Reset or level up. How can Gigabit Britain deliver for all?

Digital connectivity to stimulate the UK's recovery in 2021

The better the question. The better the answer.
The better the world works.

EY
Building a better working world

Digital connectivity has never been more important – it is the lifeline by which we communicate with friends, family and colleagues. Its critical role has become even more apparent since the COVID-19 pandemic, enabling societal well-being and the continued functioning of our economy during a period characterised by physical isolation.

In this report, we consider the ability of gigabit connectivity to stimulate the UK's economic, technological, well-being and environmental potential; the many challenges to delivering improvements; and the actions required to overcome these obstacles.

Throughout our report, we supplement our perspective with proprietary findings from a number of EY research initiatives:

‣ A survey of 2,000 small and medium enterprises (SMEs) conducted in October 2020

‣ An annual survey of 2,500 consumers regarding their attitudes to connectivity and content

‣ Interviews with selected UK industry leaders

‣ Insights from our extensive network of UK telecoms industry professionals from our Business Consulting and Strategy & Transactions teams

What is 'Gigabit Britain'?
The government policy which aims to provide gigabit-capable connectivity across the UK.

What do we mean by 'gigabit-capable connectivity'?
Gigabit-capable networks can broadly be classified as those with the potential to deliver gigabit internet speeds (1 Gbps/Gb) by leveraging current-generation technologies – such as FTTP and 5G mobile.

Why do we need a 'Gigabit Britain'?

We have categorised the benefits of digital infrastructure into four key areas. Our own research shows that these benefits resonate with businesses across the UK.

Well-being

Enabling society to adapt to how we work and live is particularly crucial given the dramatic changes driven by COVID-19. Responding to fast-changing remote working and education needs while maintaining living standards and mental health is one of the highest priorities of the Government, businesses and individuals alike.

- ▸ **Improves living standards** by boosting wage growth.
- ▸ **Empowers remote and flexible working** through improved speed and reliability.
- ▸ **Minimises stress, anxiety and frustration** by bringing communities closer together and supporting mental health.

37% of businesses that discouraged remote working pre-COVID-19 would now encourage remote working if 1Gbps speeds were available nationwide.

Environmental

Supporting the UK in meeting its sustainability commitment to achieve net zero greenhouse emissions by 2050 requires greater efficiency across society, including communications networks. Relative to copper networks, full-fibre networks offer a substantial reduction in both energy costs and greenhouse gas emissions.

- ▸ **Cuts energy consumption** by leveraging next-generation energy efficient telecoms technology.
- ▸ **Lessens environmental materials impact** by using low-maintenance and low-emission materials.
- ▸ **Reduces travel pollution** by encouraging virtual meetings and digital business practices.

73% of SMEs with gigabit broadband have seen a positive impact on the environmental sustainability of their business.

Economic

Stimulating economic growth and recovery with improved infrastructure performance enhances business productivity. This in turn can support the 'levelling up' agenda and regional wealth distribution as well-paid jobs can move further away from their city-centric headquarters.

- ▸ **Enables economic regeneration** across the UK's regions by driving GDP growth and creating new jobs.
- ▸ **Boosts employment rate** by enabling business growth.
- ▸ **Increases productivity** by reducing outages and enabling new technologies.

50% of SMEs believe that investment in gigabit infrastructure is 'vital for the economic regeneration of the UK post-COVID-19'.

Technological

Fuelling greater technological innovation. In the latest budget the Government announced a nine-fold increase in public R&D investment by 2024-25 (£22bn per year compared to £2.5bn in 2018). This underscores the increasing focus on technology to maintain the UK's leading position as a global centre for innovation.

- ▸ **Fosters start-up growth** by attracting talent and driving an innovative culture.
- ▸ **Facilitates new technology adoption** by providing the infrastructure for innovation.
- ▸ **Aids business diversification** by providing the foundation for new service offerings.

48% of SMEs state that gigabit connectivity would boost their business innovation.

Delivering Gigabit Britain requires urgent action and is critical to bridging the digital divide

The digital divide – where citizens in rural and deprived regions do not have access to the same quality of services available to those living in more affluent towns and cities – is a long-standing challenge in the UK.

The Government's broader 'levelling up' agenda has helped to bring this into focus. Meanwhile, digital is an increasingly important driver of future economic health: 50% of respondents in EY's latest *UK Attractiveness Survey* believe it will drive UK growth, up from 26% citing it in 2019.

In this light, a lack of high-quality digital infrastructure in the regions will undermine the opportunity to rebalance and grow the UK economy in years to come. Without equal opportunities to access digital technology, innovation and social cohesion in the UK will also suffer in the long term.

