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openreach

Our Annual Review 2021 will give you an update on our plans, our people, our performance, and our ambitions for the future. We're proud to be able to share it with you.





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A message from our Chair



Mike McTighe Chair, Openreach

To say this has been a challenging year would be an understatement. The pandemic has dominated the last 12 months. We've all learned more than we ever expected about viruses, vaccines, social distancing and how best to wash our hands. Unsurprisingly Covid-19 affected our working lives too, and we certainly saw that here at Openreach.

Amid the common challenges we have all experienced, Openreach had a personal tragedy in October 2020 when a colleague lost his life in the course of his work. Shocked and saddened by this event, we continue to reflect deeply and are working to strengthen further our safety culture. Nothing can be more important than going home safely.

Keeping the UK connected

In March 2020, millions of us switched to working and schooling from home and our engineers were given key worker status, meaning they could keep building and maintaining our network.

From connecting the health service, to schools and critical infrastructure, we also maintained links between loved ones and made sure people could continue to work from home and keep the country going.

UK broadband use more than doubled from 22,000 Petabytes in 2019 to 50,000 Petabytes in 2020 as people relied on digital connections more than ever.

Our priority was keeping our people and customers safe and we swiftly reengineered processes so we could work safely and keep the country connected.

And of course, we can't ignore the impact of Brexit. In any other year, such a seismic shift would've dominated our thoughts and actions, but we didn't let it derail progress. And now our focus shifts to the future.

Building back better

Despite everything, we sped up our Full Fibre build this year, reaching one million homes and businesses in just over six months. This was – and will continue to be – instrumental in maintaining a strong and sustainable business for our shareholder BT, Openreach colleagues, and customers. Even in a year like no other.

We're now making our fastest, most reliable broadband technology available to another home or business every 14 seconds, having recently reached 4.6 million premises.

Our build includes millions of homes in the country's toughest-to-reach areas as we do everything we can to connect rural communities.

We're in a strong position to build back better, supporting the wider economy as well as our shareholder, customers, and the UK, to help the nation recover.

Super-charging the recovery

'Building back better' sounds good. But as we take stock of what the UK needs to bounce back strongly, we have to deliver substance.

At Openreach, we know that Full Fibre broadband has a huge role to play in the recovery, and the Centre for Economics and Business Research (Cebr) has reinforced that. In its <u>recent updated</u> study, Cebr highlights how better broadband can be a massive platform for economic growth, social cohesion and positive environmental change. It could deliver a £59 billion boost to UK productivity by 2025 and help an extra 400,000 people live and work where they choose, stimulating regional and rural economic growth.

The Government wants at least 85 per cent of the UK to have gigabit-capable broadband in the same timeframe. But getting as close to 100 per cent as possible has to be the aim – and we're passionate about doing our bit.

Building back greener

Based on <u>Cebr's research</u>, nationwide Full Fibre broadband could save 300 million commuting trips each year, with three billion fewer kilometres travelled by car and 360,000 fewer tonnes of carbon emissions. That's a terrific dividend. But our focus on sustainability doesn't end with the network.

With more than 28,000 vehicles, Openreach operates the UK's second largest commercial van fleet. Our engineers travel more than 220 million miles a year – producing more than 95,000 tonnes of CO_2 . We have to tackle this. So we're aiming to switch a third of the fleet to electric or zero emission by the middle of this decade and want to be all-electric or zero emission by 2030.

Continued progress on service

Over the last four years we've been recognised for making huge strides in delivering a better customer experience, but 2020 was an unusual year. Despite completing record volumes of provisions and fixes, we couldn't maintain every Minimum Service Level set for us by Ofcom. However, the regulator has recognised the impact of the pandemic and it won't be taking enforcement action as long as we keep doing the right thing for our customers.

Looking forward

We're a £5 billion business, employing more than 35,000 colleagues across the UK, and I'm proud to say this year we bucked the economic trend by creating 5,300 new engineering jobs across Openreach and our supply chain.

I am encouraged by Ofcom's final statement in its Wholesale Fixed Telecoms Market Review (WFTMR), which establishes the regulatory framework for the next five years. The regulator's emphasis on investment and its recognition of the need to create a regulatory environment encouraging the renewal of our country's access network across all four nations is very welcome.

As we work to speed up adoption, we know that educating people about the benefits of Full Fibre will be key to the success of this new network. We're working closely with communications providers to raise awareness, stimulate demand and make sure upgrades are smooth and affordable.

We're pressing on with building Full Fibre safely and at pace. We're increasing and accelerating our build from 20 million to 25 million homes and businesses by end of 2026. We believe we can ramp our build up to four million premises a year – going harder and faster than previously thought possible, whilst doing everything we can to build fairly across the whole of the UK. It's the right thing for our business, our shareholder, our colleagues, and our customers.



boost to UK productivity by 2025 powered by nationwide rollout of Full Fibre

Who is Openreach?

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Who is Openreach?

We're the people behind the UK's digital network



660 Communication Providers (CPs)

We build and maintain the largest fixed communications network in the country to deliver phone, broadband, TV and data services to millions of homes and businesses throughout the UK. We also manage hundreds of thousands of dedicated, point-to-point circuits

(called Ethernet lines) which connect schools, GP surgeries, hospitals, financial institutions, mobile masts and businesses - even CCTV and data centres. So, it's no exaggeration to say that our network touches virtually every aspect of daily life in some way.

We're open

We're an open, wholesale network provider. The vast majority of our products and services are regulated, which means all of our customers get the same prices, terms and conditions.

We support more than 660 Communication Providers (CPs), helping them to connect their customers throughout the country.

Our people build, maintain and manage more than 197 million kilometres of fibres and copper wires. And if you laid it out end-to-end, the Openreach network could stretch around the world 4,825 times. Over 14,600 service delivery engineers carried out 9.8 million engineering jobs last year, through all seasons and in all weathers.

They tackle complicated engineering problems, coordinating works with councils, highways agencies, energy suppliers and landowners. And they install and maintain the complex kit that provides ultrafast and gigabit-capable broadband services.

