



Building the connections that matter

Annual
Review
2024

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A message from Mike McTighe

Chair, Openreach



Reflecting on the year, it's clear that Openreach is doing exactly what it set out to do for all its stakeholders. Underpinned by government policy and regulation, we're upgrading the UK's broadband infrastructure at record pace.

Competitors have made progress. Market growth and inflation have been challenging. Yet Openreach's performance has again been strong.

As the UK's largest wholesale broadband company, we're continuing to invest in full fibre technology. From rural villages to city centres, we've now **reached more than 13.8 million homes and businesses**. We're still heading towards 25 million by the end of 2026 – and we plan to keep going, reaching **up to 30 million by the end of the decade** if there's a supportive political and regulatory environment in place.

But we've always said that building the network isn't the end goal. We need customers to connect to it and get the benefits. That's why I'm really pleased to see **4.7 million** customers already upgraded and enjoying our new platform while we continue to drive down costs and improve the service we give them.

Delivering for our customers

People are spending more time than ever online, and what we deliver is important to them.

We have a clear focus: delivering great service, building full fibre at pace across the UK and upgrading customers to our best available network.

Openreach isn't just meeting the high bar Ofcom has set – we're setting our own, even higher, standards.

Our Net Promoter Score (an assessment direct from customers) has improved by **21 per cent to 51** over the past year, while our Trustpilot score is now 'Excellent' at **4.6**. With fibre fault rates also lower than copper, there's strong momentum in improving customer experience, but there's always more to do.

Building efficiently and pricing competitively

We sped up our build rate again this year, to **one million premises** in the final quarter.

By harnessing innovation and efficiencies in our supply chain, **we've also been driving down the cost** of reaching each premises, achieving full fibre build costs per premise at the lower end of the £250 - £350 range¹.

To that end, the value and quality of our product helps us stand out in a competitive market. Our Equinox 2 pricing offer has now been taken up by all our major Communication Provider (CP) customers – with the ability to fulfil **over 36,000 orders** every week. A brilliant start.

Prioritising our people

Openreach will always be a people business, and our investment in ensuring our people have the right skills to deliver for our customers continues.

As more customers move to reliable full fibre services, we'll need fewer engineers to support them because it's a more dependable platform. To that end, we've stopped backfilling certain roles when people leave or retire and we're continuing to flex our reliance on subcontractors. We're also retraining copper engineers with fibre skills and our desk-based teams are exploiting new systems and AI applications.

We're also becoming more inclusive as we try to better represent the communities we serve.

Our People Networks are growing, continuing to create a safe space for minority colleagues and challenge us on the environment we create for all colleagues. We continue to educate our leaders and colleagues on how to create inclusion for all and our ambition to be an organisation that is open to everyone remains.

Acting sustainably and safely

We know our operations affect the environment. We've distilled our sustainability objectives into three aims to help us focus.

We want to lower our carbon footprint, use fewer materials and cut waste, and make a positive impact on nature.

We're progressing well. We're converting our diesel van fleet to electric vehicles – with **more than 4,100** already on the road. And last year we recycled **around 4,300 tons** of copper. But there is still a long way to go.

Keeping colleagues, partners and the public safe is paramount. Almost everyone at Openreach has now completed our day-long 'Hearts and Minds' safety programme – a massive investment to refocus our culture on physical and mental wellbeing. We've also now completed work to move network assets away from high voltage poles.

Digital transformation

As BT Group's deadline for retiring the analogue PSTN approaches, we've become more aware that wholesale customers need support and encouragement to switch to digital voice services.

We welcome new industry commitments on better protecting vulnerable customers and will carry on facilitating upgrades.

As more people move to full fibre we'll also need fewer exchanges across the UK. Exiting these buildings is challenging and will take many years. But it will help the industry be more cost and energy efficient so we're working closely with CPs to plan and manage this change.

An environment set for success

Finally, it's worth reflecting on the success of the sector.

A combination of UK Government tax policy and Ofcom's Wholesale Fixed Telecoms Market Review (WFTMR) have driven investment and fierce competition across our industry.

An alt-net community – with access to our ducts and poles – has added to an already strong retail market. This is leading to better outcomes and giving customers an even wider choice of offers, products and services.

The framework is working. But the business case for full fibre investments still stretches to nearly **20 years**, so what everyone needs is a continued period of regulatory and Government policy stability.

Our full fibre broadband network is also a growth engine helping to grow the economy by connecting consumers, businesses, public services and entrepreneurs. According to research, our full fibre build programme could give a **£72 billion** boost to the output of the UK economy in 2030.

Meanwhile, technology change keeps getting faster and there'll be increasing challenges to reach more rural, isolated communities. Our focus will be on upgrading as many customers as possible. And – with our excellent track record in rural connectivity – we're looking forward to playing our part in the Government's Project Gigabit programme.

We're doing well, and that wouldn't be possible without our people. So I want to thank all of our colleagues who've worked tirelessly to maintain that momentum 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 provide the best full fibre future for the UK.

More than **700 Communications Providers (CP)** customers use our network to deliver broadband, phone and TV packages to people throughout the UK. We build and maintain an open wholesale network, meaning any company can have access to our services under equivalent prices, terms and conditions. Almost all our products and services are regulated, providing a fair and level playing field for all our customers.

Delivering broadband across the UK requires a vast and intricate network. It involves more than **250 million kilometres** of fibre optic cable and copper wire – laid out flat, that's enough to go round the world **6,400 times**. A network of that scale requires an exceptional team of **26,000 engineers**, who work round the clock, in all kinds of weather and in every community, to maintain and grow it. Last year our engineers completed **10 million jobs**, installing and maintaining the equipment that provides fast, reliable connections to millions of people.

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, 18 years later, the UK has one of the most competitive telecoms markets in the world and we support more than **700 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, 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 **hundreds** of alternative network providers to grow and compete with Openreach at an infrastructure level. Read more about this on [page 17](#).

Alongside our broadband network, we build and manage hundreds of thousands of Ethernet lines. These are dedicated, high-speed broadband lines for businesses and critical national infrastructure. They connect everything from hospitals, stadiums, schools and financial institutions to 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.

250

million kilometres of fibre optic cables and copper wires...



...laid out flat, that would go around the world

6,400 times

26k



Field engineers working around the clock

10m



Installation & maintenance jobs completed

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 some 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 will continue our once-in-a-lifetime, UK-wide infrastructure upgrade. We're building full fibre to 25 million homes and businesses by end of 2026 and we're not stopping there, with the ambition to get to **30 million** by the end of the decade 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. **4.7 million customers** 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.

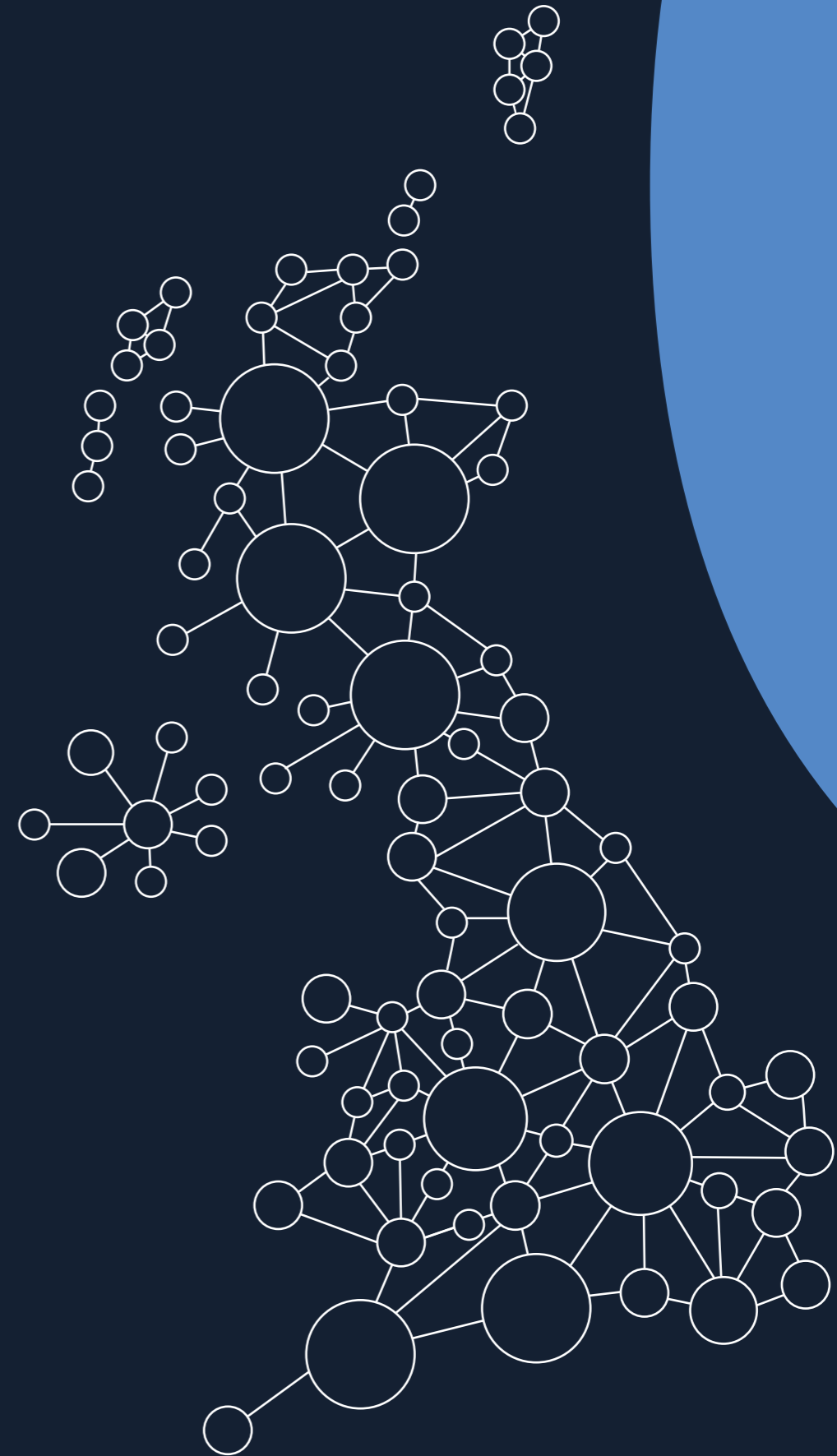


97% 

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

4.7m

homes and businesses experiencing the benefits of **full fibre**





2

Our strategy

Our strategy

Our vision is to build a full fibre network across the UK that connects many homes and businesses and underpins the UK economy for decades to come.

This will be backed up by a service experience that is second to none, and a continued focus to work closely with our Communication Provider customers to upgrade even more homes and businesses to our full fibre products.

