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Northern Ireland Audit Office

Broadband Investment in Northern Ireland

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
17 June 2021

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K J Donnelly CB
Comptroller and Auditor General

Northern Ireland Audit Office
17 June 2021

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Glossary of Terms and List of Abbreviations

ADSL	Asymmetric Digital Subscriber Line
BDUK	Building Digital United Kingdom is part of the Department for Culture, Media and Sport and is responsible for delivering broadband to the UK
Broadband	The term used to describe a wide range of technologies that allow high-speed, always-on access to the Internet
BT	British Telecommunications plc
CMSC	Westminster Culture, Media and Sport Committee
CPD	Construction and Procurement Delivery
DAERA	Department of Agriculture, Environment and Rural Affairs
DCMS	Department for Culture, Media and Sport
Decent broadband	Defined by Ofcom as a connection capable of delivering a download speed of at least 10 megabits per second (Mbps) and an upload speed of at least 1Mbps. This is the specification for the Government's Universal Service Obligation.
DfE	Department for the Economy (Northern Ireland)
DoF	Department of Finance (Northern Ireland)
DRD	Department for Regional Development (Northern Ireland)
DUP	Democratic Unionist Party
EU	European Union
ERDF	European Regional Development Fund
FTTC	Fibre to the Cabinet
FTTP	Fibre to the Premises
Gigabit-capable connection	Defined by the UK government as a connection that can support 1 gigabit per second (Gbps) download or upload speeds. 1 Gbps is equal to 1000 Mbps. Gigabit speeds can be delivered by "full-fibre" infrastructure.
HC	House of Commons
ICBAN	Irish Central Border Area Network Ltd (a local authority–led, cross-border development organisation)
Kbps	Kilobits per second
LFFN	Local Full Fibre Network
Megabits (Mb)	Unit used for expressing a quantity or amount of data. Broadband speeds are expressed as an amount of data downloaded per second, usually in megabits per second (Mbps).

Mobile data services	Mobile data services are typically delivered over a wide range of radio frequency spectrum bands. The G stands for the different generations of technology used. Third Generation (3G) was launched in 2003 and introduced download speeds of over 5Mbps. Fourth Generation (4G) was launched in 2012 and delivered speeds of over 10Mbps. Fifth Generation (5G) is expected to deliver much faster data speeds (10–20 Gbps), higher capacity (i.e. able to work across more devices) and lower latency (faster response times).
NAO	National Audit Office
NI	Northern Ireland
NGA	Next Generation Access
NIAO	NI Audit Office
NIBIP	NI Broadband Improvement Project
NICS	NI Civil Service
Ofcom	The Office of Communications (UK government-approved regulatory and competition authority for the broadcasting, telecommunications and postal industries of the UK)
PAC	Public Accounts Committee
RoI	Republic of Ireland
RGC	Rural Gigabit Connectivity
SRP2	Superfast Rollout Programme, Phase 2 - this is an extension of the NIBIP. There was no NI SRP, Phase 1
Superfast Broadband	Defined as broadband with speeds greater than 30Mbps.
Superfast Broadband Programme	This is the UK programme, managed by Broadband Delivery UK (BDUK), part of the Department of Digital, Culture, Media and Sport (DCMS).
The Executive	The Northern Ireland Executive
UK	United Kingdom
USO	Universal Service Obligation will seek to ensure that everyone across the UK has a right to request a minimum broadband connection in 2020.

Broadband Definitions
(Extracted from Ofcom's Website)

Broadband enables connection to the internet. It allows information to be carried at high speed to your personal computer, laptop, tablet, smartphone, smart TV or other web-enabled device. It has largely replaced the original 'dial-up' (narrowband) method of connecting to the internet. There are two types of broadband, wireless infrastructure and fixed-line.

Wireless Infrastructure

Wireless infrastructure provides internet connectivity through mobile or satellite technology. Satellite services are provided via either fixed or mobile receivers.

Fixed Wireless Access Services, where customers attach an antenna to an external wall. The wireless path is a substitute for the copper line. Satellite services deliver service to a large dish.

Fixed-Line Broadband

The three most common types of fixed-line broadband in the UK are:

1. Asymmetric Digital Subscriber Line (ADSL):

This is the most commonly available type of broadband, delivered through the copper wires of your phone line. Two types of ADSL technology are used in the UK:

- ➔ ADSL1 is capable of a maximum speed of about 8Mbps; and
- ➔ ADSL2+ is capable of a maximum speed of about 24Mbps.

Broadband speeds via both types of ADSL depend on how far you live from your telephone exchange - the further away, the lower the speeds. Actual speeds are typically much lower than the maximum speeds quoted above.

2. Cable Networks:

Cable networks use fibre optic and coaxial cables to deliver superfast broadband services (as well as TV and phone services) direct to homes.

Cable Networks use a mix of protocols over a mix of mediums to deliver service.

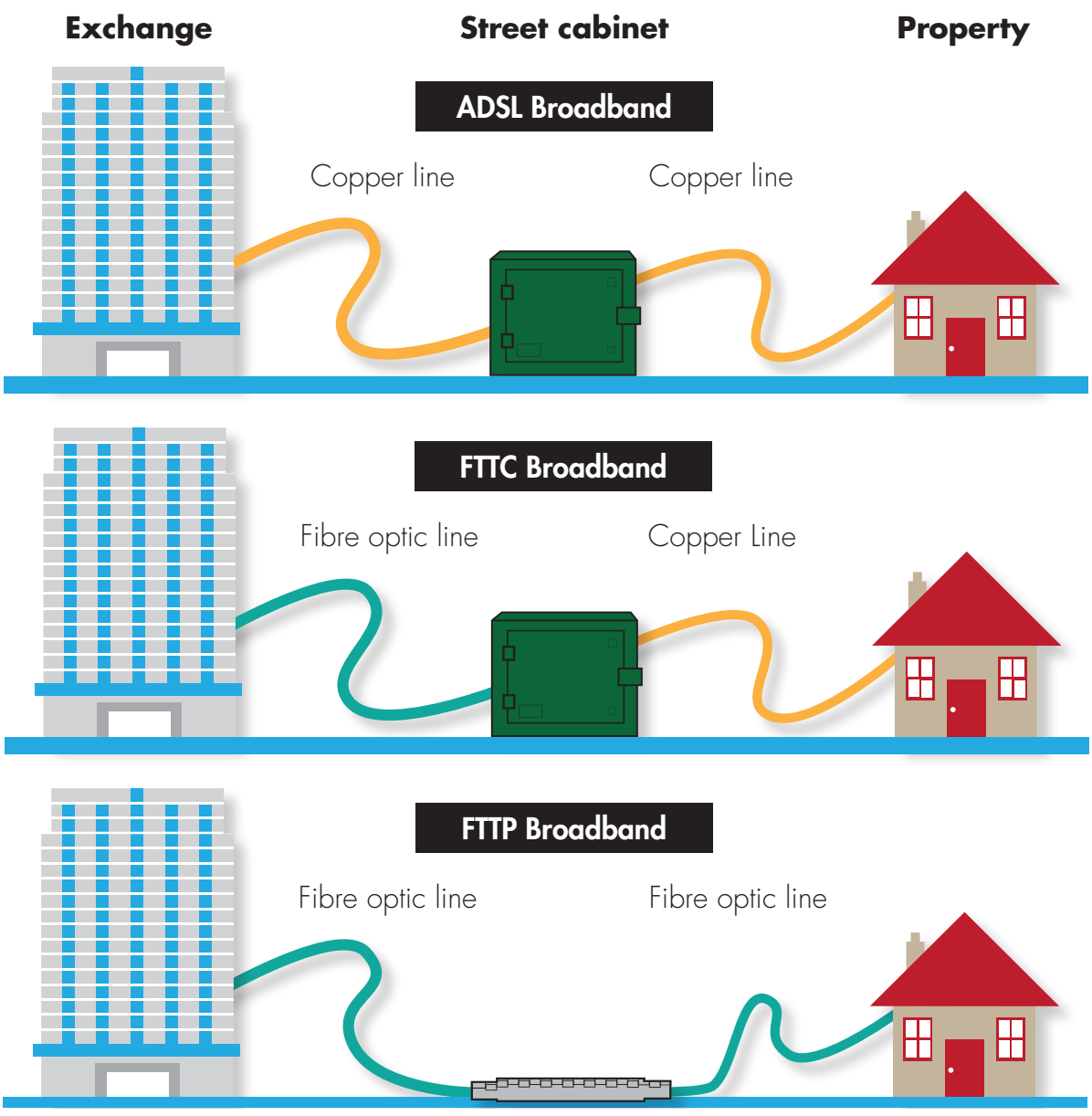
3. Fibre Broadband:

Fibre broadband is delivered via clusters of fibre optic cables (each one thinner than a human hair) at speeds faster than ADSL.

There are two types of superfast fibre broadband:

- ➔ ***'fibre-to-the-cabinet'*** (FTTC) - with fibre optic cables running from the telephone exchange to street cabinets before using standard copper telephone wires to connect to homes. Most fibre connections in the UK are fibre-to-the-cabinet services, and are typically advertised as offering speeds of 'up to' 38Mbps or 76Mbps; and
- ➔ ***'fibre-to-the-premises'*** (FTTP) - with fibre optic cables running directly to your home. It is faster than fibre-to-the-cabinet but currently only constitutes a minority of broadband connections. Fibre-to-the-premises broadband services can offer speeds of up to 1Gbps (i.e. 1,000Mbps).

Broadband choices



Source: BBC

Key Messages

Broadband access levels in Northern Ireland

NI access to broadband, at speeds of up to 30Mbps, is lower than the UK average and all other UK regions.

In 2020, NI access to ultrafast broadband, at speeds of up to 300Mbps, rose to a rate higher than the UK average. By September 2020, 56 per cent of NI premises had access to full fibre compared to an average of 18 per cent across the UK.

However, broadband access in rural areas is often much lower than that available in urban areas.

Many NI premises (schools, businesses and religious buildings) faced COVID-19 lockdown with inadequate access to internet broadband services. The Department for the Economy (DfE) told us that almost 79,000 premises in NI have been identified as eligible for intervention to improve the quality of their broadband through Project Stratum.

Competition in programmes let through the DCMS Framework and the extent to which value for money can be assessed

We do not consider that the DCMS National Framework (the framework), which applied to the Northern Ireland Broadband Improvement Programme (NIBIP) and the Superfast Rollout Programme, Phase 2 (SRP2), promoted competition. This is because, after March 2013 when Fujitsu announced it would not be bidding for any further contracts though the framework, British Telecommunications plc (BT) was left as the sole bidder available. Building Digital United Kingdom (BDUK) considers that the absence of competition reflected the lack of interest from suppliers at the time and told us that, even in cases where local bodies did not use the BDUK framework, BT was selected through open procurement.

Since BT was not prepared to agree to inspection rights, BDUK had to rely on BT to self-certify that bid costs were "*internally consistent and consistent with commercial costs*". In 2013, Westminster Public Accounts Committee (PAC) concluded that this was not an adequate control.

We note that by 2015 BDUK had strengthened its value for money team and had access to detailed cost information from BT. Although BDUK was then in a position to compare bids, benchmark costs and confirm that BT's actual costs were lower than bid costs, we agree with the National Audit Office's view that "*BDUK's analysis shows that actual costs are lower than BT's bid prices but do not, in themselves, assure BDUK that BT priced the contracts economically*".

Information provided by BT to UK Parliamentary Committees and the UK audit agencies on their actual costs has often been contradictory, particularly in relation to costs per cabinet which were variously reported with costs from £14,000 to £100,000. It is difficult to understand why this is the case.

Northern Ireland broadband schemes

Over the period from 2007 to 2020, DfE has provided public sector investment of just under £78 million on programmes aimed at improving broadband provision across NI.

The Next Generation Broadband (NGB) project was awarded to BT in 2009 following an open competition. This contract was awarded by the DfE and, unlike the two later schemes was not based on a national framework. In 2013, Westminster PAC noted that the NGB project was delivered by BT much more cheaply (and with less public subsidy) than several BT projects in England and 12 per cent below the average BT bid in England.

The later contracts to deliver the NIBIP and the SRP2 were awarded using the DCMS/ BDUK National Framework and went to BT as the only bidder available at that stage. Confidentiality clauses prevented DfE from comparing BT bids against those it had provided to other UK bids. As an alternative, BDUK prepared bid comparison reports for DfE which assessed the relative value for money of bids compared to those received by other local authorities[1]. As above, we do not consider that this provides assurance that BT bids are priced economically.

Under the NIBIP, DfE estimated, in its Invitation to Tender (ITT) document, that the funding available would provide improved access for almost 117,600 premises. However BT's initial bid anticipated providing improved access to just short of 46,000. Despite the massive variation from DfE's estimates, DfE and BDUK considered that the initial bid represented value for money. BT subsequently submitted a revised bid which lowered the expected delivery level to 45,259 premises. The project objective was revised from providing universal access (that is 100 per cent) to speeds of at least 2Mbps, to a target of 96 per cent having access to speeds of at least 2Mbps by 2015. BT actually delivered improved broadband access to 37,500 premises (following change control amendments which resulted in the removal of almost 8,500 premises from the project). This is lower than BT's initial and revised bids and significantly less than DfE original estimates.

Take-up (i.e. the number of premises taking up the opportunity to connect to the new faster broadband) on the NIBIP (66 per cent) and SRP2 (33 per cent) greatly exceeded expectations (of 20 per cent) raising concerns over the need for public sector intervention. As a result, DfE is entitled to some clawback of BT profits. BDUK estimates that take-up clawback of £14 million is due to DfE from BT (£6.4 million in respect of the NIBIP scheme and £7.6 million in respect of the SRP2). To date, £1.7 million relating to NIBIP take-up clawback has been received by DfE.

By March 2020, BT accounts identified that it had provided for £619 million, held as deferred income, which is due to be paid back in respect of clawback to local bodies across the UK to reinvest in broadband.

1 Bid comparison reports did not disclose actual bid costs to other local bodies.

Key Messages

Project Stratum

Project Stratum is a new project awarded in November 2020 which is expected to provide fibre to the premises broadband to just over 76,000 premises, mainly in rural areas. The total cost to the public sector of the project will be £165 million. The DCMS Framework Agreement lapsed in 2016, before Project Stratum was procured. Project Stratum was procured using the Public Contracts Regulations 2015 and was fully managed by CPD[2].

DfE's Internal Audit has examined the management, control and governance arrangements operating over Project Stratum and concluded that it was being well managed and that project documentation is of a high calibre. We note this assurance. DfE has also told us that, for Project Stratum, it is satisfied that it has been procured in line with best practice with appropriate assessment of costs and options and that the contractual obligations placed on the winning bidder, in terms of the provision of information, include mechanisms that are fully in line the National Broadband Scheme guidance and will allow DfE to assess value for money.

We intend to separately report on the award of the contract for Project Stratum later this year.

2 Management of the procurement by CPD was in line with the National Broadband Scheme 2016, with State Aid assurance provided by BDUK as the National Competency Centre.

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1. The internet has transformed the way we live. Most of us now rely on it to communicate, work, learn, bank, shop and access entertainment. Our reliance on the internet has become more apparent during the COVID-19 pandemic as we adhere to social distancing and isolation regulations. Those with no, or poor, internet access have faced considerable frustration and isolation over the past months. The Department for the Economy (DfE) told us that through Project Stratum, just over 76,000 premises currently unable to access broadband services of 30 Mbps (mainly in rural areas) will have access to fibre to the premises broadband.

2. Telecommunications is a United Kingdom (UK) reserved matter. As a result, it has not been devolved to the Northern Ireland Executive (the Executive) but is controlled centrally by the UK Department for Digital, Culture, Media & Sport (DCMS). Building Digital UK (BDUK), a directorate within DCMS, has responsibility for the management, governance and oversight of programmes delivering improved broadband across the UK. Under the Communications Act 2003 (Clause 149), the DfE has limited powers to intervene in cases where there is evidence of market failure. Any intervention must avoid distorting the telecommunications market.

On broadband access levels in Northern Ireland

3. By 2020, 98 per cent of Northern Ireland (NI) premises were able to access broadband services of 2Mbps. This was lower than the average of 100 per cent across the UK. In terms of '*decent*' broadband services, 94 per cent of NI premises were able to receive 10Mbps. Again this was lower than the UK average of 98 per cent.

4. In relation to access to superfast broadband, by 2020, 89 per cent of NI premises were able to access broadband services of 30Mbps. This was lower than the UK average of 96 per cent.

5. In terms of ultrafast and full fibre, by 2020 NI broadband access levels were higher than the UK averages. By that stage, 64 per cent of NI premises had access to ultrafast compared to an average of 59 per cent across the UK while 56 per cent had access to full fibre compared to 18 per cent across the UK. According to Ofcom, the higher full fibre access percentage in NI reflects substantial private sector investment from Virgin Media and Openreach.

6. Access varies between urban and rural areas in all parts of the UK. In NI, by 2020, 63 per cent of rural premises had access to superfast broadband (30Mbps), compared to 98 per cent in urban areas.

7. Average download speeds in NI are also lower than across the rest of the UK. The average download speed delivered to premises in NI in 2020 was 64Mbps compared to an average of 73Mbps across the UK.

On the use of public subsidies to improve connectivity across the UK

8. Commercial internet suppliers roll out high speed internet access in areas where it is profitable to do so. This tends to be in urban areas with high population densities where investment typically leads to large increases in customer numbers. In rural areas, where the population density is much lower, commercial suppliers are more reluctant to invest because the potential to increase customer numbers and generate income is significantly less.

9. The 2010 '*Britain's Superfast Broadband Future*' strategy document set out the UK Government's aim "to ensure that, by 2015, the UK had the best broadband network in Europe". To support this aim, the Government introduced public subsidies to encourage suppliers to provide superfast broadband in areas where it would otherwise not be commercially viable to do so (mainly rural areas).

10. Responsibility for achieving this fell to DCMS. In 2010-11, DCMS (through BDUK) introduced the UK-wide state-aid Superfast Broadband Programme (formerly the Rural Broadband Programme), supported by £1.7 billion in public subsidy. This figure excludes the contribution required from the supplier.

11. While BDUK was ultimately responsible for delivery of the programme, it was accepted that, in order to address local issues, it would be more appropriate for delivery to be managed in partnership with local bodies (typically local authorities, devolved administrations (including DfE) and Local Economic Partnerships).

