



Department for
Digital, Culture
Media & Sport

Future Telecoms Infrastructure Review: Call for Evidence

19 December 2017

Department for Digital, Culture, Media and Sport

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Ministerial Foreword



We in the UK Government are absolutely determined to ensure the country has the telecommunications infrastructure it needs to meet the needs of consumers and businesses, today and in the future. We must complete the roll-out of today's technologies, and get the market structure right now for the next generation of technologies. Over the next decade, we want to have at least 10 million premises connected to full fibre, with a clear path to national coverage. We are also

determined to be a world leader in the deployment of 5G mobile connectivity. Investment in world-class connectivity will support economic growth, enhance our productivity and allow people to engage in the modern world.

To ensure we get that market structure right, we have launched the Future Telecoms Infrastructure Review. This review will determine how to deliver the competitive conditions to encourage the long term investment needed to secure ubiquitous world-class digital connectivity, that is seamless, reliable, long-lasting and also widely available and affordable to UK businesses and consumers. We do not want to see a monopolistic market in these new technologies.

The UK telecoms market was worth £35.6bn in 2016¹. The market for fixed-line telecommunications services has been transformed over the last twenty years by competition and innovation. Whilst the UK's basic and superfast broadband coverage is amongst the best in the world, we must improve our performance on the deployment of full fibre networks. The transition from copper to full fibre networks across the UK is necessary to future-proof the speed, capacity and reliability of fixed connections, and create the backbone of 5G mobile networks.

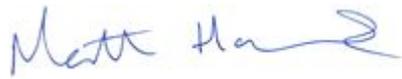
Likewise, mobile connectivity has transformed the way we live and work. The introduction of 5G has the potential to take this to the next level, and will present new and disruptive opportunities for the way in which mobile services are delivered.

This Government's approach to achieving these goals is to promote the right competitive structures and a stable environment for investment. We want to build on what has been achieved so far and ensure that the UK has the conditions in place to maximise investment in the best new technologies.

Publishing this call for evidence marks the start of this crucial review. The creation of a world-leading digital economy that works for everyone will require collective effort. It is vital

¹ The Communications Market Report 2017: UK, Ofcom

for Government to understand the perspectives of industry, investors and consumers. I encourage everyone to respond to this call for evidence, so that together we can strengthen our telecoms markets and build an infrastructure fit for the future.

A handwritten signature in blue ink that reads "Matt Hancock". The signature is fluid and cursive, with a long, sweeping tail on the final letter.

Matt Hancock MP, Minister of State for Digital

Introduction

The Future Telecoms Infrastructure Review was announced in the Industrial Strategy on 27 November 2017. The [terms of reference](#) were published the following day, setting out the scope of the review.

The Department for Digital, Culture, Media and Sport (DCMS) is undertaking an in-depth review of the telecoms market - both fixed and mobile - to understand the incentives for investment in new digital infrastructure. The Review will assess whether any additional policy interventions are needed to create the conditions for long term investment in world-class digital connectivity that is seamless, reliable, long-lasting and widely available, whilst also promoting a stable environment for investment.

The Review will build on Government's continuing work to improve infrastructure investment through our Local Full Fibre Networks and 5G Testbeds and Trials programmes, the Digital Infrastructure Investment Fund, business rates relief for fibre networks, and the new Barrier Busting Task Force², set up to minimise the cost of fixed and mobile deployment. Whilst those initiatives are focused on driving change in the shorter term, this Review will assess what longer term changes could be made to market structures and policy frameworks to encourage investment, and what the wider implications of change could be for industry and consumers. The Review will take account of developments in the regulation of the telecoms sector by Ofcom.

Alongside this Call for Evidence, DCMS is commissioning research to inform the Review. The research will cover international comparisons and their applicability to the UK market, the relationship between market structures and investment patterns, and the mechanisms that could further promote efficient investment.

The Review will draw on the detailed analysis being undertaken by the National Infrastructure Commission (NIC) on the costs and benefits of fixed digital infrastructure options.

The Review will report to Ministers in summer 2018, and will identify options that could be pursued to deliver the Government's objectives for the telecoms sector.

² If you would like to share ideas and evidence with the Barrier Busting Taskforce, please contact pete.mcdougall@culture.gov.uk

Call for Evidence

DCMS is launching a six week call for evidence, ending 30 January 2018, to understand what market or policy interventions might support long term investment in the next generation of telecoms infrastructure (primarily next generation mobile technologies and full fibre networks), and what consequences such interventions could have on competitive dynamics, markets and consumers. We encourage all interested parties to submit ideas and evidence, and welcome submissions that consider the optimal future market and policy models to promote investment and effective outcomes for consumers, and the pros and cons of such interventions.

This call for evidence seeks responses from a wide range of interested parties, including communications service providers, network operators, infrastructure investors, academics, consumer interest groups and the public.

Those making submissions are asked not to exceed 10 pages in length and are strongly encouraged to provide details of the evidence and data which support their positions (which can be provided in an annex to a submission), to enable DCMS to understand the basis on which those conclusions have been reached. In addition, DCMS will work with key stakeholders as part of an open process of engagement to support the call for evidence.

Market and Policy Context

To ensure we get that market structure right, we have launched the Future Telecoms Infrastructure Review. The UK's Digital Strategy³ set out the Government's goal to create the conditions and set the framework for investment in world-class digital connectivity, that is ultrafast, reliable, long-lasting and widely available to UK homes and businesses. Over the next decade, we want to have at least over 10 million premises connected to full fibre, with a clear path to national coverage. As set out in our 5G strategy⁴, we are determined to be a world leader in the deployment of the next generation of mobile connectivity. The Government's approach to achieving these goals is to encourage competitive markets to deliver commercially across as many areas of the UK as possible.

