



# Next steps for delivering telecommunications infrastructure in the UK

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**NEXT STEPS FOR DELIVERING TELECOMMUNICATIONS INFRASTRUCTURE**  
**ACROSS THE UK: INVESTMENT, REGULATION AND THE IMPACT OF POLICY**

**Progress and the way ahead**

Progress towards what? For BT, the goal has to be universal access to ultra-fast connectivity. That will be good for our customers, good for our shareholders and good for the UK economy.

That's part of our very simple three-point strategy: invest in our networks; give our customers the best possible experience; modernise our company.

Universality is a long-term goal, but in the past year progress has been clear – both in terms of infrastructure itself and in terms of policy and regulation.

The way ahead is a bit foggier. But Ofcom and Government know what they need to do to provide greater certainty.

There's a risk when the industry gathers itself together that we default to gloominess about the future. So I'd like to start with the **positives**:

- The UK's internet economy continues to lead the world – it is the largest of the G20 countries as a percentage of GDP
- Nearly 96% of UK homes now have access to fixed superfast broadband and average speeds now exceed 46 Mbps
- BT has supported and invested in the Openreach's strategic shift Openreach to building fibre connections
- And competitors such as Virgin and CityFibre are also building and raising money
- We continue to extend our leading 4G network – with over 350 sites built in the last year alone, and we're pioneering 5G in live environments ahead of commercial launch next year in the busiest parts of the UK's 16 busiest cities
- Our customers are watching and using and sharing more and more than ever before. 10 years ago, when the iPhone was first created, there were

just 3 connected devices in the average UK home. Today that figure is more than 10. In five years it will be 50. And mobile data use continues to grow by over 40% each year.

- The growth in devices and data is why BT and EE came together. But we know our customers don't care about which network they are on – they just want to be connected to the things that matter to them. Which is why we're working towards a single converged network, where our customers will be connected to 4G, 5G or Wi-Fi 100 per cent of the time.
- BT Plus, our first converged fibre and 4G product has seen over half a million subscribers in under 6 months.

Of course there are also significant **challenges to providing this sort of seamless connectivity**. If it wasn't complicated, there would be no need for Government reviews and conferences like this. To re-cap:

**Cost.** It looks likely to cost more than £40bn to deliver nationwide full fibre and 5G. Roughly what the first phase of HS2 will cost, but with significantly less public subsidy...

**Complexity.** Digital technology will allow us all to live our 21<sup>st</sup> Century life in the cloud. But to get there we need to go through a lot of old 20<sup>th</sup> Century ducts and muddy farmer's fields. It took ten years to get fibre to 80,000 cabinets. To extend that to 30m households is obviously more complex and will take longer. We all know there are issues with the state of the ducts; planning consent; rents charged by landowners; wayleaves for streetworks... For 5G, there are a range of technical issues still to be worked through about how operators want to design their networks and what sort of fibre deployment they will need.

**Demand.** We know we need to invest ahead of demand – as things stand only half of those who could order superfast broadband haven't done so. So for both 5G and fibre the industry needs to work together to drive adoption and make the investment viable.

**Economics.** The success of our industry has made the economics of those investments challenging. We continue to bring speeds and service up and prices down. For consumers this is a very competitive market, but at the same time the projected growth of the sector as a whole is limited – in line with inflation.

I heard someone from the NIC recently say that upgrading the UK's digital infrastructure would be 'fairly straightforward'. That's probably true compared to, say, nuclear power, but it doesn't always feel that easy on a day to day basis and it needs a plethora of stakeholders all pulling in the same direction.

That's why we have argued that some fundamental changes are needed to the regulatory framework, if the Government wants to accelerate the pace of investment and hit its target of universal coverage by 2033. And that's why we think the Government's **Future Telecoms Infrastructure Review was a significant step forward:**

- It sets the right objective and a reasonable time frame [full fibre coverage across the UK by 2033; 5G coverage for the majority of the population by 2027]
- It promises action on some of the practical barriers such as wayleaves
- More fundamentally, it seeks a more market-driven model and focuses on creating incentives for competition and investment
- It heralds a shift in regulatory approach away from a one-size-fits-all model towards an approach which varies by geography. That should allow regulation to be removed in the more competitive markets and it may encourage companies to co-invest and share risks.

**But there's still a lot for Government and Ofcom to do to build on this strategic framework**

There are a range of issues affecting all network builders – from wayleaves to business rates – [that you've already covered this morning.]

