

Broadband Stakeholder Group Response
Extending Local Full Fibre Networks



January 2017

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Call for Evidence - Response Extending Local Full Fibre Networks

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The Broadband Stakeholder Group (BSG) is the UK Government's leading advisory group on broadband. It provides a neutral forum for organisations across the converging broadband value-chain to discuss and resolve key policy, regulatory and commercial issues, with the ultimate aim of helping to create a strong and competitive UK knowledge economy.

The Broadband Stakeholder Group believes that good quality broadband underpins and improves our society and economy. We also believe that the UK's ambition to remain a world leading digital economy can only be sustained by the continued investment in high quality and resilient telecommunication networks.

We believe that Government has an important role in setting the overriding policy goal, based upon a strong foundation of evidence to help deliver this investment. Once Government has set the ambition, it then needs to ensure that the right conditions are in place for the market to be able to realise it. This approach will often need to span the whole of the public sector – from business rates and central government policy to ensuring a consistent approach between local councils' digital and planning teams – so that commercial investment can go as far as possible.

Industry should then be allowed to meet these goals with Ofcom, ensuring that economic bottlenecks, if they do exist, are regulated to allow access. In some areas though, the commercial case for investment will always be weaker. Here the Government should seek to facilitate industry cooperation and attempt to create the right incentive scheme to encourage private sector investment. Only when all other approaches have been exhausted, should the Government consider direct intervention – i.e. subsidy. Any such intervention should be evidence-based with a clearly defined objective and must be done in a way that does not weaken retail competition. Ofcom should and does play an important role in helping ensure that this is the case.

Under these conditions, the BSG has supported public funding initiatives that complement commercial investment to ensure a good quality universal broadband coverage in the UK. Existing initiatives have allowed for the provision of superfast broadband connections to reach an extra 4.5million premises under the BDUK programme in addition to the already high levels of commercial coverage, and Government recently announced that £440m will be reinvested in the scheme to reach an extra 600,000 premises.

Across the converging telecoms sector, we are clearly close to another tipping point as investment cycles turn towards ultrafast connections and the move towards 5G. The Government cannot assume that the private sector will continue to invest heavily in the UK, particularly given the current uncertainty in the economy as a result of Brexit. Indeed, to match international competitors, we will need to leverage investment from all players in order to deliver the connectivity required to be a leading digital nation. This will require fresh thinking and different approaches from both regulators and central/local government.

We therefore welcome the Autumn Statement announcements towards supporting the deployment of full fibre networks and 5G and the opportunity to provide input on options for the allocation of the funding. There is clearly the need for these separate initiatives to be wrapped within a new narrative that outlines the overarching policy objectives. We hope that Government will therefore bring this forward, for consultation with industry, in its forthcoming Digital Strategy.

BSG members believe that Government should be clear in its targets and definitions as it moves towards defining its objectives. Clarifying what ‘full fibre’ means in practice is desirable, particularly given the need for greater fibre deployment in order to underpin 5G network – so does the Government’s priorities include Fibre-to-the-Node or Fibre-to-5G?

In bringing about the Government’s objective of delivering full fibre, some BSG members believe that support should apply solely to predominantly fibre based networks (including to the Node/Tower). Additionally, some members believe that procurement processes should incentivise the build of new networks, particularly those by alternative players.

What is clear however is that if Government is overly prescriptive in what technologies can or should be used, then the innovation that has been a feature of broadband evolution to date will be compromised, and the widespread deployment of high speed services will take considerably longer.

Q1: What local approaches have been taken to date or are planned - either in the UK or internationally - to stimulate the market delivery of full fibre networks, in both urban and rural areas, and what results have they achieved? Where appropriate please provide evidence and any other additional information.

Examples of strategic partnerships between local authorities and operators in the UK already exist. As referred to in the consultation document, CityFibre created a local fibre network in 2013 in Peterborough City Council connecting over 300 of public sector sites and providing coverage of gigabit speed services to around 4000 businesses and 6 major business parks.

