1. INTRODUCTION

On 3 December 2018, the Department for the Economy (DfE) opened a consultation to assess the availability of broadband services across Northern Ireland.

This consultation was intended to help in the development of Project Stratum which, through utilising funding made available as a result of the Confidence and Supply Agreement, aims to improve broadband connectivity by extending Next Generation Access (NGA) broadband infrastructure across Northern Ireland.

By the end of June 2018, following the completion of current broadband projects, approximately 88% of premises in Northern Ireland had access to superfast services. This falls short of the 95% target set by the UK Government, which was largely achieved by December 2017. Since the publication of the consultation, Ofcom has provided further updates on the availability of broadband services, which now indicates that approximately 90% of premises in Northern Ireland have access to a superfast service.

Against this background, the consultation set out the proposed intervention area for Project Stratum, so that all interested stakeholders could comment on the proposals. This provided an opportunity for broadband infrastructure operators to review DfE's mapping, to ensure that it correctly represented the information provided by them at the first stage of the Open Market Review (OMR) process. Importantly, it also allowed citizens to identify whether or not their postcode was correctly categorised in terms of access to broadband infrastructure.

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1 Ofcom Connected Nations update Spring 2018
2 Ofcom Connected Nations update Summer 2019
The consultation closed on 14 January 2019. DfE received 1,149 responses from infrastructure providers, local councils, elected representatives and members of the public.

DfE is grateful for these responses and this document sets out our response to issues raised through this process.

DfE is also grateful for the support of local councils across Northern Ireland in promoting this consultation through their offices and networks.
2. WHAT WE DID

2.1 OPEN MARKET REVIEW - PUBLIC AWARENESS RAISING

The public consultation stage of the OMR followed an industry consultation stage, which ran from 19 June 2018 to 27 July 2018. This was undertaken to establish existing and planned (within the next 3 years) coverage of broadband infrastructure across Northern Ireland.

The public consultation set out the proposed intervention area to enable all interested stakeholders (including the public, businesses, internet service providers and broadband infrastructure operators) to comment on the proposals.

In an attempt to be as inclusive as possible, and acknowledging that those who did not have access to broadband services were a large part of the target audience, DfE undertook the following steps:

- The consultation was available on DfE’s website and in hard copy from some 30 local council offices across Northern Ireland. It was also promoted on NI Direct, where it was viewed nearly 37,000 times by the date the consultation closed. An online postcode checker was available to allow respondents to check information at a postcode level. When the consultation closed, the website had been visited over 5,000 times. The consultation document was downloaded more than 1,300 times, with over 2,000 downloads of the White and Under Review lists and 1,200-1,400 downloads of other documents.

- A news release was also published by DfE which was viewed in excess of 4,000 times, and the consultation was ‘tweeted’ to more than 35,000 timelines via Twitter. Some 650 engagements took place following the ‘tweet’.

- DfE placed advertisements in 22 newspapers published in Northern Ireland during the period. There were also 15 newspaper articles published on the consultation by various local papers.

- On 3 January 2019, the BBC broadcast 4 articles on the consultation during breakfast, lunchtime and teatime television news programmes.

- DfE also set up a telephone helpline for the consultation, to allow respondents to leave information if they thought a premises should be included. This received 113 messages by the date the consultation closed.

- In addition, a postal address was published.
Details of the number of replies received by the date the consultation closed are set out in Table 1.

<table>
<thead>
<tr>
<th>Response received by</th>
<th>Total Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>1,026</td>
</tr>
<tr>
<td>Telephone</td>
<td>122</td>
</tr>
<tr>
<td>Letter</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,149</strong></td>
</tr>
</tbody>
</table>

*Table 1 - Number of Responses Received*

The responses to the public consultation have been carefully considered by DfE’s Project Stratum team and changes have been made to the final intervention area. This document summarises those changes, why they have been made, and publishes the updated intervention area. This document also reports on the outcomes of the consultation and provides an explanation of how the information submitted has been treated. The finalised intervention area has been quality assured by Building Digital UK’s (BDUK’s) National Competence Centre (NCC) for approval against the State aid framework.
3. WHY WE DID IT

3.1 STATE AID FRAMEWORK RULES

This section provides a reminder of the State aid Framework used to initially map the intervention area, which was the subject of the public consultation.

The European Commission published ‘EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks’ (2013/C 25/01). These guidelines summarise the principles of the Commission’s policy in applying the State aid rules of the Treaty to measures that support the deployment of broadband networks, and seek to ensure that State aid schemes for broadband are well-designed, so that they target market failures and minimise negative effects on competition.

The guidelines require public interventions to be targeted so as to limit the risk of crowding out private investments, of altering commercial investment incentives and, ultimately, of distorting competition.

