

Suffolk Better Broadband Programme:
State Aid Public Consultation



Suffolk Better Broadband Programme State Aid Public Consultation

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Executive Summary

Introduction

Access to faster, more reliable broadband is increasingly becoming an essential requirement for people who live and work in Suffolk.

The first generation of broadband services was deployed from BT exchanges over BT's copper line access network, offering speeds up to 8Mbps, or more recently in some areas up to 24Mbps. However, actual broadband speeds depend upon the length of the copper line from the BT exchange to the premise, so while the average broadband speed in Suffolk is currently around 6Mbps, nearly 20% of all premises in Suffolk (circa 60,000 premises), mostly in rural areas, get less than 2Mbps. First generation broadband services were also available over Virgin Media's cable TV network within Virgin Media's coverage areas in Suffolk (circa 65,000 homes in Ipswich, Felixstowe and Newmarket). A number of small-scale wireless broadband services have also been deployed in some local communities in Suffolk.

The major commercial broadband infrastructure providers (BT and Virgin Media) have begun deploying the next generation of Superfast Broadband services, offering speeds greater than 24Mbps. Virgin Media are upgrading equipment within their existing network footprint to enable them to offer a range of broadband speeds, currently up to 120Mbps. BT have begun deploying optical fibre cable between their exchanges and street cabinets ('Fibre to the Cabinet' (FTTC)), which will be able to offer speeds up to 80Mbps in 2012, and in some cases optical fibre cable extended all the way to premises ('Fibre to the Premises' (FTTP)), which will offer speeds over 300Mbps.

The business case for investing in next generation Superfast Broadband networks is crucially dependent on the upfront capital costs of building next generation infrastructure, and the forecast level of take-up and willingness to pay for Superfast Broadband services. While commercial business cases can be made for investing in next generation infrastructure in more densely-populated urban areas, the business case for investing in less densely-populated rural areas is much more challenging.

At a national level, Virgin Media's cable TV network offers Superfast Broadband speeds to around 49% of UK premises within their network footprint. BT has announced a commitment to extend Superfast Broadband (a mix of FTTC/FTTP) to 66% of UK premises by the end of 2014. As there were no commercially-funded plans to deploy Superfast Broadband to the 'Final Third' of premises in the UK, the UK Government established the Broadband Delivery UK (BDUK) Programme, with the aim of extending Superfast Broadband to 90% of UK premises, and with a universal service commitment of at least 2Mbps for the remaining 10% of premises. Under the BDUK Programme, the UK Government is making available £530m to 2015, with a similar level of matched funding from local authorities (including European funding, where eligible), to leverage further investment by the private



sector, to fund the investment gap to meet the extended coverage targets. BDUK are establishing a Procurement Framework of pre-qualified wholesale providers, which local authorities can use to select a provider to extend coverage in their local area via a local call-off contract award process (as an alternative, local authorities are free to pursue their own independent OJEU-compliant public procurement process).

In Suffolk, within Virgin Media's footprint (circa 65,000 premises in Ipswich, Felixstowe and Newmarket, or around 25% of the total number of premises in Suffolk), a range of Superfast Broadband speeds is currently available, and Virgin Media have recently announced a doubling of broadband speeds for existing customers, with Superfast Broadband speeds up to 120Mbps in 2012. BT has currently announced 16 exchanges in Suffolk that are to be upgraded to Superfast Broadband, and a number of further exchanges in Suffolk are likely to be added under BT's commercial deployment plans over the next 3 years. Based on BT's currently announced plans, data provided by BDUK, and our own local knowledge, we currently forecast that BT's commercial deployment plans will reach around 33% of premises in Suffolk by 2015. The forecast of BT's coverage of Suffolk is lower than BT's UK average coverage (66% by 2015) because Suffolk is a predominantly rural county, with low population densities outside of the major towns in the county.

The Suffolk Local Broadband Plan aims to bring 'Better Broadband' to the whole of Suffolk by using public funding to leverage further private sector investment to extend the coverage of Superfast Broadband beyond the coverage that will otherwise be achieved under operators' own commercial deployment plans. The total public sector capital contribution (from UK Government and Suffolk's local authorities) is around £23.5m¹, which we hope to use to leverage a total investment of around £47m. The Plan aims to extend Superfast Broadband coverage beyond commercial operators' own plans (circa 33%) to meet the UK wide target of 90% of Superfast Broadband, with the remaining 10% getting a universal service commitment of at least 2Mbps. While Suffolk would like to see as wide a coverage of Superfast Broadband (greater than 24Mbps) as possible, a priority for Suffolk is for an early uplift for those premises currently worst affected by not-spots and slow-spots (ie the circa 60,000 premises currently getting less than 2Mbps), within the overall affordability envelope. Wherever possible, we will prioritise the early uplift of broadband speeds for premises currently getting less than 2Mbps, with technology solutions that offer broadband speeds significantly better than 2Mbps and an upgrade path to even better performance in future (in preference to solutions that only just meet the 2Mbps universal service commitment and which have no upgrade path to better performance). We intend to test the market through the Suffolk Local Call-off Contract award process to get the optimum value for money in meeting our requirements.

¹ The total public sector capital contribution to the Suffolk Local Broadband Plan includes an indicative level of funding from BDUK of £11.68m (based on BDUK forecast of the number of premises in Suffolk within the intervention area for Superfast Broadband (226,184 premises)).

Purpose of this State Aid Public Consultation

Under the European Commission's State Aid rules, public sector intervention in broadband infrastructure investments is limited to those areas where there is no current or planned (within the next 3 years) commercial deployments expected, to avoid distorting what might otherwise be/become a competitive market. BDUK are putting in place an 'umbrella' State Aid notification/clearance scheme with the European Commission for local authorities' local broadband plans, which include a number of requirements (met by following the BDUK Procurement Framework) and a requirement to publicly consult.

Consulting operators

Before we can commence the Suffolk Local Call-off Contract award process by issuing an Invitation to Tender (ITT), which we plan to do in late April/early May 2012, we are obliged to conduct a public consultation for at least one month to give commercial operators an opportunity to respond to the scope of our proposed intervention area in Suffolk (ie those areas in Suffolk where we propose to invest in extending broadband coverage beyond the reach of existing and planned commercially-funded deployments).

The purpose of this consultation is therefore to set-out the proposed intervention area for the Suffolk Local Broadband Plan and to give commercial operators an opportunity to respond to it. Maps and associated data on the proposed intervention area in Suffolk are shown in Section 6 of this document – the proposed intervention area for Superfast Broadband covers 226,184 premises (66.5% of the total number of premises in Suffolk (339,993)).

The consultation question we are inviting commercial operators to respond to, and the instructions for responding to this consultation, are set-out in Section 9. Operators must respond to this consultation by 31st March 2012 if we are to take into account their responses before we issue the Suffolk Local Call-off Contract ITT. While we will have due regard for all consultation responses that we receive from operators by the close of the consultation, the burden of evidence to justify a change in the proposed intervention area will lie with the operators. For the avoidance of doubt, we do not plan to intervene in areas where we are confident of existing or planned coverage within the next 3 years. However, neither do we want to rule 'out of scope' any areas at risk of not being covered by commercial operators' plans within that period. Operator responses to this consultation will be used to refine the proposed intervention area for the Suffolk Local Call-off Contract Invitation to Tender (ITT).

Consulting the people of Suffolk

This consultation also provides a further opportunity for local stakeholders (including businesses, public sector and voluntary groups, communities, and people who live and work

*Suffolk Better Broadband Programme:
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in Suffolk) to comment on the Suffolk Local Broadband Plan, and on the local requirements we are planning to set for the Suffolk Local Call-off Contract award process.

The consultation question we are inviting the people of Suffolk to respond to, and the instructions for responding to this consultation, are set-out in Section 9. Responses to this consultation from people in Suffolk must be received by 31st March 2012. Public responses to this consultation will be used to refine the local requirements for the Suffolk Local Call-off Contract Invitation to Tender (ITT).

A summary version of the public consultation for the people of Suffolk is also available, and can be found at: www.suffolk.gov.uk/broadband



1. Introduction

1.1 Introduction

This consultation document describes the background to the Suffolk Better Broadband Programme, the context for the Suffolk Local Broadband Plan, and the purpose of this public consultation for State Aid purposes.