On the development of a UK framework to award contracts

12. To assist local bodies, BDUK developed a National Framework (the framework) which could be used on a '*call-off*' basis. This allowed local bodies to appoint suppliers without conducting individual open tender exercises. There was early interest in the framework with nine companies pre-qualifying to bid for a place on the framework. However, three withdrew immediately and a further three withdrew during the first phase of competitive dialogue. One bid (from a consortium of small and medium-sized enterprises) failed to pass the competitive dialogue stage, leaving only two bidders (BT and Fujitsu). In June 2012, both were appointed as framework providers.

13. Fujitsu did not secure any of the early contracts let through the framework and, in March 2013, announced that it would not be bidding for any further contracts. This left BT as the sole bidder on the framework, eligible for appointment by local bodies in the absence of competition.

14. DfE and BDUK consider that this reflected the limited market at the time. BDUK also considers that its use of Bid Comparison Reports and benchmarking provided assurance that BT's bids offered valued for money and noted that, even in cases where local bodies did not use the BDUK framework, BT was selected through open procurement.

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On concerns about the framework

15. Several UK Parliamentary committees (including the Public Accounts Committee (PAC) and the Committee for Culture, Media and Sport (CMSC)) have been critical of the framework. Key concerns have included the lack of competition, limited cost transparency and the inclusion of non-disclosure agreements in contracts.

16. On a more positive note, a project assessment review of the Superfast Broadband Programme undertaken by the Major Projects Authority in 2014 concluded that: "the '*Milestone-to-Cash*' process[3], adopted for contracts awarded through the framework, should be disseminated across Whitehall, as appropriate, as an exemplar of best practice".

17. The framework relied on three key safeguards to achieve value for money (set out below). While the creation of a framework ensured compliance with European Union (EU) state guidelines, only one supplier (BT) was successful in securing contracts in NI. With competition eliminated and BT dominating the 2012 framework, we consider that BDUK (and contracting local bodies) had limited assurance that value for money was being achieved. BDUK told us that, more recently, competition for Superfast contracts has improved with various companies other than BT securing contracts in England.

Safeguard 1:	Establishing a procurement framework for potential suppliers, promoting competition.
Safeguard 2:	Providing assurance that bids made by suppliers were appropriate through a call-off process and contract provisions.
Safeguard 3:	Providing in-life contract mechanisms to ensure that payments reflected actual costs and to claw back, or reinvest revenue, if actual costs or take-up differs from that anticipated.

18. The inclusion of non-disclosure clauses in contracts prevented local bodies from comparing bids. BDUK prepared bid comparison reports for local bodies which considered costs against all other UK bids and assessed the extent to which value for money would be achieved. In 2013, the National Audit Office (NAO) reported that BT had not been prepared to agree to inspection rights and, as a result, BDUK relied on self-certification from BT that its costs were "*internally consistent and consistent with its commercial investment*". Westminster PAC concluded, in 2013, that this was not an adequate control. BDUK considers that the BT sign-off confirming that bid costs are "internally consistent and consistent with its commercial investment" by a BT senior finance director, is a serious undertaking which is confirmed under the warranties of individual contracts.

3 Under the Milestone-to-Cash process, funding is not released until it has been confirmed that defined activities have been completed. The activities and milestones are set out in initial contracts.

19. Previous Parliamentary Committees have struggled to identify the nature, scale and timing of BT's contributions and, as a result, key metrics, such as the cost per cabinet installed, have been difficult to quantify. While we note that BDUK has strengthened its value for money team and has access to detailed cost information from BT, we agree with NAO's conclusion (in 2015), that BDUK's confirmation that BT's actual costs are lower than bid costs does not, in itself, provide assurance that accepted bids are priced economically.

20. Following the Westminster PAC hearing, BDUK developed and implemented the milestone to cash process to ensure that public sector payments were matched to supplier progress in delivering against the contract. This process has been endorsed by the Major Projects Authority. BDUK told us that its actual cost comparison reports for projects, which include costs on all other local body broadband projects, identify any outlying costs for further investigation. In relation to NI projects, BDUK's actual cost comparison reports concluded that delivery costs reported were within acceptable parameters.

On clawback due from BT and estimated take-up rates

21. Clawback comes into play in cases where BT spends less than expected on its planned capital or where customer take-up exceeds predictions. The contracts for the Northern Ireland Broadband Improvement Project (NIBIP) and the Superfast Rollout Programme, Phase 2 (SRP2) included arrangements for calculating and recovering take-up clawback.

22. BT reported that its actual incurred costs on NIBIP and SRP2 were greater than the bid costs. Since there were no cost underspends by the supplier, no clawback on this element was due.

23. Where customer take-up exceeds expectations set out at the planning stage of contracts, the financial gain is shared between DfE and BT (at a rate proportional to the relative investments made). At the planning stage of both the NIBIP and the SRP2, BT estimated that post-programme customer take-up would be around 20 per cent. By 31 December 2018, actual take-up stood at 66 per cent following the NIBIP and 33 per cent following the SRP2. DfE told us that BT's take-up assumptions were based on European benchmarks from other national operators at the time and that it considered this to be reasonable. While the contract clawback procedures will ensure a financial return for the excess take-up, we consider that the much higher take-up rates raise questions as to whether the programmes needed public subsidy in the first place. In response DfE told us that the high costs of building broadband infrastructure in rural areas significantly reduces the commercial viability for investors.

24. Take-up reviews are carried out at specified contractual points and any clawback due is credited to an Investment Fund (maintained by BT). Clawback paid into the Investment Fund by BT accrues interest at the Bank of England base rate plus 2 per cent, until the day it is repaid to the Local Body.

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25. In relation to the NIBIP, BT has released take-up clawback of £1.7 million. This was invested in SRP2. At 31 March 2020, BT accounts included deferred income of £619 million in recognition of the likelihood that take-up on individual UK contracts will exceed predictions. BDUK estimates that take-up clawback of £14 million is due to DfE from BT (£6.4 million in respect of the NIBIP scheme and £7.6 million in respect of the SRP2). DfE told us it will continue to work with BDUK and Openreach to consider options for use of the Investment Fund.

On DfE's most recent broadband programmes

26. Since 2007, the DfE has managed a number of projects to improve NI broadband provision, leveraging public sector investment of just under £78 million.

27. An early NI project (the Next Generation Broadband project), commissioned in 2009 and prior to the development of the BDUK framework, was awarded to BT after an open tender exercise. The total investment of £48 million included £18 million in public subsidy and £30 million from BT. In 2013, the NAO identified that, through this programme, BT prices were considerably lower (around 12 per cent) than those local bodies were able to secure through the BDUK framework. Two subsequent programmes, the NIBIP and the SRP2 were awarded to BT through the framework.

28. The contract for the NIBIP was signed in February 2014 and offered £19.3 million in public subsidy. BT's final bid specified its plans to provide additional funding of £4.4 million. This increased available funding through the programme to £23.7 million. For this, BT proposed improving connectivity to a guaranteed 45,259 premises. This fell considerably short of DfE's original expectations that the programme would reach almost 117,600 premises. In effect, the shortfall in coverage meant that the original scheme objective (to provide universal access to speed of at least 2Mbps) had to be amended (to refer to providing 2Mbps to 96 per cent of premises).

29. DfE acknowledges that projected delivery fell short of its original expectations, but considers that its economists verified that the bid represented value for money by approving the award of the contract. Given the shortfall in delivery, we cannot conclude that the NIBIP achieved value for money.

30. The contract for the SRP2 was awarded in February 2015 and initially offered £14.5 million in public subsidies. While DfE anticipated that the available subsidy would not be sufficient to meet the UK target of providing access to superfast broadband to 95 per cent of premises, it envisaged that it would facilitate the provision of increased connectivity to 20,947 premises, equating to 84 per cent across NI.

31. Again, DfE awarded the contract to BT using the framework. In its bid, BT committed to providing additional funding of £3.3 million, using public sector subsidy of £14.5 million. With a total programme provision of £17.8 million, BT anticipated that superfast broadband could be provided to 38,921 NI premises (increasing access across NI to superfast broadband to 87 per cent). BDUK is currently estimating that BT's capital investment under SRP2 will be in the region of £11.4 million. DfE told us that is not in a position to tell us details of the final project outcomes or actual total costs since BDUK has not completed its final stage assurance process.

On assurance over BT costs

32. Over the period from 2013 to 2016, BT provided conflicting evidence to various Parliamentary Committees on the cost of the cabinets installed with estimates varying from £26,500 to £100,000.

33. BDUK informed us that, in March 2014, it began preparing Actual Cost Comparison Reports across its superfast programmes. Given this, it is difficult to understand why precise, consistent information on key metrics could not be provided to Parliament Committees.

34. DfE told us that, on the basis of information provided by BDUK in relation to NIBIP, the average cost per cabinet was £19,700 compared to a UK average cost of £15,500 per cabinet. The SRP2 cost per cabinet will not be confirmed until BDUK completes its final assurance process.

On DfE plans through Project Stratum

35. By 2018, approximately 89 per cent of premises in NI had access to superfast services. DfE developed plans to introduce Project Stratum, funded under the Confidence and Supply Agreement with additional assistance from the Department of Agriculture, Environment and Rural Affairs (DAERA), to extend Next Generation Access (NGA) broadband infrastructure across NI. DfE told us that 97 per cent of the premises to be targeted are rural, located in communities of fewer than 1,000 people and open countryside.

36. Initial plans identified that the project would reach 97,000 premises. That figure was subsequently reduced to around 79,000 premises, following a major refresh of data held by infrastructure providers which indicated that some premises were (or would be) able to access services with speeds of at least 300Mbps. DfE told us that there was no reduction in the expected total cost of the project because the Outline Business Case estimated that the original funding might only be sufficient to deliver improvements to approximately 74,000 premises. The contract was awarded to Fibrus Networks Limited in November 2020 and anticipates that fibre to the premises broadband will be available to just over 76,000 premises, mainly in rural areas.

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37. We understand that DfE's Internal Audit Unit has reviewed Project Stratum and concluded that its procurement has been well managed. In achieving this we note the steps taken by DfE to ensure that appropriate expertise was secured during the early stages of Project Stratum.

38. DfE has told us that, for Project Stratum, it is satisfied that the procurement was in line with best practice in the assessment of costs and options and that the contractual obligations placed on the winning bidder, in terms of the provision of information, include mechanisms that are fully in line the National Broadband Scheme guidance and will allow DfE to assess value for money. We intend to report separately on the award of the Project Stratum later this year.

Value for money conclusion

In our opinion, it is not possible to verify that value for money was achieved through the NI broadband projects procured using the BDUK framework.

We consider that the use of the BDUK framework which, by the time it was used in NI, had only one bidder (BT), seriously limited competition. However, we also note that a number of other Great Britain projects, let outside of the BDUK framework, were awarded to BT through open competition.

While we recognise that BDUK and DfE had procedures in place to examine bids and costs and that assurances were obtained from BT, in our opinion these controls were not sufficient to verify that BT's bid costs were economically priced, internally consistent, consistent with its commercial investment or that value for money was achieved.

Performance through the NIBIP fell well below DfE's original expectations of delivering broadband to 117,600 premises and, in fact, only ended up improving broadband access to 37,500 premises. This was also below the outputs specified in BT's initial and revised bids. Given this disappointing performance, it is not possible for us to conclude that the NIBIP delivered value for money.

Performance through the SRP2 cannot yet be assessed since BDUK has not completed its final stage assurance process to confirm final project outcomes and actual costs.

Actual take-up rates following the NIBIP and SRP2 programmes were higher than anticipated. DfE told us that BT's estimates were based on European benchmarks at the time. While clawback is earned by DfE in cases where take-up exceeds expectations, in our view, the high take-up level calls into question whether public subsidy was required.

At 31 March 2020, BT Accounts reported deferred income of £619 million in recognition that take-up has been much higher than expected right across the UK over the period of the contracts. BDUK estimates that £14 million in take-up clawback is due to NI. BT has repaid £1.7 million to DfE which leaves a further £12.3 million outstanding. We welcome assurances from DfE that it will continue working with BT to consider options for use of the Investment Fund.

We note DfE's assurance that, in relation to Project Stratum, it has built in appropriate controls to ensure full transparency over costs. This will allow DfE to calculate key metrics, benchmark and assessment the extent to which value for money is achieved.

We intend to report on the award of the contract for Project Stratum in 2021.

Recommendation 1

The BDUK framework was compatible with EU regulations and provided a mechanism for local bodies to award contracts on a '*call-off*' basis and therefore avoid expensive, individual open tender exercises. However, following the withdrawal of seven of the nine companies which pre-qualified to bid, and Fujitsu's March 2013 announcement that it would not be bidding for any further contracts through the BDUK framework, BT was left with no competition.

We recommend that for future procurements exercises, in the event that only one bidder remains on a framework, consideration is given to the impact on the market of awarding all contracts to that bidder and assessing how, in such cases, the achievement of value for money can be objectively measured.

Recommendation 2

In the absence of competition, local bodies were not in any position to evaluate BT bids. As an alternative, BDUK prepared bid comparison reports for local bodies. NAO and Westminster PAC have both been critical of BT bids which they concluded lacked detail, relied on self-certification that costs were consistent with commercial investment and were economically priced and contained non-disclosure agreement clauses.

We note that by 2015, BDUK had strengthened its value for money team and had access to detailed cost information from BT. Although BDUK was then in a position to compare bids and confirm that BT's actual costs were lower than bid costs, we agree with NAO's view that while BDUK's analysis did not, in itself, provide assurance that BT priced the contracts economically.

We recommend that, for future contracts, departments secure appropriate inspection rights to detailed data so that bids can be fully assessed. We also recommend that non-disclosure clauses are omitted from contracts.

Recommendation 3

We note that in several of the contracts let through the framework, take-up was estimated at 20 per cent. Actual take-up however has been considerably higher (66 per cent on the NIBIP and 33 per cent on the SRP2). While we acknowledge that DCMS (and ultimately DfE) shares in a percentage of any gain, in our view, predictions on take-up should be more accurate.

We recommend that for future programmes, contracting authorities ensure they have the necessary information to allow them to produce more accurate predictions on take-up.

Executive Summary

Recommendation 4

The BT framework bid for, and actual delivery under, the NIBIP fell considerably short of DfE's initial expectations. This indicates that either DfE's initial planning was totally inaccurate or BT's bid and performance represented poor value for money. While we note that BDUK and DfE's technical consultants considered that the final BT bid offered value for money, it is difficult to understand how preliminary DfE expectations could have been so far out.

We recommend that, where the use of frameworks is not mandated, departments take time to consider whether it would be in their best interests to consider and negotiate through alternative procurement methods, for example through open competition.

We note assurances from DfE that the contract for Project Stratum, which was awarded after the BDUK framework lapsed, was procured using the Restricted Procurement Procedure pursuant to Regulation 28 of the Public Contracts Regulations 2015 and was fully managed by the Department of Finance's Construction and Procurement Delivery (CPD) in line with the National Broadband Scheme 2016, with State aid Assurance provided by BDUK as the National Competency Centre.

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Telecommunications is a reserved matter and has not been devolved to the Northern Ireland Executive

1.1 Telecommunications is a United Kingdom (UK) reserved matter. It has not been devolved to the Northern Ireland Executive (the Executive) but is controlled centrally by the UK Department for Digital, Culture, Media & Sport (DCMS).

1.2 Under the Communications Act 2003, the Department for the Economy Northern Ireland (DfE)[4] has limited powers to intervene where there is evidence of market failure. This has to be undertaken with caution in order to avoid distortion of the market and comply with European regulations.

The internet plays an important role across all aspects of modern day life and the UK Government recognises digital connectivity as an essential utility

1.3 Broadband is a term used to describe 'always on' internet access. Fibre optical cable is now replacing copper along the existing telephone access in order to increase capacity and quality of service. Broadband provision is measured in millions of bits (megabits) per second (Mbps). Provision of 10Mbps and above is referred to as 'decent' broadband, 30Mbps and above as 'superfast' and 300Mbps and above as 'ultrafast'. Full fibre broadband can offer speeds of 1 Gigabit per second (Gbps)[5].

1.4 Commercial operators are rolling out superfast, ultrafast and full fibre broadband where it is profitable to do so. In urban areas, where population density is high, operators will invest in infrastructure because it is likely that they can generate additional income by increasing their customer numbers. The commercial case for providing superfast broadband services to the remaining, primarily rural, communities is less attractive because of the low population density. In order to improve connectivity across the UK, the Government offers public subsidies to suppliers willing to provide superfast broadband in commercially unattractive areas (typically rural areas).

1.5 In its 2017 Digital Strategy, the UK Government acknowledged that "*broadband and mobile must be treated as the fourth utility, with everyone benefitting from improved connectivity*". In 2018, the National Infrastructure Commission, the Government's independent advisor on the UK's infrastructure needs, stated that digital connectivity was now "*an essential utility, as central to the UK's society and economy as electricity or water supply*".

1.6 Digital connectivity offers considerable benefits to consumers, businesses and the Government. **Figure 1.1** outlines some of the main benefits.

4 Under the Departments Act (Northern Ireland) 2016, the Department of Enterprise, Trade and Investment was renamed the Department for the Economy.

5 1 gigabit is equal to 1,000 megabits.

Figure 1.1 Key benefits of digital connectivity to consumers, business and government

Consumer	Business	Government
• Equality of access; • Access to online media and media downloads; • Access to online services including retail, government and banking; • Entertainment choices (including TV on demand); and • Improved social interaction through social media.	• Improved online presence; • Improved procurement opportunities; • Increased efficiency and productivity; • Additional sales; • Streamlined recruitment and funding opportunities; and • Improved marketing.	• Lower cost transactions; • Improved public access to information and services; • Flexible working arrangements for staff; • Easier tracking of services; and • Improved opportunities for benchmarking and identifying best practice.

Source: NIAO

The need for reliable broadband has been more apparent during the COVID-19 crisis

1.7 The COVID-19 pandemic forced all but essential workers in NI to stay at home. Many have now been working from home, learning or studying from home or receiving home-schooling while practicing social distancing or self-isolating. With so many people at home during the day, all wanting to be online at the same time for a range of activities, the need to have a fast and reliable broadband connection has never been clearer.

1.8 In traditional fibre-to-the-cabinet (FTTC) technologies, it is generally accepted that cabinets can deliver around 30 Mbps over a distance of up to 1,200 metres. Service deteriorates for premises further than 1,200 metres from the cabinet. Fastest speeds are achieved where customers are located physically close to the infrastructure (green cabinets along the side of the road).

