

Building the connections that matter

Annual
Review
2023

openreach

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A message from Mike McTighe

Chair, Openreach



Without question, the last 12 months have been tough for everyone. Like other businesses, we've been hit by rising inflation and supply challenges. And we can see the pressures facing our people, our Communications Provider (CP) customers and households up and down the country.

In that context, I'm proud that we've achieved a solid year of progress at Openreach. One of the main reasons for that progress is that our purpose and strategy remain crystal clear.

As the nation's largest wholesale broadband network, we keep the country connected and we're building the next generation of digital infrastructure – ultrafast, ultra-reliable Full Fibre – to 25 million homes and businesses.

We're laser focused on that goal, because we know it will deliver the best possible outcome for our customers and help power the UK's growth and ambition for the decades ahead.

Delivering on our ambition

This year we've continued to build our new network at record pace.

We've now made Full Fibre available to ten million homes and businesses – including three million in mainly rural locations. We continued this balanced approach to build in rural and urban areas, reaching more than 59,000 premises every single week.

We remain focused on efficiency. We've maintained a low cost of £250-350 to reach each premises despite inflationary pressures and without compromising on quality or safety standards.

And, most importantly for our future, we're winning the real race – to upgrade customers to the new network.

We've seen a growing appetite for Full Fibre, with record order and provision volumes over the last 12 months and more than 3 million homes and businesses already reaping the benefits of our fastest, most reliable broadband connection.

And we're not stopping there.

We expect substantial growth in customer numbers next year – driven by a sharper price offer and the long-term certainty we're offering CPs.

Investing in people, diversity and inclusion

As ever, our 37,000 people are at the heart of our business and purpose.

This year, we hired more than 2,800 people and we continue to invest heavily in training and developing our existing workforce. We've already retrained thousands of copper-skilled engineers to work on our new fibre network.

Given the financial challenges everyone's facing, it was also important that BT Group was able to help as many of our colleagues as possible through a cost of living pay rise.

At the same time, we've made good progress on becoming more inclusive and diverse. We know this is a long journey for a business and industry like ours, but we're committed to building a workplace that fully represents the communities we serve all over the UK. More of our trainee engineer recruits were women last year and our people networks – which champion diversity and inclusion – have swelled to 7,500 members.

Being safe and responsible

At Openreach we have a responsibility to both our people and the planet.

The work we do comes with inherent risk, so our safety practices are paramount. I'm encouraged by the progress made in further strengthening our safety culture for our people and the public. But one injury is one too many, so we continue to invest in training and innovations.

We also understand we're in a unique position to deliver positive environmental change.

Our 30,000 strong van fleet represents an opportunity to reduce the impact we have on the atmosphere, and we've pledged to switch to electric or zero emission vehicles by 2030.

We've already upgraded more than 2,000 diesel vans to electric but there are considerable challenges to this programme, with a lack of charging infrastructure and shortages in the supply chain. We'll be working hard with stakeholders to remove these barriers in the coming year.

Competing fairly

With this massive investment and transformation that's happening across the country, it's no surprise to see increasing scrutiny on the telecoms market and the intense competition that's playing out.

With that in mind, we understand our legal and regulatory obligations intimately and we're committed to competing fairly whilst supporting a thriving industry.

It's very clear. Our job at Openreach is to maintain a strong and sustainable business for our shareholders, our colleagues and the nation.

Upgrading the UK to digital phone lines

Responding to BT's plan to retire the analogue Public Switched Telephone Network (PSTN) system is a critical programme for Openreach, and we've continued our work this year to support CPs and the industry to withdraw analogue services across the UK.

Our trials in Salisbury and Mildenhall have helped us test, understand and improve the readiness of all types of customers for this change, and we've honed our ability to migrate them smoothly and safely to futureproof, digital products.

We'll continue to accelerate this work in the coming year, when we also hope to see a step change in awareness across the UK as CP migrations ramp up.

Looking forward

Broadband usage hit record-breaking levels in 2022, and we know that faster, more reliable connectivity has become a necessity for most people.

With this in mind, our focus next year will be to keep building, delivering and upgrading.

The more customers we upgrade to our Full Fibre network, the more we can all reap the benefits of an ultrafast, digitally connected economy.

As ever, I thank all our people for their dedication, resilience and the good progress we've made towards fulfilling our goals this year.

Mike McTighe

Chair, Openreach



1
We're
Openreach

We're Openreach

We're the people that make the **net work**

We're the UK's largest wholesale broadband network provider. Our purpose is to build the connections that matter and our ambition is to build the best Full Fibre future for the UK.

We build and maintain an open wholesale network – which means any company can have access to our services under equivalent prices, terms and conditions – and almost all of our products and services are regulated, so we offer a fair and level playing field for all our customers. We have more than 680 Communication Provider (CP) customers who use our network to provide broadband, phone and TV packages to millions of homes and businesses nationwide.

Our network is made up of more than 254 million kilometres of fibre optic cables and copper wires. If laid out flat, these would go round the world 6,330 times! To maintain and grow a network of this scale requires an exceptional team, and our 29,000 field engineers work around the clock, in all kinds of weather and in every community. Last year they completed 10.4 million engineering jobs, installing and maintaining the equipment that provides fast, reliable connections to millions of people.



10.4m
engineering jobs
completed

Our work often involves liaising closely with local councils, highways agencies, energy suppliers and landowners, to solve complex engineering and logistical problems.

We enable competition

Openreach was formed in 2006 to help stimulate competition in the UK's telecoms market by offering equal wholesale access to our network.

Today, 17 years later, the UK has one of the most competitive telecoms markets in the world and we support more than 680 CPs – like BT, Sky, TalkTalk, Vodafone, and Zen – in offering choice across a huge range of retail products and services.

In 2015, the UK's communications regulator, Ofcom, published its Digital Communications Review, which aimed to make sure that the telecoms market continues to best serve consumers and businesses.

The review established Openreach Limited as a wholly owned subsidiary of BT Group plc – which means we're a legally separate company, working within a strategic framework and budget agreed by the BT Group board.

Whilst BT Group is our parent company, we're open and transparent about how, why and when we have dealings with them. Our CEO reports to the Openreach board and chair, who are independent, while any information sharing with BT Group is governed by a strict set of rules.

We also have our own management team and people who set our purpose and strategy, making the calls on how and where we expand and maintain our network, and deciding on our priorities and spending.

Our greater independence means we're able to collaborate more closely with our customers, helping us proactively take on problems and challenges within our industry. We consult with them regularly to make sure we offer them the best possible network services, and so that they can offer equally good service to consumers and businesses.

We also provide access to our vast 'passive' network of ducts and poles across the UK, enabling dozens of alternative network providers to grow and compete with Openreach at an infrastructure level. Read more about this on [page 26](#).

Alongside our broadband network, we build and manage hundreds of thousands of Ethernet lines. These are dedicated high-speed broadband lines for critical connections. They connect everything from hospitals, stadiums, schools and financial institutions to businesses, mobile masts, CCTV and data centres. They provide huge bandwidth and come with built-in fail safes, to secure the connections we all rely on daily.



We're Openreach

We're the people that make the **net work** continued

We're delivering for the UK

It's been a challenging year for everyone in the UK, with global and political uncertainty and costs rising for consumers and businesses alike.

We're proud that we've kept delivering for the UK - one of the world's leading digital economies - and continue to be the cornerstone of how people live and work online.

We've already helped to make Superfast speeds (a minimum of 30 Mbps download speed) available to more than 97 per cent of the UK and we're continuing our once-in-a-lifetime UK-wide infrastructure upgrade, building Full Fibre to 25 million homes and businesses and securing the country's digital future for generations to come.

We're also working hard upgrading people to use the new Full Fibre network. More than three million homes and businesses are now experiencing the benefits of our fastest and most reliable broadband and we're continuing to work with our CP customers to upgrade more and more homes and businesses to our Full Fibre products.



29k 

Field engineers working around the clock

254

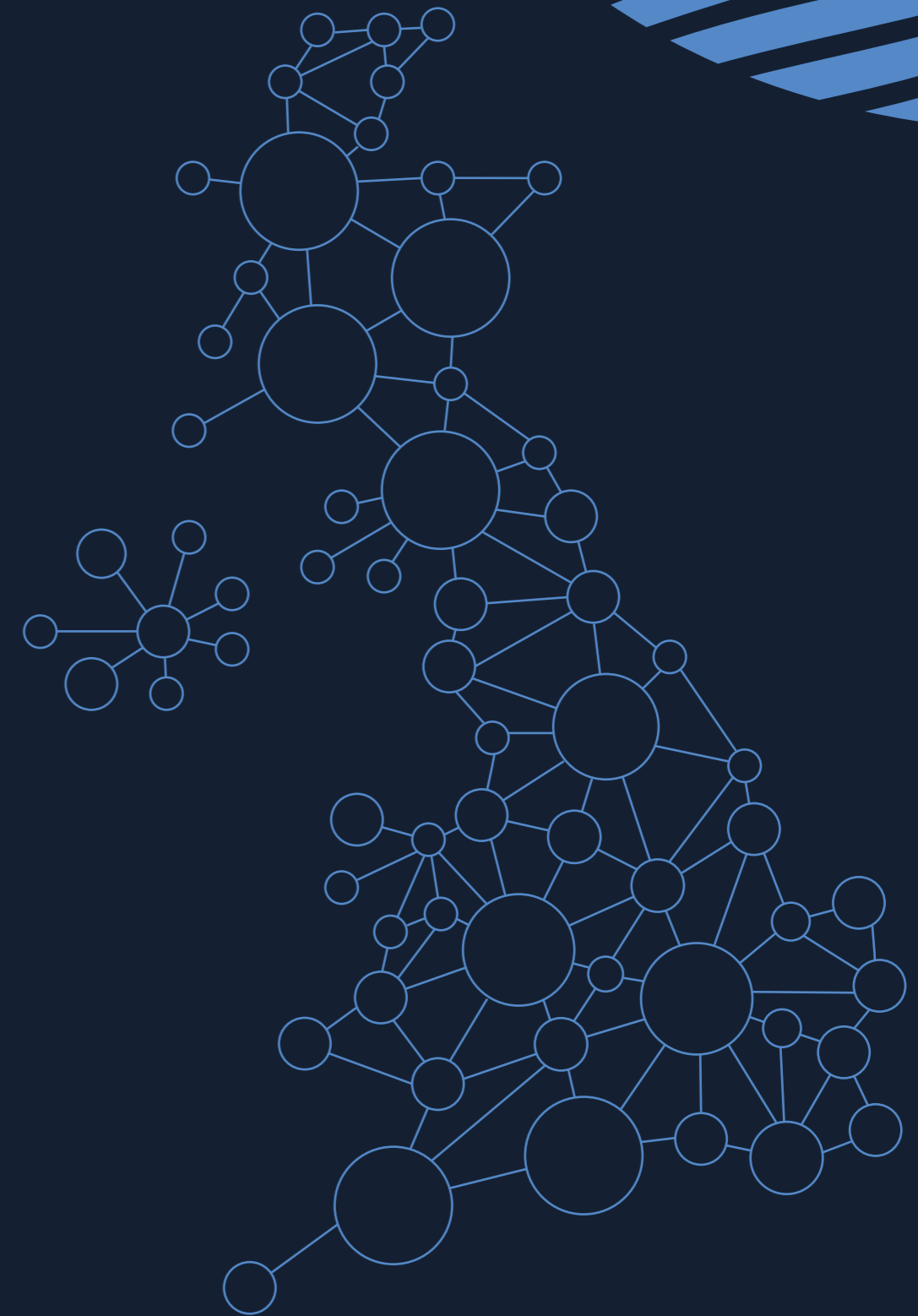
million kilometres of fibre optic cables and copper wires.

97% 

of the UK can get **Superfast broadband** as a minimum

3 million

homes and businesses experiencing the benefits of **Full Fibre**



2 Our Strategy



Our Strategy

The importance of nationwide, reliable connectivity can't be understated and it's still our mission to build the best possible network with the highest quality of service, and make sure that everyone in the UK can be connected.

At the same time, we want to be the most efficient business we can be and the way we deliver is just as important to us as what we deliver. That's why our priorities underline our determination to become an ever more inclusive, safe and sustainable business.

Our strategic priorities are to:

Deliver

Great service

We're committed to better service every day, across all of our platforms. We'll keep working closely with providers to find the best ways to deliver a great customer experience. We're committed to the development of all our colleagues and we're using data analysis to drive continuous process improvements.

Build

Full Fibre broadband at a pace to 25 million premises

We'll work closely with our partners, using innovative tools and techniques, to build Full Fibre broadband further, faster and more efficiently than anyone else. At the same time we're determined to help close the UK's digital divide. We'll keep building in rural and semi-rural areas, reaching 650,000 premises over the next year.

Upgrade

Our customers brilliantly

We'll encourage customers onto our new Full Fibre broadband network as soon as possible so they can benefit from faster speeds and higher quality of service. In the year ahead, we're aiming to connect around 45,000 customer premises per week to Full Fibre by working with providers to offer the right commercial incentives and by ensuring a smooth upgrade experience. For those customers outside our Full Fibre footprint, we'll always strive to make sure they're on the best available platform.



Our Strategy continued

Our principles are to work:

Safely

So that everyone goes home at night safe and well.

We're working to embed a safety-first mindset across our business and have a zero-tolerance approach to serious events. Our focus is on improving key interventions, like Behaviour Safety training and Life Saving rules, and we're supporting our colleagues to reduce sick absence and improve mental health.

Inclusively

So we better represent the communities we live and work in.