Section 2 summarises developments in broadband, provides an overview of commercial operators' plan for Superfast Broadband, and outlines Government policy on extending the benefits of Superfast Broadband.

Section 3 sets-out an overview of Suffolk, the county's key economic statistics, our vision and strategy for transforming Suffolk, and the case for Better Broadband in Suffolk.

Section 4 provides an overview of the UK Government's Broadband Delivery UK (BDUK) Programme and Procurement Framework.

Section 5 introduces the Suffolk Local Broadband Plan, and summarises our vision, plan and approach.

Section 6 summarises existing and planned commercial broadband provision in Suffolk, and (crucially for this State Aid Public Consultation) maps the intervention areas in Suffolk where we propose to deploy public sector funding to invest in extending broadband deployment beyond the reach of commercially-planned deployments.

Section 7 defines Suffolk's local requirements and priorities in targeting the public sector intervention to extend broadband coverage.

Section 8 confirms the compliance of the Suffolk Local Broadband Plan with the European Commission's State Aid requirements.

Section 9 invites responses to this State Aid Public Consultation from the operators of existing and planned broadband deployments in Suffolk, and from the people who live and work in Suffolk.

Annex 1 provides a summary of the consultation questions; Annex 2 provides instructions on how to respond to this consultation, and Annex 3 provides a glossary of terms and acronyms.

In conducting this State Aid Public Consultation, we aim to adopt the latest guidance and best practise in the conduct of public consultations. Annex 2 provides contact details for



Suffolk's Consultation Champion, to whom feedback on the conduct of this consultation process can be provided.

1.2 Scope and Purpose

The primary purpose of this State Aid Public Consultation is to ensure that the proposed use of public funding through the Suffolk Local Broadband Plan to intervene to extend the coverage of broadband in Suffolk takes into account existing and planned (next 3 years) commercial deployments of broadband services in the county. The aim is to ensure that public funding will not duplicate planned private sector investments, or distort an otherwise competitive market. Maps and associated data on the proposed intervention area in Suffolk are shown in Section 6 of this document – the proposed intervention area for Superfast Broadband covers 226,184 premises (66.5% of the total number of premises in Suffolk (339,993)).

The consultation question we are inviting commercial operators to respond to, and the instructions for responding to this consultation, are set-out in Section 9. Operators must respond to this consultation by 31st March 2012 if we are to take into account their responses before we issue the Suffolk Local Call-off Contract ITT. While we will have due regard for all consultation responses that we receive from operators by the close of the consultation, the burden of evidence to justify a change in the proposed intervention area will lie with the operators. For the avoidance of doubt, we do not plan to intervene in areas where we are confident of existing or planned coverage within the next 3 years. However, neither do we want to rule 'out of scope' any areas at risk of not being covered by commercial operators' plans within that period. Operator responses to this consultation will be used to refine the proposed intervention area for the Suffolk Local Call-off Contract Invitation to Tender (ITT).

This consultation also provides a further opportunity for the people of Suffolk to comment on the Suffolk Local Broadband Plan, and on the local requirements we are planning to set for the Suffolk Local Call-off Contract award process.

The consultation question we are inviting the people of Suffolk to respond to, and the instructions for responding to this consultation, are set-out in Section 9. Responses to this consultation from people in Suffolk must be received by 31st March 2012. Public responses to this consultation will be used to refine the local requirements for the Suffolk Local Call-off Contract Invitation to Tender (ITT).

A summary version of the public consultation for the people of Suffolk is also available, and can be found at: www.suffolk.gov.uk/broadband



2. The UK National Broadband Context

2.1 The Development of Current Generation Broadband²

Over the last three decades, the UK has witnessed the transformation of telecommunications from the monopoly supply of fixed voice telephony to the competitive provision of fixed and mobile current-generation broadband access to the Internet (and voice telephony). Until the 1980s, BT (then the Post Office) had been a monopoly supplier of public fixed voice telephony, with some limited competition in the supply of data products to mostly (large) business customers³. The 1980s saw the privatisation of BT, the liberalisation of the telecoms market, and the advent of new competition in fixed, mobile and cable TV. The first generation (1G) of (analogue) mobile phones were bulky and expensive to use - it was only with the introduction of the second generation (2G) of (digital) mobile phones, which were smaller and cheaper, and the subsequent introduction in the 1990s of pre-pay services, that mass adoption of mobile was able to develop. In the 1980s, cable TV was introduced as a number of regional franchises, subsequently consolidated (over two decades) into a single national operator⁴ (Virgin Media) covering nearly half of the population, mostly in densely-populated urban areas. The late 1990s saw the growth of the residential market for internet access via dial-up fixed narrowband Internet services.

It wasn't until after the start of the new millennium (in late 2000) that the current-generation of 'always on' fixed broadband access services were introduced on the BT and cable TV networks. Over the following 6-7 years, current-generation fixed broadband access capabilities were rolled-out to all BT exchanges in the UK, and across Virgin Media's cable TV footprint. A regulatory settlement between Ofcom and BT in 2005 led to the functional separation of BT Openreach from the rest of the BT Group, and the entry of 'local loop unbundlers' (eg Talk Talk, Sky, Cable & Wireless, O2, etc) with access to BT's local loop on equivalent terms to BT's retail and wholesale businesses, which provided more competition on broadband price, innovation and customer service. Mobile broadband access had to await the third-generation (3G) of mobile phones, and further 3G enhancements for high-speed data, and has really only started to take-off in the last couple of years with the advent of mobile 'dongles' (USB modems) for laptop PCs and smartphones/tablets (such as the Apple iPhone/iPad).

Virgin Media recently completed the upgrade of its broadband access capability to support higher-speeds (50Mbps) serving nearly 50% of the population (circa 12.6 million homes), and BT is upgrading the exchanges serving around 80% of the population to higher speeds (up to 24Mbps) by the summer of 2012 to match the speeds already available from the major 'local loop unbundlers' in areas where there is competition.

² Broadband in Suffolk – Briefing Paper, July 2010, available at: www.suffolk.gov.uk/broadband

³ Kingston Communications remains the monopoly supplier of public telecoms services in the city of Kingston upon Hull.

⁴ There is another smaller cable TV company, Smallworld Media, offering services in a number of locations in the North of England and in parts of Scotland.



All current-generation broadband services (up to 8Mbps or 24Mbps) rely on the use of new technology overlays to extend the capabilities of existing networks that were originally designed to carry voice telephony (for BT's fixed network, and the mobile networks) or TV channels (for Virgin Media's cable TV network).

The UK household penetration of current-generation fixed broadband services⁵ has risen to almost 20 million homes (around 75%), including over 8 million unbundled lines with a choice of provider. Virgin Media has 4 million broadband customers on its cable TV network. However, 14% of UK households still get less than 2Mbps. Around 17% of UK households now have a mobile broadband connection; more than three-quarters of which also have a fixed broadband connections, indicating that, for many, mobile broadband is a compliment to, rather than a substitute for, fixed broadband. However, half of younger users (16 – 24 age group) rely on a mobile rather than a fixed broadband connection to access the Internet.

2.2 The Growing Demand for Higher Speed/More Reliable Broadband

While the deployment of current-generation 'always on' broadband access over the past decade has transformed the Internet into a new global medium for information, entertainment, communications and business⁶, broadband access capabilities have barely kept up with technology advances at the edge of the network in content, applications and services, and devices that produce and consume the data that is the lifeblood of the Internet. The volume of data traversing the Internet is growing year-on-year at an exponential rate, not just because the number of users and usage is growing, but also because of the increasingly rich content that is being exchanged over the network. These trends are increasing the pressure on current-generation broadband capabilities, and driving the demand for ever higher-speed broadband.

2.3 The Development of Superfast Broadband

There is no single accepted definition of 'Superfast Broadband', but the term is most often used to describe higher-speed broadband access services than can currently be delivered by current generation broadband networks (generally, speeds greater than 24Mbps). Superfast Broadband requires substantial investments in new networks specifically designed to handle the higher speeds and growing volumes of Internet traffic.