While policymakers recognise the importance of broadening the reach of gigabit broadband infrastructure, targets and goals have proved fluid to date. In 2019, the Government set an ambitious target of achieving full coverage of gigabit-capable infrastructure by the end of 2025 – having previously targeted 2033 for nationwide full-fibre coverage.
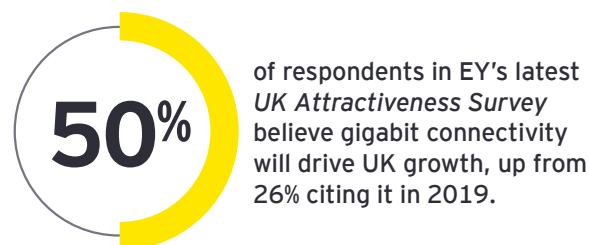
In November 2020, the coverage target was lowered to 85%, reflecting industry fears that full coverage was unrealistic within the timeframe. While the revised timeframe is more realistic, an ongoing digital divide remains a risk for the remaining 15% of the population, the risk of being left behind by a digital divide is greater than ever.

Meanwhile, only £1.2bn of the Government's £5bn broadband spending commitment has been signed off up until 2024. Clarity on when and how the remainder will be allocated will be vital from UK infrastructure providers going forward. Without it, the UK risks reduced private investment, less certainty regarding meeting coverage targets and an ongoing digital divide.

Businesses themselves are keen that funding is allocated to digital infrastructure: only 17% of SMEs surveyed by EY believe that physical infrastructure investment is more important than digital infrastructure investment compared with 52% who believe digital infrastructure is more important.

50% of respondents in EY's latest *UK Attractiveness Survey* believe gigabit connectivity will drive UK growth, up from 26% citing it in 2019.

Only **17%** of SMEs believe that their business benefits more from Government investment in physical infrastructure versus in digital.

Gigabit broadband and national competitiveness

Urgent improvements to the UK's digital infrastructure are required to meet broad policy goals as well as secure long-term national competitiveness.

The UK lags well behind other European and OECD countries for full-fibre network coverage, with only 14% of UK homes passed as of May 2020 – and an estimated 15% by September – compared with 86% and 57% in Spain and France respectively.[1]

In fact, the UK's position as a global technology leader is slipping. In a recent worldwide survey of broadband speeds the UK ranked 47th, falling 13 places from 34th in 2019, despite extensive attention and more than £450m in funding provided by the Government to date.[2]

The UK is falling further behind other countries

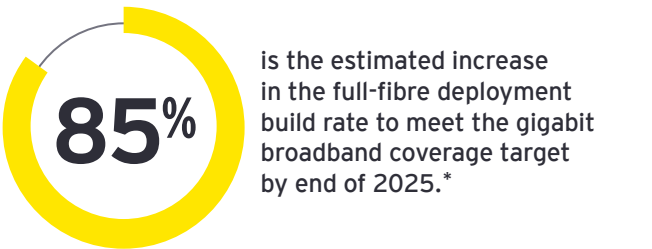**47th**

UK's 2020 worldwide broadband speed ranking.

1. 'Government likely to miss 2025 target for fibre broadband in every home'. *The Guardian*. www.theguardian.com. Accessed 1 December 2020.

2. 'Worldwide broadband speed league 2020'. *Cable*. cable.co.uk. Accessed 1 December 2020.
   'Building Digital UK'. Gov.uk. www.gov.uk/guidance/building-digital-uk. Accessed Accessed 1 December 2020.