Another example of strategic partnerships between industry and local authorities can be found in Aberdeen¹. Here, the Council designed a concession scheme, won by Wireless Infrastructure Group (WIG), which would be open to all other operators to target long term investment in infrastructure that will enable the area to benefit from current and future generations of mobile technology. Following the competitive tender process, the Council formed a steering group bringing together parts of the Council and other stakeholders to ensure that all worked in a collaborative and effective manner. We will address the valuable role that a proactive local authority can play later.

And another example of local approach is of course, the main BDUK process itself. It has delivered 4.5million fibre lines, including FTTP solutions in remote rural areas including Cornwall, Wales, Scotland etc.

Q2: What evidence is there to demonstrate the effectiveness and potential of approaches A to F above, specifically in the context of stimulating the rollout of local full fibre networks in urban and rural areas?

A. Public sector demand aggregation

The extension of full fibre networks across the UK could be supported by public sector demand aggregation through anchor tenancy agreements. Some of the BSG sponsors believe that the public sector is a highly effective anchor tenant around which to build core spine networks in the UK's towns and cities (before deployment of fibre networks beyond the spine to address key areas of demand

¹ National Infrastructure Commission, Connected Future, December 2016 - <https://www.gov.uk/government/publications/connected-future>

including business, residential and mobile bringing fibre to the home, to the tower and to 5G sites). This is because public sector sites tend to be evenly and widely spread across urban areas.

Others within the BSG noted however that given the existence of commercial fibre core and spine networks already in many areas, the potential for government intervention to distort existing commercial investment and competition is real and will need to be addressed.

Some within the BSG suggested that, to enable more of these public sector core networks to be built, and to meet the latent demand for full fibre infrastructure within the public sector, Government could target its support towards addressing existing challenges such as local authority (LA) budgetary constraints; the lack of capacity within LAs to run procurement processes; and procurement frameworks which lead LAs to procure “services” to meet short-term needs rather than “infrastructure” for long-term needs. Government regulatory support could also help create a strong FTTP presence in the market via regulation which ensures effective Physical Infrastructure Access (PIA), and competition-driven investment from a range of providers.

B. Vouchers Scheme for private sector demand aggregation

Vouchers scheme

Around 55,000 SMEs in 50 cities have benefited from the BDUK voucher scheme since it was implemented. On some measures, the scheme has been a success with 770 suppliers taking part and according to a Government analysis², businesses have seen improvements in productivity and increased profits by £1,300 per year per SME, equating to “a return on investment of over £5 for every £1 that the Government invested through the scheme”. A recent survey undertaken for the Greater London Authority³ showed that in London alone, the scheme generated a return on investment of £24 for each £1 invested with SMEs. The scheme has clearly been a success in delivering economic benefits.

Superfast connectivity is crucial to small and medium size businesses but their connectivity needs are as varied as their composition. We estimated that the 1 person food manufacturer, 20 employee

²SME survey results - <http://www.connectionvouchers.co.uk/>

³ Point Topic/Adroit Economics Ltd/The Fifth Sector/Manchester University – SME broadband economic impact survey <http://point-topic.com/faster-broadband-brings-3-billion-boost-london-smes/>

construction company and the 49 person software businesses will need a downstream connection of 6, 84 and 193Mbit/s respectively in 2025⁴. Technologies other than 'full fibre' will continue to serve some small businesses for many years to come.

What is less clear is the impact that the Voucher Scheme had on stimulating the build of new, and in the context of this consultation, 'full fibre' networks. Here, the evidence seems to be that the Voucher scheme resulted in the better utilisation of existing networks rather than of new build; generally companies upgraded their existing connections but did not stimulate the build of new networks to serve them.

It should also be noted that the Voucher Scheme was only a success towards the end of the programme. Initial take-up was slow, in part as a result of poor advertising of the scheme and complicated application process that did not easily facilitate sharing, and in the need to adapt existing commercial products and systems to be able to cope with the voucher process. Government should be commended on its flexibility for working with industry to make the changes necessary to make it a success. The lesson should be that voucher scheme can deliver benefits but can also be a complicated scheme that will require time to bed in, and they should always seek to work with existing products and systems in the market rather than require new or changed ones.