We have independence

Openreach was created in 2006 to promote competition in Britain's telecoms market.

Fast forward 15 years, and the UK has one of the most competitive telecoms markets in Europe*, with some of the lowest prices.



In 2015, Ofcom published its Digital Communications Review, aiming to make sure digital communications markets continue to work for consumers and businesses. As a result, Openreach Limited was incorporated as a wholly owned subsidiary of BT plc. That meant we became a legally separate company with our own staff, management, purpose and strategy.

Since then, we've taken more control over our decision making, within a strategic framework and overall budget envelope agreed by the BT Group board. That means we decide on our own priorities and spending, and we make key decisions about how we build and maintain our network. We're also very open about our dealings with BT.

Our CEO reports to Openreach's own independent board and chairman and we have a strict set of rules in place about how we share information with our parent company. Our increased independence allows us to develop strategies and products alongside our CP customers, consulting them regularly as we look to tackle the challenges each of us face as a business.

This year for example, we asked for their views on the best way to upgrade consumers and businesses from existing analogue and copper-based services to digital Full Fibre and All-IP services.

197m kilometres of fibres and copper wires

We're delivering for the UK

We believe that everyone in the country deserves access to decent and reliable broadband - and our engineers work in every community, every day, to deliver better service, broader coverage and faster speeds across our network.

Over the last decade our capital expenditure has been more than £15 billion as we focus on building and maintaining our networks. We've helped to make superfast broadband available to more than 96 per cent of the UK, according to independent analysis by Thinkbroadband. Our network supports a thriving digital sector, making the UK one of the leading digital economies in the world.

More recently, the pandemic has seen our network providing a crucial lifeline for friends, families, businesses and public services when they're most in need. As we look to bounce back from the pandemic, we believe our network will be crucial to the country's social, environmental and economic success, and that's why we're on a mission to build a new ultrafast and ultra-reliable Full Fibre broadband network to 25 million homes and businesses throughout the country by the end of 2026.

It's an enormous and complex engineering project and it will future-proof the UK's digital infrastructure for decades to come.









Ultrafast and ultra-reliable Full Fibre broadband network to

25m

homes and businesses throughout the country by the end of 2026

Why Ultrafast Full Fibre?

Why Ultrafast Full Fibre?

In 2019, the UK Government set an ambition to make gigabit-capable broadband available nationwide by 2025.

This target has subsequently been adjusted to reaching at least 85 per cent of the country in the same timeframe. But, the ultimate aim is still a nationwide build and it's a hugely ambitious target.

At Openreach, we're ambitious too. And we're excited to be leading the way in making that target a reality.



Our Full Fibre build is the second largest infrastructure project in the UK after HS2 and we've already built our new network to 4.6 million homes and businesses. We're aiming to reach 25 million by the end of 2026.

From Alloway, in Ayrshire; to Helsby, in Cheshire; and Ivybridge, in South Devon we're building and investing more into our network and people than any other company.

But why Full Fibre?

More than ever, broadband is at the heart of how we live our lives. We use it not only to run our businesses and stream our entertainment, but to teach and learn, to create and communicate, and to enable us to work from anywhere.

and reliability.

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Full Fibre or FTTP (Fibre-to-the-premises) is a future-proof technology taking the UK's broadband network into the 21st century. Once installed, it can be upgraded for decades to come, without the need to be replaced or dug up, and it's impervious to bad weather conditions and electromagnetic interference.



Demand for video calls, streaming services, apps, and smart devices is growing all the time, and with that comes the need for ever increasing data speeds

Instead of using copper based networks, which were designed for the transmission of sound, FTTP is a fibre optic connection that's built for data and runs directly from our local exchange and into your home or business.

It delivers a broadband service that's up to ten times as fast as the current UK average and up to five times more reliable than copper cable and can upgrade speeds as demand evolves, with the potential for speeds up to 100 times faster than we have now.

We don't know exactly what demands the future will make of the broadband network, but we know that ultrafast Full Fibre has the capacity to handle it.

It's great for business

Building a nationwide Full Fibre network is crucial to the UK's productivity and prosperity, especially in the aftermath of the pandemic.

Practically overnight, the way people work has been transformed, making it even more important that Openreach, and other network builders, can support a more connected society.

Full Fibre brings a host of benefits for businesses, from allowing small firms to improve their online sales and marketing, to unlocking the potential and efficiencies of cloud technology. The superior bandwidth of Full Fibre means companies can securely upload, store, and access vast amounts of data off-site, saving time and money, and no longer relying on expensive equipment or office space.

It also provides the consistent connection needed for smooth high-definition video conferencing, meaning people can work from home without sacrificing effective communication.

It's great for **communities** and the **environment**

A recently updated report by The Centre for Economics and Business Research (Cebr) noted that nearly two million more people are working from home in 2021 relative to 2019, and more than 320,000 workers have moved out of London and other urban areas.

The report explains how this boom in remote working could lead to nearly one million people being able to return to the workforce by 2025, as working-age carers, older workers, and parents of dependant-age children take advantage of greater connectivity throughout the country. Overall, the Cebr report estimates that the nationwide rollout of Full Fibre will provide a £59 billion boost to UK productivity by 2025.

But it's not just about boosting productivity. Ultrafast Full Fibre broadband also offers a chance for a fairer distribution of opportunities, and it's massively green. A study by the Confederation of British Industry (CBI) found the quality of digital infrastructure to be a significant factor in deciding where to invest for 67 per cent of companies. And, by giving rural communities that chance to attract job opportunities and investment, Full Fibre will also help to make essential services like healthcare and education more accessible.