On Virgin Media's cable TV network, the upgrade to DOCSIS3, completed more than a year ago, enabled Superfast Broadband speeds of up to 50Mbps, and Virgin Media are currently embarking on a further upgrade of broadband speeds up to 120Mbps (generally doubling the broadband speeds of existing customer's service packages).

⁵ Further significant growth in fixed broadband penetration will either require increasing levels of PC ownership (74% in Q1 2009) or rely on other devices in the home providing Internet access (such as games consoles, TV set-top boxes such as those planned by the YouView consortium, or smartphones (eg Apple iPhone) or tablet devices (eg Apple iPad)).

⁶ It has been argued by many that broadband access is becoming the '4th utility'.



In relation to BT's network, 'Superfast Broadband' means higher-speed broadband services beyond the capability of exchange-based ADSL services delivered over the copper local loop, i.e. speeds greater than the 'up to 24Mbps' capabilities of ADSL2+. This involves deploying optical fibre cable deeper into the network from the exchange towards the customer, with either fibre to the (street) cabinet (FTTC), with Very High Speed DSL (VDSL) over the (now much shorter) copper lines (sub-loops) from the cabinet to the premises - delivering up to 40Mbps (up to 80Mbps from 2012), or fibre all the way to the premise (FTTP) – delivering 100Mbps (300Mbps from 2012) or more. Because of the large capital expenditure involved in deploying optical fibre deeper into the network⁷, in practice, deployments are likely to involve a mix of, initially, mostly FTTC with some FTTP, but with the capability to subsequently extend the FTTC to FTTP over time designed-in and partially pre-provisioned (to the cabinet).

Superfast Broadband is currently available to 58% of UK households, though initial take-up levels are low (around 6%), but growing.

Mobile broadband is currently delivered over 3G networks, which have been upgraded with High-Speed Packet Access (HSPA) to deliver broadband speeds of up to 7.2Mbps or 14.4Mbps to 87% population coverage. However, the quoted broadband speed is the total broadband capacity to an (angular) segment of a cell site, and has to be shared among the number of active users in the cell segment area simultaneously using mobile broadband access. Also, the population coverage figure of 87% is an average among the five mobile network operators, and refers to the outdoor population coverage achieved; geographic outdoor coverage is much lower, and depends on the locations of each operator's cell sites, and indoor mobile coverage can be patchy or non-existent in many areas. The 3G/HSPA technology evolution path now enables staged upgrades⁸ to HSPA+ to provide 21Mbps, 42Mbps and 84Mbps over the next 5 -7 years.

However, the phenomenal growth in mobile data traffic⁹ will require mobile operators to start to plan to deploy the fourth generation (4G) of mobile technology known as Long Term Evolution (LTE), offering up to 100Mbps¹⁰. LTE has been designed from the outset for mobile data (rather than voice) and uses a different wireless air interface (Orthogonal Frequency Division Multiplexing (OFDM)). LTE is a global standard, which most major operators and suppliers around the world have announced they plan to adopt, and LTE network equipment and devices (ie LTE 'dongles' and smartphones) are becoming more widely available this year (2012), with LTE networks already deployed in a number of countries around the world. UK mobile operators are likely to start to deploy LTE networks from 2013/14, after the auction of 800MHz and 2.6GHz radio spectrum for 4G/LTE being held in late 2012/early 2013.

⁷ One estimate of the capital cost of fibre deployment put the cost of a nationwide FTTC deployment at £5.1bn, and the cost of nationwide FTTH deployment at just under £30bn. Source: Broadband Stakeholder Group, report prepared by Analysis Mason, 2008.

⁸ HSPA+ uses dual carriers and MIMO technology to increase mobile broadband speeds

⁹ In the 2 years since the beginning of 2007, mobile Internet data volumes grew by more than 2,300%, while revenues didn't even double. Source: Ofcom Discussion Document on Net Neutrality, June 2007.

¹⁰ An even more advanced version of LTE is on the standardisation 'drawing board': known as LTE Advanced, it may offer speeds up to 1Gbps, and is likely to be adopted first in advanced Asian countries such as Japan, Korea and China.



4G/LTE technology is also being deployed to provide fixed wireless broadband access, particularly in areas beyond the current economic reach of fibre-based fixed network solutions. Satellite broadband services are also available, and mostly used to serve remote locations beyond the reach of fixed or wireless services.

2.4 Government Policy on extending the benefits of Superfast Broadband

In December 2010, the Department for Culture, Media and Sport (DCMS) published the strategy document “Britain’s Superfast Broadband Future¹¹”.

This document sets-out the Government’s vision for broadband in the UK, and how this is being delivered through the Broadband Delivery UK (BDUK) programme.

The DCMS vision is that a world class communications network will facilitate economic growth and help steer the country out of recession. Links are also drawn to greater consumer choice, and changing the way we access media, entertainment, information and communications. The Government also hopes that an improved communications network will assist the transformation of public service delivery. Much is made of the economic impact of broadband infrastructure. The Growth Review conducted by the Government highlighted how broadband will enable businesses to transform their operating models, free-up access to new markets, and create new ways of engaging with customers and supply chains. Environmental benefits from more flexible working, lower emissions and less need to travel are also mentioned.

The strategy discusses current broadband availability in the UK, and notes the requirement to ensure that virtually all homes have access to a minimum broadband speed of 2Mbps by 2015. In terms of Superfast Broadband, it is noted that the UK benefits from the fibre network developments of BT and Virgin Media, which mean that around 58% of households nationally already have access to higher-speed services. It notes that smaller innovative companies are finding innovative ways of delivering Superfast Broadband in some areas where it is economically challenging to do so. Community broadband schemes are also playing a vital role in the deployment of Superfast Broadband in some local communities.

DCMS acknowledge that a mix of technologies – fixed, wireless and satellite – will be needed to deliver Superfast Broadband throughout the UK, and therefore that one technology will not provide the appropriate solution for all areas. The strategy remains technology-neutral, although it has been recognised that high-capacity optical fibre deployed deeper into the network is likely to be a key feature of the UK’s networks going forward. Mobile broadband and new wireless technologies also form part of the strategy, enabled by the award of the 800MHz and 2.6GHz radio spectrum expected in 2012/13.

In terms of the rural challenge, one which is particularly relevant to Suffolk, the strategy calls for the correct regulatory and policy environment, ensuring access to existing physical

¹¹ UK Government, Department for Business, Innovation & Skills (BIS) and Department for Culture Media & Sport (DCMS), Building Britain’s Future, Digital Britain, Final Report, June 2009



infrastructure, such as BT's network of ducts and poles. In addition to these measures, DCMS seeks to work closely with Local Authorities to explore the most effective means of managing street works, and optimising coverage in new developments, etc.

The strategy also makes reference to the £530m that Government has made available for Local Authorities to bid for via BDUK. The purpose of this fund is to bridge that gap between areas which risk falling the wrong side of the "digital divide". This fund aims to put local authorities and communities in a position to shape, demand and promote local networks. The aim of this fund is to provide Superfast Broadband to 90% of UK premises, with a minimum coverage for all UK households of at least 2Mbps. The public funding is expected to leverage further private sector investment through a procurement process.

3. The Suffolk Broadband Context

3.1 Overview of Suffolk

Geography

The county of Suffolk is the 8th largest county in England, occupying an area of 3,801 square kilometres (1,468 square miles¹²). Suffolk lies between Norfolk to the North, Essex to the South, Cambridgeshire to the West, and the North Sea to the East, with London just over one hour away by road or rail. Suffolk is a low-lying county with few significant hills, and with soils and a climate that support arable farming in the rural parts of the county.

Suffolk's natural attractions include the Suffolk Coast & Heaths area between the A12 trunk road and the North Sea coast, which is designated as an Area of Outstanding Natural Beauty (AONB), and the wetland habitat in the north of the county, part of The (Norfolk) Broads. These natural attractions, together with tranquil villages and rural settings, and its proximity to London, has led Suffolk to become an increasingly popular location for second home ownership and tourism, which, during peak periods, boosts the total population by up to 50%¹³.