At the same time, we will strive to become a simpler, more effective and responsible business with a safety-first and inclusive culture at our core.

Our strategic priorities are to:

Deliver

Great service

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

Build

Full fibre broadband at pace to 25 million premises by the end of 2026, with the ambition to get to 30 million by the end of the decade

We'll work closely with our partners, using innovative tools and techniques, to build full fibre broadband further, faster and more efficiently. At the same time, we're determined to help close the UK's digital divide. We'll keep building across the UK, pursuing a balanced commercial build in both urban and rural areas and working with public sector partners.

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 better service. In the year ahead, we're aiming to connect millions more premises to full fibre by working with CPs to ensure 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 ways to improve include Behaviour Safety training and Life Saving rules for both field and desk-based colleagues. We're also supporting our colleagues to reduce sick absence and improve mental health by continuing to train our managers in spotting the signs of poor mental health and how they can signpost our support services to colleagues.

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 entire workforce. Our ambitions and targets are included in our [Diversity and Inclusion commitments](#), which include an ambition to have better gender representation across our Senior Management Team. We've also embedded diversity and inclusion requirements into our supplier contracts, and we'll continue to invest in training for all our people whilst developing 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 and recognise the urgency of the climate crisis. 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 2031. 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

Full fibre is the global gold standard for broadband – it is the most reliable, fastest, and future-proofed digital infrastructure and will be the backbone of our economy for decades to come, supporting every aspect of our public services, businesses, industries and daily lives.

Back in 2019 the UK Government began to make commitments for improving the country's networks. 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, and we're also working closely with devolved governments ([see chapter 10](#)).

Not only are we building a brilliant new network, we're doing it on an enormous scale and at an unprecedented speed. We believe we're building at the fastest rate in Europe. We're building from Scottish islands to Cornish coves, and from the valleys of Wales to big city streets. We've included **more than 2,900 cities, towns, villages and hamlets** in our build plan so far, making full fibre accessible to communities across the UK.

We're building across the UK

Our network is the largest in the UK and we're growing it every day. We're reaching around 70,000 new homes and businesses every week – the equivalent of a town the size of Guildford – and that means another home or business could **upgrade to a full fibre service roughly every six seconds**.

We're building across rural and urban areas, and we're working with governments, local authorities and local communities to stretch our network to places that the private sector can't reach alone.



Did you know?

So far, we've built full fibre broadband to **13.8 million premises** with a further six million where initial build is under way – that's already more than halfway to hitting our initial **25 million target**, including more than 3.9 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 then on to people's homes and businesses.

It was great at what it was designed for – transmitting voice calls through electrical signals. But for a digital era, we need a network that can transmit ever-increasing amounts of data – faster and more reliably – and cope not only with the demands of today, but for generations to come. Full fibre broadband 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 improved reliability – are often the same, there's a huge difference when it comes to what each network provider can deliver. There are also some important things which we think set us apart.

Building full fibre continued



We're minimising disruption and maximising innovation

Building a new network means installing new cables the length and breadth of the UK. For many infrastructure providers, this means digging up pavements, pedestrian areas and roads. Where we can, we're re-using our existing telegraph poles, underground ducts, cabinets and exchanges. This is cost effective, lets us build at pace and reduces roadworks and disruption to pedestrians and motorists.

Where we do need to build new infrastructure, we use innovation to reduce the impact, like Ground Penetrating Radar. Engineers use this to map out clear routes for new cables reducing the necessity to drill, probe or dig – helping to avoid disruptive road closures and lower the risk of obstructing or damaging any existing underground infrastructure.

We've got decades of engineering experience and training

We've been building and maintaining broadband connections in the UK for decades. None of it would be possible without our team of **26,000 engineers** who've joined us from all walks of life to help transform the UK's broadband network. Our engineering force are well trained and always learning new techniques at our **10 dedicated training centres** across the UK. This all means that when an engineer is building full fibre, upgrading your connection or fixing an issue, you'll always be getting a high quality service.



Did you know?

We invested more than

£21m

in training last year.



Did you know?

Providers who use our network have won prestigious customer service awards this year, scooping **Uswitch Awards** for Broadband Provider of the Year, Best Customer Service and Most Reliable Provider.

Elsewhere, customers voted for our partners to win **Expert Reviews' Best Broadband Award**.

Building full fibre continued

We offer the best choice of service providers

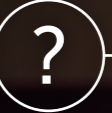
We're a wholesaler, but we enable people to pick from the widest choice of retail service providers. Our network now supports **more than 700 service providers**. There are big, well-known names like EE, Sky, TalkTalk and Vodafone, as well as smaller players like Zen and many, many more. Customers can switch between providers on our network with a minimum of fuss.

We're fast and 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 laser light signals to transmit data, which are immune to electromagnetic interference, and have a low rate of 'attenuation', which means, unlike other technologies, the signal strength remains strong no matter how far your home is from an exchange.

We're future-proofed

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



Did you know?

Demand for high-definition streaming, online gaming, video conferencing and other bandwidth-intensive applications has spurred a huge increase in how much broadband data we all use – and consumption is rising every single year. That's why, in April 2024, we launched two new 'turbo charged' full fibre speed tiers which will push download speeds up to **1.2Gbps** and **1.8Gbps**, with both offering upload speeds of **120Mbps**.

The new speed offerings will enable our CP customers to sell 'true' Gigabit products with speeds up to **more than 20 times** the current UK median average.

Building full fibre continued



Digital infrastructure supports the development of rural communities



Growing the UK economy

Our full fibre broadband network is a growth engine. It will help to increase productivity across the UK through providing vital access to public services, while growing the 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 **£72 billion boost** to the output of the UK economy in 2030. That's equivalent to creating **294,960 new small and medium-sized enterprises (SMEs)** across the country or adding 25 new businesses in every local council area in the UK. By providing increased capability for people to work remotely, **an estimated 533,000 new workers** could also enter the workforce by 2026. This includes older workers, parents and carers.

Digital infrastructure supports the development of rural communities, with research we conducted alongside Be the Business highlighting that fibre broadband is a key consideration for **70 per cent of businesses** when deciding on location, more important than transport links and proximity to customers.

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.

Fibre broadband is a **key consideration for 70% of businesses** when deciding on location, **more important** than transport links and proximity to customers.



4

**Upgrading
customers**



Upgrading customers

We're building a full fibre future for the UK, but that's 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. We're also 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. So the fact we're now selling full fibre in virtually every town, and in more than 80 per cent of villages across the UK is a great first step. It means the spine of our network now reaches into practically every corner of the country.

We're encouraged to see **4.7m customers have already upgraded** where our full fibre is available and they're now enjoying our new faster and reliable platform.

The next step is to drive adoption even further and to do this we need to work hand in hand with Communication Providers in a variety of different ways. If we support them to succeed, then so do we.

CP customers know that we'll always remain competitive on price. We launched our 'Equinox 1' offering two years ago, introducing a discounted price structure on the basis that a CP's default choice for their new customers is full fibre, when choosing to place an order with us.

Now we've gone further with 'Equinox 2', which offers further incentives for CPs to upgrade their existing customers to full fibre. All of our largest CP customers are now consuming this offer, as it gives them long-term price certainty to offer full fibre at an attractive and affordable price to their customers.

When we build full fibre to **more than 75 per cent** of an exchange area, we stop selling older copper technologies. This means that when customers decide to change their service or buy a new one, they're upgraded to the latest full fibre products.

By the end of March 2024, we reached this 'Stop Sell' point in **594 exchanges**, covering more than **4.9 million homes and businesses**, and we anticipate at least another **200 exchanges** covering at least **one million homes and businesses** will follow in 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 **30,000 vehicles**, and our network of **more than 100,000 street cabinets** to broadcast the benefits of full fibre. We continue to run targeted, always-on, digital advertising to let people know we're building in their area. Once they know that full fibre's coming, they can visit our website and use our new and improved postcode checker, through which more than **830,000 people** have already registered interest in upgrading.

This year we brought to life the benefits of full fibre in our marketing to specific audiences like businesses and gamers. We also continue to drive awareness with the media, letting them know when full fibre's coming and what their audiences can expect - from the start of the build through to connection.

Meeting the demand

Demand for high-definition streaming, online gaming, video conferencing and other bandwidth-intensive applications has spurred a huge increase in how much broadband data we all use - and consumption is rising every single year.

We're working hard to get people connected to full fibre fast and meet this demand. This year, we averaged **42,000 connections a week**, an increase of **35 per cent** on 2022/2023. What's more, **75 per cent** of those orders are at **100Mbps+** speeds and our new turbo-charged **1.2Gbps** and **1.8Gbps** products speed tiers mean our network is future-proofed to meet ever growing demands.

When our provisioning engine needs support, we've also found ways to **collaborate with CPs** to enable them to develop an own brand engineering experience to meet demand. A good example of this partnership model is our work with Sky which really took off this year.

Sky now completes end customer connections for **3,000 of their own FTTP connections per week**, delivering 96 per cent of orders on time.

Ducts and poles

The use of our poles and underground ducts by other companies to build their own broadband networks has become a real success story.

Across the UK, **169** alternative network providers (alt-nets) are established to use our physical infrastructure to build and connect their customers, with more than **750,000 consumers and businesses** now connected thanks to this programme.

Collectively, these alt-nets **now use around a third of our estate**, when it comes to poles and ducts, and the feedback we're getting is extremely good with our NPS score at **+25.9**. We're delighted with the way this cross-industry collaboration is helping to upgrade customers and give them more choice.



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.

But over the years, the ageing phone network has started to creak. Repairs are increasingly necessary while replacement parts have become harder to source. Ultimately, it needs to be upgraded.

To address this, BT Group, which owns the analogue Public Switched Telephone Network (PSTN) network, announced its intention to retire it by the end of January 2027. By then, almost everyone in the UK will need to have been upgraded to a reliable digital line and 'landline' calls will be made over broadband instead - as with Zoom and Microsoft Teams calls today. At that point, everyone will be able to enjoy a faster and more reliable service.

At Openreach, our role in this transition is to withdraw the analogue products that work over the PSTN, including our Wholesale Line Rental (WLR) product, and **we've got 6.8 million lines left to migrate.**

We'll also need a lot fewer exchange buildings across the UK as more customers move to full fibre services.

In fact, in a decade or so, we'll be able to operate from just 1,000 'super digital exchanges', and we've already begun planning the closure of around **4,600 buildings** that we provide services from today. These exchange buildings are also used by our CP customers, so exiting them is a really complex task, and we're consulting the industry on how to do it smoothly and effectively.

This generational upgrade will help the whole industry to be more cost and energy efficient, so we're working closely with providers to plan and manage the change.