Planned public interventions can seek State aid approval directly from the Commission or (as is the case with this proposal) seek clearance under a national scheme which has been pre-approved by the Commission.

Projects under the National Broadband Scheme (NBS) 2016 will need to demonstrate their State aid compliance (in accordance with the terms of the scheme) in order to receive clearance from BDUK’s NCC.

The Commission’s guidelines distinguish between two types of broadband networks, namely basic broadband and NGA networks.

Basic broadband networks are generally those based on currently widely-deployed technologies, such as fixed wired telephony networks (using ADSL/ADSL2+ technologies), non-enhanced cable TV networks (e.g. DOCSIS 2.0), mobile networks (2G/3G (UMTS)), some fixed wireless access (FWA) networks, and satellite networks.

NGA networks rely wholly or partly on optical elements and are capable of delivering an enhanced broadband capability compared to existing basic broadband networks. Current qualifying NGA technologies are fibre-based

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4 A UK-wide State aid scheme, also known as ‘the 2016 State Aid Decision’, managed by Building Digital UK (BDUK), permitting public investment in new NGA networks (or infrastructure) where they do not at present exist and where they are not likely to be built in the next three years.
networks (FTTx), advanced upgraded cable networks (DOCSIS 3.0) and certain advanced wireless access networks capable of delivering reliable high speeds.

Guidance on the characteristics of qualifying NGA technologies is available from BDUK.\(^5\)

The Commission’s guidelines also require that public intervention should be able to ensure a ‘step change’ in broadband availability. This is demonstrated by:

- Significant new investments in the broadband network; and
- The new infrastructure bringing significant new capabilities to the market in terms of broadband service availability and capacity, speeds and competition\(^6\).

The ‘step change’ in broadband availability shall be compared to that of existing as well as concretely planned networks.

The Commission’s guidelines also distinguish between geographic areas on the basis of their existing or planned broadband infrastructure:

- White areas are those in which there is no qualifying broadband infrastructure and none is likely to be developed within 3 years;
- Grey areas are those where only one network is present or is to be deployed within the coming 3 years; and
- Black areas are those where at least two networks of different operators exist or will be deployed in the coming 3 years.

This geographic mapping of White/Grey/Black areas is carried out separately in relation to basic broadband and NGA networks. NGA networks are mapped on the basis that, amongst other things, they have substantially higher upload speeds (compared to basic broadband networks)\(^7\) and are able to deliver broadband services at an access (download) speed of more than 30 Mbps.

Public intervention can only take place in White NGA areas under the NBS 2016.

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\(^6\) See Footnote 66 of the Commission’s Guidelines - this sets out that the subsidised network should be pro-competitive (i.e. allow for effective access at different levels of the infrastructure).

\(^7\) Substantially higher upload speeds means at least a doubling of the maximum upload speed available on current generation access network(s) for given ‘up to’ packages available on basic broadband networks in the relevant intervention area.
3.2 BASIC BROADBAND - PROPOSED INTERVENTION

For basic broadband, the consultation proposed that all postcodes in Northern Ireland were classed as basic broadband Grey, due to the availability of the Northern Ireland Better Broadband Scheme. As a result of this analysis, there were no basic broadband White postcodes in Northern Ireland.

3.3 NGA BROADBAND - PROPOSED INTERVENTION

Similarly, following soundings with industry infrastructure providers, the consultation proposed the classification of postcodes in a number of categories as Black, White or Grey.

In addition, the proposed intervention area in the consultation included a number of Under Review premises. These are where it has been determined that there is current or planned commercial coverage for NGA broadband (i.e. mapped as Grey), but there remains some uncertainty on delivery plans or the viability of NGA compliant services currently delivered or proposed.

These areas will be subject to continued monitoring and verification of supplier plans within the 3 year period by DfE. In the event that these commercial plans fall away, these premises will be mapped as White NGA and will form part of the proposed intervention area and eligible for intervention via this aid measure.  

The consultation summarised the outcome of that analysis in Table 2.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Postcodes</th>
<th>Number of Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>15,226</td>
<td>100,448</td>
</tr>
<tr>
<td>Grey</td>
<td>27,489</td>
<td>414,762</td>
</tr>
<tr>
<td>Black</td>
<td>13,523</td>
<td>330,015</td>
</tr>
<tr>
<td>Under Review</td>
<td>870</td>
<td>6,916</td>
</tr>
</tbody>
</table>

Table 2 - Summary of Premises Information at Dec 2018

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8 See paragraph 65 of the Commission's guidelines and paragraph 57 of NBS 2016.
4. WHAT FEEDBACK WE RECEIVED AND HOW IT WAS ADDRESSED

As required by the State aid rules, the consultation considered the provision of broadband services across Northern Ireland. Data from broadband infrastructure operators had been mapped into White, Grey or Black areas at a postcode level for the provision of broadband services. The aim of the consultation was to allow interested parties to comment on the analysis and highlight any errors or omissions to the data.