Suffolk Population

Suffolk had a resident population of 715,700¹⁴ (in 325,041 residential premises) in 2009, which had grown by 1.7% since 2006, and is forecast to grow by 14% by 2021¹⁵. The increasing population is due to economic migration into the county, rather than organic growth in the established resident population. There is a relatively small black and ethnic minority population in Suffolk (around 90% of people in Suffolk classify themselves as 'White British'¹⁶).

The average population density of Suffolk is 188/km² (487/sq mile). However, nearly one-third (~224,000) of the population of Suffolk live in the larger towns along the A14 road corridor from Felixstowe in the South East, Ipswich (the county town), Stowmarket, Bury St Edmunds and Newmarket in the West, and other significant towns including Lowestoft, Beccles and Mildenhall in the North, and Sudbury and Haverhill in the South. The other two-thirds of the population of Suffolk (around 492,000) live in the other small towns, and in the villages, hamlets and farms of rural Suffolk (42%). 86% of Suffolk parishes have a population of less than 1,000¹⁷.

Outside of the major towns in Suffolk, the population of young adults (aged 15 – 29) is very low (compared with the UK average), while there is a large population over the age of 35,

¹² SCC GIS Records

¹³ Choose Suffolk, 2011

¹⁴ ONS 2009 Mid Year Estimates

¹⁵ ONS / Suffolk Observatory

¹⁶ ONS / Suffolk Observatory

¹⁷ SCC Population Estimates / Suffolk Observatory



and a much larger than average retired population. It is the low population density of the nearly half-a-million people living in the smaller towns and rural areas of Suffolk that makes the cost of deploying high-speed broadband to those communities economically challenging.

Prosperity/Deprivation in Suffolk

Suffolk is generally perceived to be a prosperous county, but there are areas of relatively high deprivation particularly in the North of the county (Waveney) and in parts of Ipswich.¹⁸

3.2 Suffolk's Economy

Suffolk is ambitious for economic growth. Our vision is to create a low-carbon, highly-skilled and high value-added economy. The New Anglia (Suffolk + Norfolk) Local Enterprise Partnership (LEP) aims to act as a catalyst for change, and to make New Anglia competitive, both nationally and internationally, focussing on key, strong-potential, high-growth sectors: energy, creative, tourism, financial services, local food, drink and agriculture, biotech and ICT. Suffolk's ambition to be the 'Greenest County' underscores our commitment to low-carbon growth.

Suffolk's Economic Output

Suffolk's economic output (headline Gross Value Added (GVA) at current basic prices) in 2008 was £12,603m, an increase of around 28% over the previous five years¹⁹. The economic output (GVA) per head of population in 2008 was £17,735 - compared with a UK-wide index (where UK=100), Suffolk's GVA per head index was 86.3. However, these figures pre-dated the economic downturn in 2008 and recession in 2009. It is important to note, in the context of broadband, that over 70% of Suffolk's economic output comes from the services sectors²⁰ (£8,800m+ (2008)). While broadband benefits all industries, the most transformative impact on businesses of broadband is in the delivery of services, as well as in the opportunity for new creative businesses operating online. These services businesses range from lone workers (conducting their businesses online from home), through the full range of small, medium, large and multi-national businesses (and their teleworkers working from home or while travelling/mobile). As the services sectors are likely to benefit most from Superfast Broadband, the availability of high-speed broadband services will be critical to the sustainability and growth of the Suffolk economy.

Businesses in Suffolk

Suffolk is home to a number of major businesses, including Britain's largest container terminal at the Port of Felixstowe, which supports a large number of haulage and distribution firms across the UK, BT's research centre (Adastral Park) at Martlesham Heath, the OrbisEnergy centre in Lowestoft, the EDF Energy nuclear power station at Sizewell, AXA Insurance in Ipswich, a number of food processing companies across the county and breweries in Southwold (Adnams) and Bury St Edmunds (Greene King), a substantial number

¹⁸ Index of Multiple Deprivation Report, Suffolk Observatory
¹⁹ ONS
²⁰ ONS



of biotech firms, military bases at Mildenhall and near Woodbridge, the home of the horse racing industry in Newmarket, and much more besides.

Suffolk has a thriving tourism industry worth £1.75bn²¹ (8% of Suffolk's economy), employing around 34,000 people in approximately 2,000 businesses, with around 25 million tourist trips to Suffolk per year.

Suffolk had 25,290 VAT-registered businesses at the end of 2008, including a very wide range of small and medium-sized enterprises (SMEs) driving economic output and employment (SMEs account for over half (51%) of UK GDP). However, there were just 4,952 business premises²², which suggest that many small businesses are operated from home. Over the past 5 years, business stock in Suffolk has increased by an average of 400 businesses per year²³. Business survival rates seem stable at around 81% surviving longer than 2 years, and 49% longer than 5 years. While Suffolk has a strong and varied SME sector, widely dispersed across the county, Suffolk's economy is currently characterised by too many low-wage, low-skill, low value-added jobs. Better Broadband will help Suffolk to attract, retain and grow businesses (particularly small businesses) in the county, and is vital to moving Suffolk to a higher wage, higher skill, higher value-added economy.

Employment, Education & Skills in Suffolk

There were 337,100 people in employment in Suffolk in 2010, with 73.7% of the working age population in employment, and an unemployment rate of 6.6% (GB: 7.7%) and an economic activity rate of 15.1%²⁴. SMEs in Suffolk employ around 215,000 people (circa 75% of working age population). Self-employed people account for around 10.2% of the working age population. Mean gross weekly earnings for Suffolk residents were £478.10 in 2010 (UK: £501.80). Total benefits claimants represented 11.7% of the working age population in Suffolk in 2010, similar to the rest of the East of England region also at 11.7% (GB average: 14.7%). Job densities in Suffolk are highest in the major towns and within the A14/A12 trunk road corridors.

The education and skills qualifications of the working age population of Suffolk in 2009 were: graduate or post-graduate degree-level or equivalent (NVQ Level 4 and above) 24.3%, NVQ Level 3 and above 45.1%, NVQ Level 2 and above 62.3%, NVQ Level 1 and above 81.2%, with 9.9% having no qualifications²⁵. Qualification attainment of the working population in Suffolk in 2009 was slightly lower than the East of England regional, and GB national, levels of attainment.

Property Prices in Suffolk

The average price of a residential property in Suffolk in December 2010 was £203,778²⁶, recovering somewhat from the low point of the downturn in the property market in late

²¹ Choose Suffolk, 2011

²² BDUK, 2011

²³ Suffolk Observatory

²⁴ ONS / Suffolk Observatory

²⁵ ONS / Suffolk Observatory

²⁶ HM Land Registry



2008. There is some evidence from local estate agents that properties in Suffolk with a good broadband connection can command a price premium of up to 15%.

3.3 Transforming Suffolk – Our Vision and Strategy for Suffolk

Suffolk’s ambition is that by 2028 it will be recognised for its outstanding environment and quality of life for all; a place where everyone can realise their potential, benefit from and contribute to Suffolk’s economic prosperity, and be actively involved in their community (Transforming Suffolk - Suffolk’s Community Strategy 2008 – 2028²⁷). Suffolk County Council has set-out five priorities for transforming the delivery of public services (Suffolk Story²⁸):

- A strong and dynamic jobs market - broadband coverage identified as a key deliverable
- Transform learning and skills – improved educational attainment and skills for jobs
- Protect vulnerable people and reduce inequalities – providing services tailored to the needs of local communities, and personalised budgets to offer people choice and more control over their own lives
- Be the greenest county – supporting the reduction of carbon footprints
- Deliver great services at exceptional value – innovation in service delivery, and maximising the benefits of new technologies (including broadband).

3.4 The Case for Better Broadband in Suffolk

Stronger Economy

Suffolk is ambitious for economic growth. Local authorities and business groups are already working to facilitate growth in key sectors: through supply chain work, skills (a consultation on the Suffolk Skills Strategy has recently completed), enterprise and innovation support (eg the Enterprise Academy at University College Suffolk (UCS), OrbisEnergy, Adastral Park), promotion and marketing of Suffolk (eg Suffolk campaigns, Aldeburgh Food Festival), etc.

