What is the Central Superfast Broadband Project?
The Central Superfast Broadband Project is a partnership between Central Bedfordshire Council, Milton Keynes Council, Bedford Borough Council and BT. Its primary aim is to bring access to superfast broadband infrastructure to 90% of the homes and businesses in Bedfordshire, and 95% in Milton Keynes, during 2016.

The project will also benefit those premises not in the 90% coverage areas by ensuring that access to basic fibre broadband is a minimum for all.

The Central Superfast project is jointly funded by the local Councils of Central Bedfordshire, Milton Keynes and Bedford Borough and by The Government’s broadband agency, BDUK and BT.

It is our goal to provide access to fibre broadband infrastructure for everyone. However, this goal is dependent upon funding and will need to be addressed outside of the current BDUK project.

What is ‘superfast’ and ‘basic’ broadband?
‘Superfast’ broadband is broadband which delivers access downstream (to premises) speeds of greater than 24 Megabits per second (Mbps). Video, high resolution images and other large amounts of data are much more quickly downloaded (and sent) with superfast broadband

‘Basic’ broadband is broadband which delivers access speeds of at least 2Mbps.

‘Broadband’ refers to telecommunication in which a wide range of frequencies is available to transmit information. This means that more information can be sent or received in a given amount of time (much as more lanes on a road allow more cars to travel on the road at the same time).

What is a Megabit per second (Mbps)?
A Megabit per second (Mbps) is a unit used to measure data transfer speeds for high bandwidth connections. Bandwidth refers to how much data you can send through a network or modem connection and it’s usually measured in bits (binary digits, 0s or 1s) per second. You can think of bandwidth as a road with cars travelling on it. The road is the network connection and the cars are the data. The wider the road, the more cars can travel on it at one time. Therefore more cars can get to their destinations faster. The same principle applies to computer data – the more bandwidth, the more information that can be transferred within a given amount of time. One Megabit means a million bits or 1,000 kilobits. While Megabit sounds similar to Megabyte, a Megabit is one eighth the size of a Megabyte (there are 8 bits in a byte).

How much funding is available to achieve the targets?
BT has been chosen as the delivery partner following an extensive and thorough selection process. It is contributing £6.2m towards the overall cost of deployment in “non-commercial” (i.e. otherwise non-profitable) areas while Milton Keynes Council is contributing £2.4m, Central Bedfordshire Council £1.2m and Bedford Borough Partnership Board £0.44m. £2.6m is coming from the Government’s Broadband Delivery UK (BDUK) funds.

How big is the intervention area?
The Central Superfast project aims to provide a fibre broadband infrastructure to around 33,000 premises, and around 32,000 premises will have access to superfast speeds of at least 24Mbps, by spring 2016. Basic broadband will be ensured for the remaining c.8,600 premises by the end of 2016.

What is fibre broadband?
Fibre broadband is the new generation of broadband - much faster, more reliable and using a different technology. Whilst traditional broadband (known as ADSL) is delivered via copper
telephone lines, fibre broadband commonly uses fibre optic cable for most, if not all, the way between the customer and the exchange.

Fibre broadband can be delivered in two ways: fibre to the cabinet (FTTC) and fibre to the premises (FTTP). FTTP is also sometimes referenced as fibre to the home (FTTH).

FTTC uses fibre-optic cables throughout the network right up to the street cabinet. It then uses copper wires to connect the cabinet to homes and businesses. FTTC provides wholesale download speeds up to 80Mbps and upload speeds up to 20Mbps.

FTTP means fibre-optic cables run right to the door of each house or business. It provides wholesale download speeds of up to 330Mbps and upload speeds of up to 30Mbps. From Spring 2013, BT is offering a service for FTTC-enabled areas where customers will be able to upgrade to FTTP ‘on demand’. ‘Fibre on Demand’ (FoD) allows any end-user to have a full fibre connection installed to their home or business premise. There will be a charge for the associated network build and an installation charge – all based on distance from the nearest network nodes. FoD will deliver the FTTP speeds of up to 330Mbps downstream and 30Mbps upstream.