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1.9 The frustration of having a slow home internet connection has escalated since the outbreak of the pandemic. The Ulster Farmers' Union has reported that the lack of broadband is impacting on the lives of its members in rural communities, creating feelings of heightened anxiety and fear.

1.10 In July 2020, it was reported by local media[6] that a number of homes and other premises (schools, businesses and religious buildings) in NI faced lockdown with inadequate access to internet broadband services. DfE told us that almost 79,000 premises have been identified as being eligible for assistance to improve their broadband service under Project Stratum (see **paragraph 1.42 to 1.44**). DfE confirmed that it "*fully appreciates the significant challenges faced by citizens across Northern Ireland as a result of the COVID-19 crisis*".

1.11 Commenting on coverage during the pandemic, the Rural Community Network[7] identified that broadband was particularly poor in rural areas of Fermanagh, west Tyrone and south Derry. The Participation and the Practice of Rights[8] organisation highlighted that "*The very first requirement in an emergency like COVID-19 is effective communication*" and identified that excessive costs had excluded vulnerable people from important government advice during the lockdown.

1.12 A number of rural residents also explained their internet problems to us:

- One rural resident, who is currently working from home while home-schooling three children explained that, with broadband speeds of 6-7Mbps, the internet signal is unreliable and frequently fails, the computer stalls and it is difficult to remotely join and participate in work-related meetings.

- One rural resident, living at the end of the line from the exchange, explained that, despite having tried several options, they can only achieve a maximum broadband speed of 8Mbps. Again the solution is unreliable and can't cope when more than two people require internet access.

- Another rural resident explained that their internet experiences regular drops and poor download and upload speeds. While this always caused problems for the family business, frustration has escalated during the current COVID-19 pandemic. One member of the household, a teacher, has been completely unable to engage in zoom lessons.

- One resident trying to run a farm business, carry out pharmacy work and home-school three young children during the pandemic has opted for a satellite broadband system since broadband through the phone-line is not available. The resident described the satellite system used as slow, unreliable and expensive.

6 *Almost 70,000 Northern Ireland homes not covered by adequate broadband during COVID-19 lockdown*, The Detail, 16 July 2020.

7 The Rural Community Network is a regional voluntary organisation established in 1991 by community groups in rural areas to articulate the voice of rural communities on issues relating to poverty, disadvantage and equality.

8 Participation and the Practice of Rights (PPR) is an activist-led Belfast organisation leading a campaign to raise awareness about the scale of the problems caused by poor internet access.

- Another resident, living just two miles outside Dungannon town centre, told us that he cancelled his broadband service because it was not possible to achieve a download speed of more than 1Mbps.

1.13 It is now a very real possibility that home-working will become much more common. However, for those living in rural areas it is unlikely that they will be in a position to avail of the benefits (such as flexibility, reduced travel time and costs) if their internet service is poor.

Europe 2020 acknowledges the importance of broadband deployment for the economy

1.14 The '*Europe 2020*' strategy sets out the European Union's (EU's) agenda for growth and jobs for the period 2010 to 2022. It advocates smart, sustainable and inclusive growth to overcome the structural weaknesses in Europe's economy, improve competitiveness and productivity and underpin a sustainable economy. Europe 2020 underlines the importance of, and sets targets for, broadband deployment.

1.15 Key objectives include the need to:

- Bring basic broadband to all Europeans by 2013;
- Ensure that, by 2020, all Europeans have access to much higher internet speeds (of above 30Mbps); and
- Ensure that, by 2020, 50 per cent or more, of European households subscribe to internet connections of above 100Mbps.

DCMS offers subsidies to commercial suppliers through its Superfast Broadband Programme

1.16 In line with '*Europe 2020*' the UK government has made broadband internet provision a priority. Building Digital UK (BDUK), a directorate within DCMS, is responsible for the management, governance and oversight of programmes delivering improved broadband across the UK.

1.17 On 6 December 2010, the UK Government launched '*Britain's Superfast Broadband Future*', which aimed to ensure that, by 2015, the UK had the best broadband network in Europe. To achieve this, BDUK put in place a country-wide, state-aid scheme to support various broadband projects – the Superfast Broadband Programme (formerly the Rural Broadband Programme).

1.18 While BDUK is responsible for delivery of the programme, local bodies (including DfE in NI) manage procurements in their areas. To assist them, BDUK developed a framework which allows local bodies to award contracts without completing expensive, individual open tender

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exercises. Local bodies were free to procure from outside the framework. BDUK offers advice and supports local bodies during the procurement and contract management processes.

1.19 Public investment in telecommunications infrastructure must comply with the UK's State Aid Framework. Local bodies are generally required to provide matched funding to the central government grant. This additional funding can be sourced from public sector budgets, the EU or private investment. Individual projects use a 'gap funding' model - the gap is the level of public sector subsidy required to make a project commercially viable to suppliers.

In 2016, Ofcom set out plans to improve telecoms quality and coverage so that UK consumers and businesses receive the best possible phone and broadband services

1.20 BT (then British Telecom plc) separated from the Post Office in 1981 and was privatised in 1984. The telecoms access infrastructure transferred to BT as part of the privatisation. In 2005, Ofcom identified that, in the interest of increasing competition, BT should be providing its competitors with equality of access to the infrastructure it owns by virtue of the privatisation. Openreach was created to make sure all communications providers could access the network fairly.

1.21 Eleven years later, in 2016[9], Ofcom identified that Openreach's governance lacked independence from BT. As a result, Ofcom concluded that there remained an incentive for Openreach to make decisions in the interests of BT. Ofcom recommended an overhaul of Openreach's governance and increased transparency in order to strengthen its independence from BT.

1.22 Under pressure from Ofcom, Openreach Limited was incorporated as a wholly owned subsidiary of BT in 2017. The separation of Openreach marked a transformation in BT's approach to investment in full fibre.

1.23 Arrangements in NI differed slightly. BT Northern Ireland was not integrated into Openreach in 2017 but remained a standalone BT plc business unit. On 1 October 2018, BT's Northern Ireland Networks (Engineering Division) (which builds and maintains the copper and fibre lines which run from telephone exchanges to the vast majority of local premises) was renamed Openreach Northern Ireland. Whilst the Northern Ireland Networks team now reports into Openreach, it remains part of BT plc and has maintained its local management team, strategic responsibilities and organisational structure. Openreach Northern Ireland is now investing commercially in full fibre in areas where BT previously sought subsidy for a FTTC service (which costs much less).

9 Ofcom's Strategic Review of Digital Communications, Initial Conclusions, 2016

The 2018 Future Telecoms Infrastructure Review report sets full-fibre and 5G out as the long-term answer to providing broadband access across the UK

1.24 The 2018 Future Telecoms Infrastructure Review report, produced by DCMS, notes that over the coming decades, "*fixed and mobile networks will be the enabling infrastructure that drives economic growth*". The report sets full fibre (and 5G) out as the long-term answer to providing the speed, resilience and reliability that consumers want and businesses need in order to grow.

1.25 While the report identified the UK as a world leader in superfast connectivity, it noted that full fibre coverage was low at only 4 per cent[10], lagging behind current world leaders like South Korea (c.99 per cent), and Japan (c.97 per cent).

1.26 The report set out the latest government targets to provide:

- 15 million premises with a connection to full fibre by 2025, with coverage across all parts of the UK by 2033 (estimated to cost around £30 billion); and
- 5G coverage to the majority of the population by 2027.

The Universal Service Obligation (USO) (2020) will give eligible consumers and businesses a legal right to request a broadband connection of at least 10Mbps and upload speeds of at least 1Mbps

1.27 The Digital Economy Act 2017 established a UK-wide minimum standard for access to broadband. The Universal Service Obligation (USO) provides eligible consumers and businesses with a legal right to request a broadband connection of at least 10Mbps and upload speeds of at least 1Mbps[11]. The USO is intended to cater for the final two per cent of premises (around 620,000 UK premises) (England 434,000, NI 39,500, Scotland 99,000 and Wales 47,000) which remain without broadband access.

10 By 2020, 56 per cent of NI premises had access to full fibre broadband compared to an average of 18 per cent across the UK (see paragraph 2.6).

11 As of January 2019, approximately 600,000 premises (2.1% of the UK) had existing connections below the USO criteria.

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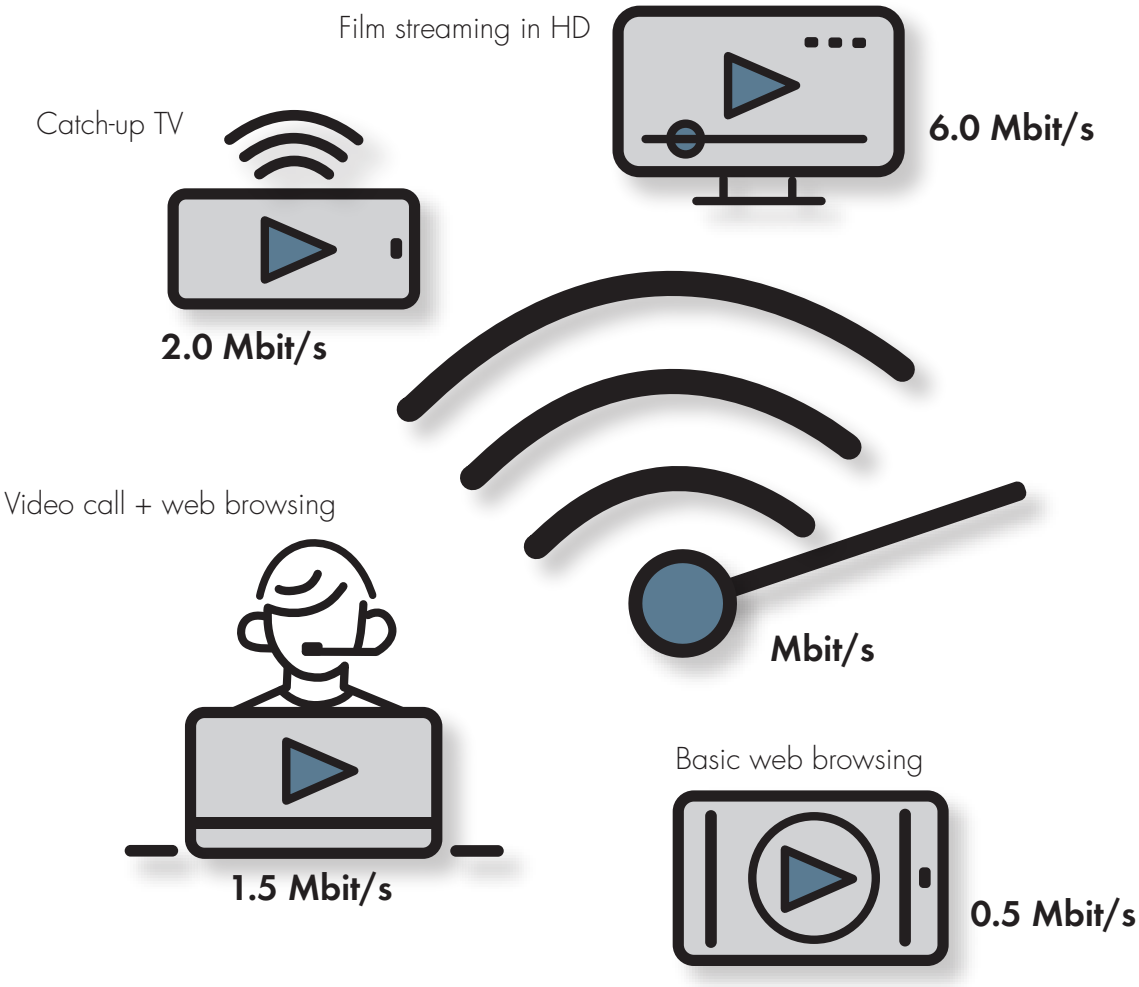
Why a household might need 10 Mbits



Source: Data taken from Ofcom's infrastructure Report 2014

1.28 Since 20 March 2020, consumers and businesses are eligible to request a connection under the USO if:

- they do not have access to a decent broadband connection (i.e. 10Mbps), or
- the only available decent broadband connection costs more than £45 per month; and
- the connection will cost no more than £3,400 to build. In cases where connection costs are expected to exceed this limit, the customer can choose to pay the excess.

1.29 The USO is intended to act as a "*safety net*" for areas where superfast or full-fibre deployment may take some time to deliver. It was anticipated that, by the end of 2020, around 98 per cent of premises across the UK would have access to fixed line "*superfast broadband*". BT and KCOM (in East Yorkshire) are the designated Universal Service Providers responsible for taking requests for connection and building the necessary infrastructure to deliver them.

1.30 Although requests for a connection can currently be made, the scheme is not fully operational. The funding mechanism has yet to be tested and will be subject to further Ofcom consultation once a supplier submits an application for funding. It is not yet clear how public and industry funding will interact.

1.31 While the introduction of the USO was welcomed by many, it has attracted several criticisms as follows[12]:

- The USO specification of 10 Mbps is too low given that it was modelled on the minimum standard for an average family and not a business.
- The cap on the cost of connections (£3,400) places a cost penalty on isolated rural customers and will "*not be enough to get to the final few*".
- The figures quoted by Government under-report the number of homes receiving less than the minimum service.
- Reliance on alternative technologies, such as Fixed Wireless Access, to deliver the USO, might impose a ceiling on the services premises could receive and therefore "*distort the developing rural superfast broadband market*", delivering a "second class service".
- The precise details of the costs which will fall to industry have not been determined and arrangements may take some time to finalise.
- Implementing the broadband USO might happen at the expense of completing other activity (such as the BDUK Superfast Broadband Programme).

In NI, public sector subsidies of just under £78 million have been provided to increase the provision of superfast broadband services

1.32 The Northern Ireland Draft Programme for Government 2016-2020 included (as Measure 24) the need to improve internet connectivity by increasing the number of premises with access to broadband services in excess of 30 Mbps.

12 *Update on Rural Connectivity*, EFRA, 18 September 2019, HC 2223 and supporting Written Evidence.

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1.33 The Northern Ireland Draft Industrial Strategy (Economy 2030) sets out the Northern Ireland Executive's (the Executive's) objective to "*become Europe's best connected region for broadband by 2030 by further extending broadband coverage through the Northern Ireland Broadband Improvement Project and Superfast Rollout Programme, and further new interventions that will enhance broadband speeds and mobile coverage across Northern Ireland as part of a new Digital Infrastructure Strategy*".

1.34 Government intervention in broadband typically covers either investing in availability or subsidising take-up. Investing in availability enables providers to upgrade infrastructure in areas where it is not commercially viable while subsidising take-up involves offering vouchers to customers to help with the cost of installing satellite and fibre installation.

1.35 Since 2007, DfE has undertaken a number of projects (including those set out in **Figure 1.2**) to improve broadband provision across NI, leveraging public sector investment of just under £78 million. By 2020, approximately **89 per cent** of NI premises had access to, at least, superfast broadband service (30Mbps)[13].

1.36 As part of the national Superfast Broadband Programme, DfE has managed the:

- **Northern Ireland Broadband Improvement Project (NIBIP)** – this is part of a larger, national Broadband Improvement Programme, which involves laying fibre optic telephone lines from existing exchanges to new, small broadband exchanges in rural areas. The NI build phase, costing £17.7 million in public subsidy (see **paragraph 4.22**), was completed in September 2016. The take-up phase is expected to be completed in March 2023; and

- **Superfast Rollout Programme, Phase 2 (SRP2)** – this is an extension of the NIBIP and involves laying new fibre optic telephone lines to cabinets (green cabinets at the side of roads), and in some cases to premises, in areas across NI. The build phase, costing £17.4 million in public subsidy (see **paragraphs 4.34 and 4.36**), was completed in September 2018. The take-up under this project runs until December 2024.

13 Ofcom, Connected Nations 2018, 18 December 2018.

Figure 1.2: Government funded Broadband projects in Northern Ireland

Project	Period Covered	Total Grant Funding	Project Completed	Objective/ Number of premises passed
Next Generation Broadband Project	Nov 2009 - Dec 2013	Public Subsidy £19.6 million	Yes	Access to next generation broadband speeds was provided for 85 per cent of business premises, by building new fibre infrastructure.
Super Connected Cities	Mar 2014 - Mar 2016	£5.8 million paid by DCMS	Yes	2,424
Northern Ireland Broadband Improvement Project (NIBIP)	Feb 2014 - Sept 2016 (build complete) Sept 2016 to March 2023 (take-up continues)	Public Subsidy £17.7 million	No	37,500
Superfast Rollout Programme, Phase 2 (SRP2)	Feb 2015- April 2019 (build complete) April 2019 – Dec 2024 (take-up continues)	Public Subsidy £17.4 million (to be confirmed by BDUK)	No	Final cost information is not yet available from BDUK.

Source: DfE

1.37 Broadband support has also been made available to NI homes and/or businesses through the Better Broadband Voucher Scheme, the Gigabit Voucher Scheme, the Rural Gigabit Connectivity Programme, the Local Full Fibre Network Programme and the City Deals Initiative. **Appendix 1** provides further detail on each of these schemes and programmes.

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The contract for the £165 million Project Stratum was awarded in November 2020 and will improve broadband connectivity for just over 76,000 predominantly rural premises in NI

1.38 The 2018 Ofcom Connected Nations report identified that, by the end of June 2018, approximately 88 per cent of premises in NI had access to superfast services.

1.39 Under the terms of the Confidence and Supply Agreement (the Agreement) between the Conservative and Unionist Party and the Democratic Unionist Party (DUP), the UK Government and the DUP agreed to work together. Both the UK Government and the Executive recognised the integral role of digital infrastructure in opening new opportunities for growth and connectivity. In recognition of the challenges that remain in NI in providing access to broadband and mobile services, the UK government agreed to contribute £75 million per year for two years (£150 million) to provide ultra-fast broadband in NI.

1.40 DfE developed plans to introduce Project Stratum, using the £150 million Confidence and Supply Agreement money and additional assistance of £15 million from the Department of Agriculture, Environment and Rural Affairs (DAERA), to extend Next Generation Access broadband infrastructure across NI. As an initial step, DfE carried out an industry consultation stage (over the period from 19 June 2018 to 27 July 2018) to establish existing and planned (within the next 3 years) coverage of broadband infrastructure across NI.