Broadband has a crucial role to play in our strategy for Suffolk’s economic development. Better Broadband has been identified by businesses in Suffolk as the most important infrastructure issue, and Better Broadband has become one of the top four priorities for the New Anglia LEP. Broadband enables businesses to operate right across Suffolk, in market towns and in rural areas, building on the current dispersed pattern of business locations. Some of our key growth sectors, such as creative, tourism and ICT, have particular demands for high-speed broadband, and broadband underpins our strategy for higher skills and our ambition to be the Greenest County and the home of the UK Green Energy Coast.

²⁷ http://www.transformingsuffolk.co.uk/files/comm_strat/suffolkstrategic.pdf
²⁸ <http://www.suffolk.gov.uk/CouncilAndDemocracy/SuffolkStory>



We believe that higher-speed broadband services are vital to future economic development in Suffolk, driving:

- Economic growth of around 15-20% (circa £2bn)
- Retention and growth of small businesses (~500 pa), particularly in the creative industries
- Access to a global online market for entertainment and business opportunities
- Modernising and cost-reducing the delivery of public services online
- Retaining and growing employment (circa 5,000 FTE jobs)
- Raising and modernising skills and achievement levels
- Avoiding a 'digital divide'.

Better Public Services

All parts of the public sector, whether local or central government, health services, or government agencies, are required to transform their means of delivery to improve efficiency, improve accessibility, and deliver better value for money. High-speed broadband is fundamental to achieving that objective.

Enabling the electronic delivery of public services through better broadband is central to ensuring that we do not create a 'digital divide' in Suffolk. While it is the population density of Suffolk, particularly in the rural areas, that determines the costs of high-speed broadband availability; it is the demographic profile of the county that determines the take-up of broadband services. A major risk in the deployment of high-speed broadband services in Suffolk is the creation of a two dimensional 'Digital Divide' (geographic, demographic) between those that 'have' high-speed broadband (and use it) and those that 'have not' (and do not).

Suffolk is at the forefront of transforming the delivery of public services, which provides a unique opportunity to plan for the availability of more reliable, higher-speed broadband services to both improve and extend the public services delivered, and to reduce costs (through the greater use of ICT, facilitating shared services and partnership working). As a rural county, which delivers many services by workers out in the field (eg police, health, local government), there is an opportunity to use Superfast Broadband to increase productivity and to transform public services and how they are delivered.

Suffolk County Council sees its role moving away from controlling and managing service provision, towards a 'market shaping' role in which consumer demand and market supply shape what services are available. In this mixed market economy, many of the services that have been directly funded and delivered by the council may no longer be supplied in this way, with other suppliers and funding models taking their place.

As well as a shift in 'who' provides public services, we also envisage a shift in 'how' they are delivered. Faster, more reliable broadband is a prerequisite for our 'channel shift' strategy, in which 'the service goes to the customer', rather than 'the customer coming to the service'. An important future role for local government will be to influence new service development, and to provide information about services to ensure that citizens can find the services they need and know their value and quality.



This is much more than simply signposting services – it is about delivering a trusted way of checking the quality and value of the services on offer. Broadband is already at the heart of many of Suffolk’s plans for delivering better learning, better care, better policing, a better environment, and better communities. We have a number of existing initiatives already delivered over the Internet, which consumers will only be able to fully use in parts of the county with adequate broadband speeds. Superfast Broadband will help to increase take-up of these online services, which in turn will help to drive the delivery of more services online:

Better Learning

Building on Suffolk County Council’s 10 year programme to broadband-enable all schools in Suffolk, we now need to ensure universal broadband access in homes, so that all pupils can continue to access learning resources outside school, to improve their educational attainment level and to help to develop their digital literacy and life skills. Examples of initiatives already in place include:

- parents can now apply for school places in Suffolk online²⁹;
- the ‘Notschool’³⁰, based on a school in Ipswich, is a form of full-time alternative education provision that helps young people disengaged from classroom learning to engage with education and reduce their likelihood of becoming part of our NEET statistics;
- our Suffolk’s ‘Skills for the Future’ strategy aims to provide career advice online, and has established an Enterprise Academy (part of a national network) and a School for Social Entrepreneurs, as part of a drive to better prepare people for work;
- our Suffolk Works website³¹ provides career advice and support resources online.

Better Care

This is particularly important for older people (as health care and social care costs are rising, as people live longer). The use of telecare (remote monitoring, diagnostics, medication reminders, etc, in people’s homes, GP surgeries, etc) will enable people to stay in their homes longer, while receiving the help and care they need online, while improving their quality of life. Examples of initiatives already in place include:

- Suffolk’s Flexi care strategy plans to roll out personalised budgets to all social care customers, and high-speed broadband will enable people to use their budgets to maximum effect, accessing and sharing information about what is on offer and buying or booking services and equipment online (through the Suffolk My Life portal³²);
- as part of a 3-year EU project (CURA-B: ‘acCURate-Business’), Suffolk County Council and West Suffolk Hospital are collaborating with other EU member states and small- and medium-enterprises (SMEs) to develop locally-delivered telecare services and Assistive Technology;

²⁹ <http://www.suffolk.gov.uk/EducationAndLearning/Schools/AdmissionToSchools>

³⁰ <http://www.notschool.org>

³¹ <http://www.suffolkworks.org>

³² <http://suffolkinfolink.suffolkcc.gov.uk/?UITheme=>



- the Suffolk Circle website³³ provides information, advice and guidance for the over 50s (and their support groups and advocates) to help to prevent problems associated with social isolation, ill-health, etc.

Better Policing

The rapid co-ordination of emergency services and on-the-scene access to vital information, will help to improve safety of life, to detect and prevent crime, and to better engage with the community.

Better Environment

The ability to communicate, do business, be entertained and buy online will reduce unnecessary travel³⁴, and help to deliver a greener environment.

Better Communities

Suffolk has a wealth of communities in the many market towns and villages across the county, each of which has differing needs. Suffolk's vision is to empower each community to design the services it needs, rather than for the public sector to deliver a uniform service across the whole county. High-speed broadband will support local community groups, social enterprises, and parish and town councils, to take on, and transform, services according to their local community needs.

Overall, it is clear that better broadband (both in terms of coverage and speed) is an essential component of a modern county infrastructure.

³³ <http://www.suffolkcircle.org.uk/>
³⁴ <http://www.suffolkonboard.com>

4. The BDUK Delivery Programme & Procurement Framework

4.1 The BDUK Framework Delivery Model

BDUK has decided to procure a framework of Suppliers capable of providing a complete solution (potentially using many technologies) for a Local Broadband Project. The primary objectives of the Framework are:

- to simplify and streamline the procurement process for Local Bodies and Industry alike by pre-qualifying suppliers;
- capturing and assuring proposed technical solution components at the Framework level, so that Local Bodies have a significantly reduced technical assurance overhead for elements which are commonly used by individual Local Broadband Projects;
- capturing and verifying cost drivers and behaviours for the various solution components that Suppliers will deploy for Local Broadband Projects;
- to simplify and reduce the contracting overhead on Suppliers and Local Bodies by using the procurement of the Framework Agreement to agree key commercial terms that will be incorporated into a common Framework Agreement and a template Call-Off Contract; and
- to retain flexibility to allow for local delivery issues and local prioritisation through an element of local requirements for the Local Broadband Projects.

4.2 The BDUK Framework Overview³⁵

The Broadband Delivery Framework will provide a panel of potential suppliers who have the experience and depth of capability to design, build and operate a wholesale broadband network for a Local Broadband Project. Local Bodies will run mini-competitions to select a Supplier from the Framework to deliver a Local Broadband Project, and will award a service based contract to the Supplier.

The Framework presumes the use of the gap-fund subsidy commercial model for Call-Off Contracts, where the private sector invests alongside the public subsidy and takes the risk of implementing and operating the network and the risk of the commercial success of the network. The public sector will contribute subsidy to the investment costs, with funding coming from a mix of Local Body funding (including other local sources if appropriate), BDUK funding and, if applicable, EU structural funds. Some Local Bodies may consider alternative models, but such Local Broadband Projects would be outside the scope of the Broadband Delivery Framework.