**How fast is fibre broadband?**
The exact speeds you’ll be able to get will depend on how your own premises are connected. There are two main ways in which fibre optics can be used to bring you fibre broadband: fibre to the cabinet (FTTC) and fibre to the premises (FTTP).

FTTC uses fibre-optic cables throughout the network up to the green street cabinet. It then uses copper wires to connect the cabinet to homes and businesses. FTTC provides wholesale download speeds up to 80Mbps and upload speeds up to 20Mbps.

FTTP means fibre-optic cables run right to the door of each house or business. It provides wholesale download speeds up to 330Mbps and upload speeds up to 30Mbps.

The exact speed you get also depends on a number of additional factors like the length of your line from the telephone exchange or green roadside cabinet, the line quality, the equipment and internal wiring within your premises and how your service provider manages who gets what speeds.

Technology is also evolving and speeds have been increasing over the last few years, we expect that the speeds achievable through fibre broadband will increase over time.

**How do I find out what my current broadband speed is?**
You could contact your current Internet Service Provider.

Alternatively, type the words broadband speed test into your Internet browser, select an appropriate link and follow the instructions on the screen. You should not have to download any computer programs to run the test. The test should give you your download speed. Download speed refers to the rate that information is transferred from the Internet to your computer (to enable you to read a web page or receive an email for example). It should also give you your upload speed. Upload speed refers to the rate that information is transferred from your computer to the Internet (e.g. sending an email). Download and upload speeds will be shown as Megabits per second (Mbps).

Please bear in mind that if you run a broadband speed test during peak hours (such as 10:30 on a Monday morning when a lot of people are using the Internet) your broadband speed will be slower than at an off peak time.

**What benefits will I see as a householder from Superfast broadband?**
Superfast broadband will provide many benefits for householders and businesses. Examples include having improved access to online shopping, banking and public services and being able to stay in touch with family and friends. Children may be more able to do their homework
and learn independently online and adults can have improved opportunities for life-long learning.

Some people find that they can work from home just as effectively as from the office – you could save time and money and reduce the impact of your car on the environment. You could also consider setting up your own business and running it from your home.

Businesses, particularly those that need to send and receive large amounts of data and images with suppliers and customers, use off-site data management facilities or make extensive use of social media can benefit hugely.

**What broadband speeds can I expect to be able to receive if I live in an area that will benefit from the Central Superfast Broadband Project?**

Most premises connected to the new roadside fibre broadband cabinets will be able to receive high speed broadband (24 Mbps and above), and we aim to ensure that 90% of premises can receive these speeds by the end of 2016.

How fast your broadband connection will be depends on how far your home or business is from the cabinet. Generally speaking, premises within a 1 kilometre radius of the new cabinet can expect to be able to access speeds in excess of 25Mbps. Premises around 1.5km from the cabinet should be able to receive broadband speeds of around 12Mbps. For customers greater than 2km from the cabinet, broadband speeds could fall to less than 2Mbps.

Remember, we intend to make sure every premise can receive a basic broadband service (2Mbps) as a minimum as a result of the Central Superfast Broadband Project. Where this isn't possible or viable through the 'fibre to the cabinet' solution referenced above, we'll find other technology solutions to make this happen.

**Will I have to use the Superfast Broadband service or will I be able to stick with my existing broadband service?**

The Central Superfast Broadband Project will implement a fibre broadband infrastructure across Bedfordshire and Milton Keynes – this infrastructure will then be used by Internet Service Providers (ISPs) to offer Broadband Service Packages to customers. If your current Broadband Service Package meets your requirements you don’t need to do anything. If you want a different package (one that offers faster speeds for example) you can choose a suitable package from any ISP that provides services in your area and offers a package that meets your needs.

