

Make UK Response to Statement of Strategic Priorities for telecommunications Consultation

Department for Digital, Culture, Media and Sport Call for Evidence: Public consultation on the Statement of Strategic Priorities.

Statement of Strategic Priorities Consultation
Digital Infrastructure Directorate
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Thank you for giving Make UK the opportunity to participate in this call for evidence, published by the Department for Digital, Culture, Media and Sport on the 15th February 2019. The need for a reliable, consistent and high speed capable digital infrastructure is of key importance to our members. This paper presents Make UK's comments on some of the key issues raised by this call for evidence and presents the views of Make UK's members on achieving 21st century ready digital infrastructure.

About Make UK

Make UK, the manufacturers' organisation (formerly known as EEF), is the representative voice of UK manufacturing, with offices in London, Brussels, every English region and Wales. Collectively we represent 20,000 companies of all sizes, from start-ups to multinationals, across engineering, manufacturing, technology and the wider industrial sector. We directly represent over 5,000 businesses who are members of Make UK.

Everything we do – from providing essential business support and training to championing manufacturing in the UK and the EU – is designed to help British manufacturers compete, innovate and grow.

Executive Summary

1. Make UK welcomes the Statement of Strategic Priorities, as it makes headway in bringing the proposals of the Future Telecoms Infrastructure Review (FTIR) closer to reality, and sets out a plan for the successful rollout of full fibre broadband and 5G that UK businesses require.
2. Make UK supports proposals for an effective plan for the switchover from the current part copper, part fibre based broadband infrastructure (Fibre to the Cabinet/FTTC) into a full fibre based broadband infrastructure (Fibre to the Premises/FTTP). A full fibre system represents the best option for reliable and fast internet access across the country, and the development of the 5th generation of mobile networks (5G) will help to supplement this, and contribute to the creation of a strong digital infrastructure for manufacturers.
3. However, some of the proposals set out in the Statement require amendments in order to serve business's needs. These include bringing forward the timescales for the necessary networks to be up and running, publishing the metrics by which success will be measured, and the increasing the role that businesses will play in ensuring that the provision is fit for purpose.
4. Ofcom, in conjunction with the Department for Culture, Media and Sport (DCMS), should work together to with network providers to accelerate the successful deployment of FTTP and 5G networks, and bring forward the target for completion dates. This is vital due to the UK's already lagging performance on FTTP adoption, which is at significantly lower levels than countries with comparative economies. Moving up the target completion date could help to mitigate this gap in FTTP implementation. Similarly, the UK's target for 5G deployment is years behind the targets of other comparative countries. Rather than

remaining behind our rivals, bringing the target date forward could place the UK at the forefront of 5G implementation.

5. Ofcom should also set out a detailed plan of the metrics it intends to use to measure success of the rollout of FTTP and 5G. This would help the Department for Digital, Culture, Media and Sport (DCMS) to ensure that the necessary goalposts are being met. This would also enable the National Infrastructure Commission and relevant stakeholders to assess the programme's rollout, and if necessary hold the government accountable to delays.

Why a solid and reliable digital Infrastructure is important for manufacturers

6. In this submission we set out our response to the Government's call for evidence on the *Statement of Strategic Priorities for telecommunications, the management of radio spectrum and postal services*, focusing on Section 1: World-class digital infrastructure. Our evidence in this response is based on our member surveys and discussions with members.
7. Making full fibre a reality is of high importance across the manufacturing industry, and manufacturers place it second on their list of infrastructure priorities, only behind motorway infrastructure¹. Businesses view reliable internet as a basic necessity, in much the same way they would look at any other utility. 91% of Make UK members agree that a high-speed internet connection is as important to business as electricity and water. 29% of members also list a strong and effective mobile network as being a top priority for them in terms of future infrastructure investment².
8. The 4th Industrial Revolution (4IR) is the coming together of cyber networks with physical networks to create new autonomous systems where technologies will interact with each other to make autonomous decisions. This is allowing manufacturers to increase productivity through the incorporation of digital technologies and techniques into the manufacturing process. The rapid adoption of technologies and techniques from 4IR - including 3D printing, virtual and augmented reality tools, and the Internet of Things - means that more and more data will be generated within businesses, and the demand for a sufficient internet structure to communicate this data has increased.
9. The unreliability of the copper based network that currently facilitates internet access throughout the UK means that many manufacturers are often unable to conduct basic business functions using the internet, let alone to provide the internet capacity needed in