The impact of going digital and our support for the vulnerable

Landline phones aren't the only things affected by the switch to digital - hardware like alarm systems, lifts and healthcare pendants are also affected. That's why we established a test lab, open to all hardware vendors. The lab provides an environment where manufacturers can replicate the conditions that occur when switching to digital lines. It's a great way for them to figure out the best ways to manage the transition.

Some vulnerable customers need to be treated with particular care and consideration throughout the switch to digital.

CPs are ultimately responsible for identifying and raising awareness with their customers. They have processes in place to ensure risks are mitigated when migrating vulnerable customers. But we'll seek to make sure that the switch to digital is achieved without any significant loss of service.

In December 2023 the UK Government announced a [PSTN charter](#), agreed between the Department for Science, Innovation and Technology (DSIT) and numerous CPs, to protect vulnerable customers. We've also worked with the Government on a second charter, which we've signed up to, and is aimed at network operators, [published](#) in March 2024.

Our engineers are working with CPs and their customers to make sure that critical telecare devices aren't migrated where there's a risk they may not work. And if we become aware of a telecare device where our CP customer hasn't told us one's in place, we won't proceed with switching end customers to a new broadband service.

We're also working on a system called 'Prove Telecare'. This will enable our engineers to more safely move vulnerable customers with a telecare device to full fibre or Single Order Generic Ethernet Access (SOGEA) Voice over Internet Protocol (VoIP) services by testing any telecare device previously connected to the phoneline, to make sure it works on the new digital service.

Upgrade for farming community



Full fibre can be transformative for communities. Farmers in and around Chinley, Derbyshire, were struggling to run their businesses due to slow and unreliable broadband, while families were unable stream films, complete homework online, or work from home.

Residents, Derbyshire County Council and Openreach worked together to bring full fibre broadband to the area - and it's already having a positive impact.

Farmers, who often use tools and machinery that require an internet connection, are better able to manage their crops, livestock and equipment.

"We have access to some of the fastest and most reliable broadband speeds available anywhere in the UK, and it's making a huge difference," said farmer Angus Morris.

The Lamb Inn, an 18th century coaching inn, has seen improved ratings on travel sites since it installed better broadband.

Landlord David Asquith said: "Now we have full fibre, it means we can get it to the whole property, as well as outside. We also really wanted better broadband so people staying in our guest accommodation could connect easily. Our rating on sites like Booking.com was suffering before, and hopefully now that's a thing of the past."

5 Delivering great service



Delivering great service

We know how important a solid, stable phone and broadband connection is to our customers. 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. Getting it right first time, every time – with minimal effort needed from customers – is what we're all about. And if something does go wrong, we'll work hard to fix it quickly and seamlessly.

With all that in mind, we're pleased that our customers have told us we've made strong progress again this year.



Record satisfaction

'End customer' satisfaction with our engineering visits has never been stronger, with **93 per cent** saying they're satisfied and our Trustpilot score now rating us as 'Excellent', **4.6**. On top of that, complaints have reduced by **30 per cent** this year too – so we're on the right track.

We achieved every one of the 35 regulated service measures – which are set for us by Ofcom and cover both the business and residential markets. There's always more to do, but this doesn't tell the whole story when it comes to the progress and improvements we've been making.

Our CP customers rated us higher than ever this year. Our Net Promoter Score has **improved by 21 per cent to 51 over the past year**. It breaks down into **+47.7** for our copper and fibre broadband products and **+54.4** for our dedicated point-to-point Ethernet services. Not only that, but four major Communication Providers, who exclusively use our network, received the fewest complaints in [Ofcom's fixed broadband complaints league table](#).

We've also maintained our response times compared to last year, so CPs and their customers are getting replies from us to their queries **within 20 seconds**. And we've reduced the time it takes to resolve issues for our most vulnerable customers by 19 per cent.

And on our full fibre provision performance, we've reduced our Mean Time to Provide (the time it takes to connect our customers) by nearly five days, over the course of the year, and increased our first visit success by **6.5 per cent**, getting more customers into service quicker.

Excellent



★ Trustpilot

Greater reliability

More customers are also upgrading from older platforms to full fibre, which is much more reliable.

To put this in perspective, the **'fault rate' on full fibre is over 60 per cent lower than the old copper network** which means our customers can expect – and rely on Openreach to provide – an always-on service.

The 'fault rate' on full fibre is 60% lower than the old copper network

Good progress is also true of our Ethernet delivery, where our people's efforts have helped us to hit all five of our Quality of Service measures. This has driven a much-improved mean time to deliver Ethernet to our business customers and gives them greater certainty that we'll meet our commitments to connect on time.

None of this has happened by chance. Driven by innovation, we're thinking differently about how we can deliver the best possible service for our customers.



Making things easier for end customers

We've developed a good balance between using AI and human intervention to help us get closer to customers and make it simpler for them to understand what we're doing to help them.

This year, we built on the SMS functionality available with the Artificial Intelligence-powered 'ContactEngine' system – which was launched in 2021 – so that customers can now manage their appointment dates directly via our website.

They have access to our live appointment books and any appointment changes they make will automatically update our operational team and their service provider. It helps us put the customer in control.

We also enlisted the support of a behavioural science consultancy to help simplify the communications we share with customers and make sure they don't miss any important prompts to take action.

As a result of these changes, we've had **more than 10 million direct conversations with customers this year**, which has helped to build a better customer experience.



Delivering great service continued

Becoming 'easier to do business with'

We want to make things as simple as possible for our CPs to communicate provision and repair jobs to their customers, so we've made it quicker and cheaper for CPs to get the information they need from us.

We've shifted to more agile communication, with a self-serve system replacing manual notes, and this gives CPs everything they need at their fingertips. It includes 'click to escalate' functionality should an urgent fix be needed, and a self-serve option to reschedule an appointment.

We've also been working hard with CPs to reduce the percentage of full fibre customers

whose orders don't complete on the day, often because they haven't fully known what to expect or aren't clear on the services they'll receive.

Our improvement activities – such as establishing CP hot desks to field questions from our engineers to resolve end customer issues – helped reduce the percentage of customer missed appointments for full fibre orders from **10.4 per cent to 7.3**. That means that in total **this year 31,000 customers have been connected faster to full fibre**. This is a better experience for customers and reduces wasted visits and costs whilst creating extra capacity to connect more customers.

Keeping care homes connected

For the 80+ residents at the family-run Applecross Nursing Home, in Glasgow, having access to high-speed Ethernet broadband provides a vital link to the outside world.

Their dedicated business line lets residents access multiple online devices, applications and services, helping them stay connected with family and friends.

Applecross General Manager John Murray says: "About 60 of our residents are young people with physical disabilities and the rest are elderly. For some of them, being able to use the internet is their only connection to the outside world. Some are unable to leave a bed or are confined to a wheelchair because of their condition, so being able to bring the outside world in virtually really is vital to improving their quality of life and well-being."

The home's Ethernet line also underpins a vast array of critical medical monitoring equipment and administrative support which can now be automated – freeing up more time for nursing staff to look after residents.

John said: "We provide 24-hour specialist clinical care and all the care has to be planned. All our methods for doing that can now be done online. Staff carry hand-held devices around with them and can input updates as they deliver the care. Everything is instantly uploaded and recorded in the cloud."

One of the most important pieces of technology that Ethernet supports in the home is the Electronic Medication Administration Record (eMAR) – an electronic system that stores and manages patient medical records.

"Some of our residents are on multiple medications so it's vital that's all monitored and recorded. The eMAR system tells nursing staff via laptops on trolleys what patient to give which medication and when," John said.

"Before, everything had to be done with paper records which meant less time spent actually caring for residents, now this can all be done at the touch of a button."



Delivering great service continued

Award winning

We're making good progress, but it's always nice to gain outside recognition.

In the highly prestigious 'European Customer Contact Centre' awards, we were awarded 'Silver' for our consumer 'Customer Contact Strategy'. Judges recognised that it 'found the sweet spot between digital and human interfaces'. They also acknowledged the rigour of our approach and the strategy underpinned by best practice, insight and commercially driven thinking – all to better customers' experiences with digital networks.

Our Customer Service Director won the Strategic Leadership award at the 2024 Institute of Customer Service Awards, while Sky also picked up the Best Partnership Award for our work together on provisioning.



UK broadband enjoys a record-breaking 2023

Our network is the biggest in the UK, and we carry broadband traffic for hundreds of broadband companies. which gives us a comprehensive picture of network data demand. Last year, our much-anticipated annual update showed that **broadband traffic across the UK increased by around nine per cent during 2023 to 94,722 petabytes (PB) of data.**

Closer examination of the numbers highlights that peaks tend to be focused on specific online events, such as Amazon Prime's Premier League coverage and the release of downloads for popular gaming titles including Call of Duty. There was a big surge in broadband use towards the end of the year too, with **December being the busiest month** of 2023 for broadband traffic, and **Boxing Day the busiest day.**

We're seeing a real pattern starting to emerge in these annual data consumption updates, with significant annual jumps in usage. Our network always meets the demand with our team of experts working hard to make sure there's enough capacity for every eventuality.

How big is a petabyte?

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



Powering ahead in the Ethernet market

It's also been a successful year for our Ethernet products and customer experience.

Ethernet delivery's a huge deal for us – **a £1bn business** – and it's a complex business-to-business world which requires a super-reliable service.

Thankfully that's exactly what we delivered this year. Our customers need us to take complexity away and just allow them to focus on what they do best.

Aside from schools, corporates and care homes, we also provide connectivity in response to critical incidents like flood risks, power outages and many moments where communities just need connectivity urgently restored. So, it's no surprise that the UK Government asked us to support the nationwide response to schools at risk from reinforced autoclaved aerated concrete (RAAC).

Our Critical National Infrastructure team **responded within 24 hours**, working directly with schools and the Department for Education to provide connectivity where schools had moved to a new facility and extending existing networks within school grounds or moving infrastructure in areas which needed remediation. This involved tight timescales and logistical planning to minimise disruption to schools and their children.



Preparing for severe weather conditions

The second half of this year was extremely challenging, with severe weather conditions across the UK impacting our physical infrastructure – poles, cabinets and cables – which are exposed to the outside elements. We contended with **ten named storms**, often arriving in quick succession, with some regions experiencing high winds and near record levels of rainfall, severely testing our contingency planning for extreme weather.

Our storm preparation and recovery process is very robust. We communicated early with the public so they knew how forthcoming storms could affect our network. We explained how they can let us know about any damage, to help us fix it quickly.

We also had a Storm Response Team at the ready – experts to lead the restoration of services for impacted customers and prioritise vulnerable people and Critical National Infrastructure while keeping our engineers safe.

6

Bridging the digital divide



Bridging the digital divide

The vast majority of the UK (more than 97 per cent) can order a superfast service today providing speeds greater than 30Mbps – enough for a household to stream 8k or Ultra High Definition (UHD) TV on multiple devices simultaneously.