³⁵

BDUK Framework Delivery Summary:
http://www.culture.gov.uk/images/publications/BDUKFramework_Delivery_Model_Summary.pdf



The Framework Panel is to contain prime contractors and consortia, such that Local Bodies are intended to have a single relationship with the Framework Supplier to deliver the broadband outcomes, rather than contractual relationships with many parties. As such, the prime contractors/lead consortia members will be establishing and controlling a supply chain, as required, to deliver each project.

Framework Suppliers are likely to have identified at least upper-tier subcontractors where required for delivery, in the development of solutions at framework level. However, it is anticipated that Suppliers may wish to vary which sub-contractors they employ from project to project and/or over time to take advantage of local delivery considerations, technological advances, market dynamics, more competitive offers, and working relationships, etc. As long as this is to the benefit of the Local Broadband Project, and does not materially change the framework solution components or increase costs beyond that which is permitted by the Framework change control procedure, it is intended that the Supplier will be able to organise its supply chain to suit a Local Broadband Project.

4.3 Current Status and Remaining Plan for the BDUK Procurement Framework Process

BDUK has recently completed dialogue with remaining Framework bidders, based on detailed solutions submitted by the bidders in November 2011. BDUK issued an invitation to Submit Final Tenders (ITSFT) in early February, and bidders have until early March to submit their final tenders. Final tenders will be evaluated during March 2012, with preferred Framework suppliers likely to be announced in late-March, and signature of final Framework agreements in mid-April 2012.

Local authorities will begin their local call-off contract award processes from mid-April 2012, as part of a procurement pipeline managed by BDUK. It is envisaged that the Suffolk ITT will be issued in late April/early May 2012.

BDUK have recently announced plans to accelerate the Delivery Programme, with a likely deadline for getting remaining Local Broadband Plans approved (April 2012), and the aim to get all procurements completed, and deployments underway, by the end of 2012.

5. The Suffolk Local Broadband Plan

5.1 Where to find the Suffolk Local Broadband Plan

The Suffolk Local Broadband Plan can be found online in full and summary versions at:

www.suffolk.gov.uk/broadband

5.2 Summary of the vision, plan and approach³⁶

Our ultimate vision is for the competitive provision of Superfast Broadband (both fixed and mobile), offering typical speeds of 100Mbps, to everyone (100% of homes and small business) in Suffolk by 2020.

Our plan assumes a predominantly fibre-based solution (a mix of fibre-to-the-premises (FTTP) and fibre-to-the cabinet (FTTC)) to 85-90% of premises by 2015, with interim solutions (mostly Fixed Wireless Broadband (FWB), but also some Satellite Broadband) serving the remaining 10-15% of premises also by 2015. Note that an interim Fixed Wireless Broadband solution would have to be a county-wide overlay (to reach the premises that remain un-served by the fibre-based solution), but the number of premises served by an interim FWB solution will be limited to around 10-15% because of the relative economics of fibre-based versus FWB solutions and the limited amount of suitable radio spectrum available. The plan specifically aims to ensure that the one fifth of all Suffolk premises (60,000) that currently get less than 2Mbps, will all get more than 2Mbps by 2015. Ultimately (beyond 2015), we would like to see fibre-based solutions extended to 100% of Suffolk premises, complemented by county-wide availability of Mobile Broadband (4G/LTE).

However, we remain technology-neutral, and open to alternative technology solutions proposed by bidders that meet Suffolk's local requirements and priorities (see Section 7).

We are planning to deliver this 'whole county' plan by using public funding to leverage further investment by commercial operators through a competitive procurement process under the BDUK Procurement Framework. Critically, our plan assumes an open access, wholesale platform across the whole county providing both fibre-based and interim solutions, to enable competitive retail service provision to everyone in Suffolk, and to manage the technology risk between the evolving fibre-based and interim solutions. Note: we are not proposing just small-scale trials or pilots in limited parts of Suffolk, nor are we setting up our own local telecoms operator in competition with established operators. The total capital cost of our deployment plan to 2015 is around £47m, about half of which will come from central Government and local council funding, matched by private sector

³⁶ Suffolk Local Broadband Plan available at www.suffolk.gov.uk/broadband

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investment from a competitively-selected commercial operator. We are also seeking further funding from other programmes and local authorities to fund a demand stimulation programme and to meet programme operating costs.

6 Existing and Planned Commercial Broadband Provision

6.1 Summary of existing and planned commercial broadband provision in Suffolk

Of the 128 BT exchanges serving Suffolk, just 16 of those exchanges serving the larger towns have been unbundled by one or more competing operators: in addition to BT, Talk Talk, BSkyB, Cable & Wireless and O2 are present in some of the 16 unbundled exchanges, but, other than BT, none are present in all 16 exchanges; indeed, just 11 of the 16 unbundled exchanges have 4 or more operators present (ie are regarded as sufficiently competitive by Ofcom). The remaining 112 exchanges serving areas beyond the larger towns have no competitive provision beyond BT. So far, BT has announced exchanges in Suffolk to be enabled with ADSL2+ (up to 24Mbps) by the summer of 2012 to reach around 80% of premises.

Virgin Media covers around one in eight (around 13%) of Suffolk premises (circa 65,000), although only in certain parts of Ipswich, Newmarket and Felixstowe.

Mobile Broadband is largely confined to 3G coverage of the larger towns in Suffolk and public Wi-Fi 'hot spots', with little or no Mobile Broadband coverage of other parts of the county.

There are currently three small-scale community broadband schemes serving a few local communities in Suffolk, with further community broadband schemes at various stages of planning. We have mapped these existing and planned community broadband schemes in the Suffolk Local Broadband Plan. The three existing community broadband schemes are: FramBroadband (serving approximately 100 premises via Wi-Fi in Framlingham, Saxsted, Earl Soham, Brundish, Dennington and Laxfield); The Wireless People (serving approximately 100 premises via Wi-Fi in Haughley, Haughley Green and Old Newton); and Faxbase (serving approximately 60 premises via amplified Mobile Broadband in Haughley, Bacton and Old Newton).

6.2 Mapping of existing and planned Superfast Broadband and Basic Broadband coverage in Suffolk using the EC geographic market definitions

Figure 1 maps the current coverage of current-generation broadband ('Basic Broadband') in Suffolk, while Figure 2 maps the current and known planned coverage of Superfast Broadband ('Next Generation Broadband'), for State Aid Purposes.

The mapping in the figures is based on the European Commission's geographic market definitions for broadband areas, which are classified as Next Generation Broadband Black Grey or White areas and Basic Broadband Black, Grey or White areas.

For the Basic Broadband map (Figure 1), each postcode is turned Grey if:

- its estimated VDSL speed is greater than 2 Mbps AND it is scheduled to be upgraded by BT AND it is not an 'exchange only' line OR if its current ADSL speed is estimated at greater than 2 Mbps,
- or if it is in a Virgin Media area,
- (or if wireless service is available at greater than 2 Mbps at the postcode),

and each postcode is turned Black if it satisfies two of these conditions. All other post codes remain White.

For the Next Generation Broadband map (Figure 2), each postcode is turned Grey if:

- its estimated VDSL speed is greater than 15 Mbps AND it is scheduled to be upgraded by BT AND it is not an 'exchange only' line,
- or if it is in a Virgin Media area,

and each postcode is turned Black if it satisfies both of these conditions. All other post codes remain White.

Note that in Figure 2, we have identified the location of the 16 exchanges BT has announced for upgrade to Superfast Broadband (by autumn 2012), but we have not yet coloured (Grey or Black) post codes likely to be served by those upgraded exchanges because of a current lack of more detailed information about which post codes/premises will/will not be served. Absent that information we prefer to err on the side of leaving the areas White (ie potentially part of the intervention area under the Suffolk Local Broadband Plan), rather than turning whole areas Grey or Black, potentially ruling 'out-of-scope' any un-served post codes/premises within those exchange areas.

For the purposes of State Aid, the Suffolk Local Broadband Plan's intervention areas will target those Next Generation Broadband White areas on the maps for Superfast Broadband provision, and any remaining Basic Broadband White (and in certain circumstances Basic Broadband Grey) areas for Basic Broadband provision.