Responses were received from members of the public, local councils and infrastructure providers. Responses were recorded and then, based on the information provided, analysed to ascertain if postcodes needed to be reclassified. Respondents were asked to provide the following information:

- Name
- The address of the property and postcode area that the submission relates
- Contact landline telephone number (if available)
- Email address (if available).

To allow for further analysis, information had to be provided to premises level. This should have included at least a postal address, including the house number and postcode. The consultation also asked if a landline telephone number could be provided. Although not essential, the provision of this information allowed the Project Stratum team to undertake further checks.

Where information was provided in the required format at premises level, this was compared to the original intervention data. This was then compared with various online broadband checkers from major service providers to verify the likely speeds that could be delivered to the premises.

The correspondence received, and online checker information, determined whether or not it was necessary to re-classify the premises. This was then quality assured to minimise the risk of error.

The outcomes of this could have been either of the following actions:

- No change to the category, as it was already in the correct classification;
- A change in category, as sufficient further information was provided to suggest the premises had been placed in an incorrect category.

4.1 THE POINTER DATASET

Premises information provided by respondents was cross-referenced against the Pointer dataset.
Pointer is an address database for Northern Ireland and the standard address for every property. Land & Property Services (LPS) maintains the database, with help from local councils and Royal Mail.

Pointer is a dataset for addressable buildings in Northern Ireland. The dataset contains a number of fields. One of particular interest to this consultation is the current physical status of the building. This field should always be complete. Permitted values are:

- **None** which indicates that there is nothing visible on the ground;
- **Under Construction** which indicates that building has commenced;
- **Built** which indicates that the building has been completed;
- **Derelict** which indicates that the building remains standing but is unoccupiable; or
- **Demolished** which indicates that a building has been removed and there is nothing visible on the ground.

For this consultation, if premises had been designated ‘Built’, and the address status had been approved, then it was decided that the building could be considered for inclusion in the intervention area.

### 4.2 BASIC BROADBAND - PROPOSED INTERVENTION UPDATE

The consultation had proposed that all postcodes in Northern Ireland were classed as basic broadband Grey, due to the availability of the Northern Ireland Better Broadband Scheme, and hence there were no basic broadband White postcodes in Northern Ireland.

During the consultation period, the Department for Digital, Culture, Media and Sport (DCMS) announced that the Better Broadband Scheme would be extended until the end of December 2019. The scheme was re-launched by DCMS in January 2019. There will continue to be a means by which basic broadband services can be delivered across Northern Ireland, as a broadband Universal Service Obligation (of at least 10 Mbps) is expected to be introduced across the UK by 2020.

There were no comments received on this aspect of the consultation and it was decided that all postcodes in Northern Ireland remain classified as basic broadband Grey.
4.3 NGA BROADBAND - PROPOSED INTERVENTION UPDATE

All of the responses to the consultation focused on provision of services at or above 30 Mbps. This section reviews the responses and how they were analysed. It is split into two sections, based on responses from infrastructure providers and responses from members of the public, elected representatives and local councils.

4.3.1 RESPONSES FROM INFRASTRUCTURE PROVIDERS

Although infrastructure providers had provided information in 2018, some took the opportunity to provide further updates or additional information more recently.

Reasons given by the infrastructure providers for the need to update previous information included recent announcements on planned improvements and refinement of company data sets. This related to upgrades of systems used to estimate speeds consumers might receive, and correction of company records on premises data.

The information submitted by infrastructure providers was carefully considered. Where appropriate, further discussion and clarification was sought from some providers. In line with the guidance provided by BDUK, premises were classified as NGA White, Grey or Black – or classified as Under Review.

The majority of premises Under Review have been identified as those where it has been determined that there is current or planned commercial coverage for NGA broadband (i.e. mapped as Grey), but there remains some uncertainty on delivery plans or the viability of NGA compliant services currently delivered or proposed. Such premises are considered to be a sub-set of NGA Grey and, based on guidance received from BDUK and procedures set out in NBS 2016, DfE will agree with the relevant suppliers a process under which existing or proposed NGA compliant broadband services will be periodically measured, monitored and assessed to determine whether a reclassification of certain premises from Under Review to NGA White is required in tandem with the current or planned intervention.
4.3.2 RESPONSES FROM MEMBERS OF THE PUBLIC, PUBLIC REPRESENTATIVES AND OTHER ORGANISATIONS

There were responses from members of the public, public representatives and other organisations.