We're determined to instil and promote a culture of inclusion and to be proactive in improving the diversity of our workforce. In 2021, we published our Diversity and Inclusion commitments, where we laid out our ambitions and targets. We'll continue to update on our progress every year. We're also embedding diversity and inclusion requirements into our supplier contracts and expectations. We'll continue to invest in training for all our people whilst expanding support for our People Networks and Allies programme.

Efficiently

So we're more effective as a business.

We're committed to building processes and systems that work smarter for us, and our partners and customers, in an increasingly challenging environment. We're improving performance and productivity through innovation in tools, systems, training, and field incentives. Across every facet of the business, we're using data strategy to improve the quality of our insights.

Sustainably

So we can protect and care for our natural environment.

We're serious about being a more responsible business, to the planet and the communities we serve. We're working with local communities to reduce our impact on nature, and we've pledged to be a net zero company and switch the bulk of our commercial van fleet to electric by 2030. We expect to have around 4,000 electric vans in our fleet by the end of March 2024. We're also reducing energy consumption and waste by adopting 'circular' ways of working and by partnering with our key suppliers to cut packaging and single use plastic from our supply chain.



3

Building Full Fibre



Building Full Fibre

Fast and reliable broadband isn't a luxury. It's critical to millions of people and a crucial part of the nation's infrastructure.

In 2019 the UK Government began to make commitments for improving the country's networks and that will see gigabit capable broadband made available to at least 85 per cent of the UK by 2025. At Openreach, we're investing £15 billion into building Full Fibre. As one of the UK's largest and most successful infrastructure projects, our build will be the bedrock in achieving the UK Government's ambition.

Not only are we building a brilliant new network, we're doing it on an enormous scale and at an unprecedented speed to reach 25 million homes and businesses across the UK. We believe we're building at the fastest rate in Europe, and our engineers reached 59,000 new premises every week.

We're also building everywhere from Scottish islands to Cornish coves, and from the valleys of Wales to big city streets. We've included more than 2,800 cities, towns, villages and hamlets in our build plan so far, making full fibre accessible to all kinds of communities across the UK.

We're building everywhere

Our network is the largest in the UK and we're growing it every single day. We're the only company that's adopting a balanced build across rural and urban areas and we're working with governments, local authorities and local communities to stretch it to places that the private sector can't reach.



Did you know?

So far, we've built Ultrafast Full Fibre broadband to more than **10 million premises** – that's already more than **40%** of the way to hitting our **25 million target**, including 3 million in the hardest to reach areas.

What is Full Fibre?

For decades, our broadband networks used copper wiring to connect our exchanges with street cabinets and then on to homes and businesses. It was great at what it was designed for – transmitting voice through electrical signals. But for a digital era, we need a network designed to transmit data – faster and more reliably – that's able to cope not only with the demands of today, but for generations to come.

Full Fibre broadband, or Fibre-to-the-Premises (FTTP), connects our exchanges directly to homes and businesses using fibre optic cables, with no copper and no street cabinets. Fibre optic cables are comprised of individual glass fibres, each one-tenth the diameter of a human hair. Whereas copper cables transmit data through electrical signals, in fibre optic cables the data is conveyed through the fibres by high-speed pulses of light. This unbroken Full Fibre connection allows for data to travel at much higher speeds without losing signal strength over distance.

Our new network

Since 2019, when the UK Government set an ambition for upgrading the nation's networks, more than 100 infrastructure providers have joined the race to deliver Full Fibre broadband.

While the benefits of Full Fibre broadband technology – like increased speeds and reliability – are often the same, there's a huge difference when it comes to what each network provider can deliver. There are also some big things which we think set Openreach apart...



Building Full Fibre continued



We're minimising disruption and maximising innovation

Building a new network means installing new cables up and down the length and breadth of the UK. For many infrastructure providers, this means digging up pavements, pedestrian areas and roads. For us, we're re-using our existing telegraph poles, underground ducts, cabinets and exchanges which is not only cost effective, but allows us to build at pace, and reduces the number of roadworks and disruption to pedestrians and motorists. Where we do need to build new infrastructure we use innovation to reduce the impact to the areas, that allows us to also build quickly – like our 'ditch witch' that allows us to lay 600 meters of cable per day.

We've got decades of engineering experience and training

We've been building and maintaining broadband connections in the UK for decades. Many of our 29,000 engineers have built careers with us, some for more than 50 years. They have collectively accumulated half a million years' experience, ensuring they deliver the highest quality service. And they're always re-training and learning new techniques – at our 11 dedicated training centres across the UK, we've invested more than £31 m in training. This means that when an engineer is building Full Fibre, delivering your order into your home or fixing an issue, you'll always be getting the highest quality service.



Did you know?

We're making the most of our existing **4.1 million poles**, **478,000 kilometers** of ducts and **5,600 exchanges**, to build our full fibre network at pace and minimise disruption.



Did you know?

We reskilled nearly **5,000 copper engineers** in the last year to work on our new Full Fibre network.

Building Full Fibre continued



We're futureproofed

Our network is ready for whatever the future holds. Building Full Fibre is a once-in-a-generation project and we know we can upgrade our network seamlessly as broadband technology develops. In fact, the cables we're laying today can potentially support speeds 100x faster than anything we have currently, without the need for more road closures and civil engineering.



Did you know?

Since the pandemic, the UK's internet usage has soared, doubling in 2020 and increasing year on year with more data downloaded last year than ever before¹. The rise in usage is set to continue as technology becomes more sophisticated and integral to people's daily lives.

1 UK's broadband hit record-breaking levels in 2022 (openreach.com)

We offer the best choice of service providers

We're a wholesaler, but we enable end customers to pick from the widest choice of retail service providers. Our network now supports more than 680 service providers. There are big, well known names like BT, Sky, TalkTalk and Vodafone, as well as smaller players like Zen and many, many more. Customers can switch between providers on our network with a minimum of fuss and usually with no need for an engineer visit.



Did you know?

Providers who use our network have won prestigious customer service awards this year, including votes by readers of The Daily Telegraph and Expert Reviews, respondents to the Broadband Genie survey and the Uswitch and Which? awards.

We're ultrafast and ultra-reliable

Our network delivers amazing speeds and dependable reliability. Fibre optic cables are far more durable than copper cables because they're resistant to water damage, extreme temperatures, and electrical storms. They also use light from a laser to transmit data, so they aren't susceptible to electromagnetic interference. And they also have a low rate of 'attenuation', which means unlike other technologies, the signal strength remains pretty consistent regardless of the distance your home is from our exchange.



Did you know?

We're currently launching download speeds of up to 1.8Gbps and upload speeds of up to 220 Mbps. That's 10x faster than the average UK broadband connection speed and means you could download your top 100 music tracks in less than seven seconds.



Building Full Fibre continued



We've built
Ultrafast Full Fibre
broadband to more than
10 million premises

Growing the UK economy

Our Full Fibre broadband network is a growth engine. It will help to increase productivity across the nation and grow the UK economy by connecting consumers, businesses, services and entrepreneurs.

According to the Centre for Economics and Business Research (Cebr), our Full Fibre build programme could give a £72bn boost to the output of the UK economy by 2030. This is the equivalent of 294,960 new SMEs being created across the country or adding 25 new businesses in every local council in the UK.

By providing increased capability for people to work from home, an estimated 533,000 new workers could also enter the workforce by 2026. This includes older workers, parents and carers as groups that particularly benefit from remote, flexible working.

Digital infrastructure supports the development of rural communities, with a study by the Confederation of British Industry (CBI) finding that 67 per cent of companies use it as a crucial metric when allocating where they invest. A Full Fibre network that stretches throughout the UK can give rural communities the chance to attract investment, which in turn provides job opportunities, and supports the provision of essential services like education and healthcare.



4 Upgrading customers

Upgrading customers

We're building the best Full Fibre future for the UK, but building a great network is only half the job – we have to get customers using it.

That way they can experience the full power and benefits of Full Fibre and we can provide a brilliant, more efficient service. At the same time, we're helping to move the UK from an analogue past to a digital future by transitioning customers away from older copper products and giving them access to new, digital phone lines.



Upgrading our customers to Full Fibre

A big part of upgrading our customers brilliantly is about making sure that Full Fibre broadband is available to, and taken up by, as many people as possible.

Last year, we introduced a new pricing structure for our Full Fibre products, known as 'Equinox'. This meant that CPs who make Full Fibre broadband the default choice for their customers, where it's available, would receive a reduced wholesale price.

By giving providers some long-term certainty, and ensuring Full Fibre is their default choice, our pricing has helped CPs to offer attractive packages to customers and encouraged more and more homes and businesses to benefit from fast and reliable connectivity.

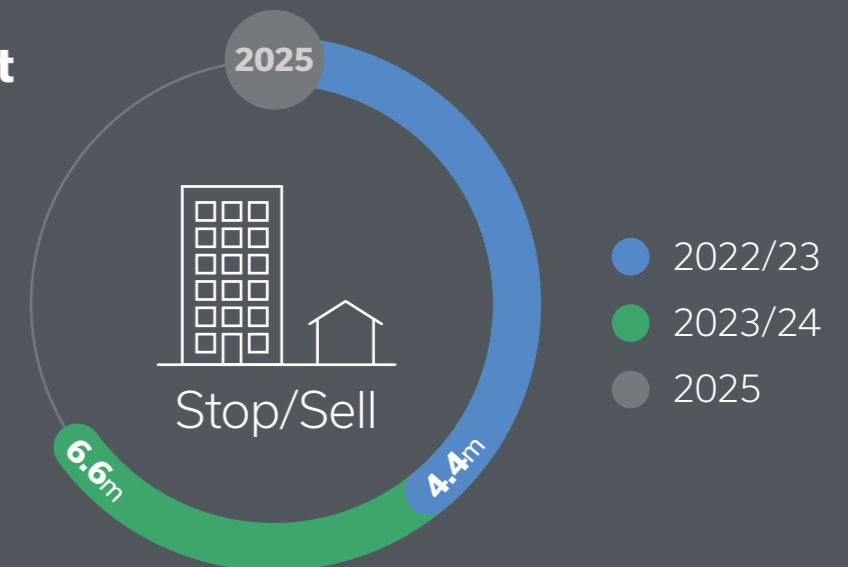
We had 49 of our CP customers sign up to the offers and we ended the year with more than three million Full Fibre customers.

This year, we laid plans to introduce further discounts – dubbed 'Equinox 2'. In addition to these discounts and where we build Full Fibre to more than 75 per cent of an exchange area, we stop selling older copper technologies. This helps ensure that as customers decide to change their service or buy a new service, they are upgraded to the latest Full Fibre products. By the end of March 2023, we'd reached this 'stop sell' point at 460 exchanges, covering over four million homes and businesses, and a further 252 exchanges covering 2.2 million homes will follow in the next 12 months.

We stop selling older copper when we've built Ultrafast Full Fibre to 75% of an exchange.

460 exchanges covering 4.4 million homes and businesses - reached this point by the end of March 2023

252 more covering 2.2 million premises - will reach this point over the next 12 months



Upgrading customers

continued



Raising awareness

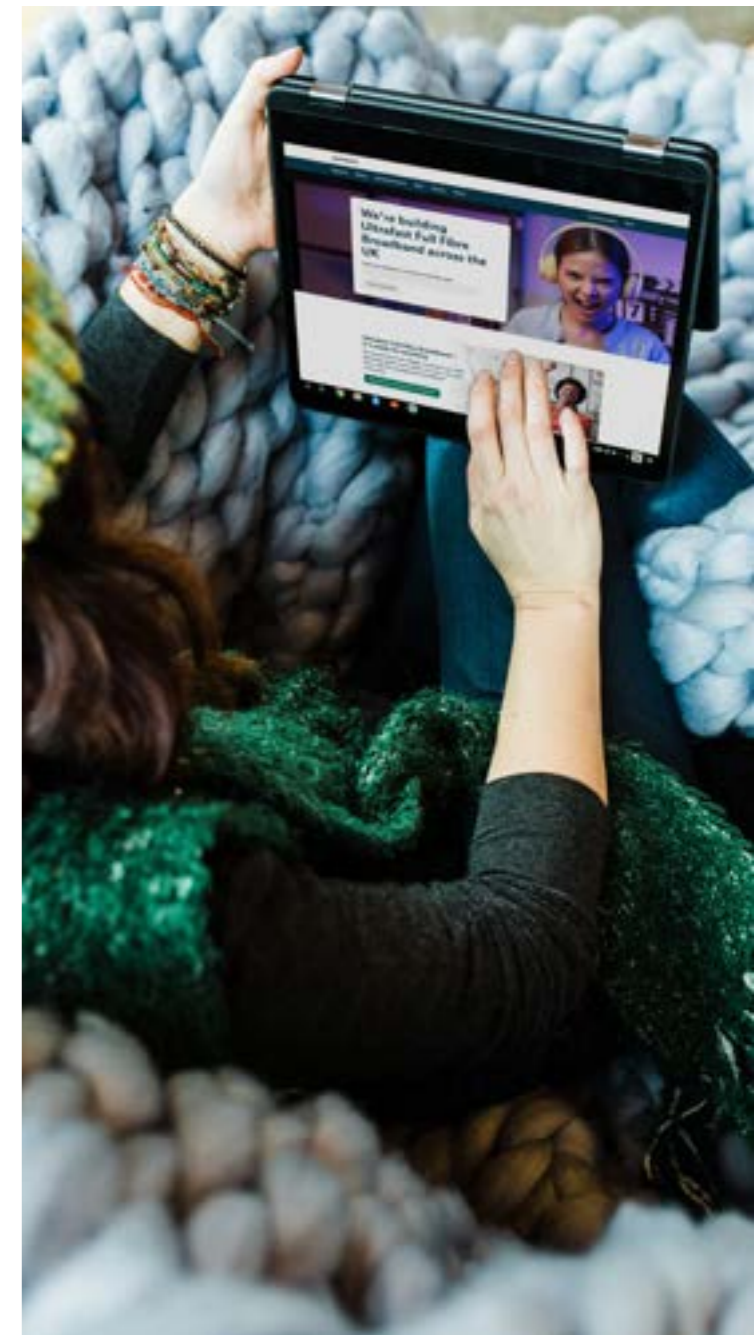
We want as many people as possible to benefit from taking up Full Fibre broadband and we have a role to play in spreading the word. We're using our fleet of more than 29,000 vans, and our network of 100,000 street cabinets, to broadcast the benefits of Ultrafast Full Fibre, and we're now running targeted digital advertising to let people know we're building in their area. Once they know that Full Fibre is coming, they can visit our website and use our new and improved postcode checker, through which more than 650,000 people have already registered their interest.