In line with the BDUK 'umbrella' State Aid notification to the EC on the definitions of NGA White and Grey areas, we propose to use our discretion to not recognise networks in areas that would otherwise be classified as NGA Grey, if the combination of price, service and choice is not sufficient to meet customers' requirements, so that, in effect, there is still a



market failure in those areas. In responding to this consultation, to the extent that operators claim a footprint for their networks, they will need to provide sufficient information for us to be able to make a judgement about whether areas should be classified as NGA Grey or NGA White, for the purposes of defining our proposed intervention area.

Figure 1: Current/Planned Coverage of Basic Broadband (as at 09/01/2012)

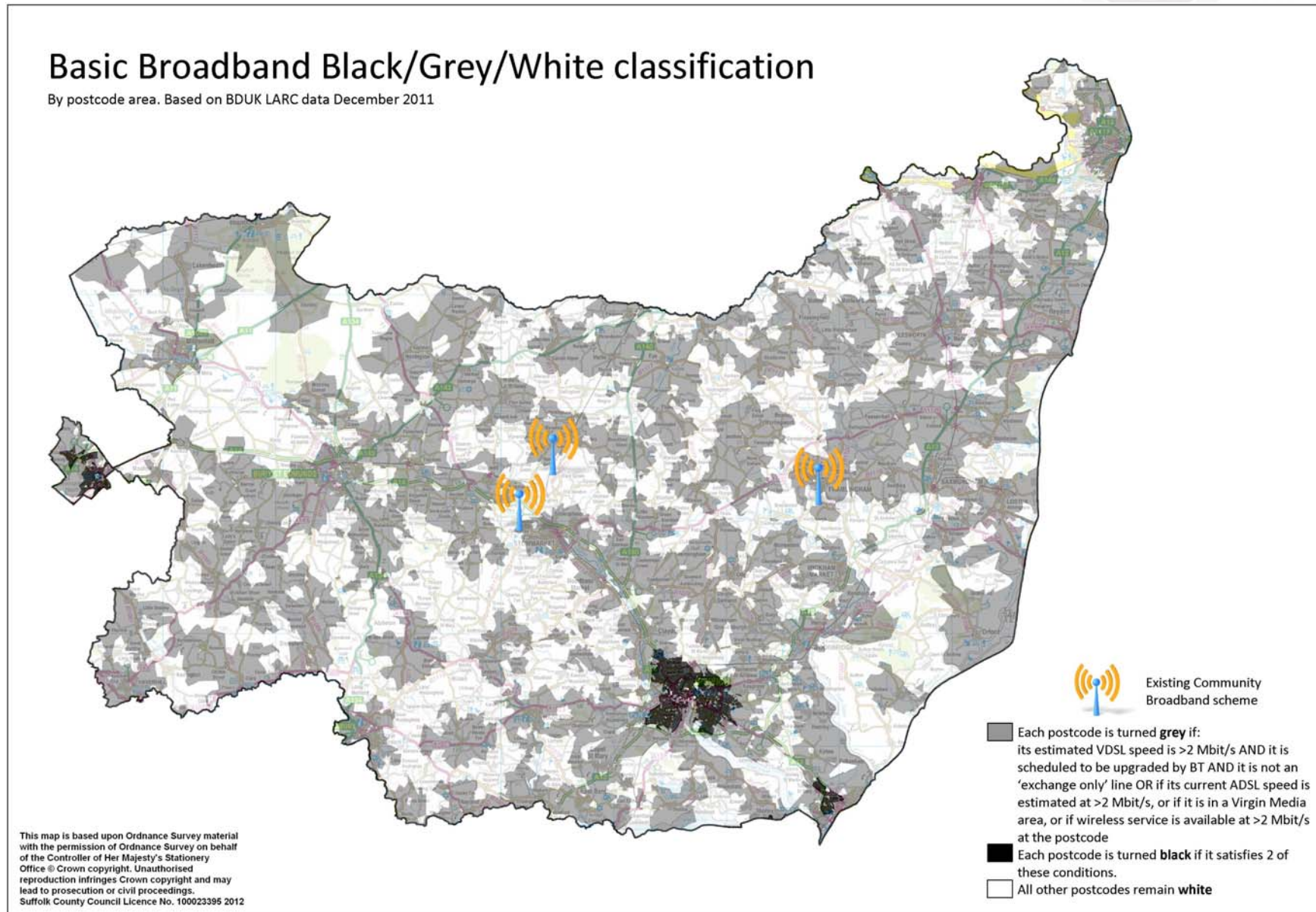


Figure 2: Current/Planned Coverage of Superfast Broadband (as at 9/01/2012)

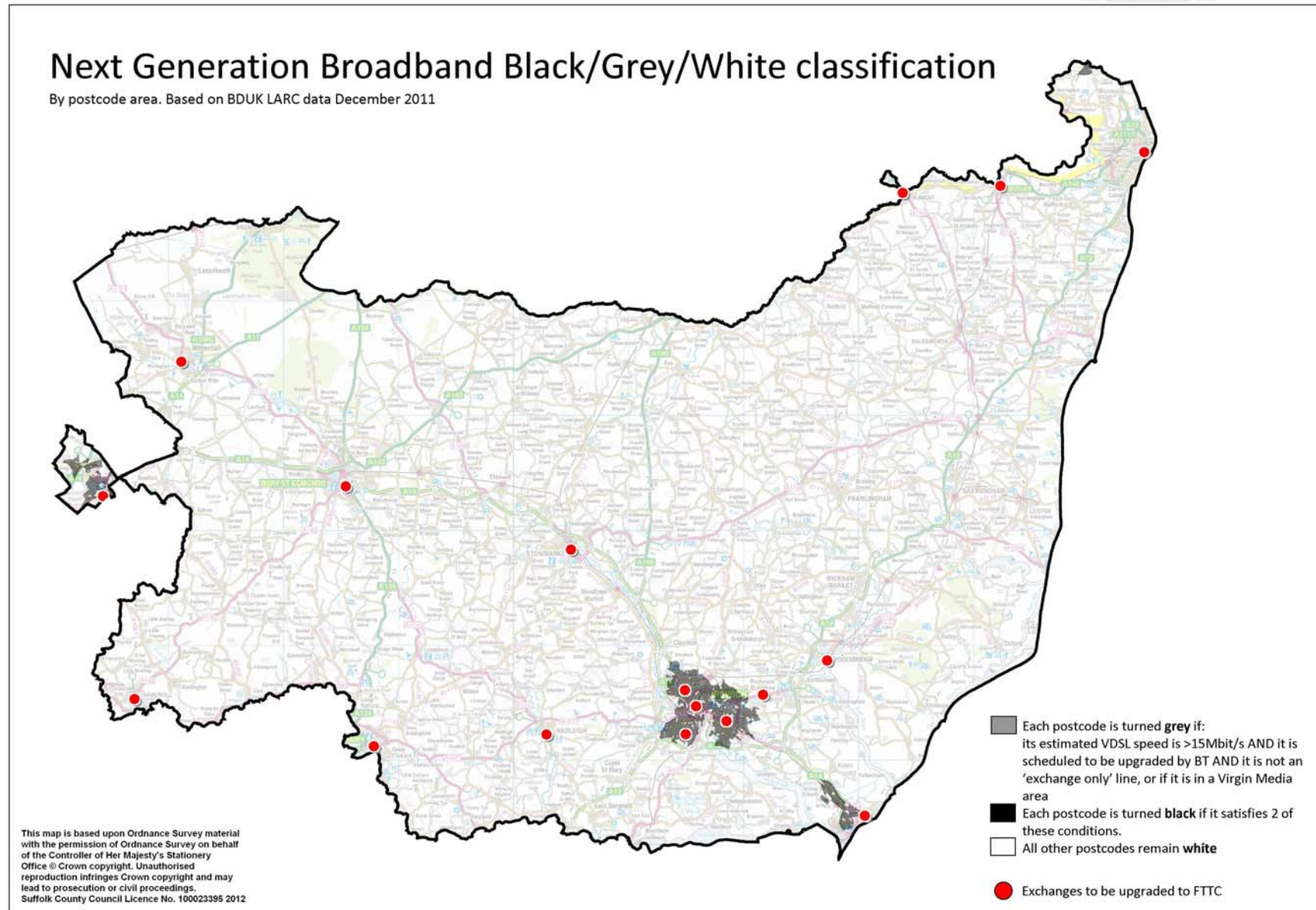


Table 1 shows the number of Basic Broadband Black/Grey/White postcodes and premises mapped in Figure 1 by Districts/Boroughs in Suffolk..