More than half can also now access gigabit-capable broadband – with around **45 per cent (or 13.8 million homes and businesses)** able to access our own full fibre network.

But for a small minority, high speed broadband remains out of reach.

The main reason is that it's simply more difficult and much more expensive to connect rural communities.

Urban areas are, by their nature, densely populated, while rural communities are spread over a much greater area, with fewer people, and can often be remote.

The UK does have a law – the Universal Service Obligation (USO) – that means eligible addresses have the right to request a 'decent' broadband connection and people can make this request to BT, or to KCOM if you live in the Hull area.

But the fact remains that the more remote a community is, the more hours, equipment and specialised kit that companies like Openreach need to reach them. It means traversing natural

obstacles like rivers, lakes and lochs, or hills, valleys and forests – and this can send costs soaring.

We also need to gain legal permissions, or 'wayleaves', to build across privately owned land – which can be time-consuming or sometimes even impossible to obtain.

We're a commercial business but, unlike some, we're also committed to serving the whole UK. We believe everyone should have access to fast and reliable broadband, no matter where they live, so we're doing as much as we can to achieve that.

Bridging the digital divide isn't something we can achieve alone – it needs government and the entire industry to work together.

The good news is that government support can make connecting hard-to-reach areas feasible, and our people are always ready to take on an engineering challenge.

We're proud of our strong track record of investment into rural broadband upgrades – having built further than any other company – and 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 – both commercially and in partnership with governments.

By December 2026 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 some of the most challenging places to connect in the UK – defined by Ofcom as 'Area 3', and we will continue to build beyond that date. In 2023/2024 we connected another **800,000** of these premises, bringing our total so far to **3.9 million homes and businesses**.

We also extended coverage to another **330,000 not-spots** – areas that previously couldn't receive services of at least 30Mbps from Openreach – as we built across the UK from the Shetland Islands to the Isles of Scilly. We're determined to keep going.

2. Innovation

We're constantly developing new 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.

And with challenging terrain in more rural communities, they have to think creatively, not least on the provisioning front. That's why we've ramped up our use of drones to conduct complex full fibre provisioning. Whether it's to reach poles across streams or on hills that are higher than houses, our engineers are ready to meet any challenge to connect homes to our infrastructure and give people the best possible service. You can take a closer look at other ways we're innovating on [page 31](#).

Bridging the digital divide continued

3. Co-funding with communities

Our Fibre Community Partnership (FCP) scheme helps get full fibre to communities where there's a lot of demand but no commercial plans, or where the community would wait too long for a subsidised project to reach them.

Over the past 12 months we've grown this scheme, working with more communities to harness either private funding or subsidised vouchers which they can access through the UK Government's Building Digital UK (BDUK) programme and, in Scotland, the Scottish Broadband Voucher Scheme.

We've now connected more than a **quarter of a million homes and businesses** in this way, bringing our transformational technology to more than **2,900 communities** nationwide that would otherwise have faced a long wait or even missed out entirely.

The scheme continues to go from strength to strength and it complements the other ways we're bridging the digital divide, either through our commercial programmes or partnerships with central and local governments.



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 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 very beginning and we're proud of the role we played - which has seen us partner together **on well over 100 large scale contracts** worth **more than £2 billion** over the last 12 years.

So far, **BDUK has reached millions homes and businesses** and we've delivered the vast majority of that build programme. We're also continuing to work with the UK Government by making use of broadband vouchers and we'll play a part in its latest major scheme - Project Gigabit - a £5 billion programme aiming to upgrade the final, and trickiest, 20 per cent of the UK to gigabit capable speeds.

We also continued broadband upgrades for Scotland's hardest to reach properties, through our delivery of the Scottish Government's Reaching 100% (R100) programme.

We've been part of BDUK from the very beginning and we're proud of the role we played

We believe that everyone in the UK deserves access to fast and reliable broadband, and we work collaboratively to make that happen. We hope to build on our partnership with government to progress even further into the hardest-to-reach areas and help realise the goal of extending Gigabit capable broadband to 'at least' 85% of UK premises by the end of 2025, and then 'nationwide' coverage (c.99%) by around 2030.

We're working closely with all 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 41-44](#).

Helping rural businesses thrive



Husband and wife Jonathon and Yvonne Holder have been running their business, Vernacular Antiques, from their rural Ceredigion village in Wales for nearly 25 years.

The couple's rural location means the majority of business is conducted on their website. But with next to no broadband connectivity in the village, the work of uploading images of new furniture to their website was both time consuming and labour intensive.

But all that changed with the arrival of Openreach's full fibre broadband. Jonathon says: "As a rural business that sells high end Welsh furniture our customers can be anywhere in the world.

Footfall to our showroom - given our location - isn't particularly high compared to our competitors in London so we rely heavily on our reputation and online presence.

Some of our items can go for as much as £20,000 so our customers that aren't able to visit our showroom need

as much information as possible to make an informed decision. That can mean several high-resolution pictures, video clips and live-streaming - something that was very difficult or impossible to do without full fibre broadband.

Since getting full fibre we've seen a huge shift in how we do business, with the majority now being done using our social media channels rather than visits to the showroom or even our website.

This new connectivity allows us to communicate with our customers instantaneously - something that's vital in e-commerce. For rural businesses like ours to survive and thrive having fast reliable broadband isn't a nice to have. It's crucial."

7

Working safely and responsibly



Working safely and responsibly

We're passionate about protecting our people and the environments we work in. We want our colleagues and partners to feel safe at work, and the public to trust us and be protected around our work sites.

We're also fortunate that we get to work in beautiful locations throughout England, Northern Ireland, Scotland and Wales, and we're committed to limiting our carbon emissions, using and wasting less, and engaging with nature, as we build a safe and sustainable future.

Working safely

Our full fibre network is expanding across the UK and making sure our people and the public are safe while we build it and supply other services is a major priority for us.

Getting this wrong can have significant impact on our people, their families and the public. This year, we admitted we fell short of the standard expected of us in relation to the tragic death of a much-valued engineer in 2020 and were fined £1.34 million. We're deeply sorry and are committed to ensuring that this doesn't happen again through a comprehensive improvement plan.

The first phase of our 'Everyone Home Safe & Well' programme has progressed well this year, with almost everyone - **more than 32,000 colleagues** - completing our dedicated safety culture training, 'Hearts and Minds'. It's helping us embed 12 lifesaving rules and four 'everyday safety' behaviours right across our business.

Our engagement surveys are also showing positive signs about our safety culture, with **91 per cent** of employees strongly stating they feel safe at work. We've also been working closely with our partners to ensure their cultural programmes are aligned with ours.

This year we've successfully achieved both ISO55001 and ISO45001 certifications - international standards that provide robust external assurance and validation of our controls.

Our safety performance is showing year-on-year improvements including an **8 per cent reduction** in our lost time injury rate (excluding road traffic collisions) and a **62 per cent reduction** in our High Potential events rate compared to the previous year. We have also seen a **26 per cent reduction** in our utility strike rate and zero falls from pole climbs this year.

While we're keeping our people safe, we're also making improvements to protect customers and the public. We've implemented an enhanced poling risk assessment to make it easier to prioritise pole maintenance, using a more quantitative methodology.

We've replaced, repaired or recovered **98,300 poles**, and we have completed the removal of our older infrastructure from utility poles carrying electricity, as part of our high voltage safety programme. We've also rebuilt **3,400 chambers** and completed **41,300 electrical safety checks**.

Our commitment to improving safety has been recognised by the Royal Society for the Prevention of Accidents (RoSPA). We were awarded three prestigious RoSPA awards - Industry Sector Award, Fleet Safety Gold Award and Best New Entrant Award.

We're dedicated to continually improving, staying vigilant and committing ourselves to an even higher safety standard.

Zero
Falls from pole climbs

41.3k
Electrical safety checks



12 lifesaving rules



We always use the correct personal protective equipment



We never come to work under the influence of alcohol or drugs



We respect the speed limit, wear a seatbelt and don't drive tired or distracted



We never work near water or other hazardous environments unless trained and follow the correct processes



We set up roadworks guarding, to the red book standard



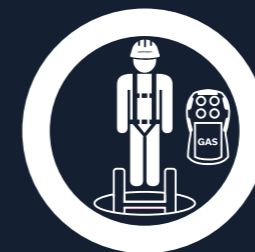
We test poles and check for low wires and overhead power before climbing



We use Tetra when climbing a ladder



We always check for services before we dig and follow safe working practices



We test for gas when working in the underground network and only enter a confined space if we are trained



We test for power before opening cabinets



We check for services and other hazards before drilling



We keep a safe distance from moving equipment and suspended loads

Working safely and responsibly continued

Building sustainably

One of our driving principles is building and maintaining our network sustainably. That means working to find **new and better ways of working so that we can protect the environment.**

We're also creating a more sustainable communications network. Full fibre is more energy efficient, reliable and a central part of a greener economy fit for the future.

Transitioning our network from copper to full fibre will have an impact on the environment. To help us build that future sustainably, we've set ourselves three specific objectives – reduce our carbon footprint, use fewer materials and reduce waste, and protect the natural habitats we encounter.

Lowering our emissions

We're committed to hitting Net Zero by 2031 – and this year we continued to take action to make that happen.

We have **30,000 vehicles** travelling around the UK to build and maintain our network. To avoid excessive mileage, we're utilising AI to optimise our engineers' schedules and routes. Our new full fibre network is also **five times more resilient than the copper** one it's replacing, meaning fewer trips to fix issues.

We're also switching from diesel to zero emission vehicles. We've already got **4,100 Electric vehicles (EVs)** on the road, and we're aiming for our entire fleet of vans to be zero emissions by March 2031.

To drive this change, we're installing thousands of charging points at our exchanges and our engineers' homes, while campaigning for more charging infrastructure across the UK's roads.



Working safely and responsibly

continued

Reduce, reuse, recycle

We're determined to use less, waste less, and keep materials in use for longer. We're exploring new methods to make materials last longer and prevent them going to landfill. Blue rope, used to pull fibre cables through ducts in the ground, is a good example.

Previously, this plastic-rich rope would be thrown away after use. We developed new ways of recycling it, saving more than 287 tonnes of landfill waste – equivalent to more than 100 black cabs.

We can't make this transition alone. We work with around 5,000 suppliers, who provide us with the materials and services required to build and maintain our network. Contracts with key suppliers now include carbon reduction. This has helped us cut supply chain emissions.

The way we share our physical infrastructure with other network builders has its sustainability benefits too. It allows them access to our poles and ducts reducing the materials

used and the carbon footprint of other businesses building broadband. Over a third of the estate we use for our network build is shared with other network builders.

While we're taking big steps forward, we can't avoid all waste. We are ISO14001 certified on environmental management, meaning we make sure that unavoidable waste from our operations is processed responsibly.