We've also begun working with a small number of influencers and content creators on various social media platforms, including British Touring Car driver Nicolas Hamilton, to talk about their broadband experiences both before and after adopting Ultrafast Full Fibre.

Rising demand

The combination of our Equinox pricing offer and the measures we and CPs are taking to make people aware of Ultrafast Full Fibre are helping to drive an increase in customer demand. Some 30 per cent of customers in our Full Fibre footprint have now been connected, meaning that we're not only building at pace; we're also filling up the platform at double the rate of all the other Full Fibre network providers combined.

With more than 3 million customers and nearly 40 per cent of total fibre orders now being for Full Fibre we've also been learning lessons fast to refine our provisioning processes and make upgrading as smooth and simple as possible for end customers. This year, we averaged 32,500 connections per week, an increase of 63 per cent on 2021/2022. What's more, over 70 per cent of those orders are at 100Mbps+ Ultrafast speeds.



Upgrading customers

continued

Upgrading to digital phonelines

The UK's telephone line system is a wonder of engineering. It was built more than a century ago and the intricate network of copper wires has kept delivering, keeping hospitals, schools, banks, shops, friends and families connected.

We need the UK's phone lines to deliver a world-class service, to be cost-efficient and, most importantly, reliable. Over the years, the ageing copper network has become more difficult to repair, as replacement parts become harder to source, and repairs have become increasingly necessary. Ultimately, it needs to be upgraded.

To address this BT Group, which owns the analogue Public Switched Telephone Network (PSTN) phone network, has decided to retire it by the end of 2025. That means by 2026, almost everyone in the UK will need to have been upgraded to a digital line and 'landline' calls will be made over broadband instead – just like we do with Zoom and Microsoft Teams calls today. At that point, everyone will be able to enjoy a faster, greener and more reliable service.

At Openreach, our role in this transition is to withdraw the analogue products that work over BT's network – including our Wholesale Line Rental (WLR) product.



The impact of going digital

Landline phones aren't the only things affected by the switch to digital – key pieces of hardware like alarm systems, lifts and healthcare pendants will also be affected. That's why we established a test lab at our headquarters in London, which is open to all hardware vendors. The lab provides an environment where manufacturers can replicate the conditions that occur when switching to digital lines and it's a great way for them to figure out the best ways to manage the transition. We're also working with charities, consumer groups, local councils, governments and organisations that manage critical national infrastructure to understand the needs of all types of customers.

BT Group has decided to retire the analogue Public Switched Telephone Network by the end of 2025

That way we can work together to create industry-wide solutions. For example, we know some people use their landline purely as a telephone service, without buying a broadband product at all, and it's important that there's still the option of retaining a telephone service only. In Mildenhall, we've announced plans to pilot a new digital broadband product (Single Order Transitional Access Product or SOTAP) for customers who only want a phone line service. We've also been piloting two trials, in Salisbury and Mildenhall, to test the processes involved in upgrading communities as smoothly as possible. These trials have helped providers move their customers to fibre-based digital services and we've drawn lessons that we can apply nationwide. Most homes and businesses in Salisbury and

Mildenhall has now moved to fibre-based digital lines, and we've extended the trial period by six months, to October 2023, so we can help the remaining residents make the switch.

Decoy Studios



Our **£30 million project** to bring Ultrafast Full Fibre broadband to more than 100,000 homes and businesses across Suffolk has already hit the right notes for a leading music studio near Woodbridge.

Decoy Studios – which works with world famous artists including Sam Smith, Ed Sheeran, Lewis Capaldi, Snow Patrol and The Maccabees – is based in the small village of Melton, and award-winning producer Cenzo Townshend was struggling with slow download and upload speeds.

Needing to regularly transfer large music files between their rural Suffolk studio and places like London and Los Angeles, their connection was so slow they could only

upload and download recordings at night. They began to fear they'd begin to lose ground on rival studios and struggle to keep attracting the stars who value the tranquillity of the Suffolk countryside when writing and recording new material.

Things couldn't be more different since our engineers completed the build, with Decoy Studios enjoying some of the fastest speeds available in the UK.

5

Delivering great service



Delivering great service

We know how important a solid, stable phone and broadband connection is to our customers. And we know that when things go wrong, people just want it fixed, pronto. So delivering a great service for every customer who uses our network is always one of our biggest priorities – and this year's been no different.

It's fair to say it's been a challenging 12 months for our people and teams.

Firstly, we've been managing a very welcome surge in demand for our newest Full Fibre services. In fact, orders for our Full Fibre products have doubled in the last two years.

At the same time, we've been striving to deliver even higher service standards across all of our existing products and networks.

But this year we've faced extended periods of absence as a result of industrial action and Her Majesty Queen Elizabeth II's funeral. And there have been periods when Britain's wet, wintry weather brought strong headwinds of a different kind.

Given all that, it's a source of pride that we've continued to provide a solid underlying service across all of our products and services. It's important to note that we didn't achieve all of the 35 regulated service measures – which are set for us by Ofcom and cover both the business and residential markets – but this doesn't tell the whole story when it comes to the progress and improvements we've been making.

This year, we've adopted more agile processes to get and resolve customer issues quicker. We've enhanced our live chat process meaning we now accept complaints on the day, whereas previously it took eight days through a more manual system. This new process allows CPs and members of the public to get a real time response, and we're currently responding within 20 seconds. We've also reduced the time it takes to resolve issues for our most vulnerable customers by 53 per cent.

Improving communications with end customers

At the same time, we've been working to improve the way customers can engage with us and, after successful trials in 2021, we worked with CPs to expand our use of "direct end customer contact".

We now use a system called ContactEngine, which is powered by AI, to talk to end customers and enable them to take control of things like appointment dates.

They can also troubleshoot simple faults with our self-help guides and, as a result, we've seen an 25 per cent reduction in missed appointments on our Full Fibre network with fewer cancellations. The self-help guides have also helped us reconnect more than 65,000 customers faster than we would've done without them.

Much of this work is reflected in our CP and customer satisfaction results, which have both improved year on year.

Our Net Promoter Score (NPS) is now at +42.1 for CP perception, +33.9 for Copper and Fibre products (which is close to our best ever level) and +50.2 for Ethernet.

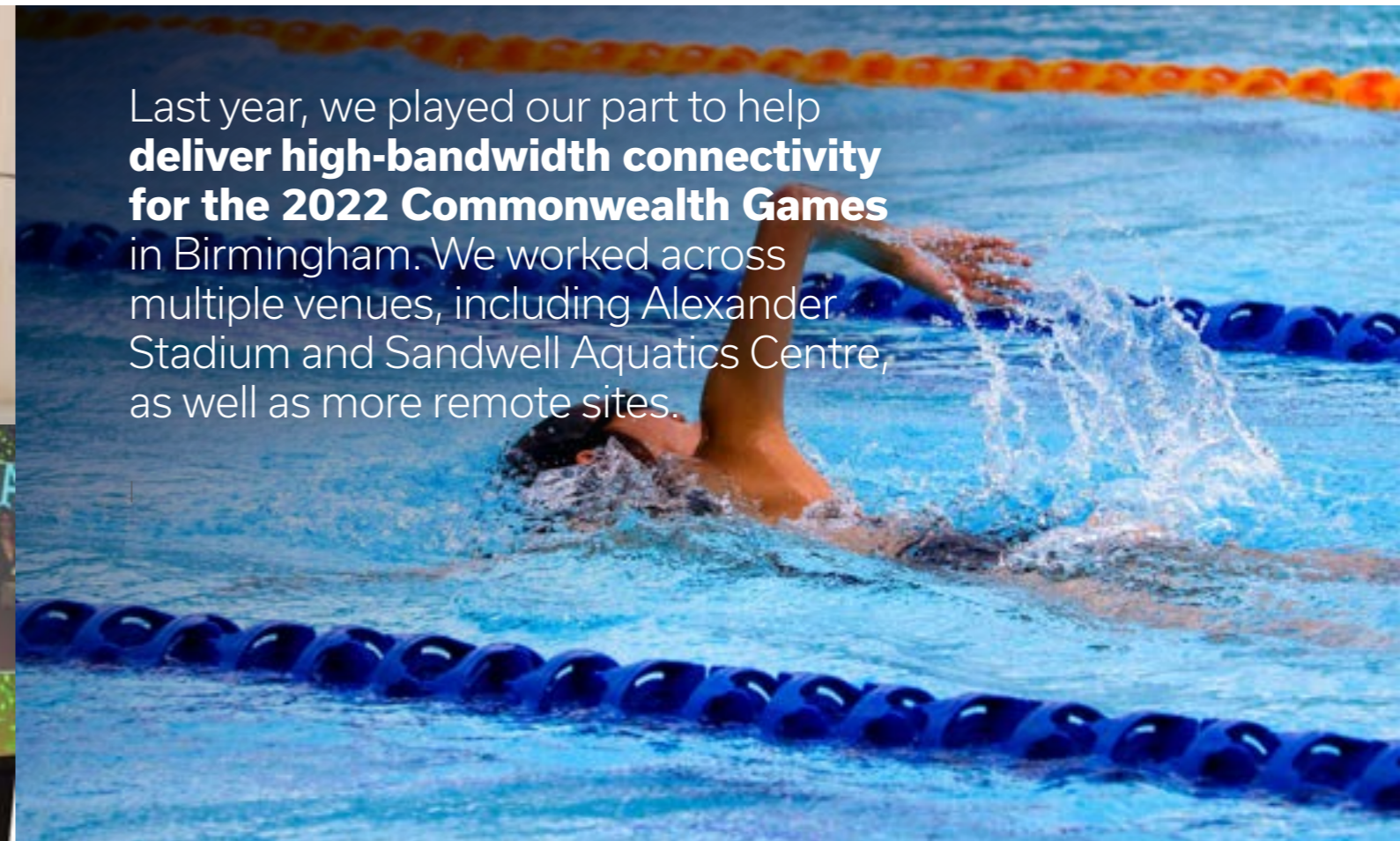
On Ethernet – the dedicated point-to-point connections we provide to businesses and other organisations – demand was up 11% this year and it's a growing market – so we're really proud that we continue to deliver a great service on complex jobs which support critical connections



Delivering great service continued

Connecting the world

The Birmingham 2022 Commonwealth Games



Last year, we played our part to help **deliver high-bandwidth connectivity for the 2022 Commonwealth Games** in Birmingham. We worked across multiple venues, including Alexander Stadium and Sandwell Aquatics Centre, as well as more remote sites.

Recognition

We're also award-winning.

We were very proud to win a gold award at this year's European CX awards, and that our 'Voice of the Customer' Programme won a prestigious Institute of Customer Services award for Best Use of Customer Insight.

We've also been proud to be associated with a number of awards won by our CP customers, and we're taking these achievements as inspiration into next year, as we continue to strive for even better outcomes for all of our customers.

As we move in to 2023-24, we're seeing growing confidence from our customers and our healthy position meaning we're set up to deal with any challenges head-on.

These included Sutton Park for the Triathlon and Cannock Chase Forest for the mountain biking. With a global audience ready and waiting, it was vital that broadcasters could benefit from reliable and high-bandwidth connectivity so that millions across the globe could watch the events unfold. With a six-month delivery timeline until the Opening Ceremony, we were awarded the telecoms contract by the CP Exponential-E.

Our meticulous delivery of ethernet into multiple sites established robust communication channels for broadcasters, and the project team's efficiencies and exceptional customer service levels made it one of the smoothest event projects we'd ever delivered.

Delivering great service continued

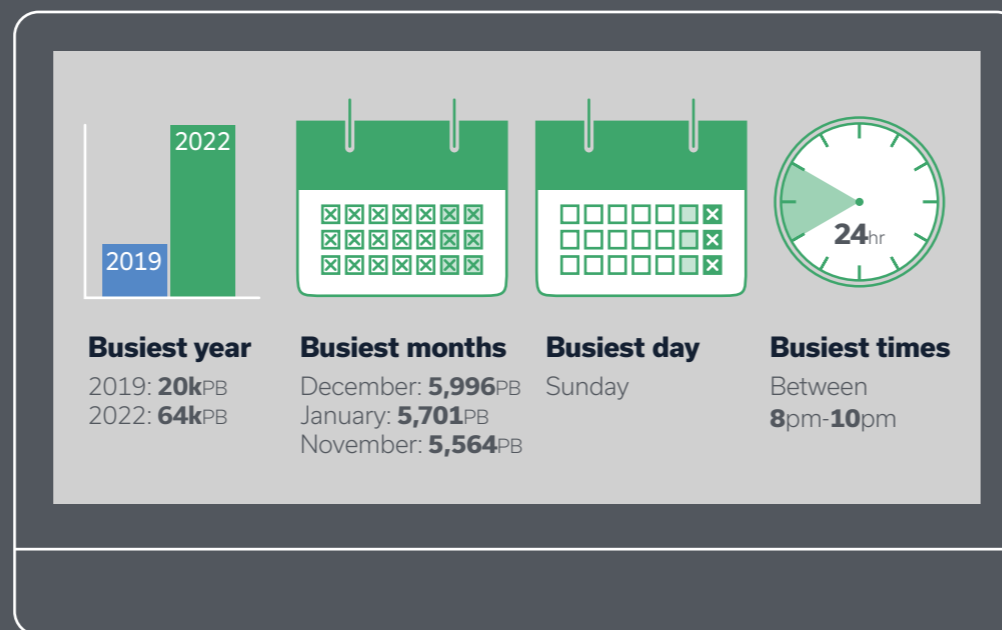
Another record year for data

The UK's broadband use continues to grow every year, with 2022 seeing more data downloaded than ever before.