1.41 Following this, on 3 December 2018, DfE opened a consultation to assess the availability of broadband services across NI. The consultation set out the proposed intervention areas for Project Stratum and invited stakeholders to comment on the proposals. This allowed broadband infrastructure operators to review (and, where necessary, correct) DfE's mapping, and allowed citizens to identify whether or not their postcode was correctly categorised in terms of broadband infrastructure access.

1.42 DfE announced on 16 December 2019, in its response to the public consultation, that it had identified 97,000 premises in rural areas which were to be eligible to benefit from improved broadband connectivity under Project Stratum. The £165 million project seeks to improve connectivity for those unable to access broadband services of 30 Mbps or greater. The finalised intervention area was quality assured by Building Digital UK's (BDUK's) National Competence Centre (NCC) for approval against the state aid framework. The main focus of Project Stratum is to address broadband connectivity challenges common to rural areas and to correct a connectivity gap that exists in NI compared with the rest of the UK.

1.43 Following this announcement, DfE was informed of a data refresh exercise (completed in January 2020) completed by a number of infrastructure suppliers which had, along with other updates, impacted on the intervention area. Given the updated information, the number of premises requiring intervention under Project Stratum was reduced to just below 79,000

premises. DfE told us that 97 per cent of the premises to be targeted are rural, located in communities of fewer than 1,000 people and open countryside.

1.44 DfE confirmed that just over 76,000 predominantly rural premises will benefit from the project. The procurement for the project was launched on 11 July 2019 and contract was awarded in November 2020. DfE has told us that Project Stratum used an open procurement with restricted procedure, fully managed by Construction, Procurement and Delivery (CPD), which resulted in significant industry engagement, and a competitive procurement with two credible responses to the Invitation to Tender.

1.45 In May 2018 independent consultants (commissioned by BT) produced the *Deployment of Fibre to the Premises (FTTP) in rural NI* report. This report provided an independent economic appraisal of the net benefits that could arise from the funding under Project Stratum. The report highlighted that (as at 2017):

- Despite the high proportion of FTTC penetration, the proportion of premises with sub-24Mbps download speeds was one of the highest in any UK region.
- The largest benefits will accrue in Fermanagh, Omagh and Mid Ulster, where the roll-out plans are focussed.

1.46 The report concluded that the proposed fibre investment will help to realise several of the goals set out in DfE's Draft Industrial Strategy including reducing economic inactivity, improving collaboration, increasing global competitiveness and supporting digital–intensive sectors. It estimated that around £8 benefit would be realised for every £1 spent. The total benefits to the NI economy, up to 2033, are estimated to be £1.2 billion for the subsidy cost (estimated at that time to be around £150 million).

Audit agencies across the UK and Parliamentary Committees have been critical of projects procured through the Superfast Broadband Programme

National Audit Office and the Westminster Public Accounts Committee (further detail is set out at Appendix 2)

1.47 In 2013, the National Audit Office (NAO) reported[14] that "*The [Rural Broadband Programme]… funding contributed by BT has, so far, been lower than originally modelled – the Department (DCMS in England) now expects…[BT] to provide just 23 per cent of the overall projected funding of £1.5 billion, some £207 million less than it modelled in 2011. At the same time, by the end of the programme, BT is likely to have benefited from £1.2 billion of public money*". The report concluded that the Superfast Broadband Programme (previously the Rural Broadband Programme) lacked competitive tension and strong assurance over costs.

14 NAO report, *The rural broadband programme*, 5 July 2013.

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It noted that ensuring value for money would rely heavily on the quality of the in-life contract controls.

1.48 The Westminster Committee of Public Accounts (PAC) held a hearing in July 2013 and a follow up hearing in January 2014 on this topic. PAC concerns, set out in two reports[15], included the lack of competition in contracts and the extent to which contracts delivered value for money. Issues identified included a lack of transparency over BT costs and limited published information about planned rural broadband coverage and speed.

1.49 In January 2015, NAO published *The Superfast (Rural) Broadband Programme: Update*. This outlined progress on the specific issues the Westminster PAC raised and provided a brief update on the programme's overall progress. NAO reported that, since the PAC session more information was available on broadband coverage, BDUK had identified (from a small-scale trial cost comparison) that BT's costs were around 20 per cent less than the estimated costs of an alternative supplier and BDUK had calculated that BT's actual phase 1 costs were 38 per cent lower than expected in its financial model.

1.50 NAO noted that BDUK had not omitted confidentially clauses from its contracts and highlighted that the limited competition witnessed in phase 1 of the programme continued through phase 2. NAO concluded that this reinforced BT's already strong position in the wholesale market for broadband infrastructure costs.

1.51 On 16 October 2020, NAO published its "*Improving Broadband*" report[16] which considered what the Superfast Programme has delivered and how the UK's broadband infrastructure held up during the COVID-19 pandemic. NAO concluded that the Superfast Programme has extended the nation's broadband connectivity and delivered benefits. Better broadband helped communities to work and study from home and stay connected during the COVID-19 pandemic. However, NAO concluded that, in managing the trade-off between coverage and speed, the UK has a broadband network which is not fully future-proof and, less than a decade after launching its Superfast Programme, the government has identified the need to upgrade it.

1.52 NAO confirmed that the government has set a very challenging timeline in promising nationwide connectivity (gigabit capable with speeds of at least 1,000Mbps) by 2025 but highlighted the importance of setting a realistic target and testing whether this is achievable. The report noted that DCMS is working towards finalising plans for its Future Programme to support nationwide gigabit coverage and identified that the Department will need to manage the tension between meeting a timeframe and serving those in greatest need. NAO cautioned that, failing to do so, risks widening the rural divide.

15 House of Commons (HC) Committee of Public Accounts, *The rural broadband programme*, Twenty-fourth Report of Session 2013-14, HC 474, September 2013 and HC Committee of Public Accounts, *The rural broadband programme*, Fiftieth Report of Session 2013-14, HC 834, April 2014.

16 *Improving Broadband*, NAO, 16 October 2020, HC 863, 2019-21.

1.53 NAO identified that DCMS still has much to do to mobilise and deliver a substantial programme and noted that while it has applied some learning from the Superfast Programme, it has moved away from some of its more successful aspects in order to meet the challenging timeline. Moving forward, NAO highlighted the need for DCMS to consider and mitigate any new risks arising.

The Westminster Environment, Food and Rural Affairs Committee

1.54 On 18 September 2019, the Westminster Environment, Food and Rural Affairs Committee (the EFRA Select Committee) published its report "*An Update on Rural Connectivity*"[17]. This followed a previous EFRA Select Committee report in 2015 which had expressed concern that poor broadband in rural areas risked causing harm to the rural economy and rural communities.

1.55 The EFRA Select Committee remained unconvinced that the Government had fully grasped the extent of the problem, the scale of the challenge, or the wider cost of poor connectivity for rural communities and economies.

1.56 In summary, the report concluded that:

- Government policy has barely kept pace with the rate of technological change and has failed to reduce the digital divide between urban and rural areas.
- Delivering a "*digital-by-default*" strategy for public services, before solving the issue of poor connectivity in rural areas, has worsened the impact of the digital divide. In the Committee's view, those 'hardest to reach' should have been given priority.
- The current specification for the Universal Service Obligation is inadequate, is not truly "*universal*" and its minimum speed of 10Mbps will be obsolete soon after introduction.
- It is currently unclear how the Government intends to meet its accelerated target of universal full-fibre broadband by 2025.
- A "*rural roaming*" solution is needed to tackle partial "*not-spots*[18]" in mobile coverage in the absence of a forthcoming agreement between Government and Mobile Network Operators.

1.57 Contrary to the state aid applications which specify the use of gap funding for rural areas, DCMS accepted that rural areas had not been prioritised in the rollout of superfast broadband between 2015 and 2018.

17 *Update on Rural Connectivity*, HC, Environment, Food and Rural Affairs Committee. Seventeenth Report of Session 2017–19, House of Commons 2223, 18 September 2019.

18 A "*Not-spot*" is a physical location where wireless internet access is not available.

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The Westminster Culture, Media and Sport Committee

1.58 On 18 July 2016, the Westminster Culture, Media and Sport Committee (CMSC) published a report which expressed concern that the UK was not adequately investing in critical telecoms infrastructure; the Superfast Broadband Programme appeared to have tackled easier-to-reach premises first; had not delivered coverage to whole areas; and provided limited transparency over Openreach's costs and deployment plans.

1.59 A number of witnesses, who provided evidence to the CMSC, suggested that at least some of the planned full-fibre upgrades could be funded by existing money owed from BT in respect of clawback. Witness reports identified, for example:

- that "*by some calculations, there were…… hundreds of millions of pounds of underspend sitting in BT's accounts as capital deferral*". Another witness reported that BT's "accounting treatment" aided "cost recovery but not network build in rural areas".

- a "*lack of transparency*" regarding the management of the clawback highlighted "*the need for a nationwide integrated approach*".. "*to ensure an efficient usage of public subsidies.*"

1.60 The CMSC concluded that the target of 2033 for universal full-fibre roll out lacked urgency and ambition and welcomed a revised commitment from the Prime Minister to achieve universal full-fibre broadband by 2025. However, the UK Digital Minister subsequently told CMSC that "*to have the whole country connected to full-fibre by 2025 is not physically possible*". CMSC remained sceptical as to whether the target could be achieved without substantial new, long-term, public investment and potentially controversial regulatory reforms.

Bytel Report (NI Audit Office)

1.61 On 3 March 2015 we published our report on the Cross-Border Broadband Initiative: The Bytel project. We reported that:

- A review, completed in March 2012[19], had identified serious weaknesses in the management and oversight of the project and found that 97 per cent of the expenditure was irregular.

- The assessment and appraisal processes were not sufficiently robust.

- There were significant concerns over the valuation, existence, ownership and completion of the assets and infrastructure referred to in certain claims.

- The project delivered poor value for money.

19 NIAO report published 3 March 2015, *Cross-border Broadband Initiative: The Bytel project.*

Over the last 18 months, we published two reports which have highlighted concerns over departmental management of contracts with BT

Management of the NI Direct Strategic Partner Project – helping to deliver Digital Transformation

1.62 In June 2019 we published our report on *Management of the NI Direct Strategic Partner Project – helping to deliver Digital Transformation*. This report identified that expenditure of £110 million will be incurred through a contract which was let to BT for £50 million. Ineffective financial controls within the Department of Finance (DoF) led to a situation where the actual costs incurred were not actively monitored.

1.63 In addition, since alternative mechanisms for service provision had not been explored, DoF had no option but to extend the contract for an additional three year period.

The Landweb Project: An Update

1.64 In 2008 we published a report on *Transforming Land Registers: The LandWeb Project*. A subsequent PAC report identified concerns with the project and concluded that better value for money could secured.

1.65 On 16 June 2020, we published an update report on the LandWeb Project. The update report was prompted by concerns from an anonymous member of the public that the project was wasting public money. In summary, although the supplier (BT) provided a fully functional and consistent IT service, we found no evidence to clearly demonstrate that the LandWeb project has delivered value for money.

1.66 We concluded that the extension of the LandWeb Concession Agreement for an additional two year period (to July 2021) in the absence of alternative mechanisms for service provision was indicative of poor strategic planning by the Department, reflecting similar concerns outlined in our report on '*Management of the NI Direct Strategic Partner Project - helping to deliver Digital Transformation*' published in June 2019.

Scope of this report

1.67 In June 2016, the Irish Central Border Area Network (ICBAN) Ltd[20] published "*Fibre at a Crossroads – Part 1*"[21]. That report recommended completion of "*true up*" (or audit) of the level of DfE subsidies and the actual capital funding contributions from BT. The report highlighted that if actual costs incurred on broadband projects were lower than anticipated and subscriber take-up was higher than anticipated, then public subsidies paid to BT were likely to have been higher than necessary. ICBAN's view was that, if that additional subsidy could be recovered from BT, then funds would be available to invest further into the rural areas of NI.

20 The Irish Central Border Area Network (ICBAN) Ltd was founded in 1995 to promote cross-border co-operation and communication, at a Local Government level (across the former Armagh City, Banbridge and Craigavon; Fermanagh and Omagh; and Mid Ulster Councils) on common regional development concerns.

21 The *"Fibre at a Crossroads – Part 1"* report for ICBAN was prepared by Mike Kiely, The Bit Commons.

Part One:
Introduction and Background

1.68 ICBAN produced "*Fibre at a Crossroads – Part 2*"[22] in June 2017. Part 2 explored the funding issue in more detail. The report included a number of conclusions, including that:

- BT's commercial investment covers less than half of premises in NI;
- A substantial proportion of the £60 million paid to BT in public subsidies appears to have been used to cover commercially viable investments (that is, in populated urban areas); and
- Gap funding principles (see **paragraph 1.19**) were not applied appropriately in NI.

1.69 The report noted that "*answers to questions posed by MLAs in the NI Assembly to the Minister for the Economy confirm that £60 million of subsidies have been paid to BT. The Minister however noted that the Department have no direct knowledge of BT's own investment*"[23] and noted that "*Ofcom NI have confirmed to the author of this report that they have no detailed knowledge of BT's commercial investment or matched funding in next generation access services in NI*".

1.70 This resonates with information provided by the UK Minister of State for Digital in response to a House of Commons Question[24] in October 2016. The Minister stated that "B*DUK does not hold data on BT's total capital investment to date in the Superfast Broadband Programme. As each project completes, BT is required to confirm that either its contracted capital commitment is fully drawn down, or that any unused capital contribution is committed to an investment fund which is managed by the Local Body to support further delivery*".

1.71 The ICBAN reports recommended that the "*appropriate NI institutions, NI Audit Office and Public Accounts Committee…conduct a comprehensive audit of BT's commercial investment in NI and its contribution to the subsidised programme.*"

1.72 This report considers the concerns raised in the Fibre to a Crossroads publications. It provides a high level overview of the progress made in improving NI broadband access and examines the extent to which DfE can demonstrate that its broadband procurements have achieved value for money:

- Part 2 sets out and compares broadband access across the UK;
- Part 3 examines the DCMS National Framework for broadband provision; and
- Part 4 looks at the management of broadband provision in NI.

1.73 Details of our methodology are set out at **Appendix 3**.

22 The "*Fibre at a Crossroads – Part 2*" report for ICBAN was also prepared by Mike Kiely, The Bit Commons
23 Although this is reported in the ICBAN report, the Assembly Written Question reference is incorrect and the actual quote cannot be sourced.
24 HC, Written Question UIN 47312, Tabled on 7 October 2016 by Stephen Timms; Answered on 12 October 2016 by Matthew Hancock.

Part Two:
Broadband Coverage across Northern Ireland and the UK

Part Two:
Broadband Coverage across Northern Ireland and the UK

Ofcom provides updates on broadband provision access across the UK each year

2.1 The Digital Economy Act 2010 placed a duty on Ofcom to report to the UK Secretary of State for Culture, Media and Sport every three years on the state of the communications infrastructure. Since 2011, Ofcom has been publishing annual reports[25] which set out UK-wide information on the coverage and performance of fixed broadband and mobile networks. Information presented in each publication is collected from network providers.

2.2 Government targets over the period since 2011 have changed and been upgraded as broadband technology has evolved and demand for access to that technology has increased. For example, Ofcom's 2012 report highlighted a UK Government commitment to ensuring that, by 2015, almost all premises in the UK would be able to access a '*basic*' broadband service (defined at that time as of at least 2Mbps). By 2015, the term '*decent*' broadband had been introduced, referring to connections capable of delivering a download speed of at least 10Mbps and an upload speed of at least 1Mbps.

NI access to broadband, at speeds of up to 30Mbps, is lower than the UK average and all other UK regions

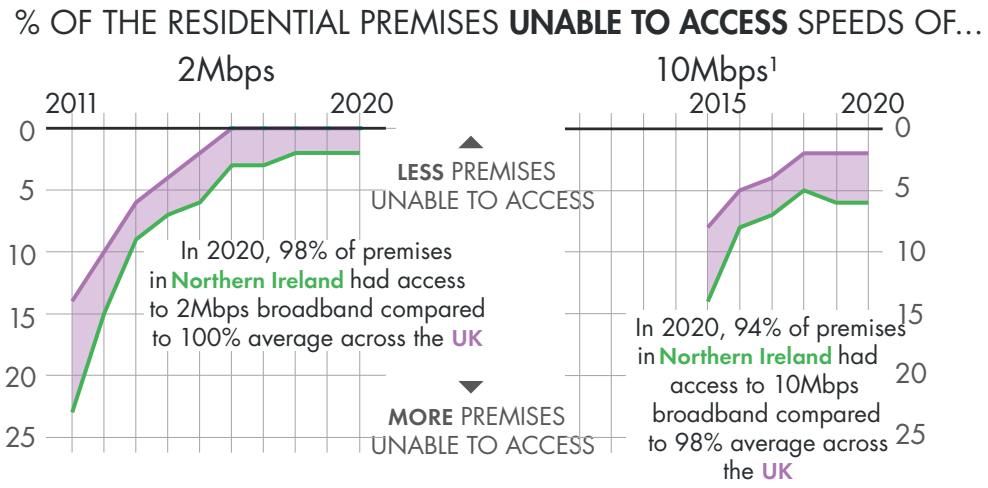
2.3 The Ofcom reports allow progress in improving broadband access to be monitored across the UK since 2011. While access in NI has improved significantly over the period, it lags behind all other UK regions in terms of access to broadband speeds of up to 30Mbps (superfast broadband) (**Figure 2.1**). By 2020:

- 98 per cent of NI residential premises were able to access broadband with a speed of 2Mbps (basic broadband) compared to an average of 100 per cent across the UK;
- 94 per cent of NI residential premises could access speeds of 10Mbps (decent broadband) compared with an average of 98 per cent across the UK; and
- 89 per cent of Northern residential premises could access superfast broadband (30Mbps) compared to 96 per cent across the UK.