All information provided was recorded and there were 1,149 responses to the consultation from this group. Unfortunately, 215 responses did not provide sufficient information, as outlined above, to allow any further consideration to be given. The remaining 934 responses provided sufficient information to allow further consideration to be given as to whether or not there should be a change in the classification originally given to the premises.

Based on this analysis, 287 premises, across 204 unique postcodes, may need to be added to the White list. Based on address and postcode information provided, we were able to match 210 of these addresses to unique Pointer premises leading to 197 premises being added to the White list (13 premises having already been classified as White).

Some respondents sought further information on the project and made other general enquiries about broadband provision.

One common theme that emerged was that many respondents did not seem to be aware that higher speed broadband services were already available in their area. Whilst DfE did not gather specific information on this as part of the exercise, it may be the case that some consumers believe services are automatically uplifted to the highest speed available. However, in many instances, consumers need to place a new order to avail of higher speed services.

Other factors that may prevent consumers from availing of higher speeds may be the higher prices for related ‘fibre’ services or customers being locked into long contracts with their existing service providers. It may also be the case that interest in the new higher speed connectivity is limited, as a basic lower speed service meets the needs of consumers already.

Some observers, including Ofcom, have suggested that the fear of switching to a different service provider may deter consumers from accessing higher speeds. Ofcom has published guidance for consumers on how to switch. In other cases, new services may run out of capacity (i.e. demand is higher than expected), which means that people who want to upgrade are prevented from doing so, until the infrastructure provider resolves the problem. Communications Providers do have processes in place to improve capacity and the scale of this issue is small.
4.3.3 BELFAST METROPOLITAN URBAN AREA AND DERRY URBAN AREA

It was noted that 949 premises identified as NGA White were located in the Belfast Metropolitan Urban Area and the Derry Urban Area, as classified by Statistical Classification of Settlement by NISRA. With regard to this Urban Infill, the NBS 2016 State aid scheme was specifically designed to target typically harder to reach and lower density NGA White premises and excludes high density urban areas. Therefore, in line with the Scheme, premises located in these areas have been categorised as Under Review, as it is expected that these premises will be included in the business-as-usual improvements by telecoms providers operating in these Urban Areas, where broadband infrastructure is well established. This is in line with State aid guidance and guidance from the NCC.

4.3.4 OTHER BROADBAND SCHEMES

DfE is aware that there are a number of other broadband schemes in operation across Northern Ireland. These include the Better Broadband Scheme, the Gigabit Voucher Scheme, the Superfast Rollout Programme and the Northern Ireland Broadband Improvement Programme. Of the identified beneficiaries of these schemes, 1614 were reclassified from White to Grey.

5. OUTCOMES OF CONSULTATION

Following this consultation, the NGA White, Grey and Black areas have been updated. In addition, there is a group of premises where there is some degree of uncertainty as to whether NGA broadband services will be delivered. This group of premises will be reviewed regularly to ascertain if broadband services are available, and if further action is needed to deliver services to these premises.

The data supplied was used to update the original lists and is summarised in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>Number of Postcodes</th>
<th>Number of Premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>15,104</td>
<td>97,140</td>
</tr>
<tr>
<td>Grey</td>
<td>28,074</td>
<td>411,223</td>
</tr>
<tr>
<td>Black</td>
<td>13,769</td>
<td>334,317</td>
</tr>
<tr>
<td>Under Review</td>
<td>1,590</td>
<td>8,669</td>
</tr>
</tbody>
</table>

Table 3 - Updated Premises Information from Infrastructure Providers

Further details on the lists of postcodes can be found in Annexes 1-3 as follows:

- Postcodes for premises in NGA White areas, in which there is no qualifying broadband infrastructure and none is likely to be developed within the relevant 3 year period, can be found in Annex 1;
• Postcodes for premises in Grey areas, in which there is only one network present or to be deployed within the relevant 3 year period, can be found in Annex 2; and

• Postcodes for premises in Black areas, in which at least two networks from different operators exist or will be deployed in the relevant 3 year period, can be found in Annex 3;

A map showing the locations of premises in NGA White, NGA Grey, and NGA Black areas can be found in Annex 4.

6. WHAT HAPPENS NEXT

The results from this consultation feed into the procurement process and set the intervention area for the project. The intention is to award a contract in mid-2020.

Information about the Project Stratum can be found at www.economy-ni.gov.uk

If you have any questions about any of the above, please contact the Department for the Economy at:

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Netherleigh
Massey Avenue
Belfast
BT4 2JP

or

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