The time to act is now

Ultimately, extending coverage to reach more than 8 in 10 homes is still very challenging. EY analysis shows that the current average build rate for homes passed – the rate at which properties are enabled on gigabit-capable networks – would need to increase by 85%, equivalent to more than 10,000 per day, to even meet this reduced 2025 target.
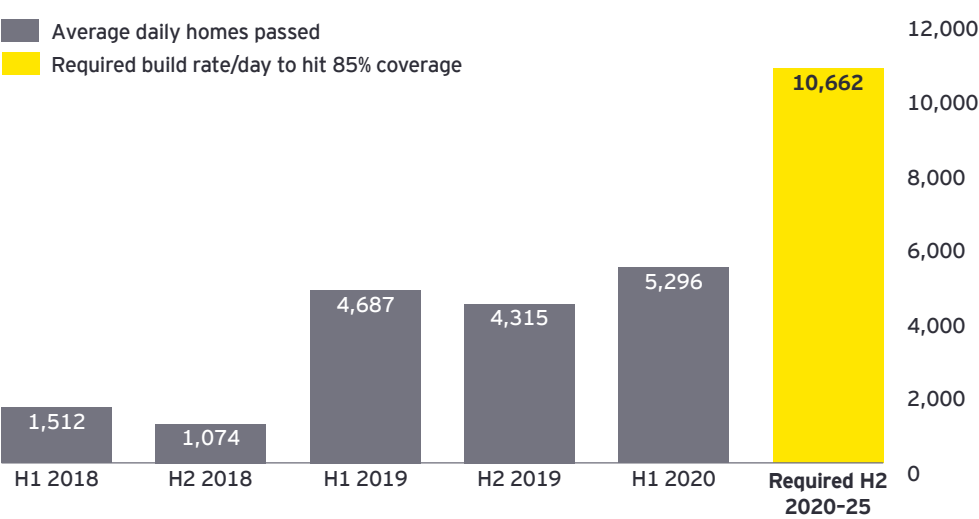
85% is the estimated increase in the full-fibre deployment build rate to meet the gigabit broadband coverage target by end of 2025.*

Key challenges

Without urgent action that prioritises broadening the reach of gigabit infrastructure areas across all regions and demographics, the UK's ability to thrive in a post-pandemic world is under threat. These obstacles include: changing infrastructure coverage targets; network deployment strategies that prioritise urban districts; and service providers' tendency to focus on more economically viable consumers and large businesses – potentially at the expense of SMEs and rural customers. These challenges need to be met in order to drive the 'levelling up' agenda.

Only by isolating key challenges and taking urgent actions to resolve them can the UK achieve its long-term digital infrastructure ambitions and unlock high-quality infrastructure for all users.

* This assumes that FTTP will deliver the majority of new gigabit capable connections going forward in the UK.

UK gigabit broadband: historic and projected average build rate for homes passed

- Average daily homes passed
- Required build rate/day to hit 85% coverage

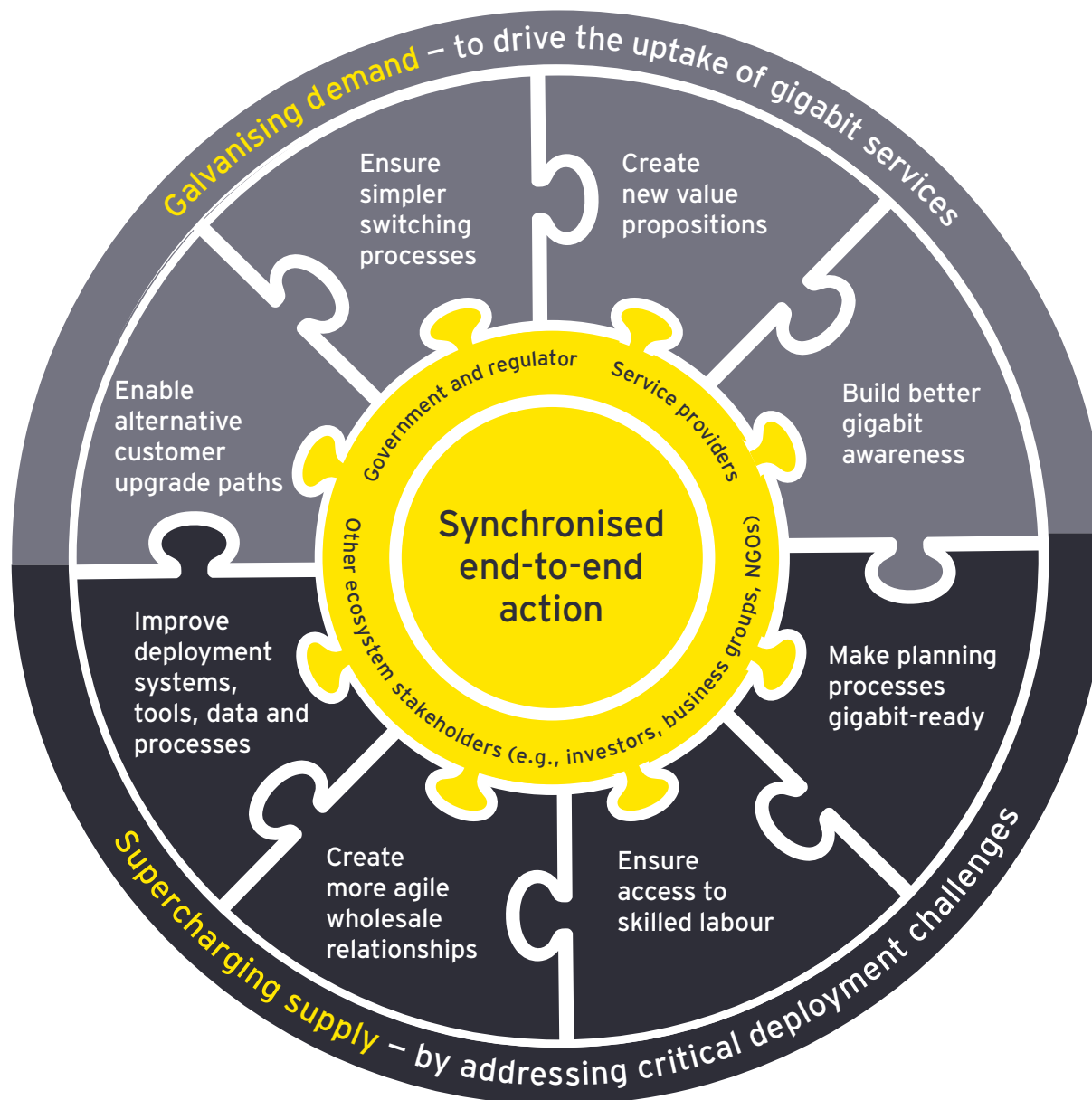|	
H1 2018	1,512
H2 2018	1,074
H1 2019	4,687
H2 2019	4,315
H1 2020	5,296
Required H2 2020–25	10,662

