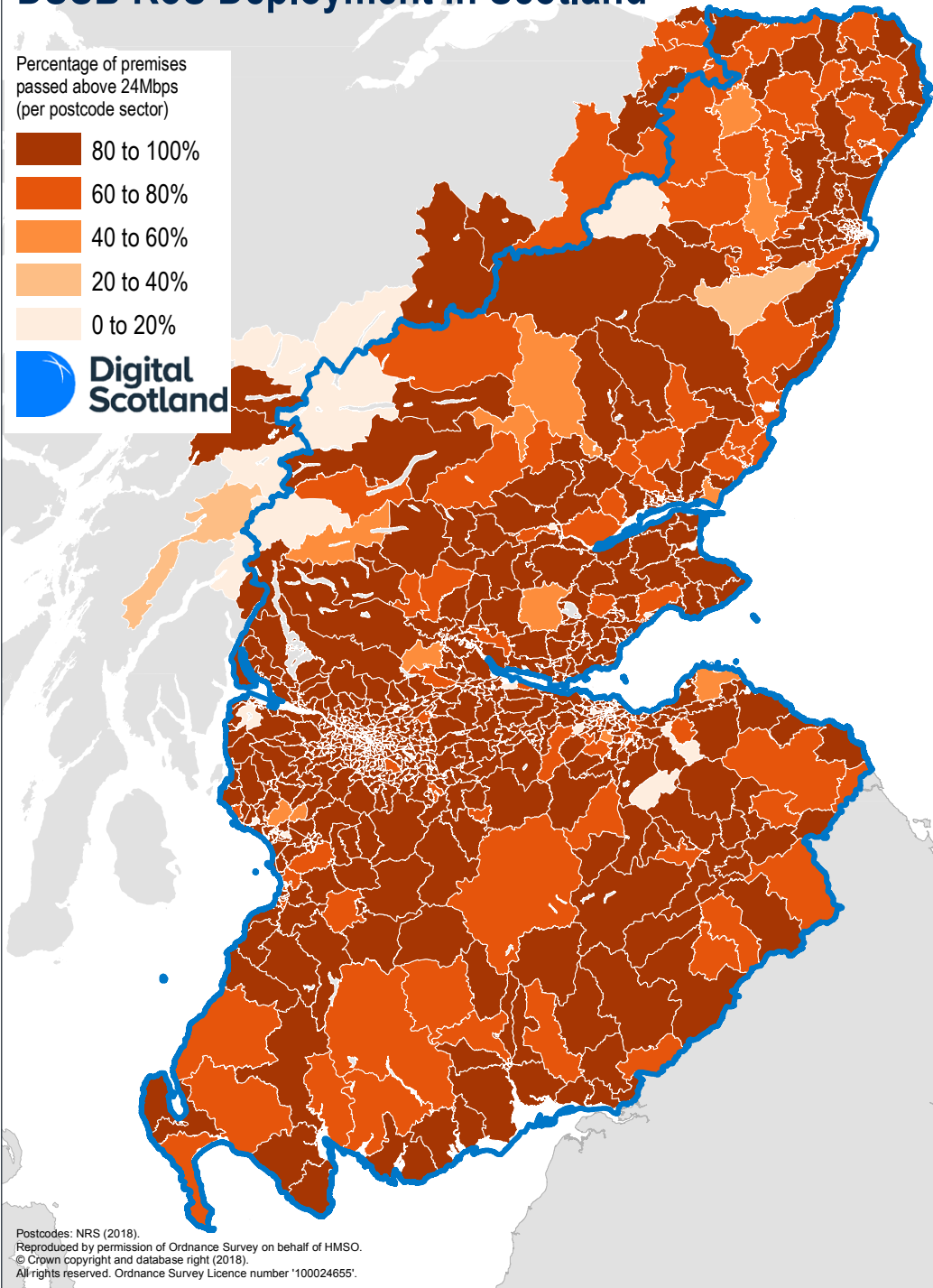
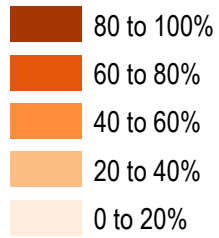
13 Appendix 2 – maps



Access to fibre infrastructure coverage by postcode

DSSB RoS Deployment in Scotland

Percentage of premises passed above 24Mbps (per postcode sector)



Postcodes: NRS (2018).
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% of premises connected to fibre infrastructure by DSSB at speeds \geq 24Mbps by postcode sector



Superfast Broadband Digital Scotland

Funded by:



Department for
Digital, Culture,
Media & Sport



Produced by the Digital Scotland Superfast Broadband Programme, December 2018, information accurate at time of publication.
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