¹ Make UK/EEF July Omnibus and Innovation Survey 2017

² Make UK/EEF July Omnibus and Innovation Survey 2017

the 4th Industrial Revolution. This is due to the physical structure of the existing copper network being nearly 100 years old and originally designed to carry telephone calls, not the data heavy internet system that we use it for today. These copper cables can also be affected by factors such as weather and distance between the local exchange (cabinet) and the premises. As such, the quality of the data transmitted can drop fairly easily. By contrast, fibre optic cables can transmit a much higher capacity of data using light and are significantly better at transmit data over further distances without signal loss³.

10. Make UK data shows that more than one third of manufacturers spend over £5000 per year on internet connections, and one third have invested in a dedicated leased line as a means of providing an alternative to the current and unreliable copper cable network⁴.
11. FTTP presents the best solution for providing the reliable and fast internet capacity that the 4th Industrial Revolution requires, as it provides a significantly higher bandwidth than that of copper cables in the existing network. FTTP would also be cheaper for network operators to maintain and operate than FTTC⁵, as well as allowing manufacturers to perform basic business functions without the need to pay for expensive leased lines.

Ensuring that the whole of the UK is adequately covered for full fibre and 5G

12. The 'outside-in' approach proposed in the FTIR in which rural areas are prioritised first is a welcome one. Manufacturers who are geographically far from fibre connections, particularly in rural towns and industrial sites, can be left in internet 'not-spots'. For example, Allerdale in Cumbria was found by consumer group *Which* to be amongst the towns with the worst broadband speeds in the country.⁶ Similarly, Ofcom data shows that 11% of rural premises in England cannot access a decent broadband speed.⁷
13. In these areas current internet capacity is insufficient, and the distance from fibre connections means that a leased line option is often too expensive. Indeed, government literature published for the 2017 Rural Broadband Infrastructure scheme confirmed that previous deployment had not been scheduled to reach these areas in previous programmes⁸. As such, the proposal to prioritise deployment of fibre broadband in 'hard to reach' areas can therefore provide reliable internet capacity to those who have previously been left with insufficient connectivity options.

³ House of Commons Library Briefing Paper, *Full-fibre networks in the UK*, March 2019
<https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8392#fullreport>

⁴ Make UK/EEF, Digital Connectivity Survey, 2015

⁵ See 3, above

⁶ Which, Does your area have the UK's slowest broadband? Jan 2019

<https://www.which.co.uk/news/2019/01/does-your-area-have-the-uks-slowest-broadband/>

⁷ Ofcom, *Connected Nations 2018*, England Report

<https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2018>

⁸ Department for Environment, Food and Rural Affairs press release, *£45 million investment in rural broadband*, July 2018

<https://www.gov.uk/government/news/45-million-investment-in-rural-broadband>

14. It will also be important that the pace of deployment in these areas keeps up with the pace that it is done in commercially viable areas, and that the price of products on the new network are affordable for businesses of all sizes.
15. A switchover from one infrastructure type to another will necessarily come with significant scrutiny and awareness of what is needed so as to make it successful and fit for purpose for business as well as consumers. As such, an industry-led switchover is welcome. We would also recommend that a business advisory group should help to advise Ofcom so as to ensure that issues pressing to businesses are not overlooked.
16. The deployment of a suitable network for 5G is also of great importance to manufacturers as a further means of connectivity, both within the workplace and on the go. As with full fibre, it is important that deployment of the infrastructure necessary for 5G is functional across the country, including in rural areas, as well as having significant coverage on roads and rail. Previous Make UK research shows that 85% of manufacturers offer flexible working practices to production employees and 93% to non-production employees⁹. With the manufacturing workforce becoming increasingly flexible as working practices change, being able to work remotely is of great importance, and 5G can help to facilitate this.
17. The funding of the 5G Testbeds and Trials Programme is likely to provide significant progress in ascertaining how to ensure fast and effective rollout of 5G throughout the country. Metrics on how to measure success of the programme should be released by government to ensure that lessons can be taken from the six winning projects which can then be applied in future developments.