Full Fibre Connections

We want to build on what has been achieved so far, by ensuring that market and policy conditions are as good as they can be to support investor confidence and maximise investment in full fibre infrastructure.

³ <https://www.gov.uk/government/publications/uk-digital-strategy>

⁴ <https://www.gov.uk/government/publications/next-generation-mobile-technologies-a-5g-strategy-for-the-uk>

The UK is an international leader in the availability and take-up of copper-based super-fast broadband. By the end of 2017, 95% of UK households will have access to superfast broadband. This has been aided by £1.7 billion of public funding, alongside significant commercial investment. BDUK will continue supporting the delivery of superfast broadband beyond 95% coverage. The Government has committed more than £1 billion to support investment in full fibre and 5G networks, has set up a Barrier Busting Task Force and is delivering on the Chancellor's commitment to give 100% business rates relief to new fibre investment for five years.

However, the UK must improve its performance on the deployment of full fibre networks and getting fibre closer to end-users, to support the long-term connectivity needs of homes and businesses. At 3% of premises, the UK has amongst the lowest levels of Fibre To The Premises (FTTP) of the G7, OECD and EU countries. Denser fibre networks are also an important enabler of 5G mobile connectivity.

We want to consider which market models will work best to this end, including arrangements for wholesale and retail provision.

5G Deployment

5G has the potential to transform the way people and businesses use wireless connectivity, but it is a technology in development. Investment in the roll-out of 5G-ready networks should be led by the private sector, but the business case is as yet uncertain.

As set out in our 5G strategy, we recognise there is an important role for the Government to play in ensuring that the conditions are in place to encourage this investment. Alongside this call for evidence, we have published an update on progress against delivering the actions from the 5G strategy and set out further detail on the areas that we will focus on to support its deployment. We will also consider with Ofcom how the spectrum allocation and licensing regime can support 5G deployment.

Key to this is the Government's 5G Testbeds and Trials Programme, which is testing practical applications of 5G. It will support 5G network deployment pilots in urban and rural areas by testing approaches to infrastructure sharing, identifying the practical barriers and challenges to deployment and stimulating demand for new kinds of applications and services. We have issued a call for views on these pilots today.

It is possible that, in future, increased infrastructure sharing and/or neutral host models will be necessary for the cost-effective deployment of 5G networks. Therefore, it is important that we consider the scope for alternative market structures as part of this Review, and what additional policy measures may be required to encourage investment.

Questions

1:

What is the existing UK telecoms market structure and policy framework able to deliver?

- When will it deliver, and how certain can we be that it will fulfil the Government's ambitions for full fibre networks and 5G deployment?
- What will this mean for roll-out of these technologies and for competitive models in different geographic locations?

2:

What barriers exist to *long term* investment in the UK telecoms market (beyond work underway by the Local Full Fibre Networks programme to stimulate demand, and by the Barrier Busting Taskforce to reduce build costs)?

- What effect do existing revenue streams have on investment plans?
- What effect do visibility and predictability of returns have on investment plans?
- What is the effect of current infrastructure deployment models?
- What impact do current infrastructure sharing arrangements have on investment?
- What is the impact of the existing relationship between wholesale and retail markets?
- What changes to spectrum licensing and sharing could foster greater innovation and investment in 5G?

3:

What can the UK learn from the widespread deployment of fibre networks in other countries?

- What factors have led to higher full fibre investment in other countries and how applicable are these to the UK?
- What have been the impacts of fibre roll-out models in other countries on competition dynamics, consumer bills, and risk allocation?
- To what extent can the fibre that has been rolled out internationally be used for mobile backhaul, and what lessons can the UK learn?

4:

The Government wants to consider all market models that will facilitate the next generation of technologies.

a. What different market models* might work in the UK in the longer term, and what risks and opportunities do they present?

- What consequences could different market structures, including ones which support longer pay-back periods, have on the investment environment, competition and outcomes for consumers?
- How might these vary in different geographic areas of the UK, including urban and rural areas?

- Over what timescale could market models be changed, and what policy conditions would be necessary to enable this?
- Are the current arrangements for BT legal separation working effectively?

* *Market models which you may wish to consider in responding could include:*

- Infrastructure competition between different network providers wherever possible
- Collaborative models at an infrastructure level
- Regulatory asset bases, franchise models, cap and floor regimes, a diversified model to account for geographic variation, and/or gainshare models for infrastructure provision
- Risk sharing models between infrastructure providers and retail providers

b. What should Government consider when assessing the potential for migration from copper to full fibre networks?

- Over what time period could migration occur?
- What phases might migration be required to go through?
- What would be the pros and cons for markets and competition?
- What would the implications be for different groups of consumers?

5:

The Government wants to achieve its digital infrastructure goals at the least additional cost. How should new digital infrastructure be paid for?

- Are consumers (residential and business) willing and able to pay for new digital infrastructure, given its expected benefits?
- What could incentivise investors and shareholders to make long-term investment decisions in telecoms infrastructure?
- What is the potential role of government in stimulating demand or otherwise de-risking new infrastructure investment?

How to Respond

Those making submissions are asked not to exceed 10 pages in length and are encouraged to provide details of the evidence and data which support their positions (which can be provided in an annex addition to a submission).

Submissions of evidence should be emailed to: FTIR@culture.gov.uk

Please provide submissions and evidence by Tuesday 30 January 2018.

Evidence will be reviewed thereafter by DCMS. If further information or clarification is required, the FTIR team will be in contact with you.

We may publish any submissions made; if you believe there is a reason why your submission or any part of your submission should be considered confidential please provide details.

The commission is subject to legal duties which may require the release of information under the Freedom of Information Act 2000 or any other applicable legislation or codes of practice governing access to information.