There are lots of factors behind the increase, including live Premier League football matches being screened exclusively online by Amazon Prime and the ever-growing popularity of online gaming. People are also increasingly likely to use broadband to engage with major news events, such as the Queen's funeral. Whether it's sporting events, the release of a blockbusting new online game, or the Christmas holiday season, our expert teams are consistently analysing data to predict when the next big day for data traffic will be – whatever the occasion, our network always stands up to the test.



The UK's broadband traffic is growing fast Internet Usage

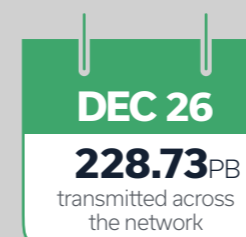
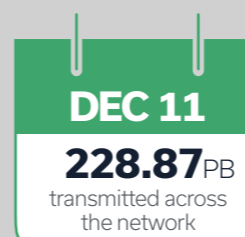


?

How big is a petabyte?

One Petabyte =
1 petabyte of storage could hold **11,000** 4k movies

December 2022 saw the two busiest days of internet usage ever recorded in the UK:



Preparing for extreme weather

Because our network is a physical infrastructure – with poles, cabinets and cables all exposed to the great outdoors – we inevitably have to deal with whatever the Great British weather throws at it.

We're constantly working to minimise the disruption this might cause in any way we can. We monitor, track and prepare for high winds and flooding, and we regularly let the general public know how extreme weather can affect our network and how they can let us know about any resulting damage, so we can fix it quickly.

6

Bridging the digital divide



Bridging the digital divide

When it comes to accessing fast and reliable broadband, there's a digital divide in the UK between the 'haves' and the 'have-nots'.

The vast majority of the country (around 97 per cent) can order a superfast service offering speeds greater than 30 Mbps – which is enough to stream several HD (High Definition) video streams simultaneously. But for a small minority that's not available today.

The main reason for the divide is that connecting rural communities is more difficult and much more expensive, and there aren't many companies willing to do it. Urban areas are, by their nature, densely populated, while rural communities are spread over a much greater area and can often be remote.

The Universal Service Obligation (USO) is UK legislation that gives eligible addresses the right to request a 'decent' broadband connection and you can make this request to BT, or to KCOM if you live in the Hull area.

The more remote and spread out the premises are, the more hours, equipment and specialised machinery we need to reach them. Connecting rural communities means dealing with difficult natural obstacles, such as rivers, mountains, lakes and lochs, valleys and forests – and this can make the cost prohibitive.

There's also the need to gain legal permissions, or 'wayleaves', to build across privately owned land

– which can be time-consuming or sometimes impossible to obtain. Openreach is a commercial business, just like every other company that builds networks but, unlike others, we're also committed to serving the whole of the UK.

Fast and reliable broadband is vital for rural communities and businesses, and areas lacking that access can be at a serious disadvantage.

We're proud of our strong track record of investment into rural broadband upgrades – having built further than any other company – but, realistically, bridging the digital divide isn't something we can achieve alone.

Some properties will always fall outside of commercial plans, simply because their location renders them too expensive and too complex – so connecting these remote areas, and bridging the digital divide, requires government and the industry to work together. The good news is that government support – whether at a UK level or within the devolved nations – can make connecting hard-to-reach areas feasible, and our engineers are always ready to take on a challenge.

Here are some of the ways we're working to help bridge the UK's digital divide:



1. Doing more

We continue to invest more into connecting rural communities than any other network builder. Our aim is to connect 25 million homes and businesses to Full Fibre broadband, spanning the whole of the UK, and more than six million of those are in the hardest-to-reach and most remote communities in the UK – defined by Ofcom as 'Area 3'. In 2022/2023 we connected another 420,000 of these premises, bringing our total so far to more than three million homes and businesses. We also extended coverage to more than 310,000 not-spots (areas that previously could not receive services of at least 30Mbps from Openreach) as we built everywhere from the Outer Hebrides to the Isles of Scilly. We're determined to keep going.

2. Innovation

At Openreach we're constantly developing new and innovative ways to get better broadband to rural, remote areas. Our engineering teams use every ounce of their experience and ingenuity to find new tools, techniques, processes and tech that can help deliver a brilliant service.

This year, our expert team of Chief Engineers have been trialling what we believe is the UK's first fully wind and solar powered high-speed wireless broadband technology. It uses a fibre-based broadband cabinet, powered by solar panels and a mini wind turbine, to feed a pole-mounted wireless transmitter. Using radio waves, the transmitter is capable of beaming an Ultrafast broadband signal up to 7km, meaning homes and businesses can pick up the signal with a receiving dish.

Our engineers have already trialled this technology in one location and we're planning to expand that trial to several more sites in the next year. You can take a closer look at other ways we're innovating on [page 33](#).



Bridging the digital divide continued

3. Co-funding with communities

Sometimes there are homes and businesses that aren't part of private sector build plans but need to be connected to fast, reliable broadband as soon as possible. They might wait for a subsidised project to reach their area but if that's not an option, or would take too long, we offer another solution.

Our Fibre Community Partnership (FCP) scheme helps get fibre broadband to communities where there's a lot of demand. We've worked closely with local authorities and the communities themselves to pool our resources and co-fund Full Fibre, balancing the build with our delivery timelines.

So far, we've helped over 2,400 communities who would have otherwise faced a long wait for Full Fibre, or even missed out entirely. Instead, we've connected more than 230,000 homes and businesses to the fast, reliable broadband they needed.

4. Working with governments

We're always working with local and national authorities to deliver fast and reliable broadband to as many people as possible. The UK Government launched the Building Digital UK (BDUK) programme in 2013 to bring Superfast broadband to people that weren't in the build plans of private sector network providers.

We've been part of BDUK from the beginning and we're proud of the role we played in making sure that 97 per cent of the UK can order Superfast broadband as a minimum. So far, BDUK has reached 5.3 million homes and businesses and we've delivered the vast majority of that build programme.

We're now continuing to work with the UK Government through the use of vouchers and on its latest major scheme - Project Gigabit - which is a £5 billion programme aiming to upgrade the final, and trickiest, 20 per cent of the UK to gigabit capable speeds. We're also working closely with governments of the UK's devolved nations too, and you can find out more about our work in Northern Ireland, Scotland and Wales on [pages 43-46](#).



Historic Lindisfarne

The technology tide turns

Situated around 1.5 km off the Northumberland coast, the historic tidal island of Lindisfarne - or 'Holy Island' as it's known locally - has been in the history books since the sixth century.



So we're delighted that it's now well and truly set for the future with Ultrafast Full Fibre broadband available to every resident and business on the island.

Our engineers have transformed the digital experience for the small community, as well as 650,000 tourists who

visit each year. Twice a day, Lindisfarne is disconnected from the mainland by the tides but, thanks to our network, they'll always be connected to the world via world-class broadband.

Bridging the digital divide continued

5. Working cooperatively

We're building a nationwide Full Fibre network – and we're doing it faster and further than anyone else. But building the best Fibre Future for the UK means recognising that we can't do it alone. Since 2011, we've been helping other network builders by sharing our network of 4.1 million poles and a huge number of underground ducts. This helps them lower their costs for digging and laying fibre cables.

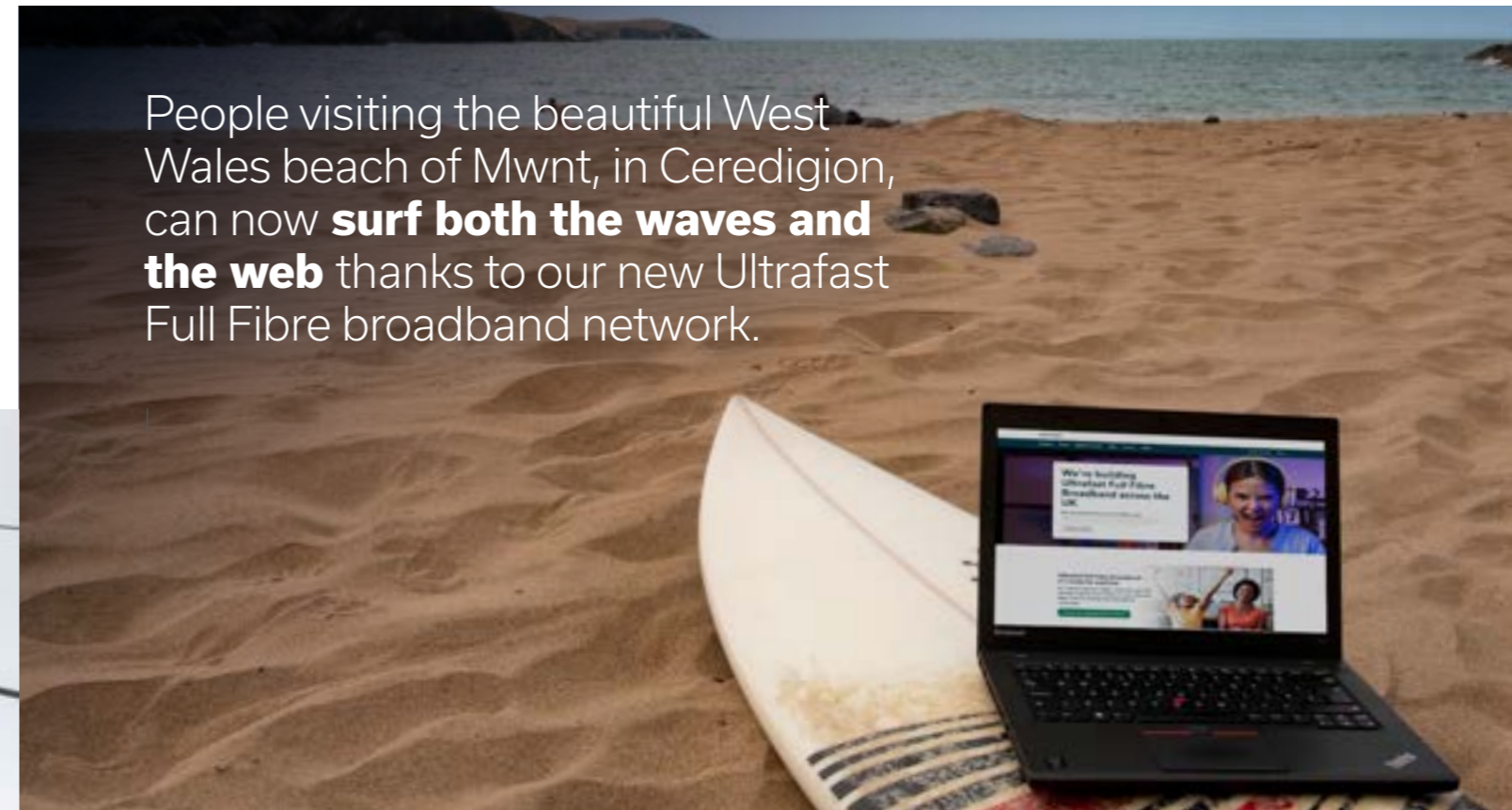
We've got 120 companies taking the chance to share our infrastructure and build their own fibre using over 32,000km of our underground network and over 237,000 of our poles.

As an industry, we're all working together to upgrade the UK. That's why we'll always make sure our infrastructure is easy to use, and accessible to everyone who needs it.



Surfs up in coastal Wales

People visiting the beautiful West Wales beach of Mwnt, in Ceredigion, can now **surf both the waves and the web** thanks to our new Ultrafast Full Fibre broadband network.



We connected a camp site, a wedding venue and the popular [Caban Mwnt café](#) at the top of Mwnt beach with Ultrafast broadband – so 'working from the beach' could now become a new norm on this part of the beautiful West Wales coast.

The brand-new network enables [LoRaWAN](#) technology to be used, providing real time data on visitors, weather, and alerts when the nearby defibrillator has been tampered with. It's enabling [Ferwig Community Council](#) to make data driven decisions, ensuring adequate resources are provided at this unique location.

To connect the café, our engineers had to run fibre across fields and down narrow lanes from our Cardigan exchange around 5km away. Working closely with Ceredigion Council, we were able to agree early starts for the work, to minimise disruption for visitors. Meanwhile good relationships with local landowners and the [National Trust](#), who manage the land around Mwnt, meant we could complete the work ahead of the busy tourist season.

7

Working safely and responsibly



Working safely and responsibly

Building the best Full Fibre future for the UK is something we take very seriously, because we know how important fast and reliable broadband is to communities across the country. At the same time, we're just as passionate about operating in the right way.

We want our customers and members of the public to trust us and be protected as we go about our work. We also want our colleagues and partners to be able to work safely, every day. And we want to make sure that our future – both online and offline – is a secure and sustainable one.

