

Openreach chooses West Yorkshire village for new rural broadband trial

Some of the fastest and most reliable broadband in the UK is heading to the village of Flockton, after it was named as one of 13 rural communities to benefit from a new broadband trial.

Openreach engineers will be working in the West Yorkshire village to test a range of new tools and techniques as they install the latest 'full' [fibre-to-the-premises](#) (FTTP) broadband.

In some areas the first homes and businesses could order FTTP in time for Christmas, with work continuing during 2020. Once services are live, people living and working in Flockton will have access to download speeds of up to 1 gigabit per second (1Gbps) – about 18¹ times faster than the current UK average.

Across the UK, more than 50,000 homes and businesses are included, and it's hoped the pilot will pave the way for a much bigger upgrade of rural homes and businesses in smaller, less accessible remote locations.

Kim Mears, Openreach's Managing Director for Infrastructure:

"This is a really important trial for Openreach and it's great that West Yorkshire is set to play a leading role. We understand the importance of bringing great connectivity to rural communities, and as well as providing fantastic broadband for people living in Flockton, we hope this provides us with the platform to extend our reach to hundreds of thousands more rural premises in the coming years.

"We have already done a lot in West Yorkshire, through our partnership with the five West Yorkshire local authorities and the [West Yorkshire Combined Authority](#) and by joining forces with a number of communities who've asked to work directly with us. But we know there is more to do and we can't wait to get started."

The trial is part of Openreach's ambition to extend its FTTP network into areas that were considered more difficult or expensive for the private sector to upgrade commercially - and could potentially become eligible for being included in Openreach's 'Fibre First' investment programme in the years ahead – if the right investment conditions are met.

Openreach engineers are testing a number of innovative tools – that enable work to be done faster and at less cost - including a specialised trench digging tool called a diamond cutter. It's a giant rotating circular blade with diamonds embedded in the metal coating on its edge – enabling it to slice through

¹ Based on Ofcom data for average UK broadband speed

pavements and roads leaving a neat channel into which the machine simultaneously feeds in tubing for fibre-optic cables.

The specialist kit is capable of installing 700 metres of cabling a day – more than 20 times that by a standard two-person civils team using traditional methods of drilling and excavation, slashing the time taken to deploy fibre by months.

The company is also trialling 'remote nodes' – where fibre-optic cables can be built out from specially-adapted existing green roadside cabinets. Specialised broadband-boosting equipment installed inside the cabinet enables full fibre connections to extend by more than one and a half times their current reach, with the capacity to connect more than 1,000 premises. By 'piggy-backing' on our existing network, engineers can take full fibre further and faster – while avoiding up to six months in time and associated cost involved in deploying new fibre cables or 'spines' from an exchange to remote rural areas.

Clive Selley, Chief Executive of Openreach, said:

"At Openreach, we'll never be just a city fibre provider. We've always worked hard to improve connections to isolated, less commercially attractive communities through inventive engineering and effective funding partnership models.

"In recent years we've been extending our full fibre network into rural areas – mostly in partnership with local authorities and Government - but the economics are clearly challenging and we want to do more. We know that around 10 per cent of the country will need to the support of public subsidy, but these trials will help us test a bunch of new techniques that could help us in other rural areas.

"The trials will also give us a much clearer picture of what the technical challenges in these kinds of rural areas are. We hope they'll go a long way towards developing the tools, skills and innovations required to make sure that nobody's left behind in the full fibre future."

According to recent government statistics around 11 million people in the UK, or approximately 17 per cent of the population, live in rural areas.²

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<https://tradingeconomics.com/united-kingdom/rural-population-percent-of-total-population-wb-data.html>

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2017>

The rural pilot locations have been carefully chosen to be representative of a much wider number across the UK with various factors being considered, including size, location, the extent, quality and make-up of the existing network and access to newly-skilled engineers in the area.

Openreach is on track to reach its full fibre build target of reaching four million homes and businesses by the end of March 2021 – and it's currently passing around 22,000 premises a week with fibre – or one every 28 seconds. However, the company wants to go much further - to reach 15 million by the mid-2020s and ultimately the majority of the UK if the right investment conditions are in place.

The business doubled its FTTP footprint last year and today more than 1.8 million UK homes and businesses have access to faster, more reliable full fibre services over the Openreach network.

This [short video](#) explains what full fibre technology is and people interested in upgrading their broadband can see what's available in their area by entering their postcode into Openreach's [online fibre checker](#).

Openreach's commitment to Yorkshire and the Humber extends far beyond making better broadband available. Around 2,300 Openreach people live and work in the region, and since the end of last year we've recruited more than 175 new fibre apprentice engineers.

-ENDS-

For further information

Enquiries about this story can be made to Amy walker in the Openreach PR team on 07918900209 or email amy.walker@openreach.co.uk. All news releases can be accessed on www.openreach.co.uk/northnews

Notes to Editors

The full list of 13 locations

Cranfield; Flockton; Hesketh Bank; Kentford; Lingfield; Lundin Links; Mickle Trafford, Okehampton; Ottery St Mary; Parbold; Seal; Tarporley; West Calder.