**Will I need to buy new or extra equipment to receive the better broadband service?**

Possibly. Your Internet Service Provider will tell you what equipment you need to receive the better broadband service (and may offer to provide it for you).

**Will I get Superfast Broadband automatically and how will I know that it is available?**

No, it does not just automatically switch itself on – you’ll need to place an order with an Internet Service provider (ISP).

The Central Superfast Broadband Project Team will keep you up to date with the project’s progress and will tell you when broadband will be available in your area.

**When fibre broadband becomes available in my area, will my broadband simply get faster without me taking any action?**

It won't. To get fibre broadband, you’ll need to place an order with an Internet Service Provider (ISP). This is because fibre broadband uses a different technology and an engineer will need to visit your premises to install the necessary equipment. There are several ISPs offering fibre broadband so you can shop around and choose the package that’s best for you. If you choose not to upgrade to fibre broadband, you’ll be able to continue using your existing broadband service as normal.
Will everyone have superfast broadband?
Not under the current programme. Some locations are so geographically remote that superfast broadband will not be achievable for cost or technical reasons. This is why enabling basic broadband (at least 2 Mbps) as a minimum is important. We are working with the Government and the private sector to extend coverage as far as possible and are looking at developing future programmes to this end.

When will I get Superfast Broadband? Will everyone get better broadband at the same time?
We're planning the rollout, working closely with BT, taking into account many factors including local demography and geography, planning requirements, the existing engineering infrastructure and the availability of suitable technologies to provide a service.

It’s not possible with a project of this size to plan every area at the same time so some areas will be enabled before others. We fully understand people’s frustration and the huge importance of fibre broadband so we’ll update our information regularly as plans evolve.

There will be several Central Superfast rollout phases - these will overlap each other. Each phase will follow the same sequence:
1. Survey, design and detailed planning
2. Infrastructure implementation
3. Services become available from Internet Service Providers (ISPs):

The first set of areas to benefit from Superfast Broadband will be announced early in 2014. We will aim to make an announcement about the next set of areas to benefit from Superfast Broadband every 2 months. Once services are available from ISPs, information on speeds at an individual premises level will be available.

Given the complexity of the rollout plan it is possible that:
- not all premises within an exchange area will get better broadband at the same time
- not all premises within a location (e.g. a town or village) will get better broadband at the same time

By mid 2016 more than 90% of the premises in Bedfordshire and 95% of the premises in Milton Keynes are expected to be able to access superfast broadband (24 Mbps and above) and it is intended that all premises will be able to access a minimum fibre broadband speed of at least 2Mbps.

Why is more detailed information about the Roll Out Plan not immediately available?
There is still a lot of work to do before detailed deployment plans can be released with any certainty – we don’t want to raise local expectations only to have these quashed when a change to the plan has to be made. Deployment plans can change for a number of reasons.

The Programme is keen to share more detailed information as soon as possible. Announcements will be made on the website as the first planning and survey phases are completed and expected ‘go live’ timescales are confirmed.

Is it possible to speed up delivery of Superfast Broadband to my area?
The Council has not identified specific locations for upgrade as this would have placed technical constraints on the supplier and led to less coverage and speed uplift. BT has applied the same principles as it uses for its commercial roll-out and will seek to achieve the most technically efficient rollout it can for the Central Superfast Programme.

Can I speed up the roll-out in my area by gathering registrations of demand?
The fibre broadband rollout is not solely dependent on the number of registrations of interest, although everyone interested should register with us and their Internet Service Providers (ISP). In some areas this information may help to plan the best technology solution according to the needs of your local community. If this is the case, we’ll let you know and actively engage with interested members of your community.
How much will it cost me as a home user or business to have the service?
Information on the broadband packages that different Internet Service Providers (ISPs) are offering and the cost of those packages are available via their websites. Prices are affordable, starting from around £16.50 per month for home users and £30 per month for businesses, which may not be much more than you are currently paying for standard broadband.