Working safely

Improving safety is a big priority at Openreach, particularly as we accelerate our build and provisioning activity across the UK.

So, to further improve our safety culture, we're investing in a multi-year programme called "everyone home safe and well", which is helping us embed 12 lifesaving rules and four 'everyday safety' behaviours right across our business. So far, more than 9,500 Openreach people have taken part in new, dedicated 'Hearts and Minds' training, including all of our executive team.

This year we also ramped up our risk-based approach by introducing an enhanced Hazard Directory and a new digital training course on risk assessments.

The Hazard Directory centralises all our hazard and risk knowledge onto one digital platform and means we can show hazards to our people on maps in real time. That means we can minimise risk during our planning work and give engineers a thorough risk assessment of each site they visit.

Most of our engineering managers, supervisors, and engineers have already completed the new course, giving them new skills to assess our higher-risk operations, and highlighting the critical importance of a thorough risk assessment. It's mandatory learning for engineers.

But it's not just about keeping our people safe. We know our network and operations can impact customers and the general public, so we're working to make sure that wherever we are,

it's safe for everyone. To that end, we've checked and removed 24,000 chamber covers this year that we felt were potentially hazardous. We've replaced, repaired, or recovered 92,000 poles and we're in our final year of removing our older infrastructure from utility poles carrying electricity as part of our high voltage safety programme. We've also rebuilt 3,000 chambers and completed 44,000 electrical safety checks.

We also have telematics systems in our vans which monitor and measure how safely and efficiently our people drive, whilst identifying areas of improvement. The majority of our people score strongly and those with lower scores are supported with web-based and instructor-led training.



everyone
home safe & well

We're really proud to **have won three awards** from the Royal Society for the Prevention of Accidents this year.

The awards are respected worldwide, with almost 2,000 entries yearly from nearly 50 countries, so we're delighted to pick up The Information and Communication Industry Sector award, a Fleet Safety Gold award and the 'Best New Entry' award. It's great recognition for our "everyone home safe and well" strategy.



Working safely and responsibly

continued

Building sustainably

At Openreach we recognise the urgency of the climate crisis and, given we work in communities all over the UK, we're committed to reducing our operational impact. We do that by focusing on several key areas including reducing carbon emissions in our operations; building towards a circular economy; and addressing our impact on nature.

In 2021/22 we made sustainability one of the four key principles of our strategy, building sustainability goals into our strategic business plan and creating a senior Sustainability Steering Committee to oversee progress.

This year we presented our plan to the most senior leaders in the business - including our executive and non-executive boards - and we conducted research to better understand our position.

Moving to a low carbon fleet

We have the second largest commercial fleet in the UK, with more than 29,000 vehicles, and our engineers travelled some 280 million miles last year, so we have a huge impact on CO₂ emissions.

Our vans are crucial in helping our engineers to deliver great service and build our new network across the UK, but we need to do it in a more sustainable way. That's why we've pledged to switch our fleet to zero emissions or electric by 2030.

We've bought more than 2,000 electric vehicles (EVs) so far; our EVs have covered more than 10.4 million miles and last year we've saved more than 1800 tonnes of CO₂. We've also been working with our partner, Ground Control, to install chargers at our engineers' homes. So far, we've installed 1349 home chargers as well as 158 chargers at our workplaces. We've also partnered with Mina to provide our engineers with an automated reimbursement solution for charging to their Openreach vehicle. This makes charging and reimbursement simpler for our engineers when using public chargers.

Like other large fleet businesses on the same path, however, we're facing some challenges on our mission to decarbonise. There have been significant changes to UK Government subsidies, we continue to face shortages in the vehicle supply chain and there's a general lack of national charging infrastructure.

As founding and steering group members of the EV Fleet Accelerator (EVFA); Electric Vehicle Coalition (EVC); and EV100 we're working with other businesses facing similar challenges to promote the wider adoption of EVs and engage with government on issues such as the availability of charging infrastructure across the UK.

It's been a challenging year for any business having to deal with dramatic increases in fuel costs (both diesel and electric) but we remain committed to our 2030 pledge.



We've bought more than **2,000** electric vehicles (EVs) so far; our EVs have covered more than **10.4 million** miles and since last year we saved more than **1,800** tonnes of CO₂

Working safely and responsibly continued

Circular Economy

We are embedding circular economy principles across our organisation, aiming to use less, waste less and keep resources in use for longer.

For example, we've introduced an inbound packaging policy that requires our suppliers to minimise packaging and convert all remaining packaging to recyclable, reusable and "made from recycled content" wherever possible.

In an effort to reduce non-recyclable packaging in 2020 we switched to cardboard – pizza boxes – for our dropwire reels. We found that despite reducing non-recyclable packaging, it led to a significant increase in cardboard waste. We worked with our suppliers on a solution and they now deliver the dropwire on cardboard 'donuts'. This means we have less excess cardboard and more units can now be shipped per container.

In fact, our work with suppliers to simplify packaging has saved 1564 tonnes of waste from the supply chain already – and as the dropwire 'donuts' show, one innovation can often lead to another.

Blue rope reuse and recycling is another key to our circular economy success. Blue rope is critical to our build operations, as we use it to pull fibre cables through ducts, but it has a high plastic content. Last year we expanded an initial blue rope recovery trial, saving 320.1 tonnes of waste for landfill. This year we've ramped up the programme, rolling out recycling options to save 1090 tonnes of blue rope and fibre tubing waste. We're exploring solutions for blue rope pellets to be given a new life as a different component part of our operation.

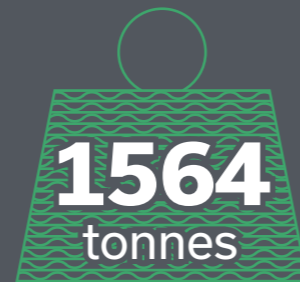
At the end of the value chain, we're certified by ISO14001 on environmental management, meaning that unavoidable waste generated from our operation is processed responsibly.

We know we can do more to reduce our material footprint so we're exploring new opportunities to innovate with our products, examining our waste streams and working along the supply chain for lower impact solutions.



We're certified by **ISO14001**, meaning that unavoidable waste generated from our operation is **processed responsibly**

Our sustainability stats so far.



Simplify packaging has saved **1564 tonnes** of waste from the supply chain



Our blue rope recovery trial saved **320.1 tonnes** of waste for landfill



In 2023 we're rolling out recycling options and saving **1090 tonnes** of blue rope and fibre tubing waste

A force for good

We know that what we do can have a big impact – not just because of the changes we're making, but by empowering others to save carbon. A 2021 report by the Centre for Economics and Business Research (Cebr) estimated that a nationwide Full Fibre network could help save 300 million commuter trips per year – but connectivity as a force for good goes beyond just commuting trips.

All our people can use up to three days a year for volunteering and have supported causes close to their hearts in communities across the UK.

We also work hard as a business to support all manner of charities and NGOs with their digital connectivity. For example, this year we worked with the RSPB, the UK's largest nature conservation charity, to improve connections at some of their most remote locations, helping them with everything from mission-critical conservation projects to taking contactless payments in their gift shops and cafes.

Upgrading connectivity to RSPB Minsmere was especially challenging, as the site requires daytime access 364 days of the year. Working with their team and our partners, MakeHappen, we managed to upgrade their broadband connection over the course of three nights and we're proud to have given them better digital infrastructure without impeding their operations. We're also continuing to support them, with trial solutions at RSPB sites off the coast of Pembrokeshire on Ramsay Island.



Working safely and responsibly continued

Open to nature

In 2022/23 we added nature as a strategic focus for sustainability, recognising that Openreach has a unique interface with nature through our daily operations.

We've recently become members of the UK Business and Biodiversity Forum and we've been engaging with other organisations to keep up to speed on the changing requirements and legislation in this area.

Little Blue Research supported BT Group to conduct a pilot of parts of the draft Taskforce on Nature Related Financial Disclosures framework during 2022/23, with a focus on the Openreach Full Fibre network build. We're evaluating the recommended next steps and we've already created a Nature Working Group, bringing together key stakeholders across our business to address this.



In Northern Ireland, we've begun our first solar panels pilot at our exchange in Portadown.

This exchange alone consumes a whopping **2.8 million kwh's** of power a year. By installing **238 solar panels** on the roof, we'll create approximately **111,000 kwh's of renewable energy** - all of which we'll use on-site.

New Forest Zero net loss of nature

In 2022 our build plans included the heavily protected New Forest – one of the largest remaining tracts of unenclosed pastureland, heathland and forest in England.



We worked closely with Natural England and the New Forest National Park Planning Authority, along with the other stakeholders like Forestry England, The National Trust and The New Forest Verderers, to agree a plan that allowed us to connect communities whilst protecting and enhancing the special qualities of one of our finest landscapes.

To minimise our impact on nature, we followed a mitigation hierarchy, first choosing to build across hard standing surfaces rather than vegetation.

Where that wasn't possible, we followed a "zero net loss of nature" principle by removing redundant equipment to maintain the overall area of grazable land, burying cables and using pre-agreed methods and locations. In doing so, we managed to install 14,450 metres of new underground ducts in the protected area without any loss of nature. The Nature Working Group will look at how we might adopt these principles in other areas as we continue to build across the UK.

Working safely and responsibly continued

Protecting wildlife and the environment In Scotland

As delivery partner in the Scottish Government's ambitious Reaching 100% (R100) broadband programme, we're building Full Fibre connectivity to the nation's hardest-to-reach areas, including new subsea links to 15 additional Scottish islands.



These beautiful islands are areas of enormous environmental sensitivity. Protecting the wildlife and landscape during 2022's subsea build was critical, and we worked closely with agencies like Nature Scotland; Marine Scotland; Crown Estates; and local authorities.

Marine mammal observers watched out for sea life like whales, porpoises, and seals – they're sensitive to sound emissions from ship instruments, which operate at the same frequencies the creatures use to communicate and hunt.

All but one of the islands are inhabited by sea otters, and the team also took great care to protect other marine life, seaweed habitats, and the islands' iconic – and inquisitive – puffins.

Wartime ordnance is strewn in the seas around the islands, where the Royal Navy was based during the World Wars. The build team contended with a torpedo on the seabed and an ancient hand grenade found on the shore, metres from a new landing point.

Great care was taken to leave the build locations exactly as they were found and even the seabed got a clean-up, with 3.5km of abandoned rope, steel wire and other debris picked up.

With new subsea cables now installed, the engineering focus will switch to building onshore fibre connections to some of the most remote dwellings in Europe – with the same sharp focus on protecting these vital natural environments. You can find out more about R100 and our Full Fibre build in Scotland on [page 46](#).

The build team contended with a **torpedo** on the seabed and an **ancient hand grenade** found on the shore



8

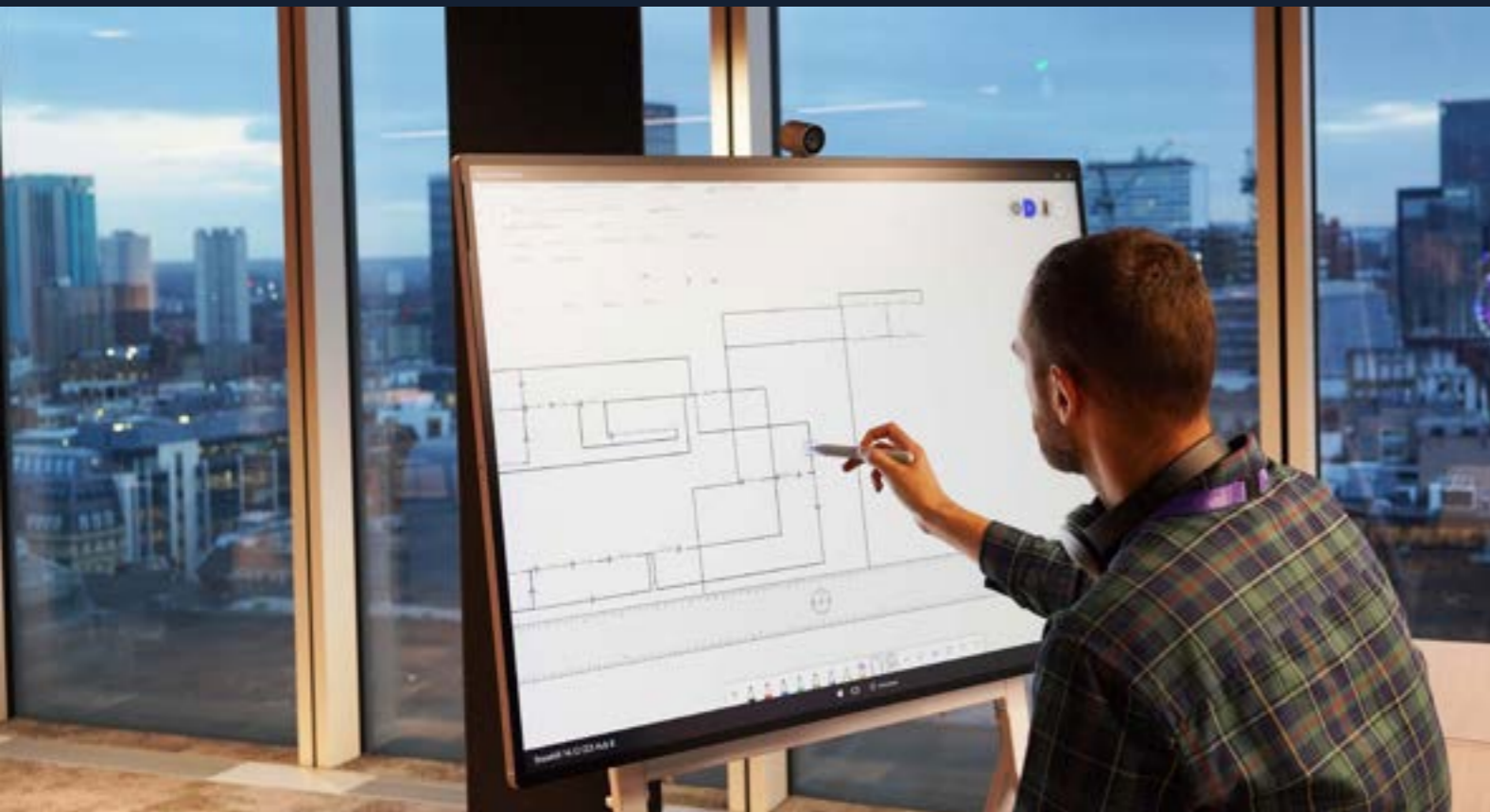
Harnessing Innovation



Harnessing innovation

Bringing Full Fibre broadband to 25 million homes and businesses is an enormous and complex infrastructure project, one of the biggest in the UK. And we need to balance it with delivering great service across all of our existing networks. We're always looking for ways to evolve and innovate, so we can be faster, more efficient and more effective for our customers.