With a combination of increased rural job opportunities and remote working, the Cebr expect nationwide Full Fibre to remove the need for 300 million commuter trips, reducing CO_2 emissions by an estimated 360,000 tonnes a year.

locations

have now been included in Openreach's multi-billion-pound Fibre First build programme, including the UK's biggest cities (Birmingham, Belfast, London and Manchester)

Ultrafast Full Fibre broadband: a platform for UK growth

> **£59bn boost to UK productivity by 2025** powered by nationwide rollout of Full Fibre

300m commuting trips saved by people working from home because of Full Fibre

By 2038 the Nationwide rollout of Full Fibre will boost the UK economy by **£70bn**

270k people could move to rural areas – people free to live and work where they choose because of Full Fibre, helping to fuel growth

Rural build expansion (including Northern Ireland): **585 market towns and villages** are now included in our commercial build programme in harder to reach areas

Full Fibre facts



Fibre optics

Fibre optics are strands of glass around one tenth the thickness of a human hair



A single strand of fibre can provide 32 homes with Gigabit broadband speeds



Health sector

Fibre supports virtual clinics. A 2GB CT scan can be downloaded by a doctor in just 40 seconds

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No loss of quality

Fibre optic cables can send a signal over 120 miles with no deterioration



Environmental benefit

Less electricity is used to power fibre compared to copper cables



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Reduce CO₂ Connecting everyone to Full Fibre could remove **300m** commuter trips by 2025



Say goodbye to buffering A family of four can all stream ultra HD or 4k simultaneously

More reliable

A recent report says fibre is 70-80% more reliable than traditional copper





Fibre is fast

You can download a two-hour HD film in less time than it takes to make a cup of tea



Improving customer



Improving customer experience

We aim to deliver first time, every time, on time

We know how important a reliable internet connection is, so constantly improving the service we provide to Communications Providers (CPs) is always our number one priority.

Over the last four years we've driven significant improvements for our Communications Provider customers who rely on our network, and with the exception of this year we've consistently hit or exceeded all of Ofcom's Quality of service standards for broadband which have got tougher every year with one time repair increasing from 77 per cent in 2017/18 to 85 per cent in 2020/21, and on-time provision increasing from 89 per cent to 94 per cent over the same period.

But clearly 2020/21 was a year like no other.



The pandemic, the restrictions relating to it, and our own deliberate actions to keep our people and our CP customers safe were inevitably going to have an impact on the high levels of service we'd been delivering to that point.

And whilst we weren't able to achieve all of the Quality of Service standards in 2020/21, we engaged with our customers and Ofcom early in the pandemic, and throughout the year, to make sure we took the right steps to keep millions of homes and businesses connected throughout the UK. This year we invested around $\pounds 22$ million into proactive network maintenance – where we identify and prevent faults before customers report them. And by investing early in the year, we were able to get ahead of a significant increase in repairs and provisioning work compared to the previous year, especially when millions of people switched to working and schooling from home.

In fact, at a UK level our Service Delivery team delivered year-on-year improvements across the on-time Ofcom service measures achieving best ever service levels through completing record levels of engineering faults in unprecedented circumstances.

This was done whilst also managing to maintain the number of missed appointments we're responsible for, to just 2.8%, and we're continuing to invest in innovative ways to reduce this number further.

Despite the Covid-19 restrictions, we enabled a further one million customers access to our new ultrafast Full Fibre network in just over six months, and we added more than 470,000 customers to that network over the course of the year, with a high of around 20,000 in a single week shortly after restrictions lifted in March.

We also continue to improve delivery across our Ethernet services – the dedicated lines we build and maintain for businesses. Last year, despite the pandemic, we delivered these circuits to businesses, Nightingale hospitals, food distribution centres, vaccination centres and many more across the UK.

By the end of March 2021, we had managed to drive our 'average time to deliver' down to below 34 days – which is seriously fast for these kinds of connections – and over the last few years we've reduced that time to deliver by three working weeks. That at least partly explains why we're seeing record levels of customer satisfaction from our customers. It's quite a feat when you consider that some of these circuits are hugely complex and can be requested anywhere – even the most remote parts of the UK.

Working in partnership with Communications Providers (CPs)

As a wholesaler, customer experience will always be a team game with our CP customers, so we're constantly striving to improve things by working more closely and openly with them.

These stronger, deeper partnerships mean we can understand their service headaches better, and we can work quickly, collaboratively and with a strategic focus to remedy them, which benefits everyone.

We have regular, transparent bilateral and industry communications and forums, and we're constantly striving for better outcomes – for Openreach, CPs and their customers.

An example of this is our 'direct end customer contact' trial – a proof of concept that has produced brilliant results thanks to close collaborative working with the industry.



The trial took advantage of a new contact platform which uses artificial intelligence to communicate with end customers via text messages (SMS) and voice communications.

By helping customers to adjust and manage their own appointments, we've been able to prepare them better for what to expect when our engineers come to connect them to ultrafast Full Fibre, and we've been able to maintain and repair their services faster by giving them simple self-help fixes.

It's a new way of working that helped us reduce missed appointments – customers who received the messages had up to 20 per cent fewer missed appointments compared to customers not in the trial. That meant restoring thousands more customers' services faster and improving retention rates.

The trial model of the direct end customer contact is illustrated on page 22.



Our proof of concept has demonstrated brilliant results and close collaborative working with industry.

Innovation in end customer contact

We've been testing an intelligent customer contact platform which enables us to have brilliant, interactive, human-like conversations with end customers, via SMS and automated landline communication

Driving significant benefits for end customers and CPs

We've worked **collaboratively with CPs** to build aligned journeys that deliver **better customer experience with less effort**. CPs benefit from:

· Getting more end customers connected, and billing faster

• Less on the day failure – lower abortive visit and cancellation charges, better customer experience

• Lower cost to serve and propensity to contact

Current use cases		Benefits observed			
		Response rate	CP missed appointments	Cancellations	Visited faults
	 Full Fibre Provision (reducing on the day failure) Setting clear expectations on install work Appointment reminders & rescheduling 	80%	-23%	-46%	-
++ = = = = = =	 Appointed Provision excl. FTTP (reducing furthers) Appointment reminders Proactive rescheduling through Openreach 	83%	-19%	-59%	-
	 Superfast broadband Self Install (reducing early life failure) Router plug in guidance Post install self help to resolve basic in home issues 	69%	-	-10%	-5%