Rising to the gigabit challenge: a holistic approach is essential

The best way the UK can realistically meet the Government's targets is to take a holistic, end-to-end approach to drive both supply and demand in tandem. Failing to do so will lead to one of two undesirable outcomes:

1. Focusing primarily on demand will undermine the 'levelling up' agenda and increase the digital divide.

2. Focusing primarily on supply will risk a return to the 'boom and bust' era of the 1990s and a 'cliff edge' where business confidence – and continued investment – dry up.

In the following diagram, we have highlight the interlinked issues that should be addressed to deliver 'Gigabit Britain'. Galvanising demand requires better end-user awareness and experiences that can help drive new customer behaviours. Supply-side improvements are essential, from optimising access and planning rules to creating more robust wholesale relationships within the industry value chain. Crucially, all industry actors should recognise that this is a shared opportunity where proactive and sustained collaboration are fundamental to success.

Galvanising demand – to drive the uptake of gigabit services

- Ensure simpler switching processes
- Create new value propositions
- Build better gigabit awareness
- Enable alternative customer upgrade paths

Synchronised end-to-end action

- Government and regulator
- Service providers
- Other ecosystem stakeholders (e.g., investors, business groups, NGOs)

Supercharging supply – by addressing critical deployment challenges

- Improve deployment systems, tools, data and processes
- Create more agile wholesale relationships
- Ensure access to skilled labour
- Make planning processes gigabit-ready

Galvanising demand

Galvanising demand for gigabit services, and avoiding a return to a 'boom and bust' era for UK telcos, will require several urgent actions to resolve critical barriers to user adoption.

1
Build better gigabit awareness

Providing greater clarity around service availability and quality is critical. Industry and regulators have to work together to standardise fibre terminology and remove confusion for customers.

Only 42%
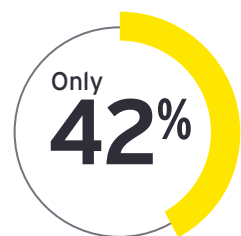
of consumers claim to understand marketing terms such as 'ultrafast' and 'superfast' and the benefits that each offers in terms of speed.

2
Create better value propositions

Differentiated value propositions are vital to stimulating gigabit broadband upgrade intentions. Articulating what gigabit broadband can provide, such as greater reliability not just higher speeds, is essential.

35%
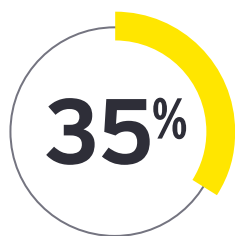
of consumers agree COVID-19 has made them realise they value a resilient and reliable broadband connection over speed.

3
Ensure switching is simpler

Historically poor experiences of switching providers and upgrading packages have created significant apathy in the market. More frictionless interactions between customers and service providers are critical in order to break this vicious circle.

45%
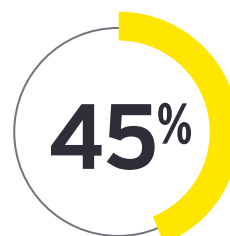
of consumers stated that they have never switched broadband provider.