Thankfully, our teams are packed with clever, resourceful experts and engineers who are fantastic at spotting, testing and deploying new tools and processes that help our people and help customers. From apps that support and guide our workforce, to systems that speed up the build and create a smoother customer experience – take a look at some of the innovations our teams have rolled out this year:



1. The Sweeper app

'Sweeper' is a mobile app we've been trialling since June 2022. Its genius is that it empowers our engineers to use their experience and expertise to make the best decision for our customers in real time.

Our engineers sometimes find homes and businesses which aren't part of our Full Fibre network, but could be connected quite easily using existing equipment or capacity nearby. Using Sweeper, they can now quickly access the data they need to upgrade and serve those premises, without re-planning the local network or conducting a full survey.

By giving engineers the power to decide the best way to connect these premises, Sweeper has led to more homes and businesses getting access to Full Fibre and improved the efficiency of our build, along with customer satisfaction.



2. Ultra-faster speeds

This year we've introduced faster equipment into our Full Fibre network, with the development of a new Openreach Optical Network Terminal (ONT). We install ONTs inside a home or business and this new version will let us provide new speed tiers for customers in excess of one Gigabit per second (1Gbps) and up to 2.5Gbps. To put that in perspective, it's enough to download a two-hour, 4K movie in less than two minutes.

At the same time, we've been looking to introduce 'XGS-PON' technology into our exchange buildings which will ultimately help us upgrade our network seamlessly in future to support 10Gbps speeds.

Harnessing innovation continued

3. Order, order

Order Manager is a new work allocation and jeopardy management tool which helps us reduce delays and improve the customer experience when people order Full Fibre. It automatically creates work items for our desk agents to carry out and it helps them assign tasks to the appropriate teams as quickly as possible. It even includes an auto-escalation feature which flags any customer orders that are taking too long to the best team to get them prioritised.

4. Partner apps

Last year we created an 'Uber' style model that allowed us to easily share our internal apps with engineers who work for our partners.

Our MyServices app means partner engineers can access the same capabilities as our own people to activate services, run line tests, and follow best quality engineering practices.

MyServices has been adopted by many of our partners and even some customers like SKY and BT Enterprise. It means they can now install Openreach Full Fibre services on our behalf, and it allows us to scale our workforce quickly and effectively as we deliver across the UK.



5. Virtual Immersive Design

Making Full Fibre available to the millions of people who live in flats and apartment blocks – or 'multi-dwelling units' (MDUs) as they're known in the trade – can be challenging. Even if the residents are keen for us to deliver Full Fibre broadband to their door, we still need permission from the landlord or managing agent to gain access to the building and its communal areas.

Sometimes, even when we have permission or a 'wayleave' agreement to access a property, landlords are reluctant to let us install our equipment. They may

be concerned about disruption to tenants or the impact of the build on the layout or look of their building.

To make the process easier, we've worked with partners to develop an immersive virtual reality (VR) experience which shows exactly how our work will impact their buildings. By walking them through the installations and making improvements to the virtual plan in real time, we can speed up the permissions process and make Full Fibre available to tenants faster and more effectively.

9

Investing in our people

openreach

Open to everyone

www.openreach.co.uk/pride



Building the best digital future for the UK is a massive task that takes thousands of dedicated, passionate and clever people working together.

We're fortunate to have around 37,000 people in the Openreach family who are all working tirelessly to tackle complex engineering problems and make our customers happy.



Investing in our people

Investing in skills and development and creating new jobs

On the hiring front, after several years of massive growth in our workforce, we've continued to create new jobs across the UK. This year we've recruited and onboarded more than 2,800 new engineers.

We've invested more than £31 millions of pounds into additional resourcing, training and development for our people and upskilled thousands of traditional copper-skilled engineers to work on our new fibre network. In the last 12 months, we've delivered more than 173,000 days of training.

Over 30,000 of our colleagues are also using our 'skills passport' – an application we've developed to encompass coaching, buddying, performance and training. It gives engineers everything they need to constantly develop and improve their skills and our customers' experience.

In the last five years, we've established 11 dedicated training schools across the country to support our extensive learning and development programmes. The schools were purpose-built and they're designed to replicate a typical suburban street, giving our new and existing engineers the chance to improve their skills in a safe and authentic environment.

Becoming a more diverse and inclusive business

Historically, our industry – and our company – has lacked diversity and that's something we're determined to change. We want our teams to reflect the communities we serve right across the UK, as we know that diverse and inclusive companies are more innovative, dynamic and ultimately better able to respond to customers' needs.

In 2021, we published [Open to Everyone](#), our Diversity and Inclusion commitments and ambitions. They include our belief that everyone should have equal access to employment, training and career development. We know that when people can be themselves, they're more confident, innovative and able to perform at their best, so we want everyone to feel at home here, supported and able to fulfil their potential.

We want Openreach to be Inclusive, Fair, Open, Leading by Example and Influential – so we've spelled out what we mean by that in this chapter.

We recognise that we're on a journey, and it's important that we're open and transparent about what we're doing to get there.

We've established
11 dedicated
training
schools

Investing in our people continued

1. Inclusive

Creating an inclusive workplace means listening to all our people, so we can understand their needs and drive changes in the right direction.

Our People Networks – Pride, Gender Equality, Ethnic Diversity, Neurodiversity and our recently created Able2 network – are crucial to this, helping to prioritise education and change, and challenge our thinking when needed.

This year, our people networks have grown significantly and more than 6,000 people are now members of one or more networks. The voice of our people continues to influence how these groups evolve, an example of this is the Neurodiversity and Able2 networks coming together to work through a joint committee.

We're proud that our Allies community more than doubled in size this year with 2,300+ of our colleagues now on board, across every part of the business. They're committed to acting as inclusion allies in everything they do.

Last year we launched our 'Let's talk about race' training across the business. More than 95 per cent of our managers have now completed the course. This has not only helped managers examine their own biases but also encourages them to have conversations about race, be active allies and create a more inclusive workplace.

We also supported Black History Month this year, reflecting on what we're doing to make Openreach a more diverse and inclusive place to work – thinking about what we've done well and about what we can do better. As part of it, some of our people shared their experiences to highlight the importance of everyone having a voice and people from diverse backgrounds telling their own stories.



Lee Lawrence, award-winning author, joined us to talk about his book - 'The Louder I Will Sing' - a memoir about his mother, who was left paralysed having been shot by police in front of her family.

The virtual session was viewed by a record audience and Lee shared his experiences, talking about racial equality and how we can all be better allies.

2. Fair

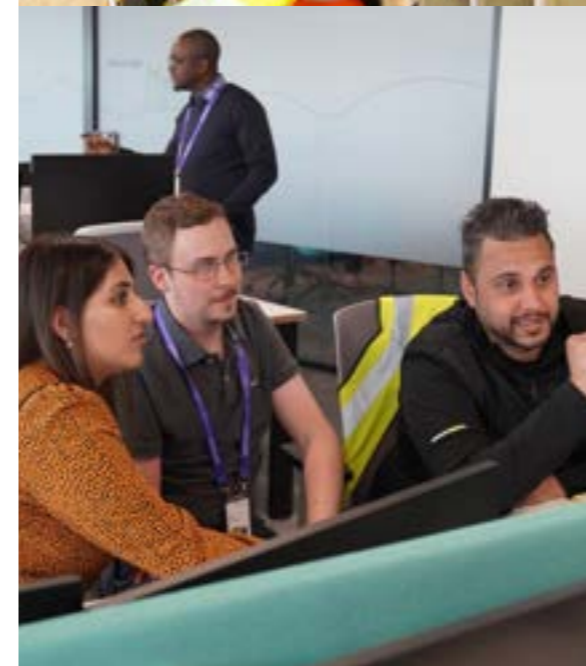
We understand that we're all different and we're all equal. And being fair means helping everyone to reach their full potential while being themselves.

Giving people the support and training they need to succeed

We've been working hard to ensure we recruit more diverse candidates by training our hiring managers in the use of inclusive recruitment tools and running recruitment campaigns targeting people from diverse backgrounds. This year we recruited more than 2,800 new engineers, 17 per cent of which were women, up from 4.6 per cent only five years ago. We regularly review the experience of our new recruits, so that we can improve and create ever more inclusive and supportive onboarding processes and work environments. This year we started to onboard all new joiners into our Allies community, so we create an inclusive culture from day one.

Field promotions

In Scotland, we're trialling our 'Step Ahead' programme. 'Step Ahead' will increase fairness and transparency for field promotions, promote consistency across the business, and help remove bias from decision making. The programme will help us create a pool of promotion-ready candidates who've gone through assessment and are ready to be put forward and selected for new roles.



Women in Engineering groups

This year we've also launched Women in Engineering (WIE) groups across all regions. More than 800 field-based women have joined the networks so far. The members of these groups have the opportunity to connect, collaborate and share experiences across their region, working alongside our Gender Equality Network (GEN).

These groups aim to:

- Give all women in engineering access to a bigger regional community so they can build strong connections and share experiences, best practice, and advice.
- Give members better opportunities to talk about national, regional, and unit-specific topics, including discussions led by senior leaders.
- Create a place for women to develop, learn and increase their connections and confidence – with a big emphasis on new initiatives, ideas and hot topics.

3. Open

Being open means letting everyone know what we're aiming for and what we're doing to get there. We publish our targets and share our progress, so everyone can see how we're measuring up. You can see our progress against our targets this year on [page 41](#) and in our [Gender Pay Gap](#) and [Ethnicity Pay Gap](#) reports.

It's also important to understand who our people are and what they need to be their best selves. This year we've launched an internal campaign to encourage people to disclose personal information, explaining how the data helps us understand our people and how we can use it to make sure we have the right policies in place to cater for their needs.

Since 2020, more people have felt confident declaring their ethnicity, sexual orientation and disability in Openreach – in particular, the declaration of sexual orientation has more than doubled.



Investing in our people continued

4. Leading by example

We believe inclusion starts at the top, and we want our leaders to become role models for diversity and inclusion. With the help of our networks, we're constantly challenging and educating our leaders so they can make the day-to-day decisions that really matter.

Inclusive Leadership Journey

This year we've built on the success of our inclusive leadership programme. Our executive and senior management team delivered a tailored, nine-module Diversity and Inclusion programme to their teams across the business. These short, interactive sessions were designed to facilitate great conversations, share insights and extend the key learnings from the leadership masterclasses to a wider audience across the business.

Reverse mentoring

Following the success of our ethnicity reverse mentoring programme, this year we created an LGBTQ+ reverse mentoring programme, which gives our senior leaders an opportunity to better understand the experiences and challenges faced by our LGBTQ+ colleagues.

Connect with Respect

We provide additional support and guidance to help operational managers and team leaders further develop their skills and confidence to have meaningful conversations about diversity and inclusion with their teams. This will help create a more respectful and inclusive environment for people to thrive in.



5. Influential

We're the largest employer of telecoms engineers in the UK, so we want to use our size to help make positive changes and improve diversity in the engineering sector but also in the communities where we operate.

Pride 2022

Last year we joined five Pride marches across the UK with our Pride Network's support. Openreach people marched in front of more than 1.7 million in support of our LGBTQ+ friends, family and colleagues in Glasgow, London, Belfast, Leeds and Cardiff.

Our Pride-branded Openreach electric van drove 1,500+ miles to help spread the message that Openreach is truly Open to Everyone. This was the first time we've attended Pride and our presence sent a powerful message that Openreach welcomes everyone.

This is only the start of our journey. This year we are growing our presence at Pride by adding Birmingham to the list of cities where Openreach will be marching. We look forward to showing our support at all six locations across the UK in 2023.

Investing in our people continued

Neurodiversity in Business

Openreach is a founding member of [Neurodiversity in Business](#) – a business-led forum for organisations to share industry best practice ND recruitment, retention and empowerment launched in March 2022 at the Houses of Parliament.

Our Neurodiversity People Network has been working closely with Neurodiversity in Business, sharing our journey so far on how we've raised awareness across our organisation by educating our senior management team; creating online training about what neurodiversity is; and listening to our people so we understand what means to be neurodivergent at Openreach. In March Mark Rainbow, the chair of our Neurodiversity Network, spoke at the first Neurodiversity in Business Conference in London about our journey so far at Openreach.