By reducing, reusing and recycling the materials we need for our network, we are building a more efficient, resilient and sustainable operation. Good for business, good for the environment.

We've developed new ways of recycling our plastic-rich rope, saving **287 tonnes of landfill waste** – equivalent to more than...

100
black cabs



Copper extraction

Building a full fibre network across the UK provides opportunities to recycle. Fibre is longer lasting and more energy efficient than the copper it's replacing – and that copper does not go to waste.

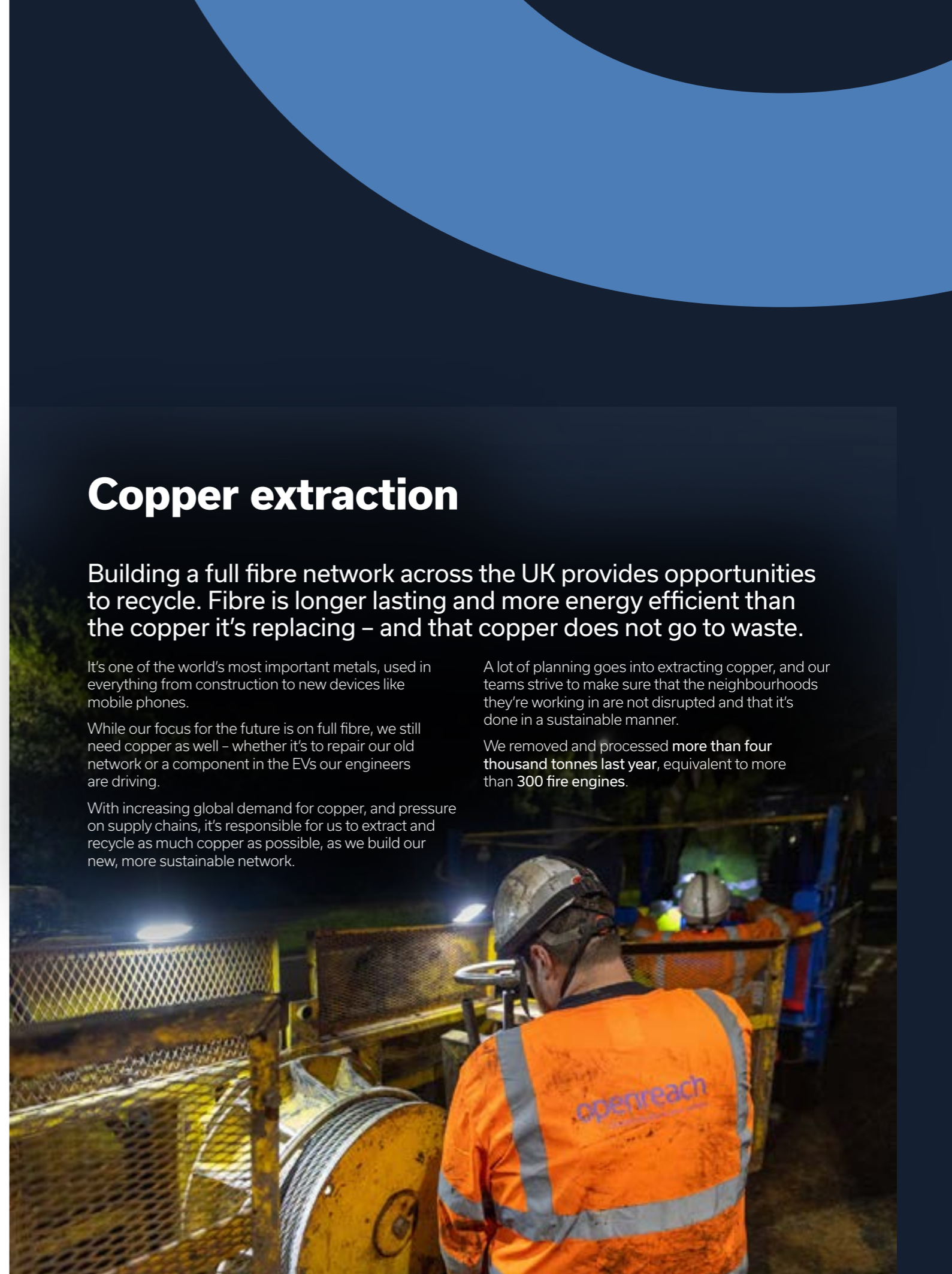
It's one of the world's most important metals, used in everything from construction to new devices like mobile phones.

While our focus for the future is on full fibre, we still need copper as well – whether it's to repair our old network or a component in the EVs our engineers are driving.

With increasing global demand for copper, and pressure on supply chains, it's responsible for us to extract and recycle as much copper as possible, as we build our new, more sustainable network.

A lot of planning goes into extracting copper, and our teams strive to make sure that the neighbourhoods they're working in are not disrupted and that it's done in a sustainable manner.

We removed and processed **more than four thousand tonnes last year**, equivalent to more than 300 fire engines.



Working safely and responsibly continued

Working with nature

From the busiest cities to the most remote villages, Openreach is working across the UK. We meet wildlife and natural habitats wherever we go, and we're determined to limit our impact.

Our surveyors have been trained to carry out nature assessments of the sites they visit, and if they encounter wildlife, they have strict protocols for making sure it's protected. Environment experts can be contacted for advice as needed.

We also take care to protect habitats. As members of the Government's National Parks Accord, we're committed to connecting rural communities in ways that protect and enhance some of the UK's most beautiful landscapes.

This year, we created a Business Conservation Partnership with the Royal Society for the Protection of Birds (RSPB), with the aim of helping us move towards nature positivity in our build programme – a national partnership to deliver for nature and people.



We share
1/3

of our poling and duct estate with other network builders



Fair Isle

Building our fibre network to beautiful island communities brings plenty of challenges, none more so than our recent build on Scotland's Fair Isle as part of the Scottish Government's Reaching 100% programme.



Situated between the island groups of Orkney and Shetland, simply getting our engineers and equipment out to Fair Isle was the first challenge. But a greater one was how to avoid impacting habitats that are highly precious for wildlife. With seabirds like razorbills, kittiwakes, northern fulmars and skua all summer residents on the island, we agreed a series of mitigations to avoid potential impacts of our build.

These included completing our works in a window between October and March, outside of breeding season but when the weather is typically not on our side, to make sure we didn't disrupt any habitats during this critical time.

Working hand in hand with the National Trust for Scotland and NatureScot, we engaged an Ecological Clerk of Works to safeguard ecological features and produced a Construction Environmental Management Plan for pollution prevention.

We implemented strict biosecurity protocols to make sure no invasive species were brought over on our equipment. Fibre cable routing was carefully planned to minimise impact on native plant species, especially Northern Marsh Orchids.

For more on our unique Fair Isle build, [see page 43](#).

8

Harnessing Innovation



Harnessing innovation

Building full fibre broadband 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 AI driven apps that support and guide our workforce, to technological advances in the field 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. AI in the field

This year our engineers have been piloting the use of 'Google Street View style' 360° degree camera technology to make planning and surveying of routes for our new full fibre network simpler and quicker. We've trialled the technology in Scotland, where a vehicle-mounted 360° view mobile camera records while travelling along a planned route.

AI software is then able to pick out street furniture, such as footway boxes, green roadside cabinets and poles, allowing our engineers to choose the most optimal (cost efficient or fastest) route to take.

The technology can drastically improve on the time taken for a traditional manual survey (no need to walk the route) and minimises re-visits to record where items have been omitted.

We're also using AI to help improve service delivery for customers. We're using machine learning software in our network to help shorten the time it takes to fulfil a full fibre order and optimise the number of engineering visits needed to provide service to end customers, and so free up engineering capacity for further installations and repair work.



2. Boosting the reach of full fibre

We've been deploying broadband reach extending technology to build our full fibre network further and faster – and upgrade hundreds of harder-to-reach, more rural communities.

Our engineers are using **Subtended Headends** or 'SHEs' where new fibre-optic cables can be built out from specially adapted existing green roadside cabinets. Ultrafast equipment, normally housed in a main exchange building, is installed at the cabinet, extending the reach of the broadband signal.

In this way, Openreach's new full fibre cables can potentially be **extended three times their normal reach** on a large scale, while **cutting up to six months in build time** and the costs involved in deploying new fibre cables or 'spines' all the way from an exchange to a property.

In the remote Welsh Amman valley, seven SHEs have **removed the need for 20 kilometres of fibre cable 'spine'** – much of which would have been on narrow 60mph roads. This means the project can be completed two years early, with savings of almost **£1 million**.

Harnessing innovation continued

3. Upgrading our full fibre network to support even faster speeds

We've already launched new download speeds of up to **1.8Gbps** over our full fibre network, but with broadband data usage growing year on year, we're also planning for the future with an aim to deploy new full fibre network architecture called XGS-PON. It can not only deliver symmetrical speeds up to a blistering **10Gbps**, but is also more cost effective, power efficient and easier to build at scale.

Openreach has also started to install new network kit to support its new high-speed **Ethernet Access Direct** product (EAD). Aimed primarily at business customers, the technology provides dedicated point-to-point fibre connectivity and can be used to build and extend customer networks and develop new infrastructure.

Next generation EAD will enable bandwidths of **1Gb** and above but with a smaller, more sustainable, space and power footprint for our CP customers.

4. Floating on air

We've been able to save thousands of kilometres of costly and time-consuming engineering build work by using our existing underground fibre cable to install additional fibre using 'overblow' technology.

New fibre is installed using a **high-pressure air jet** which propels the fibre on a cushion of air over existing fibre. The air cushion means there's less chance of the fibre being damaged by tension or friction and the fibre cables can be carried more quickly over long distances without the disruption and costly physical engineering work of opening footway boxes or digging up roads.

5. Drones

We believe we're the first broadband network builder in the world to use drones to help build our full fibre network. DroneOps are now an established part of the business, with **16 trained pilot crews** across the UK. Drones have been used to deliver fibre to communities who may never have been reached by traditional methods – carrying cables over challenging terrain like steep gorges or densely wooded valleys.

Our DroneOps team have also deployed an **underwater drone** or **Remotely Operated Vehicle (ROV)** to inspect cables across lakes or riverbeds. Earlier this year, the team used their ROV to help repair underwater cables across the River Weaver, in Cheshire, preventing loss of service to thousands of customers.



9

Investing in our people





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

Investing in our people

A workforce fit for the future

As well as building a new, full fibre platform across the UK, our 33,000 people work every day in communities all over the country, to maintain and connect our existing network. This includes fixing damage and issues, and installing new lines to support phone, broadband, TV and data services for millions of households and businesses. And all of this requires a unique set of skills and a brilliant set of people to deliver.