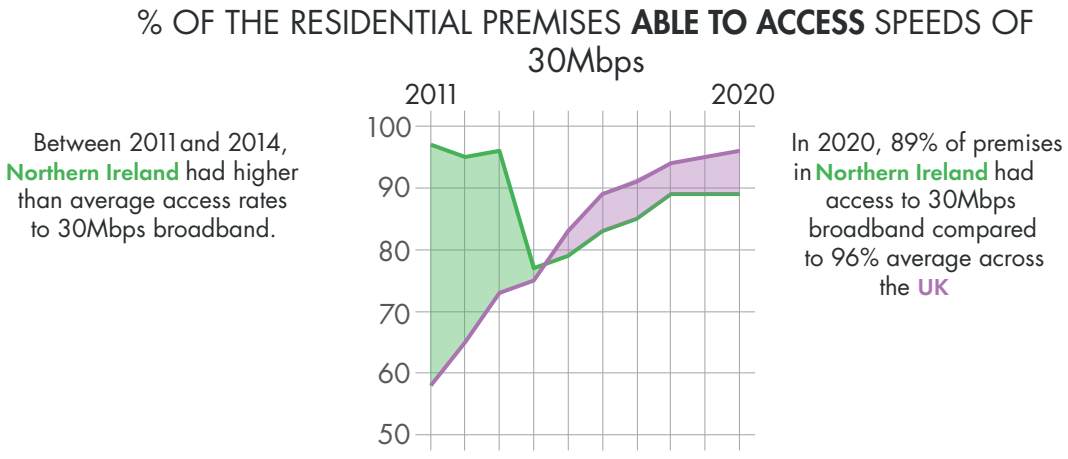
25 Infrastructure Reports from 2011 to 2014, Connected Nations Reports 2015 to 2019.

Figure 2.1 Access to broadband at speeds less than 30Mbps is lower in NI than the UK average

In relation to basic and decent broadband, Ofcom reports the number of residential premises unable to access 2Mbps and 10Mbps.



Residential premises access to higher speed 30Mbps broadband is measured in respect of the proportion of premises **able to access** these speeds



NOTE

[1] Data not available for 2011 to 2015.

Source: Ofcom

Part Two:
Broadband Coverage across Northern Ireland and the UK

In 2020, NI access to ultrafast broadband, at speeds of up to 300Mbps, rose to a rate higher than the UK average

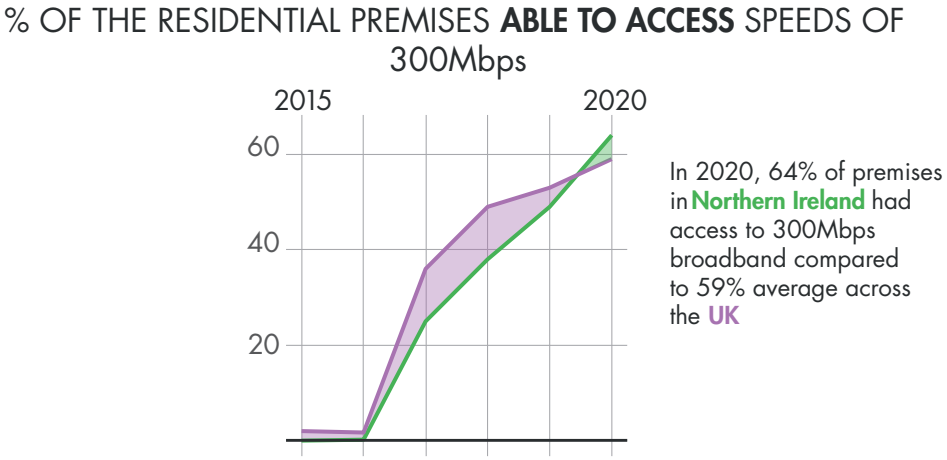
2.4 By 2015, access enabled by new technologies was beginning to emerge. Collectively referred to 'ultrafast' services, these included:

- Fibre optic networks connecting premises directly to local exchanges (FTTP), transmitting data using pulses of light, removing the need for slower, copper-based cabling. A key priority for Ofcom is to encourage investment in full-fibre, which provides greater speed and reliability than copper-based telecoms networks where the quality and length of the copper to the premises can impact on both the reliability and speed of the service. A full-fibre connection, with no copper, can offer average speeds of one gigabit per second (Gbps or 1,000Mbps). It could potentially offer speeds in terabits (1,000 Gbps) in the future. There is of course a considerable cost to digging up and replacing copper cables with fibre optic cable.

- Improved computational power and technology development, enabling more efficient encoding and transmission of data across network links achieved, for example, by periodically updating network equipment to enable faster speeds over existing networks.

2.5 **Figure 2.2** shows that by 2020, 64 per cent of residential premises across NI had access to ultrafast broadband (300Mbps) compared to 59 per cent across the UK. The NI rate was higher than all other UK regions (England 61 per cent, Scotland 52 per cent and Wales 37 per cent).

Figure 2.2 Access to ultrafast broadband (speeds of 300Mbps) is above the UK average in NI

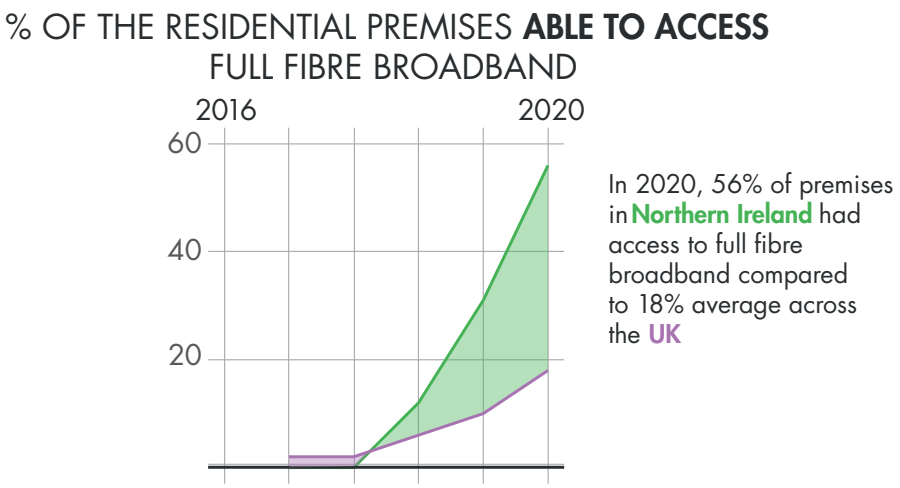


Source: Ofcom

NI access to full fibre ultrafast broadband, is higher than the UK average and higher than the rate in any other UK region

2.6 In terms of full fibre (see **Figure 2.3)**, since 2018 NI access has been higher than elsewhere in the UK. By 2020, 56 per cent of NI premises had access to full fibre compared to an average of 18 per cent across the UK. According to Ofcom, the higher percentage in NI reflects substantial private sector investment from Virgin Media and Openreach.

Figure 2.3 Access to full fibre broadband in NI is higher than UK average



Source: Ofcom

Part Two:
Broadband Coverage across Northern Ireland and the UK

Like all UK regions, broadband access in rural areas is considerably less than that available in urban areas

2.7 Where technologies rely on the use of copper cables, the distance between the premises and the exchange impacts on the quality of service received, and the speed of a consumer's connection. Consumers living in less densely populated parts of the UK (rural areas) are more likely to live further from the exchange, and since the resistance of copper wire increases with the length of the wire, achieve lower broadband speeds. Ofcom's *Connected Nations Report* (NI) 2017, noted that the "*effect is most keenly felt in NI where the rural population is most evenly spread. The result is that NI has the longest average line lengths and four times the UK average number of telegraph poles per capita. The Outline Business Case for Project Stratum*[26], reports that "*this is partly the result of differences in local planning regulations in NI, which have permitted a proliferation of single dwellings in rural areas. This contrasts with much of England, for example, where there is a more pronounced cluster effect*".

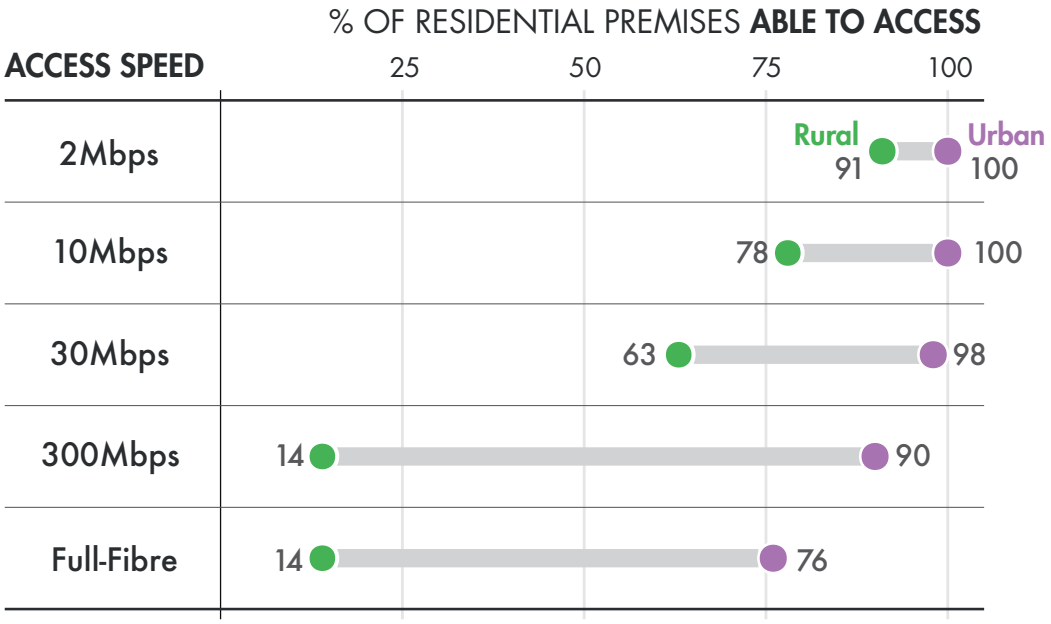
2.8 The dividing line between urban and rural is not always clear-cut. The NI Multiple Deprivation Measure (NIMDM) is the official measure of spatial deprivation in NI. The current version (NIMDM 2017) comprises seven domains of deprivation, each developed to measure a distinct form or type of deprivation: income, employment, health, education, proximity to services, living environment and crime.

2.9 Each area is classified as either urban or rural according to the '*Statistical Classification and Delineation of Settlements*' report[27] using an eight-band categorisation of settlements running from Band A (Belfast Metropolitan Urban Area) to Band H (small village, hamlet and open countryside). Areas classified in bands A to E, (Belfast Metropolitan Urban Area to small town), are defined as urban while those classified in bands F to H, (intermediate settlement to small village, hamlet and open countryside) are classified as rural. Using this classification, around two third of NI premises are defined as urban while the remaining third is defined as rural[28].

2.10 Considering broadband access rates at a NI level masks disparities between access rates in urban areas and those in rural areas. **Figure 2.4** shows that, in 2020, while 100 per cent of urban premises were able to achieve speeds of least 2Mbps (basic broadband), the figure was 91 per cent for rural residential premises. Access to 10Mbps (decent broadband) was also lower for residential premises in rural areas (at 78 per cent) compared to 100 per cent in urban areas. Full-fibre is available to 76 per cent of urban residential premises in NI compared to 14 per cent for rural residential premises.

26 DfE Project Stratum: Outline Business Case (OBC) (version 1.0), January 2019, Analysys Mason.
27 The Report of the Inter-Departmental Urban-Rural Definition Group, Statistical Classification and Delineation of Settlements, February 2005.
28 NI Multiple Deprivation Measure 2010: Guidance for Rural Areas, NI Statistics and Research Agency, March 2014.

Figure 2.4 Access to higher speed internet is significantly lower in rural areas of NI than in urban areas



Source: Ofcom

2.11 Drilling down to individual council level highlights that councils in urban areas across NI, such as; Belfast City Council; Ards and North Down; Lisburn and Castlereagh; Derry City and Strabane have greater access to broadband than more rural councils, such as Fermanagh and Omagh (where 21 per cent of premises are unable to access decent broadband (10Mbps).

Part Two:
Broadband Coverage across Northern Ireland and the UK

Figure 2.5 Access to higher speed internet varies considerably between council areas

	% OF THE RESIDENTIAL PREMISES **ABLE TO ACCESS** SPEEDS OF...		
	10Mbps	30Mbps	300Mbps
NORTHERN IRELAND	**94**	**89**	**56**
Belfast City	100	99	73
Derry City and Strabane	95	91	55
Ards and North Down	98	95	70
Lisburn and Castlereagh City	97	93	58
Antrim and Newtownabbey	96	92	66
Armagh City, Banbridge and Craigavon	95	88	59
Mid and East Antrim	95	90	61
Newry, Mourne and Down	91	83	35
Mid Ulster	88	77	33
Fermanagh and Omagh	79	68	25
Causeway Coast and Glens	92	86	42

Source: Ofcom

BDUK accepts that particular rural locations in NI have very low coverage and is supportive of measures to address this

2.12 BDUK recognises that particular rural areas such as Fermanagh and Omagh that have significantly lower coverage and told us it is *"confident that Project Stratum and other BDUK initiatives…* [see **Appendix 1**]*… will address and correct that situation as soon as possible"*.

The average download speed in NI in 2020 was less than the UK average and lower in rural areas

2.13 The average download speed delivered to premises in NI in 2020 was 64Mbps (increased from 55Mbps in 2019) compared to an average of 73Mbps across the UK. Average download speeds are lower in rural areas (40Mbps) though this too has increased from 35Mbps in 2019.

2.14 Broadband coverage statistics measure access to a service as opposed to take-up and do not take account of the quality of the service received. Many consumers believe that they do not get the download speeds advertised. Research undertaken in March 2018[29] noted that:

- 37 per cent of respondents rated their internet connection speed as poor or very poor; and
- 25 per cent rated reliability as a significant concern.

29 Rural England Community Interest Company and Scotland's Rural College, commissioned by Amazon.

2.15 Historically, operators advertised "*up to*" speeds, a maximum possible speed which may only be available to a small number of consumers. Following Ofcom intervention, operators are now required to provide average speeds available to at least 50 per cent at peak times. In addition, operators are required to quote a range which should highlight speeds for those on long copper lines (rural customers).

2.16 Ofcom also conducts sample research, which includes placing devices inside consumers' homes to measure the actual speed provided, to "sense check" the urban and rural speeds that operators report.

Conclusions

2.17 Access to broadband in NI, as in other UK regions, has improved significantly over the period since 2011. While this is welcomed, work remains to be done to improve access in rural areas and to ensure, as far as possible, that adopted solutions are future-proofed so that further upgrades are not required within a short period.

2.18 As in other parts of the UK, reaching the most rural parts of NI poses challenges. In order to address this DfE has now launched Project Stratum, a £165 million contract to significantly improve broadband to some 76,000 premises. The contract was awarded to Fibrus Networks in November 2020 and DfE has told us that contract-management mechanisms for Project Stratum will include best practice in the assessment of costs and outputs and that the contract imposes obligations on the winning bidder which will allow DfE to assess value for money.

Part Three:
The DCMS National Framework for broadband provision

Part Three:
The DCMS National Framework for broadband provision

Under the Superfast Broadband Programme, DCMS created a framework which was available to local bodies, such as DfE, to appoint on a "call-off" basis

3.1 The Superfast Broadband Programme (formerly the Rural Broadband Programme) was introduced by DCMS in 2010-11 to address concerns that the commercial deployment of superfast broadband would fail to reach many parts of the UK without public subsidy.

3.2 Initially the programme provided £530 million of public subsidy to enable 90 per cent of UK premises to access superfast broadband speeds by early 2016. In 2015, the programme was extended and a further £250 million in public subsidy was made available to extend UK coverage to 95 per cent by the end of 2017. Total public subsidy through the programme was therefore £780 million.

3.3 While BDUK was responsible for delivery, it was accepted that, if the programme was to address local issues, it would be more appropriate for delivery to be managed in partnership with local bodies (typically local authorities, devolved administrations (including DfE) or Local Economic Partnerships).

3.4 In November 2012[30], the European Commission confirmed that the "*National Broadband scheme for the UK - Broadband Delivery UK*" was compatible with EU regulations.

Success in achieving value for money relied on three safeguards

3.5 BDUK's Superfast Broadband Programme relied on three key safeguards to achieve value for money:

Safeguard 1:	Establishing a procurement framework for potential suppliers, promoting competition.
Safeguard 2:	Providing assurance that bids made by suppliers were appropriate through a "call-off" process and contract provisions.
Safeguard 3:	Providing in-life contract mechanisms to ensure that payments reflected actual costs and to claw back, or reinvest revenue, if actual costs or take-up differs from that anticipated.

Contrary to Safeguard 1, the BDUK National Framework did not promote competition, only one bidder (BT) secured all the local body contracts

3.6 The development of a framework, available for local bodies to use to call-off suppliers, ensured compliance with EU state guidelines requiring an open tender process. Local bodies using the framework were able to award contracts without completing expensive, individual open tender exercises.

30 https://ec.europa.eu/competition/state_aid/cases/243212/243212_1387832_172_1.pdf

3.7 At the outset of the process, a total of nine companies pre-qualified to bid for a place on the framework. Three withdrew immediately and a further three withdrew during the first phase of competitive dialogue. One bid (from a consortium of small and medium-sized enterprises) failed to pass the competitive dialogue stage, leaving only two bidders (BT and Fujitsu). In June 2012, both were appointed as framework providers.

3.8 Fujitsu did not secure any of the initial contracts let using the framework and, in March 2013, it announced its intention not to bid for any further contracts, stating that "*many of the economic, regulatory and technical factors required to make the business attractive to Fujitsu could not be delivered*". This left BT as the sole bidder on the framework, with no competition[31]. NAO reported in January 2015[32] that BT had secured all of the 44 contracts awarded under Phase 1 of the Superfast Broadband Programme.

3.9 DfE and BDUK consider that this reflected the limited market at the time. BDUK told us that even in cases where local bodies procured outside the BDUK framework, BT was selected through open competition. We understand from BDUK that, more recently, following a revised state aid notification, a number of Superfast contracts have been awarded to other suppliers (Gigaclear, Airband, Call Flow and UK Broadband). All NI contracts let using the framework, and prior to Project Stratum were awarded to BT.

3.10 The original DCMS business case for the programme had set out that, if multiple procurements with the same supplier would offer limited value, it might (as an alternative) enter into bilateral contracts with key suppliers. Although by 2013 BT was the only supplier remaining on the framework, DCMS decided did not do this because it felt that:

- Key value for money protections had already been secured through the competitive procurement.
- Reopening the procurement would add delay and offer little prospect of improving value for money further.
- The economies of scale achieved from a national negotiation were likely to be outweighed by the benefits and additional funding gained through a locally-led approach.
- By the time it became apparent that competition was weak, DCMS did not want to reopen the BT contract negotiations nor restart the process given the commercial and legal risk and tight delivery timetable.