We have also introduced cognitive assessment trials with 600+ of our people so they can understand their own cognitive functioning, including their strengths and coping strategies. They can then use the information both in the workplace and outside of work. The results of the trial will also inform our future cognitive assessments so they can be accessible to everyone across Openreach, just like the Occupational Health Service, Employee Assistance Programme and our other support services.

Colchester Kings sponsorship

In the last year, with the support of our Pride network, we've been delighted to sponsor East Anglia's first gay and inclusive rugby club – the Colchester Kings. The Kings were founded in June 2022 with a few taster sessions for enthusiastic amateurs and it's now a fully-fledged club with a mission to eliminate homophobia and transphobia in rugby.

Sport can be really powerful in promoting diversity and togetherness, and this sponsorship is just one of the ways we want to help communities in a meaningful way. We're now exploring more opportunities to support local clubs and communities across the country.



A right to feel safe

This year we also launched an internal campaign called 'Your Right to Feel Safe', which focused on supporting our people in a better way when they experience harassment or abuse while they're doing their jobs.

Your Right to Feel Safe has two aims – to help people understand the behaviours they should be reporting and to provide the right support to anyone who reports abuse or harassment. We're not willing to accept these behaviours, so we're encouraged that we've seen a fourfold increase in our people telling us about incidents. And we believe we've made significant improvements to the quality of support we provide when such incidents occur.

We also continue to work with the Institute of Customer Service and share our work across the industry to promote better support for public servants.

Investing in our people continued

This year we've seen the proportion of female colleagues across the business increase for the fourth consecutive year in a row. This has been driven by an increase in the number of female joiners into both desk and trainee engineer roles.

At the same time, we've shifted our recruitment focus from trainee engineers to civil engineering - a career path typically less attractive to females - so the total number of female joiners has dropped.

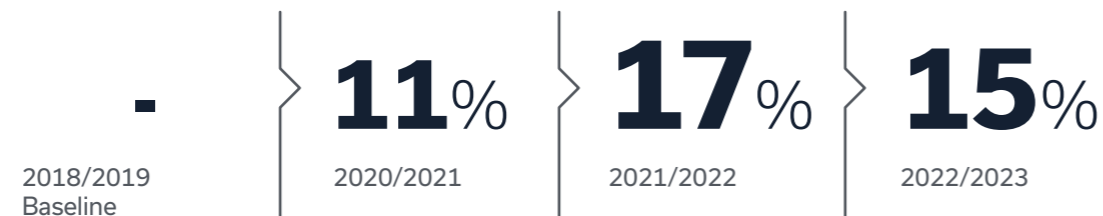
The number of females in senior leadership roles has also dropped this year despite 57% of senior manager appointments being female in the last six months. Recovering this position will be a key area of focus in the year ahead.

Our manager hires from ethnic minorities has dropped to 17% this year so we're implementing diverse shortlists to help address this in future. Meanwhile we're delighted by the level of ethnic minorities we're attracting through our graduate programme.

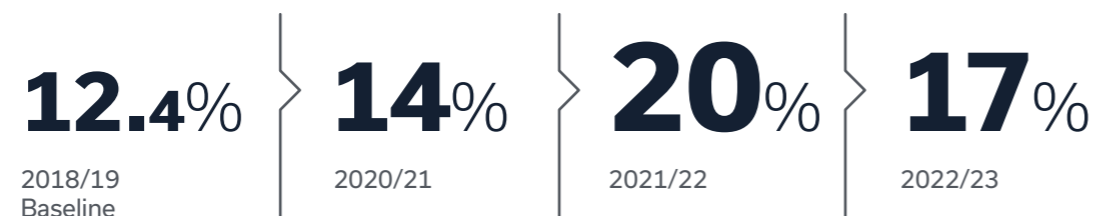
Ethnic minority



Trainee engineer hires from ethnic minority



Managerial hires from ethnic minority



Graduate hires from ethnic minority



Gender

Female team member desk hire



Female trainee engineers



Senior management population (SLT/SMT)



Female graduate hire



10

Connecting the nations



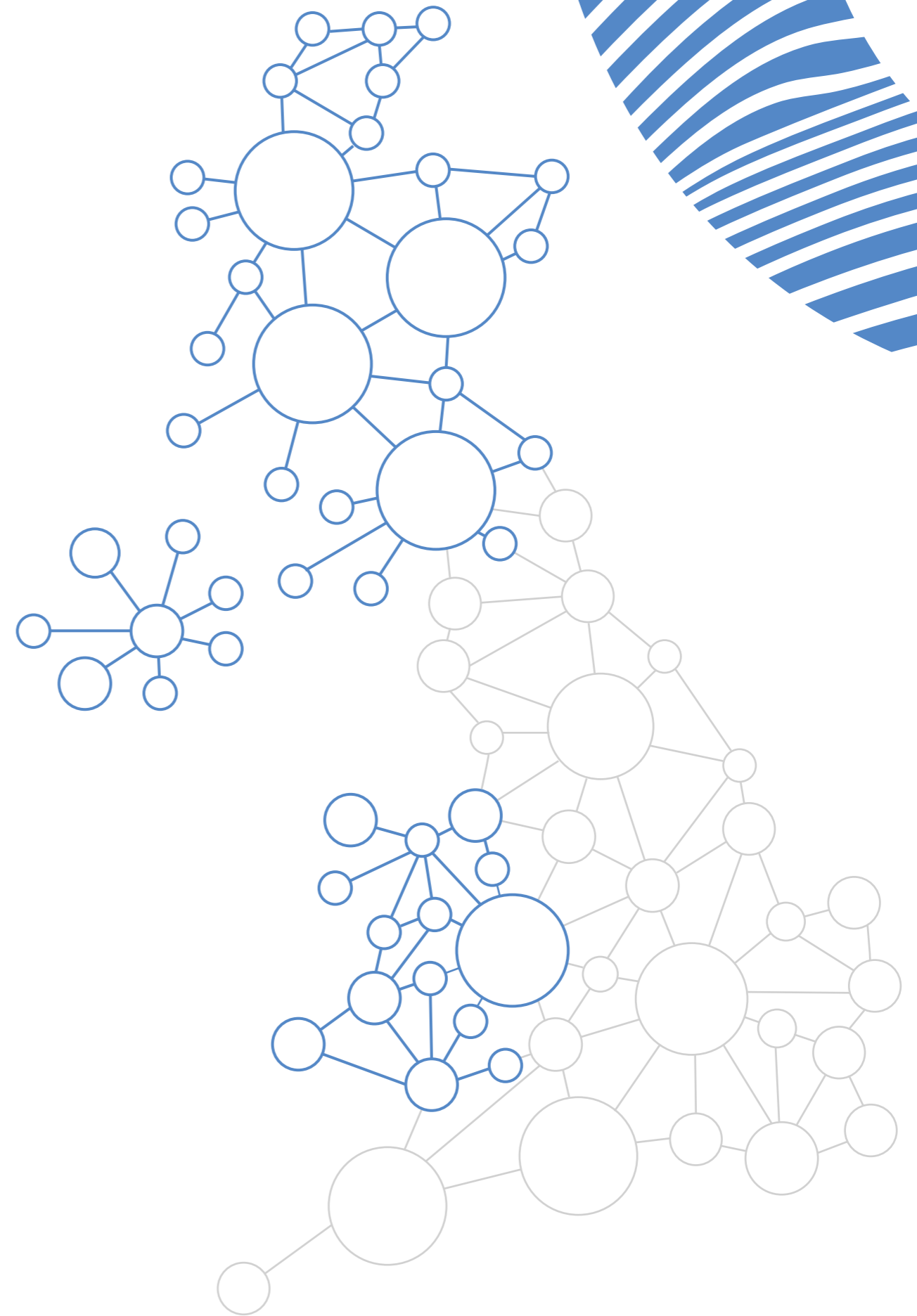
Connecting the nations

Building the best Full Fibre Future for the UK means delivering brilliant services to every corner of the country.

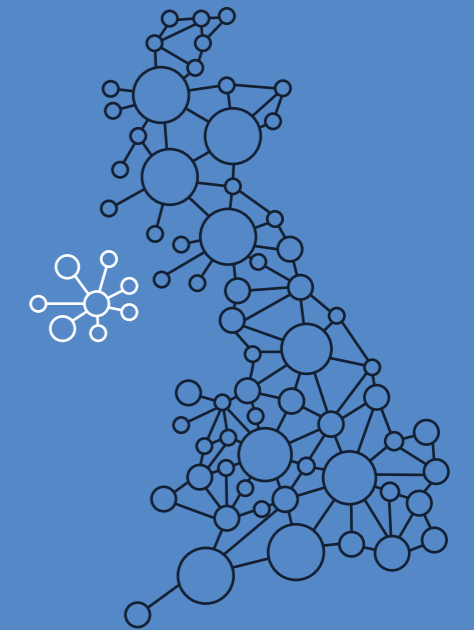
We're extremely proud of our heritage as a truly nationwide business, including the longstanding relationships that our people have built up from living and working in each of the UK's devolved nations.

It's part of what makes Openreach so unique and diverse, with each Nation and Region bringing its own culture, landscapes, engineering challenges and other characteristics.

That's why we work hard every day to make sure we're responding to the needs of every community in every nation.



Northern Ireland



Throughout this year we've continued to focus on expanding Northern Ireland's largest Ultrafast Full Fibre network at pace.

The strength of our network lies not just in the cables and technology that we use, but the people that build, maintain and ultimately connect customers to it. And with more than 85 per cent of homes and business in Northern Ireland already able to access our Full Fibre network, we're proud to be leading the way in the UK.

This year we've made changes to our structure to support our build programme, and we've trained many more engineers to work on the new network. With multi-skilled teams, we're able to deliver exceptional customer service seamlessly across both our legacy copper and new Full Fibre platforms.

This year, we made Full Fibre available to an additional 59,440 homes and businesses across Northern Ireland in both rural and urban areas. Our connections also continue to grow, with more than 240,000 customers now using the network.

Getting customers connected remains a priority next year, supported by Openreach's stop sell programme. This means when an exchange area reaches 75 per cent of addresses enabled for ultrafast Broadband, Full Fibre will become the default choice for customers. In Northern Ireland, there are already 104 exchanges where Stop Sell has been activated, and a further eight will be added before the end of March 2024 - taking our Stop Sell footprint to 85 per cent of total premises enabled for Full Fibre.

In the year ahead, we'll also be deploying XGS PON technology in strategic locations across Northern Ireland, helping to offer higher speeds for customers.

We began the upgrade of our remote exchanges this year and we'll continue this transformation moving into 2023/24. Our core network team are always looking for ways to enhance the network for our customers and have worked tirelessly to make this transformation a success. This will future proof our network and strengthen its reliability while making it easier for CPs to purchase capacity to provide for their customers. It will also align our headend network with the rest of the UK.

Meanwhile, we've been consulting industry and working closely with CPs to launch a number of new initiatives including "Fault to Fibre". This means wherever we can, we'll upgrade customers to Full Fibre if they're reported a copper fault that's particularly challenging to fix. We're also looking at how we can decommission and remove redundant copper in our network safely and efficiently.

In 2023/24 we'll invest more than £85 million to maintain our networks and roll out Ultrafast Full Fibre Broadband further across the region. With our continued investment, the delivery of Fibre Community Partnerships, further investment

from government and other network infrastructure builders, we're confident that Northern Ireland will be nearing 100 per cent Full Fibre coverage in the next few years.

It's an exciting time for us as an organisation as we move through this once-in-a-generation change. I'm confident that we deliver on our Full Fibre build and connect more and more people across Northern Ireland to our new network while working safely and efficiently, setting us all up to succeed in the future.

Garret Kavanagh
Director, Openreach Northern Ireland

Northern Ireland 2022 in numbers

Full Fibre rollout

Our Full Fibre rollout reached an additional **59,440 homes and businesses** in 2022/23.

Total Full Fibre Footprint

As of March 2023 over **772,500 premises** can now access FTTP.

Faults

We had a **10% reduction** in faults compared to last year

Investment in the network

Over **£85 million** to be invested in 2023/24.

Appointments

We had over **230,000 customer appointments** an increase of more than **35,000** from the previous year - driven by increased fibre uptake. Meeting **98.46%** of these appointments on time.

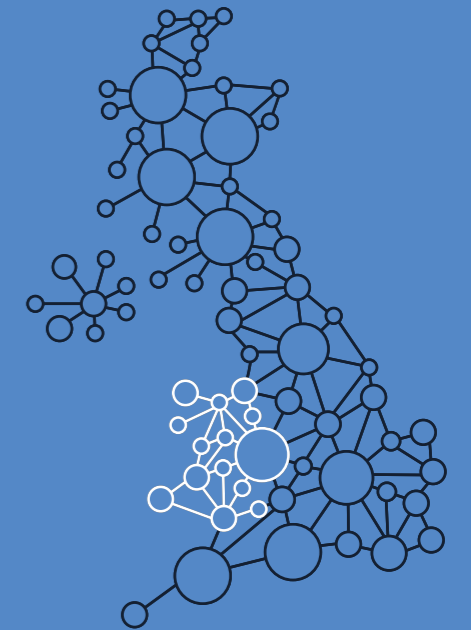
Provisions

We carried out **183,733 new provisions** across all of our product portfolio.

People

We welcomed **50 new recruits** to our workforce this year, with our direct employee total being **959 colleagues**.

Wales



Openreach continues to be by far the largest Full Fibre builder in Wales.

By March '23 more than 662,000 Welsh homes and businesses across every single local authority area – in both urban and rural parts of the country – could already access our Gigabit-ready network. And, with a workforce of around 2,400 in Wales, we employ the nation's largest team of telecoms engineers and professionals

Their expertise and hard work help us to drive our ambitious commercial build plans.