Continued industry

collaboration on the roadmap

We're now moving from Proof of Concept into a Trial phase, enabling additional opportunities for increased volume, additional CP participation and continued collaboration to:

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build differentiated journeys to meet the specific needs of business end customers

explore how we expose key communication journey milestones for CPs (e.g. initiated communications, 'confirm' received, 'change' request) enhance fault self help targeting to get end customers back in service faster

explore additional use cases to support our upgrade to digital phone lines



Looking ahead

Looking ahead In 21/22, we plan to invest around £24 million in maintaining our copper network (saving 170,000 engineering visits by fixing faults before customers report them), and a further three million overlaying high faulting copper network with ultrafast Full Fibre. We'll also invest in our people through new training, career opportunities and systems which help deliver service improvements (you can read more about this on pages 50–55).

In a nutshell, we aim to give customers a great customer experience with us every time.



Bridging the digital divide

Connecting rural communities to great broadband will always be much tougher and more expensive than delivering in densely populated urban areas. Rural premises are often spread out and more remote, meaning we have to install more new cable links to reach them. Our engineers will encounter more natural obstacles like forests, lakes and deep valleys with big costs involved in things like specialised machinery, digging, and extra man-hours. Also, we often find in these locations that we need legal permissions (what's called a wayleave) to build across privately owned land. That's why there aren't many companies out there doing it.



Our commitment to rural Britain is the largest of any network builder in the country. We'll be upgrading more than six million premises in the hardest-to-serve communities of the country and we're in a hurry to make this a reality.

It's all part of a target to reach 25 million homes and businesses by the end of 2026.

We've already built ultrafast Full Fibre technology to 4.6 million premises - from the Outer Hebrides to the Isles of Scilly – and that includes hundreds of market towns and villages.

But at Openreach we know the importance of rural connectivity.

It's considered vital by many communities and businesses in the countryside, and our enforced isolation during the pandemic has only sharpened that perspective.

We also know that when it comes to rural broadband, people expect more from Openreach.

Of course, we're a commercial business and there are other companies building broadband networks - but we take our responsibility to the entire UK seriously.



And we have a strong track record of investing more than any other company into rural broadband upgrades. That doesn't mean we can do it all though.

Rural connectivity

Rural connectivity is something governments and the whole industry need to tackle collectively. The reality is that some homes will always be too expensive and complex to reach commercially which is where we and other network builders need Government to support and help fund connectivity in those hardest of hard-to-reach areas.

At Openreach, we're always up for the challenge of taking our network further and faster. Adjacent are just a few of the ways we're working to tackle the digital divide.



1. Going further than anyone else

Right now, our engineers are upgrading more than 43,000 homes and businesses every week and we'll be ramping that up to 75,000 a week.

Ultrafast Full Fibre technology already built to 4.6 premises including

100s of market towns and villages

2. Using innovation

One of the great things about Openreach is having a crack team of telecoms experts – our Chief Engineers team. They're the best of the best, and they're constantly scouring the globe to research and develop new technologies, tools and techniques which will help us go further, especially in rural areas.

'The Chiefs' are armed with an array of clever kit like the Cleanfast machine, which can lay up to one kilometre of fibre cable in a single day (compared to just 20 metres using traditional methods). They're also using drones to fly fibre across rivers and valleys, and ground penetrating radars to guide our diggers. Read more about the innovations we've got up our sleeve on page 44.

3. Co-funding with communities

If your home or business isn't in-line to be upgraded by the private sector, or you can't wait for subsidised projects to reach you, our Community Fibre Partnership (CFP) scheme could be the answer.

This year we've agreed deals with 429 communities, providing ultrafast Full Fibre broadband to almost 35,000 homes and businesses that would've otherwise missed out or had to wait a long time.

It's all about coming together and combining resources, including funding, to deliver a faster solution and to date we've helped over 1,360 communities with a Community Fibre Partnership, providing fibre to more than 116,000 premises.

4. Partnering with governments

The UK Government's Building Digital UK scheme (BDUK) has been going since 2013, and so far, it's helped to extend superfast broadband services to more than 4.6 million premises. These are homes that wouldn't have been reached by private investment and we've played a huge role in that programme. As a result, more than 96 per cent of the UK can order superfast services today, and the build hasn't stopped.

In Wales for example, we've helped build superfast broadband to more than 95 per cent of the country (some 1.5 million premises) – and now we're working with the Welsh Government to go even further – with ultrafast Full Fibre being built to tackle more areas in the final five per cent.





Meanwhile we're helping the Scottish Government deliver its R100 scheme to upgrade rural homes in Scotland with high-speed broadband. That includes a huge programme of laying subsea cables to connect up 15 of the country's most remote island communities.

And the work will continue across the UK with the Government's new £5bn partnership scheme – Project Gigabit – which aims to partner with us and other builders and help connect up around six million premises in the final hardest to reach 20 per cent of the UK.

5. Helping other builders

Whilst we're out there building Full Fibre further and faster than anyone, since 2011 we've also been helping others to build their own networks by giving them access to our network of 4.9 million poles and countless underground ducts.

Allowing others to use our infrastructure helps builders slash the upfront costs of laying fibre cables and it reduces the time required for digging works. This means fibre can be installed in some streets in a matter of hours, where it would otherwise have taken days.

We're only going to be able to upgrade the whole of the UK by working together as an industry, so we've worked hard to make our infrastructure even easier to access and use by other companies.

So far, more than 80 companies have earmarked over 27,000 kilometres of our underground network and around 200,000 poles to deploy their own fibre, and we're very much open for more business.



80 companies 27k kilometres of our underground network

earmarked so far



Upgrading the UK

to Digital Phone Lines

Upgrading the UK to Digital Phone Lines

The UK's telephone network is changing.

Copper wires and analogue signals have served our nation for over a century. They've kept hospitals, schools and emergency services connected, they've powered card machines on our high streets and delivered some of most important phone conversations we've ever had with our family and friends.