[Other engineering innovations being deployed across the pilot villages & market towns;](#)

[Ground Penetrating Radar \(GPR\);](#)

The GPR uses a transmitter to send pulses of high frequency radio waves through the ground which bounce back off objects hidden underground to a receiving antenna which creates a digital 'picture' or cross-section of what lies underneath from the signal variations. Engineers are using GPR technology to help minimise disruption and speed up the deployment of full fibre. Using GPR allows Openreach's engineers to see and map out a clear route for its new cables without any drilling, probing or digging. That means it can avoid the need for disruptive road closures and minimise the risk of obstructing or damaging any existing infrastructure already buried underground. The technology is being used to support another new engineering technique called micro ducting.

Micro Ducting;

Micro ducting uses specialist digging tools to excavate a small trench along pavements so that specially reinforced micro ducts can accommodate the fibre-optic cables without any specialised equipment, saving time in deployment and build costs.

The use of micro ducting is especially effective in some areas where properties are connected to the broadband network by old copper cables that have been buried directly into the ground and replacing them with underground ducting or telegraph poles to carry new fibre cables would physically be too difficult or costly.

Micro ducting also enables engineers to install fibre cables – with permission of the property owner - right up to the outside wall of a premises, helping to further reduce time and costs – by cutting out repeat visits to connect up customers.

Mobile planning with Orion;

Our project engineers often have to grapple with wrong or missing paper records when they're out in the field. We've developed Orion to help them with this. It is a digital mobile planning tool that lets engineers review and update the network using a tablet – in real time.

GeoRipper;

A specialist piece of digging equipment used for digging trenches across soft ground such as fields. A chainsaw like blade carves a narrow trench allowing engineers to lay small fibre cables of up to 150 metres. The GeoRipper is ten times faster than digging these manually and leaves everything much tidier.

What difference does full fibre broadband make?

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Full fibre or Fibre-to-the-Premises (FTTP) broadband provides more reliable, resilient and future-proof connectivity; fewer faults; more predictable, consistent speeds and the ability to upgrade easily to meet the demands of future technology. FTTP broadband makes everything happen so much more quickly. For example;

- Full fibre enables the people within your home to be online at the same time, at any time. You'll be able to do several things simultaneously such as streaming live music, enjoying the latest release on streaming

platforms, and uploading large files to social media. There's enough bandwidth for a family of four to all stream ultra HD or 4k quality movies or TV simultaneously, without waiting or buffering. In fact, downloading a typical HD film would take less time than it takes to make a cup of tea.

- Use of the internet now touches every part of the curriculum, with pupils using it every day for everything from interactive exercises to doing online research for school projects and homework. Without fast connectivity and speeds that FTTP can offer, there is the risk that children will miss out on what is now an essential learning tool.
- With the Internet of Things - we're entering a period where ubiquitous connectivity is the norm rather than the exception for both homes and businesses, with predictions for more than 20 billion³ connected devices by 2020. Full fibre ensures a reliable connection to support this complex web of devices – whether for checking on an ageing parent through a telehealth app or using smart sensors to control office heating and lighting.
- Businesses, including small businesses operating from home, will be able remain economically competitive all over the UK and around the world. Full fibre broadband will make uploading, downloading and transferring large files much easier.
- FTTP allows for seamless high definition video conferencing, reducing time-consuming and expensive face-to-face meetings and helping make remote and flexible working become the norm.
- Without customer and billing data businesses would fail. Full fibre broadband combined with cloud computing means businesses can upload, store, access and download vast amounts of data in minutes instead of hours. Data is backed up and securely archived off-site so not relying on costly, ageing servers sitting under a desk.
- Businesses can access data, files and information easily and securely – and from almost anywhere.
- Through a resilient FTTP connection, businesses can respond and react more quickly – so they can sell more and be more competitive
- Full fibre broadband allows businesses to make their marketing digital, reaching customers through new, faster, richer and easier to track communications - all over the world.

[About Openreach](#)

Openreach Limited is the UK's digital network business.

We're 33,000 people, working in every community to connect homes, schools, shops, banks, hospitals, libraries, mobile phone masts, broadcasters, governments and businesses – large and small – to the world.

³ <https://www.gartner.com/en/newsroom/press-releases/2017-02-07-gartner-says-8-billion-connected-things-will-be-in-use-in-2017-up-31-percent-from-2016>

Our mission is to build the best possible network, with the highest quality service, making sure that everyone in the UK can be connected.

We work on behalf of more than 620 communications providers like SKY, TalkTalk, Vodafone, BT and Zen, and our fibre broadband network is the biggest in the UK, passing more than 27.5m UK premises

Over the last decade we've invested more than £13 billion into our network and, at more than 173 million kilometres – it's now long enough to wrap around the world 4,314 times.

Today we're building an even faster, more reliable and future-proof broadband network which will be the UK's digital platform for decades to come. We're on track to reach four million premises with this 'full fibre' technology by March 2021 and ultimately, we want to upgrade the majority of the UK if the conditions are right. We're also hiring around 3,000 trainee engineers this year to help us build that network and deliver better service across the country.

Openreach is a highly regulated, wholly owned, and independently governed division of the BT Group. More than 90 per cent of our revenues come from services that are regulated by Ofcom and any company can access our products under equivalent prices, terms and conditions.

For the year ended 31 March 2019, we reported revenues of £5.1bn.

For more information, visit openreach.co.uk