Over the last few years, we've ramped up our build programme - and we're now reaching a peak of four million premises a year. But it's no secret that we won't be building at that pace forever and, as we prepare for a full fibre future, the new network we're building is **five times more reliable than older broadband technologies**.

That means we'll need fewer people to maintain our network in the future. We'll still need thousands of skilled engineers to help connect customers and provide a brilliant service, but we'll also have fewer faults to fix - which is good news for customers.

To prepare for that future, we're no longer backfilling certain roles and **we've focused on training over 7,100 engineers with new skills**

to work on the new full fibre network, investing more than **£21 million** into our learning and development programmes. In total, we've delivered **more than 138,000 days of training**, including a new 'Hearts and Minds' programme which is driving an even stronger safety and wellbeing culture.

This year we have continued to develop our engineering 'My Skills Passport' application to allow our field based colleagues to request real time support either through informal conversations or more structured coaching and buddying. Through this **we held 441,000 coaching conversations** which all help to drive better colleague engagement and performance.

Meanwhile **our 10 dedicated training schools** continue to support our extensive learning and development programmes across the UK. From splicing fibre to climbing poles, the sites enable more complex learning to take place by recreating scenarios out in the field. We've **hosted more than 32,000 engineers** through various training sessions at these schools over the last year.

138k **£21m**

days of training



into learning & development

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.

We have five people networks – The Ethnic Diversity Network, The Pride Network, The Gender Equality Network, The Neurodiversity Network and The Able2 Network – and each of them is crucial to supporting this element of our strategy. The networks directly influence senior leaders via quarterly face-to-face council sessions and they help to prioritise education and change, raise awareness of issues, celebrate milestones and challenge our thinking when needed.

During Black History Month this year, we raised awareness of how people can speak up in the face of discrimination, as well as sharing their lived experiences with racism and highlighting how they've achieved growth and progression in their careers, regardless of ethnicity. At a colleague event in Birmingham, our special guest, [Dr Tessy Ojo OBE](#), gave an empowering talk about the UK landscape and black culture, noting the challenges for young people and how we can overcome them with collective action.

Last year, we also introduced some significant new policies to enhance our culture.

We established a **flexible bank holidays process**, which gives everyone the option to work through public holidays and take the day off when it suits them better.

We also launched 'Your Right to Feel Safe', a programme offering more support to colleagues who suffer abuse from customers and the public when doing their jobs. We continue to get better visibility of such incidents and we're encouraged that 80 per cent feel they got the support they needed.



2. Fair

We want everyone at Openreach to fulfil their potential. We're all different, all equal and being fair means helping everyone to reach that potential, while being themselves.

In our commitment to fairness and transparency we continue to report pay gap data, sharing gender, ethnicity, and for the first time this year, our disability pay gap. This is an important milestone in creating a clear and equitable workplace.

These documents can be found on our website and prior to their publication we take our People Networks through these numbers so they have the first opportunity to interrogate, challenge and see what progress we're making.

Despite our overall recruitment numbers being lower than in previous years, we're also pleased to be filling our vacancies with a more diverse range of candidates than ever before.

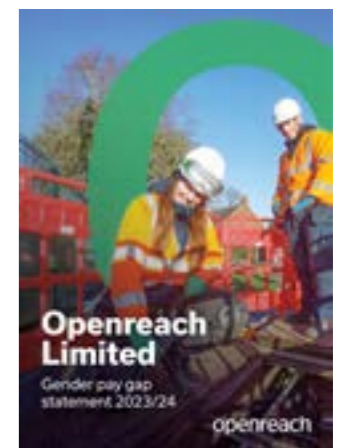


3. Open

Being open means letting everyone know what we're aiming for and how we plan to get there.

We publish our targets and share our progress, so everyone can see how we're measuring up.

As part of this, we're proud of our declaration figures. **More than 82 per cent** of our colleagues shared their data, over **69 per cent** told us their sexual orientation and **76 per cent** told us if they had a disability. Sexual orientation declaration increased by **2 per cent** compared to last year, with other rates remaining the same. There's more to do to increase our declarations, but these high rates reflect that we have a foundation of trust amongst our colleagues to build on.



Investing in our people continued

4. Leading by example

At the top of our business are leaders who we want to be active role models for diversity and inclusion and this needs collective support.

Our 'Leading Safely and Inclusively' programme has brought our entire senior management team on a journey. Firstly, to understand a set of standards when it comes to inclusivity – to help teams belong, feel respected and supported. And secondly to emphasise the importance of psychological safety, which means supporting colleagues to protect their physical and mental health and wellbeing too.

This year we've made changes in how we track the progress of our leaders, using our Inclusion Index scores, which are measured through regular engagement surveys, and which ultimately show how included colleagues feel in their teams.

When it comes to senior management, we're pleased to report an increase in diversity this year with **32.7 per cent female leadership** in senior roles. We have also seen **17.8 per cent of those senior leaders declare themselves disabled** and **9.9 per cent ethnically diverse**.



5. Influential

As the largest employer of telecoms engineers in the UK, we want to use our size to drive positive changes and enhance diversity across our sector and the communities where we operate.

This year, we continued our support for 'Pride' by participating in more parades than the year before and we played a crucial role in providing digital connectivity for 'London Pride' which meant that the event could be streamed live online for the first time.

We also held two of our own LGBTQ+ inspired events this year.

June 2023 marked 10 years since Same Sex Marriage became law. We brought together over 100 of the campaigners, politicians, trade unionists, civil servants, media and advisors that helped make this historic change. We committed to help drive this positive change in the telecommunications sector, not least for our own colleagues.

In association with the Imperial War Museum, we also hosted a panel event that reunited some of those that had challenged discrimination in the Armed Forces, eventually leading to an end of the ban on the LGBTQ+ community serving. Given we're one of the largest employers of ex-Forces personnel, this was an important opportunity to speak about their own, often moving, life stories as part of our work to support colleagues.

On 'International Day of Persons with Disabilities', we organised our most significant celebration to date with colleagues from our industry and external speakers joining us to raise awareness, foster understanding, and promote inclusivity. The feedback received from our colleagues was phenomenal and it grew our membership by over 10 per cent. Disability is high on our inclusivity agenda and we're really looking to make progress in this area.

We also proudly became one of the first signatories to the Ofcom's Women in Tech pledge this year, underlining our commitment to empower women and support their careers within the telecoms industry.



Investing in our people continued

This year we've seen the proportion of female colleagues across the business broadly stay flat at 10.3 per cent. This has been driven by a reduction in hiring and changes to our organisational footprint.

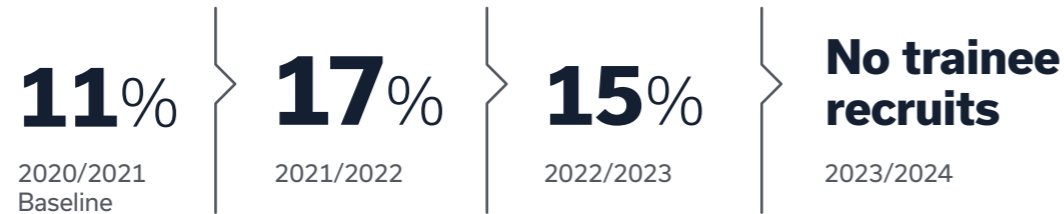
At the same time, we've shifted our recruitment focus from trainee engineers to civils - a career path typically less attractive to women - so our total number of female joiners has dropped. That said the number of women in senior leadership roles has increased by 4 per cent.

Our manager hires from ethnic minorities have also increased from 17 per cent to just over 26 per cent this year. Evidencing the impact of the diverse shortlists process we put in place last year.

Ethnic minority



Trainee engineer hires



Managerial hires



Graduate hires



Gender

Female team member desk hire



Female trainee engineers



Senior management population (SLT/SMT)



Female graduate hire



Investing in our people continued

Shining a light on our people

Finally, we launched our first ever 'With Every Fibre' survey this year, asking colleagues to share insights on their personal experiences and background, and what makes them so brilliant.

We were delighted and surprised to receive more than 2,500 responses with stories about people's unique careers, passions, hobbies and hidden talents. From pilots to popstars and bakers to nuclear scientists, we uncovered a vastly talented bunch from all walks of life with a huge breadth of backgrounds and interests.

Our engineers' choice of colour for what makes a tea-rrific cuppa



We've been shining a light on these stories and will continue to do so, as we give our colleagues – and the outside world – a deeper perspective on who we are and what makes Openreach people tick outside the day job.

Here's one of them...

Meet the drummer

Before Bec Goldsmith got into the rhythm of jointing cables and connecting customers to our network as a Fibre engineer, she travelled the world as a professional drummer.

From recording booths and TV studios with Jools Holland and Jay Leno, she now spends her days on a different kind of tour in South-West England, where you'll still hear her hammering out cool beats with pride.