But, because it's been around for a long time, it's no longer as efficient as it could be. Replacement parts are getting hard to come by and, it fails more often than we'd like, meaning it doesn't provide the world-class service that we need it to. That's why we'll be retiring the analogue phone network at the end of 2025.

By this point everyone in the UK will have been upgraded to a digital phone line, providing us with a greener, faster, and more reliable service. This means landline voice calls will soon be transmitted digitally in the same way your broadband works. By modernising the telephone network, we'll be able to do more than ever before, helping the UK to stay competitive on the global stage.

To enable this change, we'll need everyone in the UK from big organisations to small local businesses, data hungry families, to elderly relatives using their landline as a lifeline to answer the call and get ready for the Upgrade to Digital Phone Lines.



Once we've rolled out Full Fibre into an area, it doesn't make sense for us to keep lots of different old technologies running – it'll be very expensive, and it won't allow us to push forward with our plans to give the UK world class connectivity as quickly as we'd like. So, we've laid out a plan on how and when we're going to be switching off our old copper-based network.

When 75 per cent of the homes and businesses connected to a particular exchange can get Full Fibre you won't be able to buy our old copper products if full fibre is available at your premises. This applies to anyone who's signing up to a new contract, whether you're switching, upgrading or re-grading.

We've already stopped selling copper products in Salisbury in Wiltshire, and we've announced 220 exchange areas, covering over two million premises, where we plan to move to stop-selling legacy analogue products and services over the coming months.

The switch to digital will mean the upgrade of 14 million traditional lines across the UK over the next five years. Not only phone lines, but other systems which are dependent on them like alarms, lifts and other technology.

To help businesses make the switch, we launched a campaign to raise awareness and understanding of the process, with our <u>Call Waiting List</u> a subscription service providing the latest information, guidance and advice for businesses of different sizes, in different sectors and with different needs to help them make informed decisions about upgrading. This is particularly important for vital CNI (critical national infrastructure) organisations, to make sure the upgrade can be completed smoothly, and with minimal disruption for the wider public.



The network is changing

Analogue phone lines will have reached the end of their life by 2025 – so we're replacing them with **greener**, **faster**, and more **reliable digital services**.



Building responsibly

There's a strong sense of purpose at Openreach

We know how important our services are to people. And we know the huge impact that our business can have on our people, the communities we serve, and the environment. We take that responsibility very seriously.

Building safely

Like any employer, we have a duty to protect our people and the safety of anyone who might be affected by our business.

Under Health and Safety Executive (HSE) legislation, we're obliged by law to do 'whatever's reasonably practicable' to achieve that. But safety's about more than just an obligation.

Our colleagues aren't just employees or resources. And our customers aren't just customers.

They're all human beings. People with interests and passions, families and friends, hopes and dreams.

That's why we always encourage our people to prioritise their safety at work and to get home safely.

And for our part, we provide suitable training, equipment and awareness to control risks in our workplace.

Mitigating the risks

As you might expect, most of the safety risks at Openreach surround our engineering work.

Not a day goes by when thousands of our people aren't driving, climbing poles, going down holes, using heavy machinery and working near high voltage or high-pressure networks.

On top of that, our physical infrastructure can also present a risk to our people and the public if it's not carefully managed. Stuff like poles, wires, cabinets, electronics and manholes are there in virtually every street in the country, and they all need a comprehensive programme of maintenance and improvement. Wherever possible, our safety strategy is focussed on totally eliminating risks. And where that's not practical, to minimise the likelihood and the potential for harm.

For example, our engineers climb poles and ladders on a daily basis, as well as scaling buildings and other structures to install kit or carry out repairs. And as we accelerate the build of our Full Fibre network, we're climbing even more.

So, to mitigate the risks involved in climbing, we've introduced a new harness system called Tetra, which secures our ladders to a pole or building and tethers the engineer to the ladder, making it virtually impossible to fall to serious harm. We've now trained more than 18,500 engineers in how to use the Tetra system and issued them with new safety improved helmets and footwear.

Over the last year, partly as a result of this new technology, we've managed to reduce our rate of falls from height by more than half.

Another example is driving. With the second-largest commercial van fleet in the UK, our people travel around 18 million miles a month, therefore driver safety is a huge priority.



One of the ways we emphasise that is through our mobile **Driver Safety app** which uses an in-vehicle location monitor to feedback information to the driver about their braking, speed, acceleration and turning. The app is designed to encourage safe driving by allowing people to see their driving styles and helping to keep them and

the public safe. It also has the added bonus of helping us to reduce our carbon footprint.

Always keeping an eye out

As well as mitigating the big safety issues, we're also constantly on the look-out for any previously unforeseen or emerging risks, so we can always be one step ahead of a potential incident or injury.

Clearly this is a challenge.

Unlike many industries, our engineers usually work in uncontrolled environments – other people's houses, business premises, city streets, the countryside. So, anticipating the entire range of risks they're exposed to is almost impossible. But that doesn't mean we ignore them.

To help us grow our understanding and experience of these hidden dangers, we encourage all of our engineers to carry out on-site risk assessments before starting any work and to log any incidents they experience – including what we call 'near misses'. We then use that data to learn and develop our approach from there.

This year we've recorded all manner of incidents and near misses – from injuries on uneven ground to dog chases and road rage. And by logging and reviewing



our collective experiences regularly, we're able to constantly evolve our safety strategy to adapt to any new or emerging threats.

On top of that, we continue to build a culture which encourages Openreach people to prioritise their own safety.







work safe. home safe.

Our Worksafe-Homesafe campaign is a regular reminder to all of our teams that we care about them as people, that we want them to follow safe working practices, and ultimately that they should stop working immediately if they ever feel unsafe.

At the end of the day, the most important thing in the world and to everyone at Openreach, is that we get home safely to our family and friends.

Building sustainably

As a business, we understand the imperative to act on climate change and we're committed to reducing our operational impact. That's why we and our parent, BT are aiming to become carbon neutral by 2045.