Ensuring that the UK does not fall behind in full fibre and 5G adoption

18. It is inevitable that a switchover from FTTC to FTTP will involve a significant amount of time and raise complex and nuanced issues. However, it should be taken into account that the government's target to have nationwide FTTP coverage by 2033 will likely push us further behind international competitors on this metric. The slow rollout of full fibre in the UK means that we are far below countries with similar economies that are not particularly geographically far away. Manufacturers who operate in multiple countries may find that UK internet provision is far lower than that of the provision in other countries that they operate in.
19. 2017 Ofcom data shows that the UK ranked second to last out of selected countries including the Netherlands, France, Poland and India, with less than 2% of connections

⁹ Make UK/EEF, Reinventing the Manufacturing Workforce, 2018
<https://www.eef.org.uk/resources-and-knowledge/research-and-intelligence/industry-reports/reinventing-the-manufacturing-workforce>

provided by Fibre to the Premises (FTTP).¹⁰ This is compared to 97% full fibre availability in Japan, 86% in Portugal and 63% in Spain. The danger is that slow rollout of fibre broadband will prolong the provision of current, as well as future business functions effectively. Government should therefore liaise with both industry and Ofcom to determine the best option to deploy effective and successful FTTP networks as soon as possible so as to prevent the country from falling further behind.

20. The deployment of 5G is also an issue that should not be allowed to fall behind. Indeed, many countries are at further stages of development than the UK in terms of building an infrastructure for this service, with French regulator Arcep saying that “5G will cover the main transport routes by 2025”¹¹ and the German government aspiring to have 5G connectivity by 2025.¹² By contrast, the UK government’s aim to achieve 5G deployment for “the majority of the population to have 5G coverage by 2027”, is two years behind our near neighbours, which is a long time in business.¹³ It is vital that 5G deployment is kept up to pace with, or even ahead of our neighbours, so as to ensure that businesses can stay competitive with their international counterparts.

21. It is true that some of the business and political developments affect 5G rollout in countries such as Australia and the USA have faced issues in the deployment of 5G infrastructure, as they have chosen to ban products from one of the primary 5G hardware providers being used in their 5G infrastructure. The UK government has also raised concerns about the security of certain products being used in national 5G infrastructure. Telecommunications firm BT announced that their subsidiary network EE will not use Huawei equipment at the ‘core’ of 5G networks, and several of the UK’s other largest mobile network providers such as Three, and Vodafone, all of whom were working in partnership with Huawei to deploy their 5G networks, have said that the use of particular equipment in their core infrastructure will be paused or stopped. This, along with other issues such as a perceived inconsistent approach by network providers¹⁴ contributes to a business environment that has the capacity to slow down the development of 5G in the UK.

22. The UK government and Ofcom should work in collaboration with service providers to ensure that ongoing 5G trials and deployment can continue at a good pace, whilst ensuring the safety of communications.

¹⁰ Ofcom International Communications Market Report 2017

<https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017/international>

¹¹ Arcep, *5G: An ambitious roadmap for France*, 2018

<https://www.arcep.fr/news/press-releases/p/n/la-france-se-dote-dune-feuille-de-route-pour-la-5g-et-lance- quatre-chantiers-prioritaires.html>

¹² Federal Ministry of Transport and Digital Infrastructure, *5G Strategy for Germany*, 2017.

<https://www.bmvi.de/EN/Topics/Digital-Matters/5G/5g.html>

¹³ Department for Culture, Media and Sport, *Future Telecoms Infrastructure Review*, July 2018

<https://www.gov.uk/government/publications/future-telecoms-infrastructure-review>

¹⁴ Broadband Stakeholder Group, <http://www.broadbanduk.org/2018/07/20/forging-our-5g-future-barriers-and-solutions-to-network-deployment/>

Conclusion

The Statement of Strategic Priorities rightly places priority on full fibre rollout and 5G deployment throughout the country, and this statement is a good start to laying out the manner in which government and Ofcom intend to do so. However, Ofcom must work to ensure that the needs of businesses are met as much as the needs of domestic consumers.

Ofcom must also ensure it works in collaboration with government and service providers to ensure that successful deployment is done at a suitable pace, so as to prevent the country falling further behind international competitors.

Metrics for a successful deployment of FTTP and 5G should be set to ensure that there can be accountability for progress of the deployment. This will also assist in ensuring that provision doesn't fall further behind international competitors.

Thank you once again for giving Make UK the opportunity to participate in this call for evidence. We hope you find our comments useful and we look forward to further engagement on this topic. If we can provide further information on any of the issues discussed, please do not hesitate to contact me.

Yours faithfully,

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