3.11 BDUK agrees that competition in the NI supplier market was difficult in the past. It informed us that "*a number of initiatives have been introduced which are starting to make a significant difference in creating a more competitive marketplace*". These initiatives (see **Appendix 1** for more detail) include:

31 Similar problems were encountered in the Republic of Ireland (RoI). Its National Broadband Plan initially attracted interest from three suppliers. However, two suppliers withdrew from the process. Rather than abandon the process, the RoI Government proceeded with the competition and, after evaluating the single tender, award the €3 billion contract to the sole bidder.

32 National Audit Office, *The Superfast (Rural) Broadband Programme: update*, January 2015, paragraph 4.1.

Part Three:
The DCMS National Framework for broadband provision

- The Better Broadband Voucher Scheme;
- The Gigabit Voucher Scheme;
- Local Full Fibre Networks Projects; and
- Rural Gigabit Connections Projects.

Conclusions and Recommendations

3.12 The BDUK framework was compatible with EU regulations and provided a mechanism for local bodies to award contracts on a 'call-off' basis and therefore avoid expensive, individual open tender exercises. However, following the withdrawal of seven of the nine companies which pre-qualified to bid, and Fujitsu's announcement in March 2013 that it would not be bidding for any further contracts through the BDUK framework, BT was left with no competition. As a result, Safeguard 1, relating to the promotion of competition, was not satisfied.

3.13 Although DCMS had set out in its business case that, if providing multiple procurements to the same supplier would limit value, it might consider entering into bilateral contracts with key suppliers, it decided to continue with BT as the sole supplier. That created difficulties for contracting bodies trying to demonstrate that they had achieved maximum value from public subsidy.

3.14 Despite the limited competition in phase 1 of the programme, BDUK did not prepare a separate business case to decide the best delivery model for phase 2. Although it did engage with the market and explore several options, it did not fully develop or cost these options. In 2015, NAO identified that the effect of the first 2 phases of the DCMS programme would be to reinforce BT's already strong position in the wholesale market for broadband infrastructure.

3.15 We note comments from BDUK that a number of its initiatives are starting to make a difference in creating a more competitive marketplace in NI.

3.16 **We recommend that for future procurements exercises, in the event that only one bidder remains on a framework, consideration is given to the impact on the market of awarding all contracts to one bidder and assessing how, in such cases, the extent to which value for money has been achieved can be demonstrated.**

Contrary to Safeguard 2, BDUK was not in a position to provide assurance that BT bids were appropriate

3.17 In 2013, NAO noted that, following evaluation, BDUK considered that BT's draft bid for the framework fell short of the minimum threshold required to progress to the final bid stage. BT then provided additional information on cost drivers and BDUK concluded that this was sufficient to meet the minimum threshold. However, NAO considered that BDUK had secured limited transparency over forecast costs, that the additional information was limited and that, as a result, "*the data still did not clearly identify input variables and corresponding unit costs*". NAO concluded that BDUK did "*not have strong assurance that costs, take-up assumptions and the level of contingency in suppliers bids* [were] reasonable.

3.18 NAO also noted that although BT was contractually committed to ensuring its costs were "*internally consistent and consistent with its commercial investment*", it was not prepared to agree to inspection rights and therefore BDUK was totally reliant on self-certification from BT. In September 2013, Westminster PAC concluded that BDUK's reliance on self-certification by BT did not represent an adequate control. BDUK considers that the BT sign-off over bid costs by a BT senior finance director is a serious undertaking which is confirmed under the warranties of individual contracts.

3.19 A follow-up report by NAO in 2015 confirmed that BDUK had strengthened its value for money team, its work on in-life controls and had access to detailed cost information on each of the local projects which used the BDUK procurement framework. However, it highlighted that BDUK's confirmation that actual costs are lower than bid costs did not provide assurance that BT had priced the contracts economically. NAO reported that an independent assurance review (in April 2013) which sought to compare supplier bids to a "*should cost*" model, was "*hampered by limited cost transparency*".

3.20 After Fujitsu's announcement that it would not be bidding for any further contracts, with only one internet provider (BT) available to bid for contracts under the BDUK framework, the only opportunity to compare BT bids was to consider various other BT bids to other local bodies. Local bodies were not permitted to undertake such comparisons because the framework included non-disclosure agreements preventing discussion on contractual arrangements. While BDUK provided assurance on whether bids were in line with others received (through its bid comparison reports), it could not conclude on whether costs were in line with BT's commercial investment or economically priced.

3.21 In its September 2013 report, Westminster PAC was critical of the use of confidentiality clauses in contracts since this prevented local bodies from disclosing the costs involved to other local authorities who are negotiating contracts. PAC recommended that, where contracts had not yet been signed, BDUK should insist on a higher standard of cost transparency, for example

Part Three:
The DCMS National Framework for broadband provision

omitting the non-disclosure agreement between local authorities. NAO noted, in a 2015 follow-up report, that the non-disclosure clauses were still being included in BT bids.

Conclusions and Recommendations

3.22 Safeguard 2 involved securing assurance that supplier bids were appropriate. In the absence of competition, local bodies were not in any position to evaluate BT bids. As an alternative, BDUK prepared bid comparison reports for local bodies. NAO and Westminster PAC have both been critical of BT bids which they concluded lacked detail, relied on self-certification that costs were consistent with commercial investment and economically priced and contained non-disclosure agreement clauses.

3.23 Despite a recommendation from Westminster PAC, non-disclosure clauses are still being included in contracts.

3.24 In our view, in order to demonstrate the achievement of value for money, contracting authorities must be in possession of detailed, verified bids, must secure appropriate inspection rights and must not be restricted by non-disclosure clauses.

3.25 **We recommend that, for future contracts, departments secure appropriate inspection rights to detailed data so that bids can be fully assessed. We also recommend that non-disclosure clauses are omitted from contracts.**

Contrary to Safeguard 3, there has been much confusion over actual BT costs

3.26 In 2013, NAO concluded that the Superfast Broadband Programme lacked "*…strong assurance over costs*". Two subsequent Westminster PAC reports[33], similarly raised concerns over the extent to which contracts delivered value for money and a lack of transparency over BT costs.

3.27 A subsequent NAO report in January 2015, outlined that progress had been made in addressing the issues raised. BDUK told us that, as a result, its assurance function now encompasses value for money checks designed to give confidence that projects are well managed, likely to deliver their outcomes, represent value for money and are being procured and managed in line with the requirements of the State Aid Decision. A project assessment review of the Superfast Broadband Programme undertaken by the Major Projects Authority in 2014 concluded that "the '*Milestone-to-Cash*' process should be disseminated across Whitehall, as appropriate, as an exemplar of best practice".

3.28 While we note that BDUK's Project Management Office Team provides support to the projects, confirms delivery of targets against milestones and provides management information on each

33 HC Committee of Public Accounts, *The rural broadband programme,* Twenty-fourth Report of Session 2013 14, HC 474, September 2013 and HC Committee of Public Accounts, *The rural broadband programme,* Fiftieth Report of Session 2013-14, HC 834, April 2014.

project, the absence of information on whether costs charged to local bodies are economically priced, in our view, prevents assessment of the extent to which value for money is achieved.

3.29 BDUK told us that its actual cost comparison reports for projects, which include costs on all other local body broadband projects, identify outlier costs which are investigated further. In relation to Northern Ireland projects, BDUK's actual cost comparison reports concluded that delivery costs reported were within acceptable parameters.

3.30 At the contract stage of each local body procurement, the split of funding between central government, the local body and BT is agreed and, at each milestone, BT is expected to demonstrate that its investment at least meets the ratio specified in the contract. We noted from various public records (audit reports, Parliamentary Committee minutes and BT published information) that the level of BT investment in projects and the cost per cabinet could not be definitively determined.

On investments due from BT

3.31 In September 2013, Westminster PAC reported that by 2013, anticipated contributions from BT were considerably less than expected in the 2011 DCMS business case and that DCMS assumptions (in its 2011 business case) about the respective capital contributions of the public and private sectors were "*wildly inaccurate*".

3.32 In essence, Westminster PAC concluded that BT was committing £207 million less than anticipated while local bodies were contributing an additional £236 million.

3.33 DCMS told the Westminster PAC that the differences were due partly to inaccuracies in the business case modelling and partly because, in some cases, local authorities chose to provide additional funding. In 2016, BT (in written evidence provided to the Westminster Culture, Media and Sports Committee[34]) reported that the amounts stated by NAO and Westminster PAC were incorrect.

3.34 In December 2015[35], BT claimed that, by September 2015, it had spent £276 million under the various contracts. BT stated that the amount of £276 million was recorded in its annual accounts as a capital accrual. It is not clear to us why, if the £276 million was paid, it appeared in BT's annual accounts as a capital accrual. We also noted that, during the same inquiry, BT stated that its contribution to date totalled £337 million[36] (rather than £276 million). No reconciliation of the two amounts was provided.

3.35 In January 2016 BT informed the CMSC that, by 31 March 2016, contributions of £485 million (rather than £440 million) would be made in respect of BDUK scheme.

34 Supplementary written evidence submitted by BT (EWC0097) January 2016
35 Oral evidence: *Establishing World-Class Connectivity Throughout the UK*, HC 407 Wednesday 9 December 2015: Question 189, 201.
36 Oral evidence: *Establishing World-Class Connectivity Throughout the UK*, HC 407 Wednesday 9 December 2015: Question 300.

Part Three:
The DCMS National Framework for broadband provision

On the cost per premises passed/cabinet and benchmarking across regions

3.36 It is important for local bodies to have information on the total public subsidy and the BT contribution paid in order that key metrics, such as the cost per cabinet (in FTTC schemes) and the cost per premises passed, can be calculated.

3.37 In 2012, a DCMS consultant was sacked after information he prepared in a report on BT bids was leaked. In his report, he identified that BT's escalating costs were contrary to what was known at the time, for example, that the average public sector cost per premise in Wales was £300[37]. At the 2013 Westminster PAC hearings, BT denied claims that it had inflated costs and stated that their costs for public sector schemes were consistent with its commercial roll-out costs.

3.38 In written evidence provided to Westminster PAC on 10 February 2014, DCMS reported that it had established a rigorous assurance system to monitor and control in-life costs. Key features of this system included:

- Central assurance by BDUK of BT's approach and reporting systems. This included obtaining assurance that BT only charges actual staff costs based on appropriate timesheet reporting. No overheads or profits can be included in timesheet costs.
- Provision of detailed training, best practice guidance and one-to-one support to local body teams.
- An end-to-end "*milestone-to-cash*[38]" process under which local bodies only make payments to BT once it has demonstrated that it has met certain implementation milestones.
- Full access to supplier invoices to determine the actual costs, backed up with step-by-step advice to local authorities on how to assure payments and a proportionate, risk-based approach to invoice checking.
- Checks of each local body's readiness to assure milestone achievement and to scrutinise milestone claims before paying them.

3.39 Despite the improved cost controls and monitoring arrangements introduced by BDUK, conflicting information from BT on the actual cost of cabinets (for FTTC programmes) and the cost per premise passed, has been identified (and reported on) since 2009. Tracing through available reports (from UK audit agencies, Parliamentary Committees and local bodies), we found references to various costs, as follows:

37 This is consistent with subsequent findings by NAO in 2015 that BT's cost models were inflated by 38 per cent *and with Welsh government investment in next generation broadband infrastructure*, Auditor General for Wales, 28 May 2015 which noted that the average cost per premise passed in the UK was £240 and £297 in Wales.

38 In October 2014, the Major Projects Authority concluded that: "*the 'Milestone-to-Cash' process should be disseminated across Whitehall, as appropriate, as an exemplar of best practice*".

2009

- Broadband procurement in NI (commissioned prior to the creation of the BDUK Framework) provided 1,251 cabinets for a public subsidy of £18 million. That equates to just over £14,000 per cabinet.

2012

- A DCMS member of staff (who was subsequently sacked) leaked information which compared the cost of cabinets in NI (£15,000) against cost budgets of £40,000 elsewhere in the UK to install the same cabinet through the BDUK Framework.

- In a radio interview in December 2012, the Chief Executive Officer of BT Openreach stated that the cost of a street cabinet was £100,000.

2013

- NAO reported in its Rural Broadband Report that BT's average bid cost/per cabinet across 18 bodies varied from £19,600 to £51,000 with an average of £28,900.

2015

- In June 2015, BT stated that it had invested £3 billion in 50,000 cabinets and fibre paths to serve 19 million homes. That equates to £60,000 per cabinet.

- In written evidence provided to the CMS Committee in October 2015, BT reported that FTTC can be delivered quickly and at relatively low cost, "*with over 20 million premises already delivered commercially under our £2.5bn commercial programme*". That equates to a cost per premise passed of £125 or a cost per cabinet of £25,000.

- In December 2015, a BT Executive told the CMS Committee that FTTC costs £500 per premise passed. At 200 homes passed per cabinet this equates to £100,000 per cabinet. In subsequent written evidence from BT, the cost per cabinet was quoted at £26,500.

2016

- In oral evidence provided to the CMS Committee, a senior BT employee claimed FTTC costs were £500 per premise (or £100,000 per cabinet (200 premises passed)).

- In a written response to the CMS Committee, BT corrected the record, claiming that phase 1 cabinets had cost £26,500.

Part Three:
The DCMS National Framework for broadband provision

On Clawback (or gainshare) due from BT

3.40 In BDUK contracts, clawback comes into play in one of two situations:

- Either when BT spends less than expected on its planned capital expenditure on the implementation phase; or
- Where there is a higher take-up of broadband than expected by BT at the outset of the programme. BT bears the risk that take-up of superfast broadband is less than forecast but shares the profits with the public sector for up to seven years in cases where the number of subscribers to the subsidised infrastructure increases beyond an agreed take-up forecast.

3.41 In early schemes (including the NIBIP and SRP2), BT typically assumed that, following the infrastructure build, 20 per cent of premises would take-up superfast broadband. This was less than DCMS anticipated in its 2001 business case (25 per cent) and less than the actual take-up rate experienced following the early NI Next Generation Broadband Project. DfE told us that BT's take-up assumptions were based on European benchmarks from other national operators at the time and that it considered this to be reasonable. BDUK and DfE do not accept that high take-up rates demonstrate that there was no need for government subsidy since the high costs in building broadband infrastructure in rural areas significantly reduces the commercial case for investors.

3.42 Take-up reviews are carried out at specified contractual points and reinvestment due is credited to an Investment Fund (maintained by BT). Clawback paid into the Investment Fund by BT accrues interest at the Bank of England base rate plus 2 per cent, until the day it is repaid to the Local Body. Actual clawback due as a result of increased take-up is confirmed on completion of BDUK's delivery assurance process. DfE told us it will continue to work with BDUK and Openreach to consider options for use of clawback due from the Investment Fund.

3.43 To date the European Commission has authorised £129 million early gainshare to be reinvested into contracts (with the NI SRP2 benefitting from £1.7 million). In its latest financial statements (to 31 March 2020), BT reported further deferred income of £619 million (across the UK) in recognition of the likely projection of take-up cost gain over the period of the contracts. The National Broadband Scheme 2016, as agreed by the European Commission, means that the Investment Fund balances can only be used through new procurements, rather than being used within existing contracts. BDUK expects DfE to receive take-up clawback of £6.4 million on the NIBIP and £7.6 million on the SRP2.

Conclusions and Recommendations

3.44 We accept that there may be some degree of uncertainty in predicting the cost of a FTTC cabinet. However, it is unclear to us how there can be such a huge variation in the range of estimates - from £15,300 to £100,000.

3.45 It is imperative in gap funding programmes that there is transparency over how much has been paid by whom. Since 2013, BT has provided contradictory information and DCMS's limited inspection rights have prevented sufficient verification. Despite repeated calls for increased transparency over BT bids and costs (by Parliament and UK external audit agencies), confusion still exists.

3.46 We note that in several of the contracts let through the framework, take-up was estimated at 20 per cent. Actual take-up however has been considerably higher. While we acknowledge that DCMS (and ultimately DfE) shares in a percentage of any gain, in our view, predictions on take-up should be more accurate. Further, in cases where take-up is significantly higher than estimated, we consider that questions arise over the need for public subsidy. **We recommend that for future programmes, contracting authorities ensure they have the necessary information to allow them to produce more accurate predictions on take-up**.

3.47 At 31 March 2020, BT accounts included deferred income of £619 million in recognition of the likelihood that take-up on individual UK contracts would exceed predictions. To date the European Commission has authorised £129 million early gainshare to be reinvested into contracts (with the SRP2 benefitting from £1.7 million). BDUK expects DfE to receive take-up clawback of £6.4 million on the NIBIP and £7.6 million on the SRP2. We welcome assurances from DfE that it will continue to work with BDUK and BT to consider options for use of funds due from the Investment Fund.

Part Four:
Management of broadband provision in Northern Ireland

Part Four:
Management of broadband provision in Northern Ireland

Following a 2004 programme, broadband services of at least 512 Kilobits per second (Kbps) were available to every household and business in NI

4.1 In 2004, prior to creation of the DCMS national broadband programme, DfE launched a competitive tender to deliver 100 per cent broadband coverage in NI. The tender was awarded to BT and, in December 2005 DfE reported that NI was the first region in Europe where broadband was available to every home and business at affordable prices. Under the terms of the contract, all 191 BT Exchange Site locations were upgraded to support the delivery of Asymmetric Digital Subscriber Line (ADSL)-based broadband service and broadband services of at least 512 Kilobits per second (Kbps) were available to every household and business[39].

DfE awarded the contract for the Next Generation Broadband Project to BT

4.2 In 2009, again prior to creation of the DCMS national broadband programme, DfE awarded the contract to deliver the Next Generation Broadband Project across NI to BT. The total investment in the project was estimated at £48 million with BT expected to contribute £30 million and the remaining £18 million funded jointly by DfE and DAERA (DfE £16.5 million; DAERA £1.5 million).

4.3 DfE designed the project to meet the NI Executive's 2008 Programme for Government target of ensuring that 85 per cent of businesses in NI have access to next-generation broadband speeds by 2011. It was targeted at those areas across NI, both urban and rural, likely to deliver the greatest economic benefit from receiving high-speed broadband, but which may not be suitable for private sector investment.