**Ultrafast Full Fibre
broadband is here.**
Check your postcode at
openreach.co.uk

10

Connecting the nations

BJ72 XPS



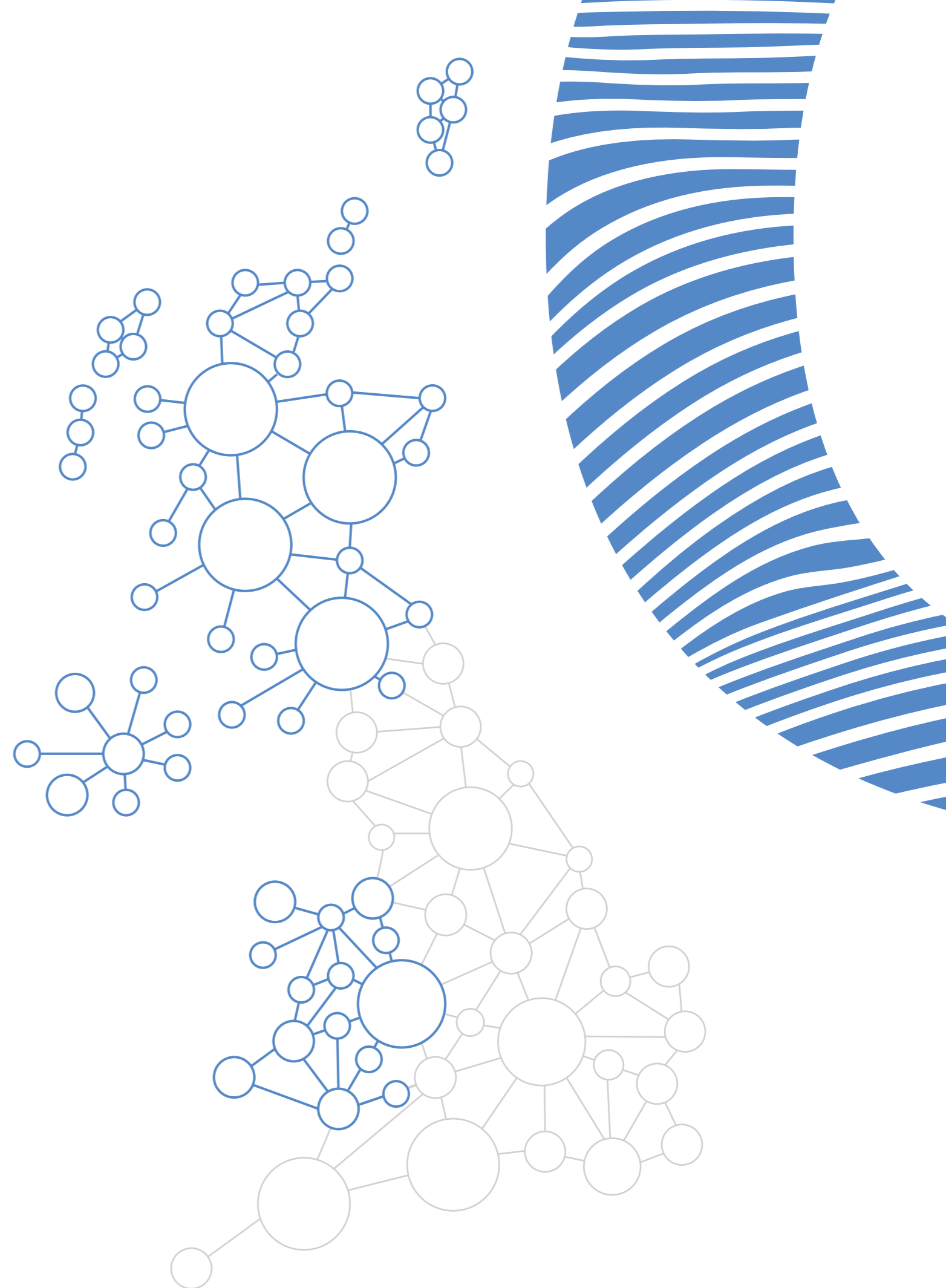
Connecting the nations

Building the best full fibre future for the UK means delivering great services to every corner of the country.

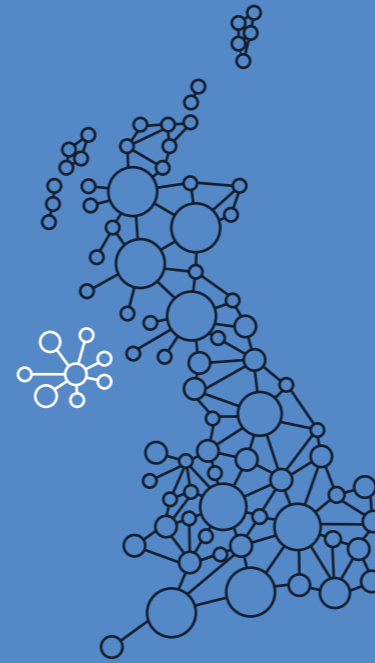
We're extremely proud of our heritage as a truly nationwide business, including the longstanding relationships that our people have built up from living and working in each of the UK's devolved nations.

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



This year I'm delighted that we've been able to announce our continued investment in NI. Over the next number of years, our commercial build plans will bring our **full fibre footprint to 97 per cent of premises**.

We have always led the way in terms of connectivity, supporting our local economy and positioning us as an attractive option for inward investment. We will onboard **more than 100,000 additional premises**, some of which are the most complex to build to in NI, often in rural locations. Our investment will mean these premises have a digital connection on par with city centres across the UK, making sure no-one is left behind in this era of technological revolution. It also offers customers a greater choice of provider, allowing them to shop around to select a package that best suits their needs.

Getting customers connected remains our priority and is supported by our Stop Sell programme. This means when an exchange area reaches **75 per cent of addresses enabled for full fibre broadband**, full fibre will become the default choice for customers.

In Northern Ireland, there are **already 113 exchanges** where Stop Sell has been activated, and a further 8 will be added before the end of March 2025 - taking our Stop Sell footprint to **87 per cent of total premises** enabled for full fibre.

More than 50 per cent of our broadband customers are already enjoying the benefits of full fibre broadband.

We're continuing to focus on how we do things - making sure we operate in the most sustainable way. We understand the need to act on climate change and we're committed to reducing our operational impact. That's why we're helping our parent company BT Group achieve their ambition of net zero carbon emissions by March 2031.

We're moving forward some exciting projects in Northern Ireland. This year we have continued to transition our van fleet with now more than **100 electric vehicles (EVs)** on the road. We've installed **53 home chargers** and **57 yard chargers** to support our EV fleet and will continue to grow our EV charging network. We're also exploring ways to ensure our existing diesel fleet has the least impact by looking at efficient route planning, driver skills training and reduced idling.

We continue to look at opportunities to use renewable energy sources to power our exchange network, with the addition of further solar power generation capacity at our pilot exchange, and we have an ambitious plan to increase the number of solar panels across our network in the coming years.

As always, our people are the beating heart of our business, and we continue to develop our teams. We're investing in training our people to ensure we have multi-skilled teams able to support the changing needs of our customer base. It's an exciting time to be part of the Openreach NI team, we're transitioning to a full fibre organisation and are committed to delivering the best connections for our customers today and into the future.

Garret Kavanagh
Director, Openreach Northern Ireland

Ebrington Square

Ebrington Square, a public space and tourist attraction in Co. Derry/Londonderry, Northern Ireland, has recently upgraded to full fibre broadband on the Openreach network.



After a period of regeneration, Ebrington Square represents a new chapter in the story of Derry-Londonderry. Built upon a former Naval base, it houses local companies like Hr Team Ltd and The AMP, and tourist attractions including an award-winning brewery and 4* hotel, which attract international visitors.

With growing opportunities for entertainment, tourism and local employment at Ebrington, there was a desire - and indeed necessity - for future-proofed, high bandwidth digital infrastructure. Yet despite the large-scale refurbishment of the site, local businesses expressed concerns around the lack of high-speed broadband they required to operate and grow.

In response, we worked closely with the Executive Office and local councillor Padraig Delargy MLA to build on the foundations

across the site, allowing SMEs and start-up organisations to access full fibre. We also made the technology available to existing units, including some with multiple tenants.

Martina McAuley, Director of leading HR consultancy Hr Team Ltd, said: "The majority of our business is conducted online, and as providers of HR software, it's essential that we're operating with the most efficient internet service. Openreach's build to Ebrington Square has therefore been a welcome service for our business and our team. Well-functioning broadband means that we can get on with what we do best; and that is providing first class HR services to our clients."

We're continuing with our build of full fibre broadband across the North West and all of Northern Ireland.

Northern Ireland **2023** in numbers

Full fibre rollout
Our full fibre rollout reached **an additional 30,600 homes and businesses** in 2023/24

Total full fibre footprint
A total of **803,600 premises** can now access full fibre

Faults
We had a **10.5 per cent reduction** in faults compared to last year

Investment in the network
£73 million to be invested in 2023/24

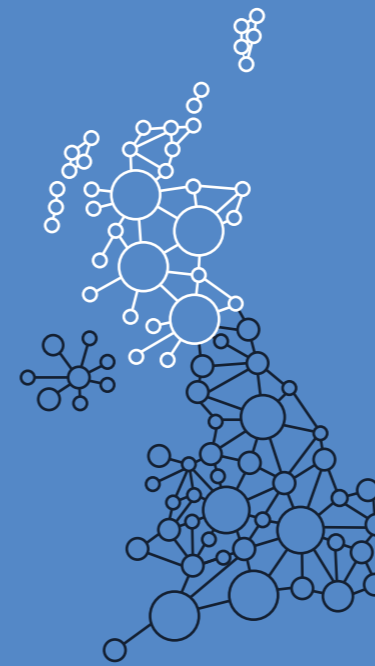
Appointments
We had over **183,400** customer appointments, meeting **98.7 per cent** of these on time

Provisions
We carried out **159,000 new provisions** across all of our product portfolio

People
Our workforce of **over 900** live and work in every part of Northern Ireland

Training
Our training centres delivered **2,900 training days**

Scotland



We provide the national digital network that connects Scotland's people, businesses and vital services. In 2023/24 our full fibre rollout passed a major milestone, reaching our first million homes and businesses across the nation.

We continued building the connections that matter, bringing gigabit-capable connectivity to another **310,000** properties in Scottish cities, towns and villages – an investment of around **£93 million**.

Dozens of places – from Rosehearty in Moray to Annan in Dumfries and Galloway – saw new fibre rollout while we upgraded thousands more properties and apartment blocks in Scottish cities.

Take-up grew from **30 per cent** in 2022/23 to **38 per cent** in 2023/24 – with **more than 440,000 households and businesses** connected to our network.

A partner to Government

We continued broadband upgrades for Scotland's hardest to reach properties, through our delivery of the Scottish Government's **Reaching 100%** (R100) programme.

Our R100 build reached around **23,300 more properties** across **290 different exchange areas** during the year, with engineers building fibre across Scotland – from Yell in Shetland to Lauder in the Scottish Borders.

Following the laying of new subsea cables in 2022, work to connect island households and businesses began in earnest. People on Lismore and Fair Isle were among the first to benefit.

The R100 build now passes **more than 50,000 premises** and is expected to reach around **114,000** over its lifetime.

Jura: a connected island

Connectivity underwent a sea change on the Scottish Hebridean island of Jura during 2023/24, with work on the ground ongoing into 2024/25.

We made use of new fibre links – originally installed to support the Scottish Government's 4G Infill (S4GI) programme mobile masts – to start building a full fibre network.

Both the Scottish and UK Governments provided subsidy funding to help us reach around 200 homes and businesses, with the majority now able to upgrade.

The enhanced connectivity means that people on Jura can take full advantage of online opportunities while enjoying life, work and holidays on the island.

Fair Isle

Fair Isle is a unique place. And a unique engineering solution was needed to bring full fibre broadband to its residents.



Just three miles long and home to 60 people, the island lies roughly halfway between Shetland and Orkney.

Regular fibre signals simply couldn't travel the distance, so we got creative with some bespoke engineering to transmit life-changing broadband to islanders.

We built our first fibre repeater terminal at Sumburgh on Shetland to boost light signals over 68 miles to Fair Isle, as part of the R100 programme.

It's the greatest distance we've transmitted a continuous full fibre signal anywhere in the UK.

At Fair Isle Primary School, head teacher Gillian Maxwell and her five pupils are already seeing a big difference.

They use the internet for teaching, class discussions and online resources, like interactive maths and literacy games.

In a place where dark nights and wild winter weather can limit outdoor time, pupils can also enjoy online entertainment and gaming at home.

And it's essential for staying in touch with the outside world.

Gillian says:

"The world's moving forward on the basis that everybody's got access to these kind of connections – for communications, entertainment and education. If you don't have access to the internet, it's kind of like you're back in the Dark Ages."