One of the biggest impacts we can have is on the road, or more pertinently, in the air we all breathe. With more than 27,000 commercial vehicles, we operate the second largest commercial van fleet in the UK and last year our engineers travelled more than 211 million miles, using more than 43 million litres of fuel and producing an estimate of 113,000 tonnes of CO_2 .

To address that, we're aiming to transition a third of our fleet to EVs by the middle of this decade and we want a green fleet by 2030.

While we might still have some larger and specialist vehicles where electric options aren't even available yet, we fully support the Government's ambition to phase out diesel and petrol vehicles quickly.

Having said that, there are still some major challenges to address to meet our ambitions, such as being able to source the right vehicles, ideally from a UK-based manufacturer – and having charging infrastructure available at scale. With so many of our engineers parking at home or on the street, rather than at depots like some firms, a nationwide public charging infrastructure is vital if we're going to keep this show on the road. We're also keen to find zero emission vehicle solutions for specialist and heavier vehicles and we've taken a leadership position in the <u>UK Electric</u> <u>Fleet Coalition</u> and <u>Electric Vehicle Fleet Accelerator</u> groups to help us drive the necessary changes to address these issues.

Reducing waste in our supply chain

This year we've removed 43 tonnes of plastic from our supply chain, by working with key suppliers to remove unnecessary plastic packaging from their products.

Key contributors to our achievement has been that we've been able to make improvements by reusing and recycling, including saving more than 10 tonnes of plastic from going to landfill thanks to a blue rope trial. We use this rope, which has a high plastic content, to pull cables through ducts. It's critical to our build and we now collect used rope in a different way so it can be recycled and reused, reducing skip collections as well.

Product innovation is playing a part too. Whilst rope is essential for us, we're working on alternatives with a lower plastic content, and we've also made changes to the packaging that some of our products arrive in.

One example is the connectorised block terminals, which we use to connect premises to our new Full Fibre network. These crucial pieces of equipment used to arrive in brittle plastic packaging that went into skips and took up lots of space, but with our supply chain partners, we've now managed to develop a cardboard, pizza-style box that's much easier to recycle and takes up less space.

We've also introduced a re-usable drum to store and deploy fibre cables which saves wooden reels being thrown away once empty.

All of this work is central to our ethos as a business. As we increase the scale and pace of our investment and build activity, it's vitally important to us that we do that in a sustainable way.

We know there's more to do though and to that end, as a socially responsible business, we're aiming for 100 per cent of the plastic packaging we buy to be re-used, recycled or composted by 2025.



Harnessing innovation

Ambitious plans need ambitious innovations. If we're going to build broadband faster and bring better broadband to more communities across the UK, we need to keep evolving, so our teams are constantly looking to develop more effective and more efficient ways to work.

Some of these innovations impact the way we build broadband, with an eye on going faster and further. Whilst others ensure we're constantly improving what we provide to consumers and businesses, whether that's better maintenance techniques or new apps that help our teams deliver an ever-improving service. Here are six innovations that are changing the way we think and work:

1. Virtual Reality Training

This year, we've trialed virtual reality (VR) that has changed the way we train our engineers.

We've been using the technology to improve all manner of skills, from driving to working on high voltage networks and getting to grips with how to set up roadworks safely.

It's something we're using more and more of, and most of our training hubs now have dedicated classrooms with VR equipment.

There are quite a few advantages to doing training this way. It allows us to teach more people alongside each other and we can include live scoring,



assessments and analytics. We're also able to watch the sessions back to see what we can improve in the future and how certain decisions taken along the way impacted on the end result.

Most importantly, VR provides us with a controlled environment. Many aspects of engineering can be dangerous without the right approach, so training people in virtual environments helps us make sure they're ready to handle 'the real deal'.





2. Cleanfast Machine

As we accelerate our Full Fibre network build across the UK, we're naturally doing a lot of digging.

But traditional excavating methods can be slow. So, step forward the Cleanfast machine.

This friendly giant not only helps us to build further and faster, it also helps us keep disruption to the environment and local communities to absolute



3. Mappy

Mappy is an interactive online mapping tool that we've developed to help us plan where to build the network.

It helps our planners see lots of different mapped layers of infrastructure information, all built into one view. For example, homes that we've already enabled for full fibre broadband can be seen against the ones we're planning to reach and others where we're likely to build towards, as well as other useful information such as where there are reported faults in our network. minimum by sucking up all the waste 'spoil' material from the trench as it goes – hence the name!

The Cleanfast Machine uses 'rock-wheel' cutting technology which slices through hard surfaces and creates 1000 metres of narrow trenching for our cables each day. To put that into context – using conventional mechanical aids would get you about 20 metres per day.



4. Ground Penetrating Radar

Ground Penetrating Radar (GPR) uses a transmitter to send pulses of high frequency radio waves through the ground which bounce back off objects hidden underground to a receiving antenna which creates a digital 'picture' or cross-section of what lies underneath from the signal variations. Our engineers are using GPR technology throughout the UK to help minimise disruption and speed up the build. It allows us to see and map out a clear route for our new cables without any drilling, probing or digging. That means it can avoid the need for disruptive road closures and minimise the risk of obstructing or damaging any existing infrastructure already buried underground.





5. More Microtrenching

Also known as slot cutting, microtrenching is a technique we're getting better and better at.

But why's that important? Well, because narrow trenches (and we're talking around one centimetre wide here) means minimal disruption and impact to the streets and neighbourhoods we're building in. It also means a faster, cheaper build.

Our Marais and Ditch Witch Skidsteer machines are fitted with special wheel cutters that can excavate hundreds of meters of narrow trench every day. They're great tools to have in our kitbag.





Ditch-Witch Sk 1550 machine



6. Optical Test Head

The Optical Test Head is a nifty box of clever electronics that we plug in at our exchange buildings to help us ensure we're building a network to the quality and reliability our customers expect.