4.4 The project involved providing upgrades at 166 telephone exchanges and the deployment of fibre to 1,251 new street cabinets. Businesses within defined urban areas were set to receive minimum broadband speeds of 10Mbps, while businesses in defined rural areas could expect to receive minimum broadband speeds of 2Mbps.

4.5 In 2013, Westminster PAC[40] noted that the NI programme was delivered by BT much more cheaply (and with less public subsidy) than several BT projects in England. Specifically on the cost of installing the cabinets, PAC referred to NAO's finding that the NI cost was 12 per cent below the average BT bid in England. In oral evidence to PAC, BT explained that:

- Civil engineering labour costs in NI are lower than in England.
- NI cabinets do not have power meters in them and are less expensive to construct.
- The whole of NI was done with a single solution, rather than multiple solutions.

39 State aid number N 418/2009 – United Kingdom (NI), Next Generation Broadband, Brussels, 05.11.2009 C(2009)8687

40 *The rural broadband programme*, HC, Committee of Public Accounts, *11 September 2013*

- The intervention area was designed at an earlier point of the fibre deployment, so some cabinets were cheaper to enable.

- The topography of the networks in NI is different.

DfE used the BDUK Framework to appoint BT to improve internet provision through the NI Broadband Improvement Project (NIBIP)

4.6 In July 2012, DfE developed its NI Broadband Improvement Project (NIBIP). DfE's objective was that public subsidy of £19.3 million would provide, by 2015:

- 2Mbps broadband coverage to those areas (rural and urban) where current structures were not sufficient (51,671 premises); and

- access to superfast broadband (i.e. 24Mbps+) for 90 per cent of consumers across NI (65,919 premises).

4.7 Public funding to support the project (£19.3 million) was to be provided from a number of sources over the three year period to 31 March 2016. The EU contributed half of the overall funding while DCMS (through BDUK), and two NI government departments (DfE and DAERA[41] jointly contributed the other half. (See **Figure 4.1**).

Figure 4.1: NIBIP public sector investment over the three year period to 31 March 2016

DfE £2.75 million	**European Union £9.65 million:**
DAERA £2.5 million	European Regional Development Fund[42] £7.15 million;
DCMS £4.4 million	European Agricultural Fund for Rural Development[43] £2.5 million

Source: DfE

4.8 Although DCMS did not mandate its use, DfE used the framework to award the NIBIP contract to BT. DCMS told us that, DfE would have been well placed, following its previous independent procurement projects (paragraph 4.2) to determine whether using the framework would have added value or produced a different outcome. In response, DfE stated that "there are benefits of using a nationally approved framework with State aid cover. *Given the existence of a national framework for improved broadband investment, and the joint funding, the UK Government was unlikely to have approved a separate approach for NI. Any such separate approach would have required additional time and resource costs*".

41 Under the Departments Act (NI) 2016, the functions of the former Department of Agriculture and Rural Development, excluding Rivers Agency, transferred to the Department of Agriculture, Environment and Rural Affairs.

42 The European Regional Development Fund (ERDF) is a fund allocated by the EU, which aims to strengthen economic and social cohesion in the EU by correcting imbalances between its regions.

43 The European Agricultural Fund for Rural Development (EAFRD), a funding instrument of the Common Agricultural Policy of the EU, aims at strengthening the EU's agriculture, forestry sector and rural areas in general.

Part Four:
Management of broadband provision in Northern Ireland

4.9 BT's initial bid anticipated that, for costs of £23.7 million (£19.3 million from Government and an additional contribution of £4.4 million from BT) a total of almost 46,000 premises would see an improvement in their broadband service. This was considerably less than the number of premises estimated by DfE in its Invitation to Tender (ITT) document (almost 117,600)[44].

4.10 BT assured DfE that the solution supported the optimal intervention in terms of numbers and locations. It added that, when considered in addition to planned commercial broadband deployment in NI, approximately 85 per cent of NI premises would be able to access superfast broadband and 96 per cent would be able to receive basic broadband.

4.11 DfE's technical consultants advised that considerable economic benefits were present, that the project had strong commercial viability and that the NI fibre-based infrastructure would be strengthened.

4.12 Due to confidentiality clauses, DfE was not in a position to compare the BT bid against other UK bids. A comparison exercise, undertaken by BDUK, identified that while operating costs and FTTP unit cost components were within expected ranges, the build unit costs were higher than average. BDUK considered that, given the rural nature of the project and the long line lengths required, build costs would be expected to be higher. BDUK concluded that "*….the NI project is presented as a project at the extreme end of rurality and this, in part, explains the relative high cost per premise*".

4.13 DfE told us that its concerns over the bid were significant enough for the then Minister to meet BT for discussions. DfE sought clarification from BT on the increased project management costs and was advised that "*the nature of the* [NI] *solution was more labour intensive requiring greater co-ordination and the requirement to manage different funding streams would create additional administrative overheads*".

4.14 Following engagement between DfE and BT, a revised BT bid was submitted on 20 December 2012. Under the revised bid, BT proposed that while an additional 600 premises would receive basic broadband, 1,000 fewer premises would receive superfast broadband. Again, BT's proposals fell considerably short of DfE's original expectations.

4.15 BDUK compared BT's revised offer against other UK bids and concerns remained over the high project management costs. Despite further negotiations with BT, no further movement on cost or increase in coverage was secured. DfE revised its economic appraisal to reflect the lower coverage and concluded, in terms of value for money, that despite the absence of keen

44 In its request for Ministerial Approval to sign the NIBIP contract with BT (subject to DoF approval), DfE set out that it was seeking a solution across an intervention which comprised 148,319 premises for Superfast Broadband and 51,671 premises for Basic Broadband. DfE has confirmed that the 51,671 premises are a subset of the 148,319.

competition, costs were reasonable against the benefits. DfE considered that it had secured the maximum BT was prepared to commit to contractually and noted that it was possible that further gains would be achieved as implementation progressed. DfE considered that it could challenge BT on costs as the project proceeded. DfE told us that although the projected delivery fell short of the Department's original expectations, its economists provided approval for the contract to be awarded and, as such, confirmed that the bid represented value for money.

4.16 DfE's Project Board and DCMS determined after considering BT's original and revised bids, that operating expenditure costs were well within the framework limits while capital expenditure costs were at the top end of limits (but still considered reasonable). DfE told us that DCMS awarded the BT proposal a green rating.

4.17 DfE revised the project objective from providing universal access (that is 100 per cent) to speeds of at least 2Mbps, to a target of 96 per cent having access to speeds of at least 2Mbps and 85 per cent having access to Superfast speeds of at least 24Mbps by 2015. See **Figure 4.2**. The NIBIP contract was signed on 4 February 2014.

Figure 4.2 Actual Delivery under the NIBIP

	DfE Objectives (ITT)	BT's Initial Bid	BT's Revised Bid	Actual Premises Improved	Variance		
					Actual v ITT	Actual v BT's Initial Bid	Actual v BT Revised Bid
Basic	51,671	20,253	20,882*	**12,579**	24%	62%	60%
Superfast	65,919	25,450	24,377	**24,903**	38%	98%	**102%**
Total	117,590	45,703	45,259	**37,500**	32%	82%	83%

** The figure of 20,882 includes 3,521 premises subsequently moved to SRP2 and a further 4,950 premises to be accommodated using satellite infill. This was considered suboptimal technology and removed from the NIBIP target.*

Source: DfE

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Through the NIBIP, BT provided improved broadband access to 37,500 premises. This fell significantly short of the number anticipated by DfE in its Invitation to Tender document

4.18 The NIBIP delivered improved infrastructure to a total of 37,500 premises. This is significantly lower than original DfE estimates and lower than both the initial and revised BT bids. See **Figure 4.2**.

4.19 In relation to basic access, actual delivery (at 12,579) fell considerably short of DfE initial expectations (51,671). Delivery also fell short of BT's initial bid target (20,253) and its final bid target (20,882). The shortfall, of over 8,300 premises (between the actual delivery and the BT final bid target) reflected the transfer of just over 3,500 premises from the NIBIP to the SRP2 and the removal of almost 5,000 premises due to be accommodated using infill satellite which was later considered suboptimal technology.

4.20 In relation to superfast broadband, actual delivery also fell short of DfE's expectations and BT's initial bid but marginally exceeded the target in BT revised bid. DfE told us that it agreed and approved these changes with BT using agreed change control procedures. The total public subsidy available was adjusted from £19.3 million to £17.7 million to account for the removal of the almost 5,000 premises intended to be upgraded using satellite infill.

4.21 DfE told us that the difference between original aspirations (set out in the ITT) and the ultimate outcomes were a result of the much higher costs of building broadband infrastructure in the predominantly rural intervention area in NI.

4.22 Detailed BDUK cost reports were not available at the outset of the NIBIP. However, improvements over cost monitoring were introduced and, by Quarter 3 of 2015-16, cost reports were made available to DfE from BDUK. On the basis of cost information received from BT, DfE confirmed the BT investment of just over £4.4 million. Therefore the total cost of the project amounted to £22.1 million including £17.7 million in public sector subsidy.

4.23 The solution provided by BT involved FTTC and FTTP technologies. We asked DfE for details of the total cost of the FTTC instalments in order to calculate the cost per cabinet (FTTP does not involve the use of cabinets). DfE told us that, on the basis of cost reports produced by BDUK, the cost per cabinet under the NIBIP was £19,700 compared to a UK average cost of £15,500.

Conclusions and Recommendation

4.24 The BT framework bid for, and actual delivery under, the NIBIP fell considerably short of DfE's expectations. This was disappointing and, in our view, this indicates that either DfE's initial planning was totally inaccurate or BT's bid and performance represented poor value for money. While we note that BDUK and DfE's technical consultants considered that the final BT bid offered value for money, it is difficult to understand how preliminary DfE expectations could have been so far out.

4.25 Use of the framework was not mandated and, given the success of the previous programme, delivered prior to the development of the framework, it seems that DfE may have been able to negotiate a better offer through open competition. The cost per cabinet through the NIBIP was higher than the average cost incurred in other parts of the UK.

4.26 **We recommend that, where the use of frameworks is not mandated, departments take time to consider whether it would be in their best interests to consider and negotiate through alternative procurement methods, for example through open competition**. The DCMS Framework Agreement lapsed in 2016, before Project Stratum was procured. DfE has confirmed Project Stratum was procured using the Restricted Procurement Procedure pursuant to Regulation 28 of the Public Contracts Regulations 2015 and was fully managed by CPD in line with the National Broadband Scheme 2016, with State Aid assurance provided by BDUK as the National Competency Centre.

A BDUK inspection of the NIBIP identified a number of concerns but by June 2018 BDUK concluded that the process was well controlled

4.27 In Spring 2018, BDUK's Value for Money (VFM) Assurance Team conducted a 'deep dive' review of NIBIP and highlighted a number of issues including:

- Payment of almost £112,000 was ineligible and was to be removed as it was attributable to unknown, non-BDUK expenditure and cancelled structures.
- The use of prepayments posed a significant risk to VFM and made verification of pre-paid inventory more difficult.
- The deployment of cabinets in NI was inconsistent with the other BDUK projects and cost more than 'standard' cabinets.
- The absence of a BT cost breakdown for the consultants used.

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4.28 DfE told us that responses were sought from BT on all the issues raised in the 'deep dive' review and that, based on the information provided by BT, the BDUK VFM Assurance Team considered the issues resolved. During June 2018 BDUK reviewed and agreed NIBIP's final closure statement which determined that the process was well controlled with no risk of ineligible store items being charged against DfE's programmes.

Take-up following the NIBIP was much higher than anticipated. This raises questions over the need for public subsidy

4.29 BT reported that its NIBIP costs were exceeded those planned so no clawback was due as a result of cost savings or efficiencies generated. Clawback (or gainshare, representing a share of additional profits generated) due as a result of increased take-up, under the terms of the contract, is due from BT for seven years after the final project implementation date (that is from the full service commencement date, 22 September 2016, to 31 March 2023). Given the unexpected high take-up rates (almost 66 per cent compared to an estimated 20 per cent), BT made an initial gainshare payment (of £1.7 million) in advance. This was used as part of the funding for the SRP2 programme.

4.30 DfE told us that the baseline take-up target of 20 per cent, reflected market conditions at the time and were established at a UK level. BDUK confirmed that it is estimating that DfE will receive £6.4 million from BT in relation to NIBIP take-up clawback. We welcome assurances from DfE that it will continue to work with BDUK and Openreach to consider options for use of clawback due from the Investment Fund.

Conclusion

4.31 We note that the actual take-up rate, at almost 66 per cent by 31 December 2018, is considerably higher than the anticipated 20 per cent. While clawback is earned by DfE in cases where take-up exceeds expectations, in our view the level of take-up following the NIBIP calls into question whether public subsidy was required. With take-up at almost 66 per cent, we consider that the project may have been commercially viable for BT either without a subsidy or with considerably less subsidy. We welcome assurances from DfE that it will continue to work with BDUK and Openreach to consider options for use of clawback due from the Investment Fund.

Superfast Rollout Programme, Phase 2 business case, procurement and contract award

4.32 The SRP2 was NI's contribution to DCMS's objective to increase superfast broadband coverage across the UK to 95 per cent of premises by 2017. DfE analysis, at the full business case stage, was that of 147,595 premises in the intervention area, the project would ultimately benefit 20,947 in terms of increased connectivity from the public subsidy provided. This would ensure that at least 84 per cent of all premises in NI would have access to superfast broadband. DfE anticipated that the available funding was not sufficient to achieve the UK target of 95 per cent.

4.33 Again, although not mandated to do so, DfE used the framework to award the contract to BT. BT's bid anticipated provision of superfast broadband to 38,921 NI premises (increasing access across NI to superfast broadband to 87 per cent). Total funding for the project was estimated at £17.8 million as shown in **Figure 4.3**.

Figure 4.3: SRP2 Proposed Funding

Funding	Total £ million	Funding Contribution
DfE funding	7.25	
BDUK funding	7.25	
Total public subsidy	**14.50**	**81%**
Total BT funding	**3.30**	**19%**
Total SRP2 Proposed Funding	**17.80**	

Source: DfE

4.34 BT indicated in its bid that it would model for £14.1 million of the public subsidy and that alongside that, it would provide additional funding of £3.3 million (just under 19 per cent). This is higher than the minimum supplier investment ratio from BT (14.37 per cent) set out in the full business case. The offer was split across: Very Rural (51 per cent); Rural (43 per cent) and Sub Urban (6 per cent).

4.35 DfE considered that the offer provided by BT represented the maximum BT was prepared to commit to contractually. BDUK carried out a comparison and concluded that the key metrics of the NI bid were consistent with BT bids elsewhere in the UK. Having secured advice from internal economists and the relevant approvals from BDUK, DfE awarded the contract to BT in February 2015.

4.36 In 2017, DfE received approval from BDUK to extend the SRP2 for six months to 30 June 2019. Public subsidy for the programme was increased by £3.3 million (comprising Early Gainshare funding returned from BT of £1.7 million and £1.6 million reallocated funding). BT's

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contribution increased to £4.7 million. Therefore, total funding amounted to £22.5 million. Revised targets for the programme anticipated that superfast broadband would be made available to an additional 42,005 premises. DfE will be in a position to confirm details of the final project outcomes and actual total costs once BDUK has completed its final stage assurance process.

Take-up following the SRP2 was much higher than anticipated at the outset of the programme. Again this raises questions over the need for public sector intervention

4.37 At full business case stage, DfE anticipated that take-up of superfast broadband following the scheme would be 20 per cent. In its bid to DfE, BT also anticipated that take-up would be around 20 per cent. The broadband take-up rate will be monitored and reported on until December 2023. By 31 December 2018, take-up was 33 per cent – considerably higher than the forecast take-up rate. BDUK confirmed that it is estimating that DfE will receive £7.6 million from BT in relation to SRP2 take-up clawback.

Conclusion

4.38 As with the NIBIP programme, take-up rates on the SRP2 (at 33 per cent) have been much higher than anticipated (20 per cent). While we acknowledge that DfE will receive a share of these through its clawback arrangements, in our view, the high take-up might indicate that the project was commercially attractive enough not to have required subsidy in the first place.

DfE's Internal Audit Unit reviewed a number of broadband scheme and identified some concerns

4.39 In February 2016 DfE's Internal Audit Unit reviewed the systems of internal control over NIBIP, SRP2 and Super Connected Cities projects, including: procurement; project management; verification of claims; and compliance with State aid regulations.

4.40 While Internal Audit concluded that the system of internal control over the projects was satisfactory, a number of issues were identified:

- BT was failing to provide DfE with all the reports required under the terms of the contract.
- DfE was not subjecting the reports prepared annually by BT to independent challenge by staff with the necessary skills and expertise.
- DfE was not arranging and attending regular Project Board meetings.

4.41 DfE accepted, and have told us that they implemented, the two recommendations made by Internal Audit:

- Information and reports supplied by BT should be subject to review and challenge by the DfE to ensure that the information provided is accurate and reliable and to ensure that the specific State aid requirements, as set out in their letter of notification, are being met.

- Management should ensure that the SRP2 project governance and oversight arrangements set out in the contract are consistently adhered to throughout the lifetime of the project.

More recently DfE's Internal Audit Unit provided a satisfactory audit opinion on the arrangements surrounding Project Stratum

4.42 On 25 June 2020, DfE's Internal Audit Unit issued its report on the adequacy and effectiveness of risk management, control and governance arrangements established and operating over Project Stratum.

4.43 Internal Audit concluded that the project is being well managed, that project documentation was of a high calibre. Internal Audit was satisfied that risks to the Project had been identified and are being appropriately managed and expenditure has been assessed and controlled with appropriate business cases and approvals in place. Given the level of controls in place, Internal Audit did not make any recommendations at this time.

4.44 In our recent report on *Capacity and Capability in the NI Civil Service*, published on 18 November 2020, we highlighted the importance of ensuring that the right people are placed in the right posts. Internal Audit identified that oversight, monitoring and control of the project is achieved via a combination of in-house skills and expertise, including resources procured via the Strategic Investment Board, with governance and assurance provided by a Project Board, independent Advisory Panel, Gateway Reviews, BDUK, CPD and independent external consultancy.

Conclusions

4.45 We note the comments from Internal Audit in 2016 and welcome the commitment from DfE to implement recommendations made.