The further disadvantage of a voucher based scheme, and anecdotally one of the reason that the SME scheme did not result in new build is recipients were keen to see their grant put to immediate use. This does not always take into account the build time required to deploy networks nor does it lead to efficient build of networks, tending to favour bespoke one of solutions rather than aggregated or network solutions that can be utilised by multiple customers in the area. Whilst these issues can be mitigated in the design of the scheme to some degree it does add complexity that a supply-side intervention circumvents.

It is therefore important that any connection voucher has a clear goal. If the primary goal is to provide a boost to businesses connectivity, driving economic growth and productivity in the process, then the voucher scheme should be technology neutral – allowing the market to provide the most appropriate solution. If the goal is to incentivise new network build, then it is likely that the uplift in connectivity is sufficient to make 'full fibre' the best solution, however this could potentially lead to indirect government

⁴ BSG report - The broadband requirements of small businesses in the UK, Communications Chambers, Robert Kenny - <http://www.broadbanduk.org/wp-content/uploads/2013/01/Small-Business-Connectivity-Requirements.pdf>

funding of networks in direct competition with existing commercial services, with consequent competition and state aid issues and risks. These will need to be very clearly addressed before such a scheme could operate effectively.

Given the cost of deploying new networks, one suggestion may be to ensure that, similar to the cost threshold in the current Universal Service Obligation for telephony, that the voucher does not have to provide the full cost of the connection but can contribute towards it.

Another would be to offer a fibre connection voucher only after the full fibre spine network has already been built. It is also crucial that any potential voucher scheme does not discourage innovation and the building of new alternatives fibre networks.

C. Making public sector assets available

As noted above, there are a number of public sector models available to enable greater access to public sector assets. However, these remain disjointed and Government should be clear that the overarching goal must be to increase the level of investment and then capability of digital connectivity in the UK. This is not always the motive of some local authorities who are understandably keen to maximise a potential revenue stream rather than focus on increasing connectivity.

The BSG plans to conduct more work on how the public sector can make assets available in order to make it easier to deliver connectivity.

D. Access to location data and infrastructure assets

We agree that location information that is already available on existing infrastructure assets could be made accessible via a single source, as long as standardisation of information is not necessary, otherwise this could create a burden to operators. The Access to Infrastructure Regulations 2016, transposing the EU Cost Reduction Directive already provide rights to infrastructure providers to request information on location of existing infrastructure.

Mobile operators provide their roll-out plans, including existing sites to local planning authorities on an annual basis, and Openreach data on ducts and poles is also available. In some instances, (e.g. Ofcom's requests under s135 of the Communications Act) information is not publically available due to commercial sensitivities.

It is also important that location data isn't seen as a panacea. Even if the location of, for instance, a potential backhaul asset is known, the hard commercial reality of ensuring that an agreement can be struck still remains, for example with electricity companies for use of their pole infrastructure for fibre. This leads to a different issue around ensuring that the business case makes sense for both the operator seeking access to the asset and the asset owner.

Q3: What is the most effective and efficient delivery model Government can use to stimulate future delivery of full fibre networks across the UK in both urban and rural areas, building on and integrating approaches that have been taken to date?

The BSG has commissioned a study identifying and exploring existing barriers to both small and large scale deployment of broadband infrastructure. These include issues covering the implementation by local authorities of existing regulations and guidelines for planning application processes and interactions between infrastructure providers and local bodies. Initial findings indicate a diverse range of approaches and management of the relationship between providers and local authorities across the UK. The report aims at identifying good practices that local authorities can replicate to facilitate the deployment of infrastructure, as well as possible areas of regulatory reform.

Q4: What other changes, locally and/or nationally, are needed to reduce the cost of full fibre rollout, such as opening access to publicly and privately owned facilities, or changes to wayleaves, streetworks and other areas? What evidence is there to demonstrate the effectiveness of such changes?

Please see above.

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