Which supplier will install the Superfast Broadband infrastructure?
The Central Superfast partnership has actively supported Broadband Delivery UK’s (BDUK’s) European Union (EU) competitive procurement exercise, required by EU law, to award a National Framework contract which allows the delivery of the broadband infrastructure. Fujitsu and BT were appointed to the National Framework at the end of June 2012. Following a successful procurement exercise, the contract to deliver the infrastructure required to meet Superfast Broadband needs was awarded to BT on 29th August 2013. This followed the EU’s approval of a UK wide State Aid scheme covering the provision of broadband in late November 2012, after which BDUK assessed the proposed contract for compliance under that scheme, allowing the contract to be signed.

BT has won the contract – does that mean I have to use them as my internet service provider?
No. BT will be responsible for installing an infrastructure that is capable of delivering a better broadband service but the big plus of the Central Superfast approach is that BT’s network is open which means you will have a choice of service provider. You will be able to shop around for the best package to suit your needs from a wide range of providers who will have access to the improved network.

Will my existing broadband provider sell me the Superfast Broadband service?
Not necessarily, as Internet Service Providers will choose whether or not to use the Superfast Broadband infrastructure to provide customers with a better broadband service.

How do I order fibre broadband?
Once you’ve checked that superfast broadband is available on your line, it’s much the same as ordering normal broadband. There are different Internet Service Providers (ISPs) offering the service, so you can shop around and choose the best deal for you.

What technology will be used?
We did not originally specify what kind of technology should be used. As part of the competitive procurement exercise potential supplier solutions were judged by their ability to deliver an infrastructure that enables basic broadband as a minimum across the area and significant levels of speed uplift to provide superfast broadband for as much of Bedfordshire and Milton Keynes as possible.

To achieve the most efficient infrastructure implementation for the Central Superfast project, BT, the selected supplier, has applied the same principles as it uses for its commercial roll-out.

This means that the first choice of technology is Fibre To The Cabinet (FTTC). This is the most widely used infrastructure in the UK and it uses a mixture of fibre optic and copper cabling, making it the most cost effective solution for deploying broadband services in the majority of situations. Copper cable typically connects a home or business premises to a street ‘cabinet’ (a green box located in the area) which is then connected to another new street cabinet. The new cabinet is connected to a ‘fibre spine’ which is connected to a ‘head-end’ (a major exchange which is connected to the UK’s network ‘backbone’). FTTC, quite literally, brings a fibre optic connection to a street cabinet. Telecommunication services travel more quickly over fibre cable and they don’t slow down over distance (as they do when copper cable is used).

The second choice of technology is Fibre To The Premises (FTTP). A fibre link is used to connect a home or business premises directly to the head-end. Small clusters or groups of users (usually 16 -32) are served via a ‘splitter’ which allows the individual fibres to the home
or business premises to be concentrated onto a much lower number of fibres back to the head-end.

The third choice is to provide FTTC to home or business premises which are currently directly connected to an exchange. This is achieved by re-arranging the current network and installing cabinets in new locations.

Once the Central Superfast project has achieved as much of the above as it can for the investment funding available it will implement the most effective ‘in-fill’ broadband technology available at the time - with the intention of enabling access to at least 2 Megabits per second for all premises in Bedfordshire and Milton Keynes.

**My line is connected directly to the exchange. Will I be able to get fibre broadband?**

Exchange Only (EO) lines are connected directly to the local telephone exchange rather than passing through a green cabinet that can be upgraded with a fibre broadband connection. These lines are generally very close to the telephone exchange or very remote from it. There are cases where EO lines may be fibre enabled, for example where an additional cabinet is built close to the exchange. However, many will be outside the superfast/fibre areas, and in those cases alternative technologies such as wireless or satellite may be required to provide an uplift in speed.

**I’m in an enabled area but can’t get fibre broadband. Why not?**

This can be due to one or more different factors.