There are also some that are more specific to BT. In particular, we want to work with Ofcom to address:

- The 'fair bet' – the extent to which regulation will allow us to retain some future 'upside' from our investment - in line with the level of risk we take now.

- The costs of the copper network – which obviously impinge, for us, on the business case for fibre investment and need to be addressed in the transition from copper to fibre

We would also like more clarity about the scope for deregulation in competitive markets. The FTIR says “The best outcome for full fibre rollout is likely to result from giving the market the freedom to evolve and only regulating if competition concerns clearly emerge”.

It is not yet clear whether Ofcom intends to provide this freedom nor whether it is creating the incentives for commercial risk sharing. Our view is that the existence of access regulation and the prospect of price control in future will, understandably, make other providers less willing to share risk with us. There is more that could be done – the new EU Code allows SMP regulation to be relaxed where co-investment deals can support network investment. But a bit of care is needed, to avoid over-zealous regulation of the sort that might hold back commercial arrangements and investment to the detriment of customers.

Finally there is the question of the ‘final 10%’ – the most remote parts of the UK where commercial investment will never make sense. The Government is right to plan to address those areas in an ‘outside in’ way, but we lack any clarity on what that will mean, how it will be funded and how it can build on other initiatives aimed at these areas – like the forthcoming Universal Service Obligation. We hope next year’s Spending Review can answer those questions.

### **In the meantime, we won’t stand still**

We’re continuing to invest and develop ultra-fast networks

- We support Openreach’s ambition to build to 10m households, but only if the right enablers are put in place (the commercial, regulatory and policy conditions that would make the business case work)
- Our 5G pilots continue and 5G will launch commercially in 2019

We’re closing the gap on universal coverage

- In response to Ofcom’s USO consultation we propose to deploy new 4G ‘fixed wireless access’ broadband in a way that would give 450,000

additional homes access to the service, and reduce the numbers without 'decent' broadband (and dependent on a USO) to more like 100,000

- We continued to extend 4G coverage, including as part of the Home Office project to create a new Emergency Services Network
- We also want to do more for enduring mobile 'not spots' and partial not spots.
- The model of privately-funded network competition that's been (and will continue to be) successful in most of the country, is unlikely to provide the solution for the final few parts of the country.
- We want to work closely with Government and the other operators to develop a solution. For our part, we'd like to create a demand-led process, place by place, that would include closer engagement with local communities to overcome deployment barriers, greater sharing of infrastructure across the different operators, and some element of public funding to deal with the economic challenge of deploying in hard-to-reach, low population areas.

We're looking to do more to promote competition

- We support the initiative that Ofcom is taking to provide competitors with unrestricted access to Openreach ducts and poles – provided there is a sensible process for doing so, pricing which is robust enough to deal with future market changes, and a level playing field for BT's own downstream businesses to have the same sort of access. UDPA can be a catalyst for new competition, better prices, new products and services – in particular for mobile companies that need backhaul for 5G. And we would also like the flexibility to respond to this competition.
- We've now implemented all the commitments we made to Ofcom during the DCR, including the TUPE of 30,000 staff to the new Openreach. [We're very pleased with the positive progress report published today]. But we also want to ask ourselves what more we can now do to increase the transparency with which BT and Openreach interact and the confidence that the rest of the industry has that this is fair and proper.

## **The future is not entirely predictable**

There's a lot about the future pattern of infrastructure development that we can't know now:

- To what extent might there be a sort of 'grey zone' for fibre build-out, between the commercial areas and the subsidised extremities. And what the solution might be for those areas.
- The direction of convergence, the extent to which mobile and wireless technology could be a substitute for fixed broadband, and the precise architecture of 5G networks.
- The consumer and business applications that will drive demand and take-up of ultra-fast connections. 5G, for example, although it will begin life as a fantastic way to increase capacity in consumer hotspots, has the potential to transform the way that whole industries operate in ways that we currently can't quite imagine.

Resolving these uncertainties will be for industry as much as for governments and regulators. DCMS have done the right thing by fixing the end ambition, setting out a solid framework without specifying a precise blueprint. Companies like BT need to respond. In particular, we will need to consider what more we can do on the demand side, to promote the amazing experiences that this new infrastructure can support.

For now, we know enough to be confident that we have to invest more in fibre, 4G and 5G. And the past year has been a major step forward in terms of building consensus between industry, government and regulator. We need to use the next year to remove the patches of fog that I mentioned at the start in order to up the pace and scale of investment.