Engineers can access the test head remotely through a mobile app and it basically tells us whether we are building the network correctly. It also has the capability to monitor the network remotely giving us the ability to send out an engineer to fix a fault, even before the customer spots it!

Since rolling out the Optical Test Head, we've tested more than 831,000 homes and we are on target to hit an additional one million homes passed in the next financial year.

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Investing in our people

A great place to work



Openreach is a people business

We're a team of more than 35,000 skilled, resourceful and innovative people. And we tackle complicated engineering problems – from coordinating works with councils, highways agencies, energy suppliers and landowners, to installing and maintaining the complex kit that provides secure, high-speed broadband services.

We'll take on any challenge to build a better, faster and more affordable network that keeps everyone connected.

We're officially one of the UK's best companies to work for

This year we came 12th in the highly respected Best Big Companies to Work For list, run by B Company. It's the second time we've featured in the rankings, which result from surveying thousands of employees across the country – and we're really proud to have jumped up from 15th last year.

Openreach was recognised as a company that promotes wellbeing, provides good benefits and fair pay, and has a high level of employee engagement. We also received a Special Award for our Learning and Development teams, having increased our investment in skills, training and hiring during the pandemic.

Reap the benefits

As the UK's largest team of telecoms experts, we want to support and engage our people whenever we can. They already help us to shape our decisions and they have an extra stake in our success, with \$500 of BT Group shares given to all our people as a reward for meeting Openreach's service and performance targets.

On top of this, we recognise their successes with our Superstar scheme and we have annual shining stars awards for our best bosses, exceptional engineers and unsung heroes. Our 'pick and choose' benefit



package is available to everyone at Openreach and, this year, we've delivered wellbeing initiatives with our confidential, free support helpline which is always open to help colleagues who need extra support.

Every year, we actively encourage our people to participate in community activities through our volunteering programme. Everyone at Openreach can use up to three days a year to volunteer and they do that for a whole range of different charities, organisations and community groups.

Despite Covid-19 limitations on in-person volunteering, over 200 of our colleagues volunteered their time and expertise to help out this year, supporting partners like RNLI, Coastguard, Fire & Rescue, Special Constable. This year alone, our colleagues spent more than 6800 personal hours in volunteering.

Some of our colleagues also took part in the FA Playmaker volunteer force to support the 4-3-3 partnership with the home nation football associations. These football-loving colleagues stand ready to help their local community clubs once it's safe to do so.



Supporting our people in a year like no other

Like any organisation, Covid-19 has had a profound impact on Openreach and our people – but we've worked hard to minimise that impact with a variety of support.

For a start, we've avoided the use of furlough throughout the pandemic and we've made sure that none of our people would be financially impacted if they couldn't come to work due to school closures.

In March 2021, we went a step further by offering all our frontline workers a special bonus of £1,500 to recognise their efforts in keeping customers and the country connected. The offer's equivalent to about five per cent of the average salary across the BT Group and was made up of an immediate £1,000 cash payment, with an extra £500 in shares after three years.

Investing in skills and development

This year we've invested millions of pounds into professional development and our 12 dedicated regional training schools. We've provided more than 103,000 days of training during the last 12 months.

We continue to build and enhance our schools, including our award-winning 'Open Streets' – the purpose-built centres we designed to emulate a typical suburban street. These environments give our new and existing engineers the chance to improve their skills in a safe, authentic setting, without working on (or damaging!) the live network.

In the face of the pandemic, we completely transformed our approach to training and recruitment. By creating 36 new online courses, we were able to deliver training virtually to our new recruits that started within the organisation.

Creating tons of new jobs

On the recruitment front, thousands of candidates were able to complete our application process online, including virtual assessment hubs. This approach was so well received that we've decided to continue to recruit that way in the future.

In the two years before the pandemic, we recruited and trained more than 5,850 new trainee engineers and in 2020/21 we recruited a further 2,215 engineers – a mixture of trainee engineers and skilled hires.

As one of the country's biggest employers of apprentices, we bucked the prevailing economic trend in December 2020, by creating a further 5,300 new UK-based engineering jobs. These are made up of 2,500 roles within Openreach and an estimated 2,800 roles supported by partners in our supply chain.







Building a diverse and inclusive team

Historically our business and engineering in general has been a very white, male-dominated sector. It's no secret that diversity at Openreach isn't where it should be. We're determined to tackle that by building a team which truly reflects the communities we serve all over the UK.

This year we made progress in achieving inclusivity through our Pride, Gender Equality, Ethnic Diversity and Neurodiversity networks.

These groups have brought together people from all levels and backgrounds across Openreach and they're actively listening to our people to understand the issues and barriers they face. Alongside our allies programme, this means we now have colleagues who are actively driving education, awareness and celebration of our diversity and inclusivity throughout Openreach.





At the same time, we're continuing to work on new ways to ensure diverse career development opportunities and we've been implementing a major new education programme which supports all our leaders and colleagues to play their part in bringing our inclusive culture to life.

This includes the senior management team inclusive leadership journey, launched in December 2020, and RACE Awareness Training for our Executive Board and senior management team began in January 2021. In November 2020, we launched a four-week digital campaign aiming to encourage more women to apply for engineering roles. We also commissioned important research that can help us to make a real difference in recruiting a diverse workforce. <u>Research</u> shows that language barriers play a fundamental role in the recruitment process, with women 50 per cent less likely to consider roles that have a coded gender bias.

The report showed a 200 per cent uplift in applications from women when the language was changed in job applications. While shifts in the job



adverts were subtle, the results were overwhelming, demonstrating the key role that language can play in bringing more women into engineering – and this could have implications across many industries.

This year our new trainee engineering recruits were 12 per cent women and 10 per cent BAME people, and across all field recruitment, including both trainee and skilled roles, nine per cent were women and 8.7 per cent were BAME people.



Our finances

Revenue

Our adjusted revenue¹ grew three per cent for the year. This growth was driven by higher rental bases in fibre-enabled products³, up 15 per cent, and Ethernet, up seven per cent at year end. This was partly offset by declines in legacy copper products.