In addition to our commercial build across Wales – which is part of a £15 billion UK-wide investment – we've also nearly completed our work with the Welsh Government to bring Full Fibre broadband to an additional 39,000 properties in the very hardest-to-reach parts of Wales.

Underpinning our Full Fibre build is Openreach's National Learning Centre for Wales. Based in Newport, it's a multimillion-pound learning centre that gives both trainee and existing Openreach engineers the opportunity to learn the ropes and test new skills in a replica street – built from scratch to recreate the real network in the outside world.

Up to 6,000 new and existing Openreach engineers, from across Wales and the UK, train at the Newport centre during a typical year as we continue to accelerate our Full Fibre broadband deployment across the country.

Yr Wyddfa

We've started work to bring Ultrafast Full Fibre broadband to the top of Yr Wyddfa – otherwise known as Mount Snowdon – in time for next year's summer season.

This mammoth engineering task involves running the fibre all the way to the summit from the nearest exchange in Llanberis.

Our engineers are working closely with the Snowdon Mountain Railway – which carries nearly 150,000 passengers every year – to run 7km of fibre cable to the peak.

Once completed, Yr Wyddfa, located in Gwynedd and standing 1,085 metres tall, will be the highest point in the UK with Full Fibre connectivity. The Snowdon Summit Café, which has remained closed since the 2019, will benefit from the improved connectivity as visitors will be able to use contactless payments.

Among the locals that have already benefited from this work are the Morris family, who live in the highest house in Wales – nearly halfway up Yr Wyddfa. With little to no connectivity before ultrafast broadband was delivered by Openreach, the technology came as an early Christmas gift for the family.

Eira Morris said: "For 20 years we have had to stand at a window to answer mobile phone calls.

Having the fastest fibre optic broadband is some kind of miracle. Thanks to Openreach, the engineering team and staff members working in very challenging conditions to get it to Yr Wyddfa. We are extremely grateful for this."

The improved connectivity will also play a vital role in assisting the search and rescue teams that are frequently called upon to find lost or injured walkers on Yr Wyddfa. Every year more than 600,000 walkers make their way to the top of Yr Wyddfa and traditionally search and rescue teams have relied on radio signal to communicate with one another on the mountain, which can be hampered by heavy fog. Once we've built Full Fibre to the top of the Wyddfa, we'll install a small 5G point that will significantly improve how search and rescue teams can communicate in the future.

The new ultrafast and reliable broadband connection will also mean that search and rescue teams will be able to access vital real-time data, such as accurate localised weather forecasts, which could help save valuable time in a rescue operation, and potentially lives.



Wales 2022 in numbers

Full Fibre rollout

Our Full Fibre rollout reached an additional **206,000 homes and businesses** in 2022/2023.

Total Full Fibre Footprint

As of March 2023, **662,000+ premises** can now access fibre

Faults

We had a **14% reduction** in faults compared to last year

Investment in the network

Over **£62 million** to be invested in our Ultrafast network in 2023/24

Appointments

We kept more than **590,000 customer appointments** across Wales in 2022/23.

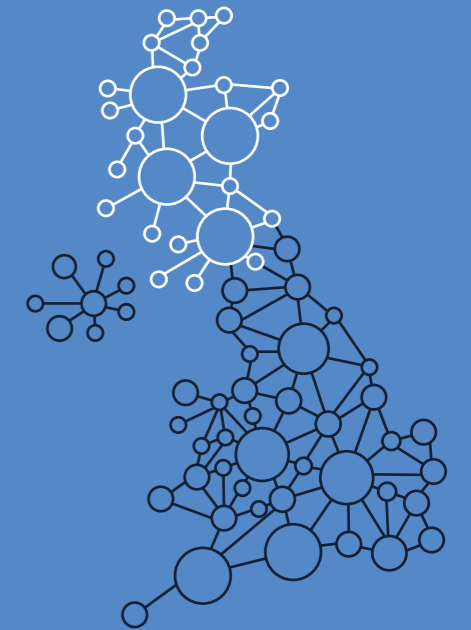
Provisions

We carried out **488,000 new provisions** across all of our product portfolio.

People

We welcomed just under **200 new recruits** to our workforce this year, bringing our direct employees to **2,400 colleagues**.

Scotland



Openreach provides the national digital network that's vital for day-to-day life across Scotland. Our 3,900 people work in every part of the country, from Shetland to the Solway Firth, keeping millions of people connected.

During the year we continued to build the connections that matter, bringing gigabit-capable, Full Fibre broadband to more than 263,000 additional homes and businesses across Scottish cities, towns and villages. Many of these communities are in the hardest-to reach 'final third' of the country.

Places like Alva, Buckhaven, Culloden, Dunbar, Elgin, Galashiels, Inverurie, Lossiemouth, Rosehearty and West Kilbride all saw fibre rollout in 2022/23 alongside further build in cities like Inverness, Aberdeen, Glasgow and Edinburgh.

By March 2023, we'd reached more than 866,000 Scottish homes with our new Ultrafast Full Fibre network, an investment of nearly £260 million.

Around 30 per cent of the Scottish homes and businesses now passed by our new network have upgraded to Full Fibre.

The infrastructure challenges we faced

Our engineers encounter some major and unique challenges across Scotland.

Its land mass makes up a third of the UK but contains just 8 per cent of the UK's population.

The Highlands and Islands is about the size of Belgium and includes 1000+ islands, with people living on more than 100 of them. There's also plenty of extreme weather, with rain, snow, lightning, and gale-force winds regularly hitting infrastructure – cancelling ferries, grounding helicopters and making it even tougher to reach remote areas and communities.

A partner to the Scottish Government

In the summer of 2022, we carried out one of our biggest ever subsea engineering programmes in British waters, building subsea fibre optic links to 15 further Scottish islands as part of our Reaching 100% (R100) contracts with the Scottish Government.

In August 2022, a further £36m expansion of our R100 contracts was announced. The extra investment from the Scottish and UK Governments will help another 2,637 rural properties across Scotland to access Full Fibre broadband.

By the end of February 2023, we'd reached 20,000 of Scotland's most remote homes and businesses through the R100 programme. We expect around 114,000 premises to benefit from our R100 contracts and we're working to align build programmes for maximum efficiency wherever we can.

Not just a network...

Our connectivity will drive economic prosperity and a stronger, more equal society.

The Centre for Economic and Business Research (Cebr) has found that connecting everyone in Scotland to Full Fibre broadband would boost its economy by £4.55 billion. It could also help 76,000 people to enter the workforce and give 24,000 people the option to increase their hours.

Openreach Scotland had a direct workforce of 3,900 people living and working in every part of the country during 2022/23 – mostly in frontline engineering, with hundreds more in the supply chain which supports our Full Fibre build.

Our national training school in West Lothian delivered 7,300 training days during the year to prepare and upskill engineers in everything from working on the new Full Fibre network to keeping themselves and the public safe.

Scotland 2022 in numbers

Full Fibre rollout

Our Full Fibre rollout reached an additional **263,000 homes and businesses** and laid **7.8 million metres of fibre cable**.

Total Full Fibre Footprint

As of March 2023, **866,000+ premises** could access fibre broadband.

Faults

We had an **11% reduction** in faults compared to last year

Investment in the network

Around **£79 million** invested in our Ultrafast network in 2022/24.

Appointments

We kept more than **585,000 customer appointments** across Scotland in 2022/23.

Provisions

We carried out **373,000 new provisions** across our product portfolio, including **119,000 full fibre broadband provisions**.

People

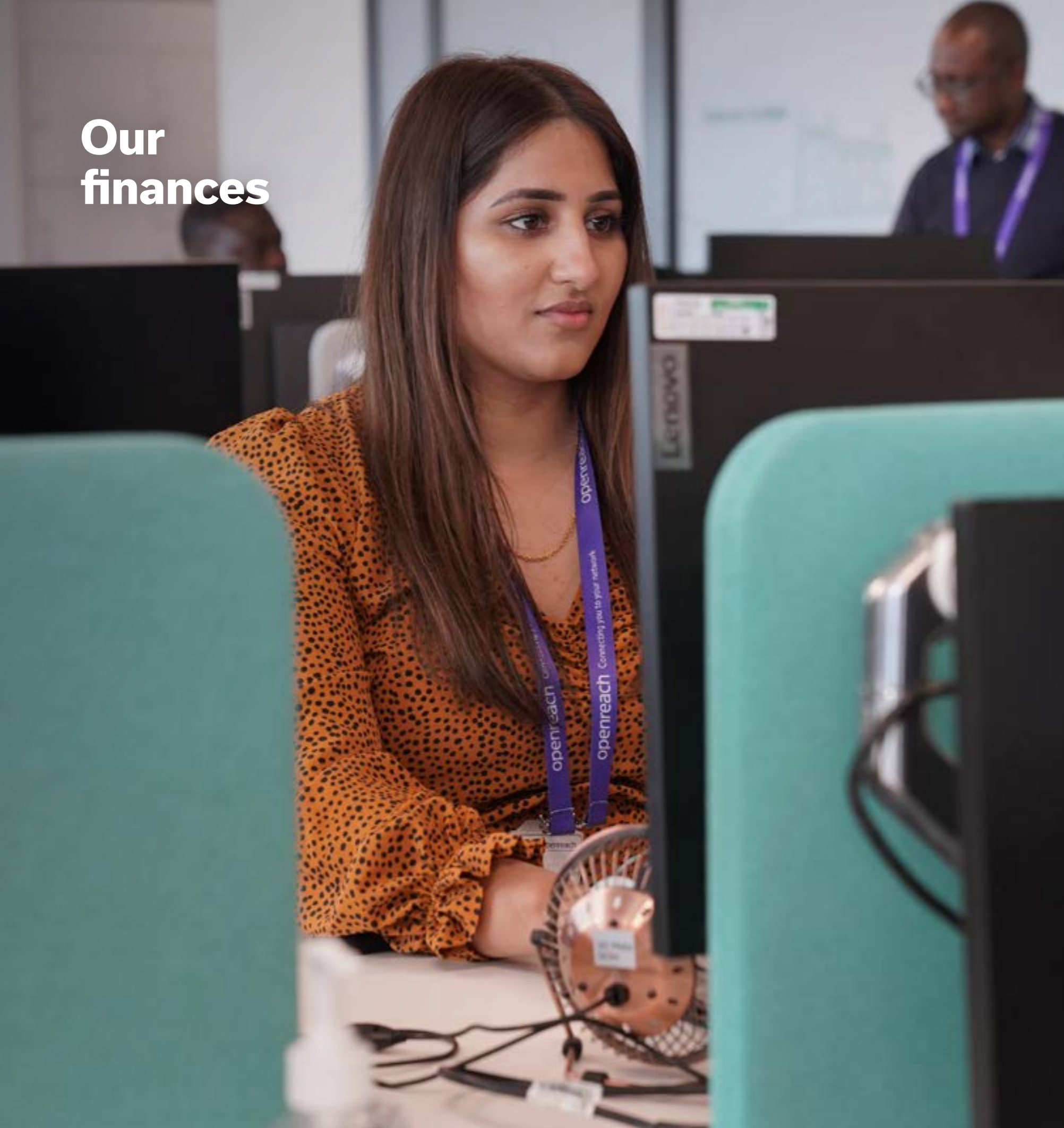
Our workforce of **3,900** live and work in every part of Scotland.



11

Our finances

Our finances



Revenue:

Our revenue grew four per cent for the year. This growth was driven by price increases and increased sales of fibre-enabled products and Ethernet. This was partially offset by declines in legacy copper products.

Operating Costs:

Operating costs decreased by two per cent due to lower repair volumes and ongoing efficiency programmes, partially offset by inflation.

EBITDA:

EBITDA grew eight per cent for the year.

Capital Expenditure:

Our capital expenditure increased by 10 per cent driven by Full Fibre investment, with more customers connected and higher network build, including work in progress for future year enablement and inflation, partially offset by efficiency savings and lower non fibre spend.

Free Cash Flow:

Normalised free cash flow declined by 53 per cent due to higher capital investment, timing of working capital and lease payables, partially offset by the flow through of EBITDA.

Full year to 31 March				
	2023	2022	Change	
	£m	£m	£m	%
Revenue	5,675	5,411	234	4
Operating costs	2,226	2,262	(36)	(2)
EBITDA	3,449	3,179	270	8
Capital expenditure	2,796	2,548	248	10
Normalised free cash flow	221	448	(237)	(53)



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Our senior management team



The Openreach Board members



Mike McTighe
Chairman



Clive Selley
Chief Executive Officer



Matt Davies
Chief Finance Officer



Edward Astle
Non-executive Board member



Natalie Ceeney
Non-executive Board member



Andrew Barron
Non-executive Board member



Jon Furnston
Secretary to the Board



Simon Lowth
BT Group nominee

The Openreach Executive team



Clive Selley
Chief Executive Officer



Matt Davies
Chief Finance Officer



Richard Allwood
Chief Strategy Officer



Colin Lees
Chief Technology and Information Officer



Katie Milligan
Chief Commercial Officer



Matt Hemmings
Managing Director, Fibre and Network Delivery



Catherine Colloms
Managing Director, Corporate Affairs & Brand



Surinder Khatter
Managing Director Service Delivery FTTP, Customer Transformation and Data



Kevin Brady
HR Director



Sophie Bouckaert
General Counsel



Andy Whale
Chief Engineer



Mark Shurmer
Managing Director, Regulatory Affairs



Peter Stewart
Managing Director Service Delivery UK Operations



Jon Furnston
Board Assurance, Governance and Safety



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www.openreach.co.uk

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