4.46 We note the more recent assurance from Internal Audit that Project Stratum is being well managed. We note the steps taken by DfE to ensure that appropriate expertise was secured during the early stages of Project Stratum.

4.47 DfE told us that Project Stratum procedures include mechanisms to ensure best practice in the assessment of costs, compliance with State aid regulations and to allow a detailed assessment of value for money. We intend to issue a report on the award of the contract for Project Stratum in 2021.

Appendices

Appendix One:
Other broadband support for Northern Ireland homes and/or businesses (paragraphs 1.36 and 3.10)

In addition to the NI Next Generation Broadband project, the Northern Ireland Broadband Improvement project (NIBIP) and Superfast Rollout Project, Phase 2 (SRP2), Northern Ireland homes and/or businesses have received support through the:

Scheme	Expenditure to 31 March 2020
Better Broadband Voucher Scheme UK-wide government subsidy scheme provides basic broadband installation to homes and businesses unable to access a broadband service with a download speed of at least 2 Mbps and which will not benefit from the superfast broadband roll out within the next 12 months. Eligible households and businesses have the installation and hardware costs of their connection subsidised to ensure their first year costs amount to no more than £400. Since December 2015, the scheme is reported to have boosted the broadband speeds of more than 20,000 homes and businesses in remote areas of the UK.	£848,315 (2,762 vouchers)
Gigabit Voucher Scheme The £67 million UK Gigabit Voucher Scheme, announced in March 2018, offers vouchers to small businesses and the local communities surrounding them to help with the installation cost of a gigabit-capable connection. Businesses can claim up to £2,500 either individually or as part of a group. Residents, as part of a group project, can claim up to £500. Since May 2019, rural premises with broadband speed of less than 30Mbps (subject to eligibility criteria) can use vouchers worth up to £3,500 for each small to medium sized enterprise or up to £1,500 for residential premises to support the cost of installing new gigabit-capable connections. Group connections projects involving two or more SMEs and/or residents can combine their vouchers towards the shared cost. Single connections are not eligible for funding.	£3,689,098 (1,457 vouchers)

Scheme	Expenditure to 31 March 2020
Rural Gigabit Connectivity (RGC) The £200 million UK RGC Programme launched in May 2019 will run until the end of March 2021. It is funded from the National Productivity Investment Fund. The RCG Programme provides funding to those areas of the UK unlikely to receive commercial access to full fibre by 2033 (primarily rural and remote areas). The RGC Programme tests a Hub model approach[45] by upgrading an eligible rural public sector building with gigabit capable connectivity. Local Authorities and other public sector organisations (including the DfE) can apply to become a strategic partner.	203,500 (89 vouchers)
Local Full Fibre Network (LFFN)[46] The purpose of this scheme is to stimulate commercial investment in "*gigabit capable*" broadband (in both rural and urban areas). In 2018, allocation of the first £95 million (of the UK Government's £190 million LFFN challenge fund) across 13 UK areas was announced. Bids of £11.5 million from Belfast and £2.7 million for Armagh City, Banbridge and Craigavon were among those approved for funding. A £24 million bid from the Northern Ireland Full Fibre Consortium was also successful (this award included £15 million from LFFN and £9 million from the RGC).	Nil
City Deals (Belfast Region City Deal (£350m+ for 22 projects) and Derry City and Strabane District City Deal (£50m with project currently at the development stage).	Nil

45 A 'Hub' is a public sector building, which is deemed to be eligible for intervention and aligns with qualifying criteria set by BDUK.

46 The LFFN programme is part of the Government's £31 billion National Productivity Investment Fund aimed at improving productivity to raise living standards. A main focus of the government's Industrial Strategy is ensuring the right connectivity is in place for the UK's digital economy to thrive. The LFFN programme forms a vital part of this work.

Appendix Two:
NAO and Westminster PAC reviews of the BDUK Programme (paragraph 1.47)

1. NAO review of the Rural Broadband Programme

In 2013, NAO examined the design of the programme and the extent to which the safeguards offered assurance over the value for money secured. NAO findings are summarised in **below**. In overall terms, NAO concluded that:

"….competition was limited and assurances over costs and take-up assumptions were hampered by the complexity of the solution and lack of cost transparency. [BDUK] *does not have strong assurance that costs, take-up assumptions and the level of contingency in supplier bids are reasonable. Ensuring value for money for the ……. public investment now relies heavily on whether* [BDUK] *can effectively implement the in-life contract controls it secured for the Programme.*

[BDUK] *is currently forecasting that it will complete the programme 22 months later than originally planned, reaching 90 per cent of premises 12 months later than originally planned. Experience from similar projects suggests that government is not strong at taking remedial action to guard against further slippage. At the end of the Programme, BT's wholesale infrastructure is likely to have benefited from £1.2 billion of public money. Active involvement from Ofcom and [BDUK] will be required to monitor the impact of the Programme on BT's position in the sector in the longer term."*

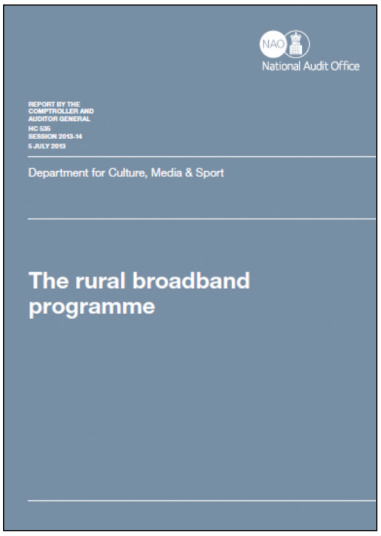
Extracts from NAO Report 2013

1. Promoting competition through a procurement framework

The design of the framework had advantages of ensuring affordability and transferring risk, but together with state aid conditions, ***this led to limited competition.***

….stakeholders told [NAO] that the design of the Programme, including the gap funding model, the local nature of procurement contracts, the qualification requirements for prime contractors and the unattractive commercial conditions created by current regulatory and state aid conditions, ***were all factors leading potential suppliers to withdraw from the bidding process.***

There has been limited competition to BT within the Programme and, currently, no prospect of competition for the remaining framework procurements.



2. Providing assurance that supplier bids are appropriate

[BDUK] ***has secured limited transparency over forecast costs.***

… On [BDUK's] initial evaluation of BT's draft bid, its score for cost transparency indicated it had not yet reached the minimum threshold that would be required at final bid stage. In response, BT's final bid provided limited further information on cost drivers ***but the data still did not clearly identify input variables and corresponding unit costs.***

BT also contractually committed to ensure the costs in its bids would be internally consistent and consistent with its commercial investment case although **[BDUK]** ***is reliant on self-certification from BT as it was not able to negotiate inspection rights.***

A key control during local procurement is the comparison of supplier bids to other costs. Most local bodies did not have competitor bids to compare. [BDUK] *instead provides local bodies with comparisons to other local bids and the financial model from the framework bid. Such comparisons have identified a few errors in BT bids, resulting in financial savings for local bodies,* ***but the analysis is limited, as it does not link bids to unit costs or to wider benchmarks.***

[BDUK] *commissioned analysis to benchmark unit costs through building a 'should cost' model* ***but was hampered by lack of detailed data.***

[BDUK] ***does not have strong assurance that the level of contingency included in BT's bids is reasonable.***

The project funding contributed by suppliers has so far been lower than that modelled in the [BDUK] 2011 business case. *The…business case estimated that to reach 90 per cent superfast coverage, supplier contributions might be 36 per cent of the Programme's total projected funding of £1,547 million. Following the negotiation of contract conditions, the Department now expects suppliers to provide only 23 per cent of overall funding, £207 million less than it modelled in its 2011 business case. Contributions have varied between 38 per cent and 15 per cent of funding for each local area. Local bodies have provided greater contributions than expected, with total coverage slightly increasing to an estimated 92 per cent.*

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3. In-life contract controls over costs and profit levels

….The process that the Department and local bodies will operate appears robust and should allow local bodies to validate that all equipment has been correctly costed and is separate from BT's commercial programme. However, ***BT's labour and project management costs, likely to comprise around 40 per cent of total costs, will be more difficult to fully assure.*** [BDUK] *is working with BT to introduce detailed assurance procedures, and is helping local bodies to focus invoice checking on the key risk areas.*

The Department has not modelled the upside and downside risks that BT faces to determine whether the price paid for the balance of risk is reasonable.

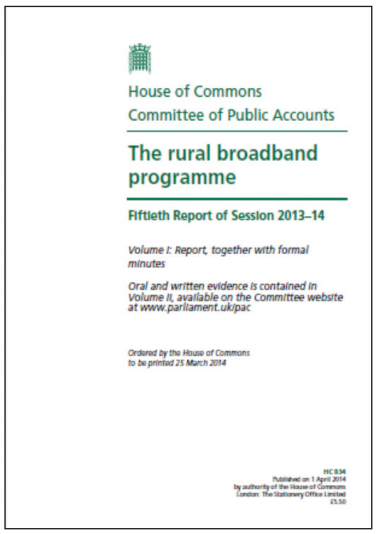
4. Prospects for meeting targets and the future broadband market

[BDUK] *currently estimates that* ***the Programme will reach its target 22 months later than initially planned****.*

The EU's target of universal access to 30 Mbps by 2020 is much faster than the Programme's current aim of universal access to 2 Mbps, and plans for reaching this target are not yet clear. If reaching the EU target requires additional infrastructure or public sector funding, BT is likely to be in a strong position.

2. Westminster Public Accounts Committee consideration of the findings of the 2013 NAO report

Following publication of the NAO report, Westminster Committee of Public Accounts (PAC) held an evidence session and issued a report in September 2013.


House of Commons
Committee of Public Accounts

The rural broadband programme

Fiftieth Report of Session 2013–14

Volume I: Report, together with formal minutes

Oral and written evidence is contained in Volume II, available on the Committee website at www.parliament.uk/pac

Ordered by the House of Commons to be printed 25 March 2014

Westminster PAC issued a critical report, highlighting the following concerns:

On the absence of competition

- The Department's procurement approach for the rural broadband programme failed to deliver meaningful competition for the letting of local contracts. ***The Department should not spend any of the further £250 million of public money until it has developed approaches to secure proper competition and value for money for improving superfast broadband after 2015.***

- The Department's assumptions in its 2011 business case about the respective capital contributions of the public and private sectors were wildly inaccurate. BT is committing £207 million less (£356 million rather than £563 million) in capital funding than the Department anticipated in its business case, while local authorities on the other hand are contributing £236 million more (£730 million, rather than £494 million). Nevertheless, BT will still benefit from owning assets created from £1.2 billion of public funding once the Programme is complete. ***Before contracts are awarded for additional broadband coverage from 2015, using the additional £250 million, the Department should improve its modelling work and, when negotiating levels of private sector investment, the Department should push for contributions that take account of the long-term value of the assets to the supplier.***

- The Department's reliance on self-certification by BT (that its prices are comparable with those in its commercial roll-out of superfast broadband) does not represent an adequate control. The standard contract between BT and local authorities includes a clause that prevents the local authority from disclosing the costs involved to other

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local authorities who are negotiating contracts. This means that other local authorities' negotiating positions are weakened by a lack of comparable cost data against which to assess BT's bid. In addition, ***the Department does not know how much contingency BT includes in its bids, and estimates vary. The Department should insist on a higher standard of cost transparency before contracting. Where contracts are not yet signed for the current Programme, the Department should secure BT's agreement to improve cost transparency, for example by omitting the non-disclosure agreement between local authorities.***

- The Department has not revisited its approach to implementation controls in the light of the limited competitive tension and transparency. The importance of robust checks on actual costs is heightened by the lack of competitive tension in letting contracts and the limited transparency over bid details. Local bodies will have open-book accounting over actual costs once projects go live. But about 40% of the capital costs relate to labour and project management costs, which are hard to fully assure. BT's estimate for the number of premises that will take-up the superfast broadband infrastructure will also require close monitoring. ***The Department should set out how it has assured itself that local authorities will be adequately resourced and supported to carry out adequate checks on BT's costs and take-up rates during the project.***

- Overall, BT is supposed to deliver at least 90 per cent coverage in rural areas but the Department did not secure sufficient transparency from BT about precisely where it intends to roll out superfast broadband within each area. Other suppliers are inhibited from developing complementary services so 100 per cent coverage is secured in rural areas. Details about speed and coverage are treated as commercially confidential in each local project. This has prevented other suppliers from developing proposals for schemes aimed at reaching the remaining 10 per cent of premises that will be without superfast broadband. The Department welcomed BT's statement at our hearing that it has no objection to publishing this data for finalised contracts but PAC was very concerned to hear that local authorities and community based organisations have since continued to encounter resistance from BT to publishing detailed roll-out plans. ***The Department should, as a matter of urgency, publish BT's detailed roll-out plans so that other suppliers can get on with trying to reach the remaining 10% of the population that will still be without superfast broadband.***

- BT's competitors have legitimate concerns about the scope for them to compete effectively under the current regulatory regime. Despite Ofcom introducing requirements for BT to allow wholesale competitors access to BT's physical infrastructure, the conditions attached have deterred any other providers from exploiting this access. There are also concerns that existing regulation has allowed BT to set its wholesale price too high, so alternative suppliers find the margin between wholesale and retail prices is squeezed to the extent that they cannot operate profitably. Ofcom is reviewing the broadband market this year, which presents an ideal opportunity to reconsider whether the regulatory regime is doing enough to promote competition. ***As part of its current review of the broadband market, Ofcom should explicitly address the impacts on competition of BT's wholesale pricing structure and of the terms and conditions attached to accessing BT's infrastructure.***

PAC, disappointed with the extent to which DCMS had engaged constructively with the recommendations in its first report, recalled DCMS for a further evidence session in January 2014. A second PAC report was published in March 2014. In summary, PAC's concerns related to:

- The lack of consistently good information from local bodies about planned rural broadband coverage and speed;
- The need to secure a higher standard of cost transparency before remaining contracts are signed; and
- The failure of the DCMS procurement approach to deliver meaningful competition.

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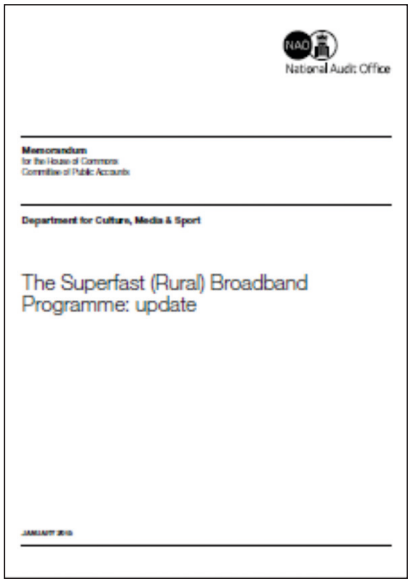
3. NAO 2015 update report

In 2015, NAO reported on the progress made by DCMS in implementing PAC's recommendations. NAO concluded that progress had been made as follows:

- ***On Rollout plans: availability and quality***
  NAO found that many more local bodies… had published detailed information on broadband coverage and expected rollout but noted some variation in map quality. NAO also reported that DCMS had published a national postcode checker for the public.


National Audit Office

Memorandum
for the House of Commons
Committee of Public Accounts

Department for Culture, Media & Sport

The Superfast (Rural) Broadband Programme: update

JANUARY 2015

- ***On Cost data***
  BDUK's analysis of cost data for phase 1 showed that BT's reported capital costs are so far £142 million lower than in its original bids, including £34 million in project management costs…..
  BDUK's experience of actual costs in phase 1 has led to BT agreeing to submit lower costs in its financial model for phase 2, which will reduce the amount of public funding required.

  BDUK commissioned consultants to undertake a small-scale trial cost comparison exercise. In January 2015 this exercise reported that, for specific infrastructure in one location, BT had charged the public sector approximately 20% less than the estimated cost for an alternative supplier.

  BDUK had not omitted confidentiality clauses from phase 2 contracts as the Committee had hoped. BDUK considered it gets sufficient assurance from its actual cost comparisons of local authority data.

- ***On Competition***
  NAO identified that despite the limited competition in phase 1, BDUK did not prepare a separate business case to decide the best delivery model for phase 2. It did engage with the market and explore several options, but it did not fully develop or cost these options.

  NAO concluded that, the effect of the first 2 phases will be to reinforce BT's already strong position in the wholesale market for broadband infrastructure (the Wholesale Local Access Market).

Appendix Three:
Methodology (paragraph 1.74)

Methodology

The investigation methodology comprised:

- **Desk research** – collated and analysed information on and within DfE, including: business case; procurement; contracts; performance management reports; evaluations; and external reviews. We reviewed work undertaken to date by the NAO, Audit Scotland and the Audit Wales. We also reviewed various work undertaken by various Westminster and Northern Ireland Assembly Committees.

- **Interviews/meetings** – conducted semi-structured interviews with Departmental officials, management and staff. We also met with, and had correspondence from, the Irish Central Border Area Network (ICBAN) and Mike Kiely from The Bit Commons.

- **Review of data and statistics** – reviewed and collated statistics on broadband take-up, broadband speeds and coverage (from Ofcom reports) in order to include comparative information across the UK.

- **Other work** – sampled DfE's payment verification process for BT's invoices, examined supporting papers and other relevant documentation from DfE and BDUK.

NIAO Reports 2020 and 2021

Title	Date Published
2020	
Injury on duty schemes for officers in the Police Service of Northern Ireland and the Northern Ireland Prison Service	10 March 2020
Governance issues in Sport Northern Ireland	11 March 2020
Reducing costs in the PSNI	28 April 2020
The National Fraud Initiative: Northern Ireland	11 June 2020
The LandWeb Project: An Update	16 June 2020
Raising Concerns: A Good Practice Guide for the Northern Ireland Public Sector	25 June 2020
Addiction Services in Northern Ireland	30 June 2020
Workforce planning for nurses and midwives	31 July 2020
Impact Review of Special Educational Needs	29 September 2020
Generating electricity from renewable energy	13 October 2020
Capacity and Capability in the Northern Ireland Civil Service	17 November 2020
Managing Attendance in Central and Local Government	23 November 2020
Managing Children who Offend: Follow-up Review	01 December 2020
2021	
Management and Delivery of the Personal Independence Payment Contract in Northern Ireland	23 March 2021
Closing the Gap – Social Deprivation and Links to Educational Attainment	5 May 2021
Second Report – Overview of the Northern Ireland Executive's Response to the COVID-19 Pandemic	8 June 2021

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