Operating costs

Operating costs¹ increased two per cent with higher service costs as we continue to deliver against our customers' increasing service expectations, increased Full Fibre provisions and pay inflation and a frontline bonus. These drivers were partly offset by ongoing efficiency programmes.

EBITDA

Capital expenditure

Free cash flow

Normalised free cash flow⁴ declined by 27 per cent due to flow through of EBITDA, capital expenditure and timing of working capital and lease payables.

Covid-19 impact

The impact in the last few months was limited to lower full fibre and Gfast sales as we temporarily paused non-essential work inside customer premises.



Our adjusted EBITDA² grew three per cent for the year.

Our capital expenditure increased by seven per cent due to investments in the network and connecting our customers, predominantly fibre enabled infrastructure, partly offset by efficiency savings and lower non fibre spend.

While our engineers were allocated key worker status, the UK lockdowns have inevitably impacted our trading as we made adjustments for the safety of our people and the public. The first few months of the year were characterised by lower provision and upgrade activity, partly offset by lower churn.

2. Adjusted (being before specific items, share of post-tax profits/losses of associates and joint ventures and net non-interest related finance expense)

3. FTTP, FTTC and Gfast (including single order migrations)

4. Free cash flow after net interest paid and payment of lease liabilities, before pension deficit payments (including their cash tax benefit) and specific items

^{1.} Adjusted (being before specific items). Adjusted measures don't include specific items which are Items that in management's judgement need to be disclosed separately by virtue of their size, nature or incidence, as explained in the Additional information on pages 197-199 of the BT Annual Report

Our priorities for

10

the year ahead



Our priorities for the year ahead

Our '**Big Bold Plan**' is the framework that we use for setting our priorities and our annual performance targets internally and for communicating our strategy to our people.

Our Big Bold Plan is organised around three key pillars that underpin our strategy:

Better service

We recognise that service has become more important than ever to customers especially during the pandemic as people moved to working and learning from home. Digital connectivity has become more integral to everyday life as a result and we recognise the critical role that Openreach has to play in serving our customers and the communities in which they live. Our aim is to meet and exceed customer expectations and make service quality a point of advantage by making sure that we're always doing the right thing, first time, on-time and every time for our customers.

Broader coverage

We're building ultrafast Full Fibre broadband across the UK, and at a pace. We've committed to build our new network to 25 million premises by end of 2026 – an increase on our previous ambition and we're adopting a balanced build across urban, suburban and rural areas. This future-proof network will serve the country for generations and we're going to build the vast majority of it commercially (under our own steam). We'll also continue to partner with Government and other funding partners, wherever appropriate, to tackle the digital divide and get better broadband to as many people as we can.

Faster speeds

We're bringing faster broadband to communities across the UK, but it's critical to our future that we make the most of our new infrastructure, by working with our CP partners to seamlessly upgrade customers across to the new platform and onto the right propositions. Where ultrafast broadband isn't available, we'll continue to be working closely with our CPs to ensure that customers are migrated onto the best available network technology.



Better service Broader coverage Faster speeds

Big Bold Plan



Our principles

Our principles

To support the delivery of better service, broader coverage and faster speeds, we've created five principles to work to.

Safe

01

Safety is absolutely essential to our future success. We're constantly working on improving our culture, tools, and processes to make sure that the safety of our teams (both Openreach and partner employees) and the safety of the public is always at the heart of what we do. This year we made huge changes in how we worked including how we helped to keep our people and the public safe during the pandemic.

02

Skilled

We believe in investing in our people, and we're proud to have been named as one of the Best Big Companies to Work For list in the UK for the second year running. We aim to maintain a healthy, engaged and highly skilled workforce where everyone is clear on their accountabilities and has the opportunity to develop their capabilities and progress. We will also work tirelessly to build a Diverse and Inclusive workforce that represents the communities we serve and where everyone can thrive. Read more about our investment in skills on page 50.

03

Simpler

We're constantly looking to innovate and develop processes and products that streamline what we do and make things simpler. To deliver effectively we're looking to simplify interactions with customers and suppliers, informed by simplified customer journeys and improved test and diagnostic capabilities, and become a more simplified and efficient business. This includes making organisational changes that enable smarter decisions closer to our customers in the field and investing in tools, systems and training to improve our customer provision processes and in life management.

04

Cost competitive

In order to fund our massive investment in Full Fibre, we need to drive better efficiency in our operations. We will do this by organising our business more effectively, working closely with our customers, contractors and suppliers. We're also constantly researching and innovating so that we can build faster and to an even higher quality, whilst also exploring the operational cost benefits that new fibre platform will provide once built.



05

Socially responsible

This year we've really seen the importance of the role that we play in keeping people connected. Our aim is to unlock opportunities across the country for our customers, our people and our planet by building, maintaining and connecting communities to our network in the most responsible, sustainable and local way we can.



Openreach

Board Members

Mike McTighe Chairman

Clive Selley Chief Executive Officer

Matt Davies Chief Finance Officer

Edward Astle Non-executive Board member

Liz Benison Non-executive Board member

Andrew Barron Non-executive Board member

Simon Lowth **BT Group nominee**

Jon Furmston Secretary to the Board

Executive Team

Clive Selley Chief Executive Officer

Matt Davies Chief Finance Officer

Richard Allwood Chief Strategy Officer

Colin Lees Chief Technology and Information Officer

Olly Kunc Managing Director, Service Delivery

Katie Milligan Managing Director, Customer, Commercial and Propositions

Kim Mears Managing Director, Strategic Infrastructure Development

Matthew Hemmings Managing Director, Fibre and Network Delivery

Catherine Colloms Managing Director, Corporate Affairs and Brand

Kevin Brady Human Resource Director

Sophie Bouckaert General Counsel and Secretary

Andy Whale Chief Engineer

Mark Shurmer Managing Director, Regulatory Affairs

Jon Furmston Board Assurance, Governance and Safety

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