4
Enable alternative paths for customers to upgrade

Alternative routes are needed to serve demanding customers in remote areas. Community-led business models represent a new way of serving customers with shared infrastructure needs. Yet more education is required in order to avoid complexity and ensure that these emerging business models can scale effectively.

38%
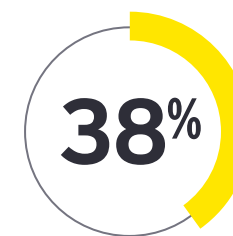
of consumers believe their broadband provider doesn't do enough to tell them about new service offerings.

Supercharging supply

Supercharging supply to avoid a widening of the UK's 'digital divide' will require immediate and sustained action from the Government, regulators and service providers alike.

1
Make planning processes gigabit-ready

Legal access agreements add to the time and cost of infrastructure installations, while planning issues involving councils and landlords can make deployments commercially unviable. Simpler arrangements and better information flows across the value chain can help shorten approval times and reduce variability.

2
Ensure access to the right labour in the right locations at the right time

Coordinating a national labour and training response to enable agile access to skilled labour is essential. Government and service providers should collaborate to identify the labour requirements for gigabit rollout and use this knowledge to develop joint training facilities. Existing and future rules around apprenticeships and immigrant workers require focus in order to ensure access to the right skills in years to come.

3
Create more agile wholesale relationships in the gigabit value chain

Striking the right balance between effective competition and collaboration is vital. Regulators and service providers should explore a single enterprise wholesale platform to simplify multi-operator agreements. This can help expand retailer coverage nationwide in ways that ensure effective competition in locations where customer choice is historically limited.

4
Improve network deployment systems, tools, data and processes

More efficient network deployments are critical to maximising return on investment while meeting coverage targets on time. Service providers should use analytics tools to simplify deployment frameworks and also ensure greater harmonisation of each other's data sets. Government can play an enabling role through better management of service provider data sources, such as on network availability and performance.

Insights from interviews with industry experts

Planning success for 5G deployments in some council districts can vary from anything between over 95% to less than 50%, while 40% of land access requests under the current system receive no response.

The lead time for identifying and training the skilled labour required to deliver FTTP civil works, is far greater than the horizon for obtaining funding. This leads to reactive planning for scarce resources, compounded by a fall in skilled foreign labour as a result of Brexit.

Ofcom's recent approach has been rightly focused on promoting competition and enabling new alternative networks. This has historically de-incentivised collaboration between providers to avoid overbuild and simplify integration with multi-service retail providers.

76% of service providers believe that network teams are among the business functions most likely to benefit from improved analytics capabilities over the next five years.[3]

3. 'In the next wave of telecoms, are bold decisions your safest bet?' November 2019. EY GM Limited.

What does good look like?

Galvanising demand

Government, regulators and service providers should act in unison to empower customers. This means combating customer apathy and inertia by demystifying what gigabit broadband can do and by making the switching process as painless as possible.

For more demanding customers, it is vital to differentiate value propositions to enable more informed choices and decisions. This extends to community-led projects, where customers can come together to build the business case and accelerate network deployment in specific locations.

Supercharging supply

Government, regulators and service providers need to take collaborative action across all areas of the telco value chain – from suppliers to landowners, property developers and end consumers – to ensure a sustainable and efficient gigabit-capable deployment and meet the ambitions of 'Gigabit Britain'.

There are very practical challenges to address in terms of the speed of decision-making and shared quality of information. Yet ultimately a shift in mindset is essential. The importance of bridging the digital divide should be top of mind for all industry actors. By appreciating the transformational promise of new infrastructure, all entities can work together better to create positive outcomes.

> " Over the coming months and years, supporting the UK's ambition to close the digital divide and 'build back better' from COVID-19 will be one of the most critical tasks facing Government and businesses. Gigabit connectivity will play a leading role in this recovery.
>
> Now is the time for everyone to come together to ensure that Gigabit Britain delivers for all.

Praveen Shankar
EY UK&I Technology, Media and Telecommunications Leader

For more information on this report, please contact:

Praveen Shankar
EY UK&I Technology, Media and Telecommunications Leader
pshankar@uk.ey.com

Adrian Baschnonga
EY Global Lead Analyst, Telecommunications
Twitter: @Baschnonga
abaschnonga@uk.ey.com

Matthew Robinson
EY Associate Partner – Business Operations Lead, Technology, Media and Telecommunications
mrobinson4@uk.ey.com

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.