Scotland 2023 in numbers

Full fibre rollout

Our full fibre rollout reached **an additional 310,000 homes and businesses**

Total full fibre footprint

1.1m premises could access fibre broadband

Faults

We had a **4 per cent reduction** in faults compared to last year in 2023/24

Investment in the network

Around **£93 million** invested in our network

Appointments

We kept more than **385,000 customer appointments** across Scotland

Provisions

We carried out **418,000 new provisions** across our product portfolio, including **135,000 full fibre broadband provisions**

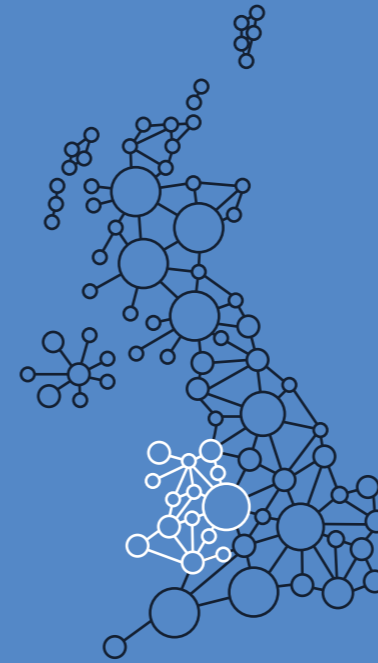
People

Our workforce of **over 3,400** live and work in every part of Scotland

Training

Our Scottish training centres welcomed **11,850 people** during **14,200 training days**

Wales



We continue to be the largest full fibre builder in Wales, providing the digital communications infrastructure that's essential to families, businesses, schools, libraries and hospitals up and down the country.

More than half of all Welsh properties can now access reliable broadband thanks to our investment in the nation's digital network.

Across both urban and rural Wales our **2,200** engineers have been working hard throughout the year in all weather to expand our gigabit-capable network to Welsh cities, towns and villages. Places like Buckley, Llangennech, Criccieth and Llanymynech all saw full fibre rollout in 2023/24 alongside further build in cities like Cardiff, Swansea, Wrexham and Newport.

In addition to our extensive commercial build, we've also been working in partnership with both Welsh and UK Government to go even further to connect those communities that are in the hardest-to reach 'final third' of the country.

By the end of the year, we'd reached **more than 875,000 Welsh properties** with our network, an investment of approximately **£262 million**.

Working with Government

We've enjoyed another successful year working in partnership with both the Welsh and UK Governments for the benefit of the people of Wales.

More than 44,000 homes and businesses across Wales are now able to take advantage of improved connectivity thanks to our four-year partnership with the Welsh Government.

Completed on time and under its original budget of **£57m**, we were able to give full fibre connectivity to thousands more properties than the original target of **39,000** in some of the hardest to reach communities in the 'final third' of Wales.

The rollout was thanks to Welsh Government and EU funding, investment from Openreach and support from the UK Government.

All properties that have benefitted can now access future-proofed full fibre technology, which can deliver gigabit-capable speeds allowing for faster downloads and smoother streaming.

Among the thousands of homes and businesses to have benefitted from the rollout is Grade 1 listed Picton Castle in Pembrokeshire.

The popular tourist attraction was connected in 2023 with full fibre broadband from the exchange in nearby Haverfordwest, meaning that this historic site is now be able to benefit from modern digital advancements.

The faster broadband connection has made life easier for those that work at the castle through enhanced connectivity and security with the aim of improving visitor experience in the future.

Dr Rhiannon Talbot-English, Director at Picton Castle, explained: "The rollout of full fibre has been a significant enhancement for our business.

"Prior to this connection the slow internet upload and download speeds we had meant that the range of options for improving our efficiency, cyber-security and basic business were limited.

"Our internet-based payment devices, website and email would often be overwhelmed due to the poor connectivity. This new connection has been a significant leap forward for us."

We also continue to enjoy a strong working relationship with the UK Government, enabling us to go even further. 30 very rural communities across Wales have been identified - **totalling more than 17,000 properties** - that could benefit from the UK Government's Gigabit Broadband Voucher Scheme.

If enough residents in these communities apply for and pool together their free UK Government broadband vouchers, we can then build a customised, co-funded network. The vouchers can be combined to extend the ultra-reliable network to premises in outlying rural areas which won't be covered by private investment.

Among those communities that have already taken advantage of this initiative is Kerry in Powys, who have pledged the required number of vouchers needed to enable Openreach to start work.

Wales 2023 in numbers

Full fibre rollout

We reached an **additional 195,000 homes and businesses** in 2023/24

Total full fibre footprint

As of March 2024, **875,000 premises** can now access fibre

Faults

We had a **2 per cent reduction** in faults compared to last year

Investment in the network

Around **£58 million** invested in our network in 2023/24

Appointments

We kept more than **467,000 customer appointments** across Wales in 2023/24

Provisions

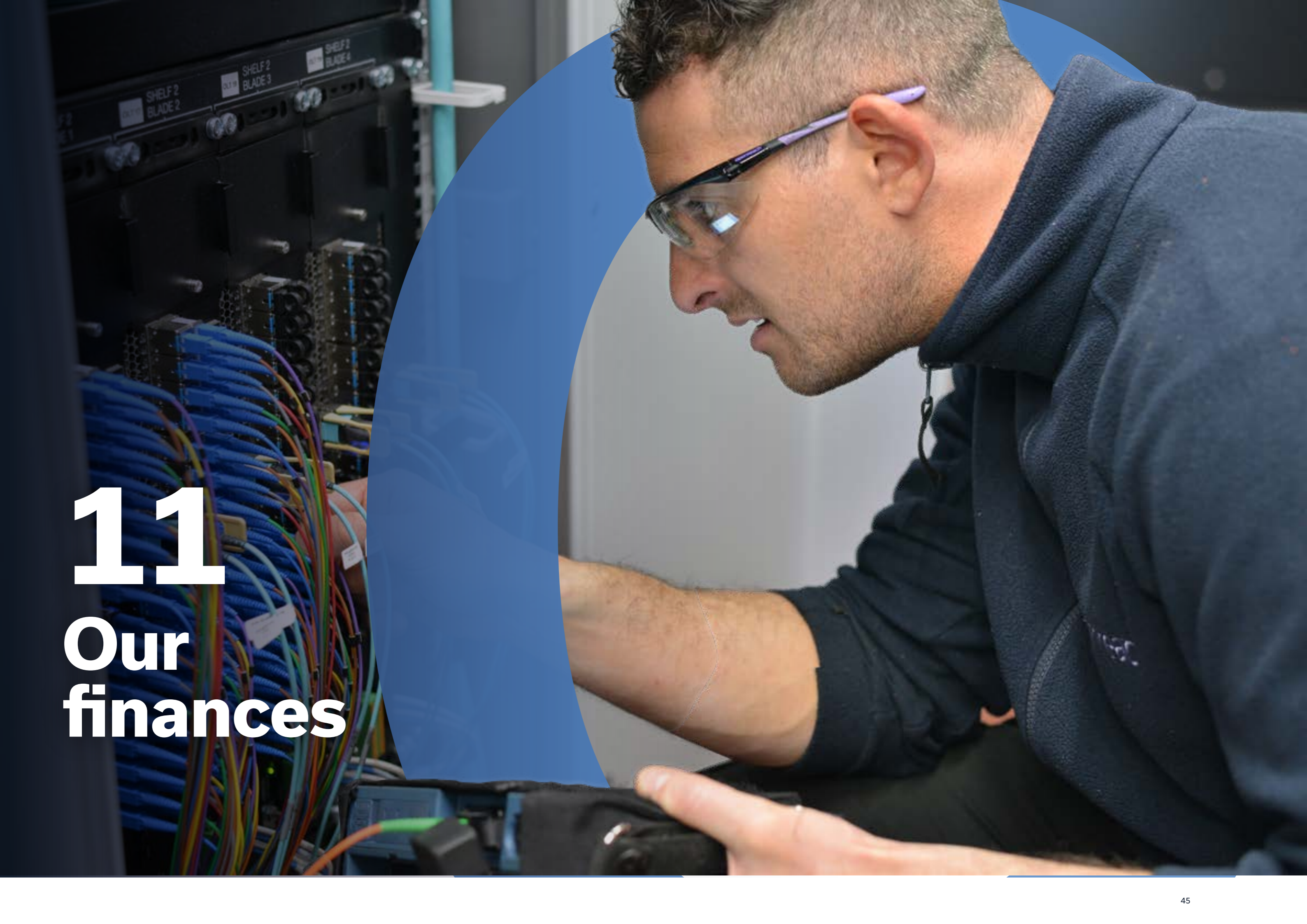
We carried out **480,000 new provisions** across our product portfolio

People

Our workforce of **over 2,200** live and work in every part of Wales

Training

Our training centres delivered more than **10,000 training days**



11

Our finances

Our finances



Revenue:

Our revenue grew seven per cent for the year. This growth was driven by price increases, growth in full fibre broadband base and growth in the Ethernet base, partially offset by declines in the base of broadband and voice only lines. The fibre enabled base grew; offset by declines in the copper base.

Operating Costs:

Operating costs increased by four per cent due to inflation in pay, energy costs and higher full fibre provision volumes, partially offset by lower headcount and efficiency programmes.

EBITDA:

EBITDA grew nine per cent for the year.

Capital Expenditure:

Our capital expenditure remained flat year on year driven by full fibre investment, with higher network build and more customers connected partially offset by lower build unit costs.

Free Cash Flow:

Normalised free cash flow increased by 169 per cent due to higher EBITDA and copper forward sales, partially offset by the timing of working capital.

Full financial year to 31 March				
	2024	2023	Change	
	£m	£m	£m	%
Revenue	6,077	5,675	402	7
Operating costs	2,250	2,165	85	4
EBITDA	3,827	3,510	317	9
Capital expenditure	2,845	2,847	(2)	-
Normalised free cash flow	590	219	371	169

12

Our senior management team





The Openreach Board members



Mike McTighe
Chairman



Clive Selley
Chief Executive Officer



Edward Astle
Non-executive Board member



Andrew Barron
Non-executive Board member



Natalie Ceeney
Non-executive Board member



Matt Davies
Chief Finance Officer



Jon Furmston
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 and Technology
Officer



Kevin Brady
HR Director



Belinda Bagge
General Counsel



Jon Furnston
Board Assurance,
Governance and Safety



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



Katie Milligan
Chief Commercial Officer



Mark Shurmer
Managing Director,
Regulatory Affairs



Peter Stewart
Managing Director Service
Delivery UK Operations



James Tappenden
Managing Director,
Fibre First & Shared
Services



Andy Whale
Chief Engineer and
Managing Director,
Complex Engineering

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