1. Your line may be connected to a roadside cabinet that has not yet been upgraded to fibre broadband. As we progress through the rollout more and more cabinets will be upgraded.
2. You may be served by what is known as an ‘exchange only’ line that is connected directly to the telephone exchange without an intervening green roadside cabinet. Please see the relevant question about exchange only lines.
3. The (copper) line from your local roadside cabinet may be very long.

We are working hard to upgrade as many premises as possible to fibre broadband, and where fibre optics cannot be made available we’re aiming to develop solutions to bring faster broadband using alternative technologies by 2016.

Register your details with us via:

- www.bedford.gov.uk/broadband,
- www.centralbedfordshire.gov.uk/broadband or
- www.milton-keynes.gov.uk/business/growingmk/superfast-broadband

so we can keep you updated with progress via email.

**How long does it take to be installed after I place an order and what does installation involve?**

The time before installation of fibre broadband varies among Internet Service Providers but it typically takes about two weeks. An engineer will call and install a new modem at your premises and you will receive a new router from your Internet Service Provider. In most cases, your other telephone and computer equipment doesn’t need to be replaced.

**What about the homes and businesses that will not be able to get fibre broadband?**

By the end of 2016, 90% of homes and businesses in Bedford and Central Bedfordshire and 95% in Milton Keynes will have access to the benefits of fibre broadband. Our contract with BT ensures that a minimum of 2Mbps will be available to all premises in these harder to reach areas but we want to do better than this and where possible develop further projects to help bring fibre to as many homes and businesses as possible.

In areas where fibre broadband is not an option, the Programme will make use of other superfast broadband technologies such as wireless, satellite and advanced copper. These areas and technologies are not currently covered by the postcode checker but there are plans to do so in the near future so please check back regularly for information updates.
Council’s are also working with the Government, private and community sectors to extend coverage as far as possible. Further details of these programmes will be announced during the project rollout.

See also ‘Is it possible to speed up delivery of Superfast Broadband to my area?’

Where do I go to get more information?
We are continually updating these website broadband sections so please check it regularly. If you want to be kept informed about the project and when fibre broadband is coming to your area please leave your details in the ‘register your interest’ section and we’ll let you know as soon as we can.

What are “Black”, “Grey” and “White” areas?
These categories refer to the initial review of superfast and basic broadband delivery as determined through an Open Market Review process, where the Councils contacted telecoms service providers on their current and future deployment plans.

- “Black” meant there are two or more suppliers currently available or have planned provision within the period up to 2015.
- “Grey” meant there is one supplier currently available or has planned provision within the period up to 2015.
- “White” meant there are no suppliers currently available or have planned provision within the period to 2015.

Under European Union State Aid Rules the Central Superfast project can only subsidise infrastructure in “White” areas.

What is State Aid and why is this project subject to it?
State Aid refers to forms of assistance (including funding) given by a public body to any undertaking or business which is providing goods and services in a particular market and where such assistance has the potential to distort competition and affect trade between member states of the European Union.

The European Commission monitors and controls State Aid in the EU. Member States, like the UK Government, are obliged to notify and seek approval from the Commission before granting State aid. This gives the Commission the opportunity to approve or refuse to approve the proposed measure. The Government has secured approval from the Commission for its national Rural Broadband (infrastructure funding) Programme being managed through Broadband Delivery UK (BDUK). The Central Superfast Partnership has to notify BDUK (the National Competency Centre) of its intention to invest public funds through the superfast project and to secure approval to provide such ‘aid’ to its procured private sector partner. The Programme is required to demonstrate that public funds will only be invested in areas of market failure.

How can I find out which exchange I am covered by?
www.samknows.com is a very useful website to understand current providers in your area, exchange coverage area and other facts about the exchange.

My exchange is outside the Central Superfast area. How does this affect me?
Because all the Central Superfast area’s neighbours are also partnered with BT a common sense approach to sharing costs across boundaries has been agreed so areas served by exchanges outside the Central Superfast area should not be adversely affected by this.