Table 1: Basic Broadband Black/Grey/White Postcodes/Premises by District/Borough in Suffolk

Basic Broadband BGW by District/Borough	White Postcodes	White Premises	Grey Postcodes	Grey Premises	Black Postcodes	Black Premises
Babergh	891	8,958 (22.2%)	2,143	29,801 (73.9%)	61	1,592 (3.9%)
Forest Heath	373	5,243 (18.2%)	918	15,913 (55.2%)	310	7,657 (26.6%)
Ipswich	18	178 (0.3%)	620	9,915 (16.3%)	2,434	50,845 (83.4%)
Mid Suffolk	1,070	9,592 (22.3%)	2,577	33,371 (77.6%)	2	14 (0%)
St Edmundsbury	589	7,271 (14.8%)	2,510	41,757 (85.2%)	0	0 (0%)
Suffolk Coastal	969	8,095 (13.4%)	3,672	44,521 (73.5%)	366	7,978 (13.2%)
Waveney	763	12,185 (21.3%)	2,645	45,107 (78.7%)	0	0 (0%)
Suffolk Total	4,673	51,522 (15.2%)	15,085	220,385 (64.8%)	3,173	68,086 (20.0%)

Table 2 shows the number of Basic Broadband Black/Grey/White postcodes and premises mapped in Figure 2 by Districts/Boroughs in Suffolk..

Table 2: Next Generation Broadband Black/Grey/White Postcodes/Premises by District/Borough in Suffolk

Next Generation Broadband BGW by District/Borough	White Postcodes	White Premises	Grey Postcodes	Grey Premises	Black Postcodes	Black Premises
Babergh	3,029	38,583 (95.6%)	66	1,768 (4.4%)	0	0
Forest Heath	1,287	21,048 (73.1%)	314	7,765 (26.9%)	0	0
Ipswich	608	9,292 (15.2%)	2,464	51,646 (84.8%)	0	0
Mid Suffolk	3,647	42,963 (100%)	2	14 (0%)	0	0
St Edmundsbury	3,099	49,028 (100%)	0	0 (0%)	0	0
Suffolk Coastal	4,584	51,540 (85.3%)	423	9,054 (14.7%)	0	0
Waveney	3,407	57,289 (100%)	1	3 (0%)	0	0
Suffolk Total	19,661	269,743 (79.4%)	3,270	70,250 (20.6%)	0	0



Note that the numbers of Next Generation Broadband White (NGBB W) premises in Table 1 above are higher than we would actually expect to be the case. We forecast that approximately 66.5% of premises (226,184) premises in Suffolk would be NGBB W, but as we do not yet have granular data on which postcodes and premises are actually served within BT’s planned upgraded exchange areas, we have erred on the side of leaving all postcodes and premises within announced enabled exchange areas as NGBB W pending further information from BT on which postcodes/premises are/will be covered or remain not covered. It follows, that the NGBB Grey areas are mostly accounted for by Virgin Media’s coverage in Suffolk.

Figures 3 and 4 show the further coverage of areas within 10km of the Suffolk County boundary. The additional (to Table 1 and Table 2, respectively) numbers and percentages of premises within this 10km boundary area are shown in Table 3 below. While the Suffolk Local Broadband Plan is intended to address broadband coverage within the Suffolk county boundaries, these additional maps and data are shown to ensure that, in co-operation with neighbouring counties, no premises are omitted from local broadband plans, and that we can agree with neighbouring counties the optimum solution for tackling areas of coverage that span county boundaries.

Table 3: Additional Next Generation and Basic Broadband Premises in 10km boundary area beyond Suffolk

Number of Premises in 10km boundary area	White	Grey	Black	Totals
Next Generation Broadband	164,584	82,335	0	246,919
Basic Broadband	27,720	144,500	74,699	246,919
Percentage of Premises in 10km boundary area	White	Grey	Black	Totals
Next Generation Broadband	66.7%	33.3%	0.0%	100%
Basic Broadband	11.2%	58.5%	30.3%	100%

Figure 3: Basic Broadband Black/Grey/White Classification (including 10km boundary area)

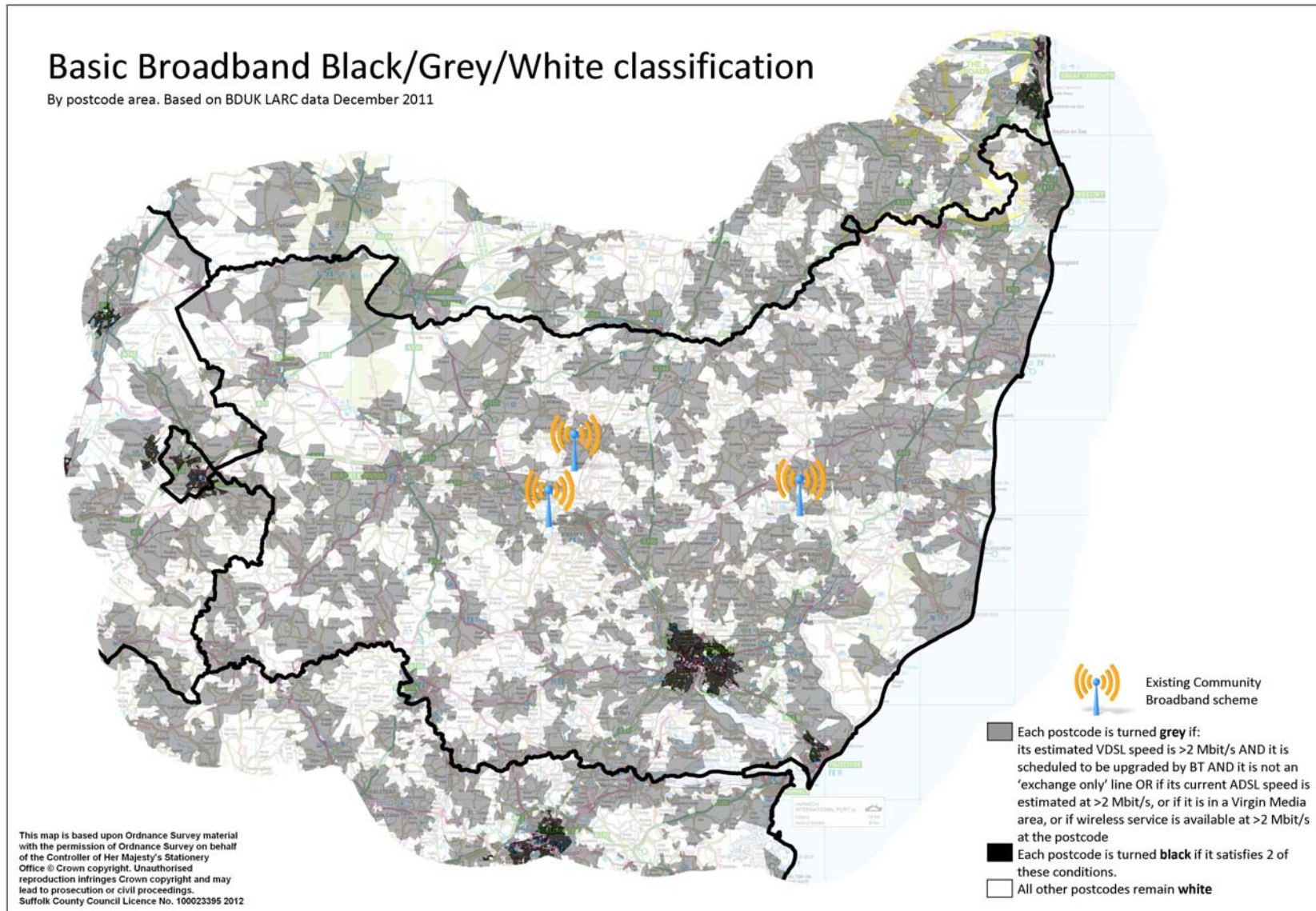
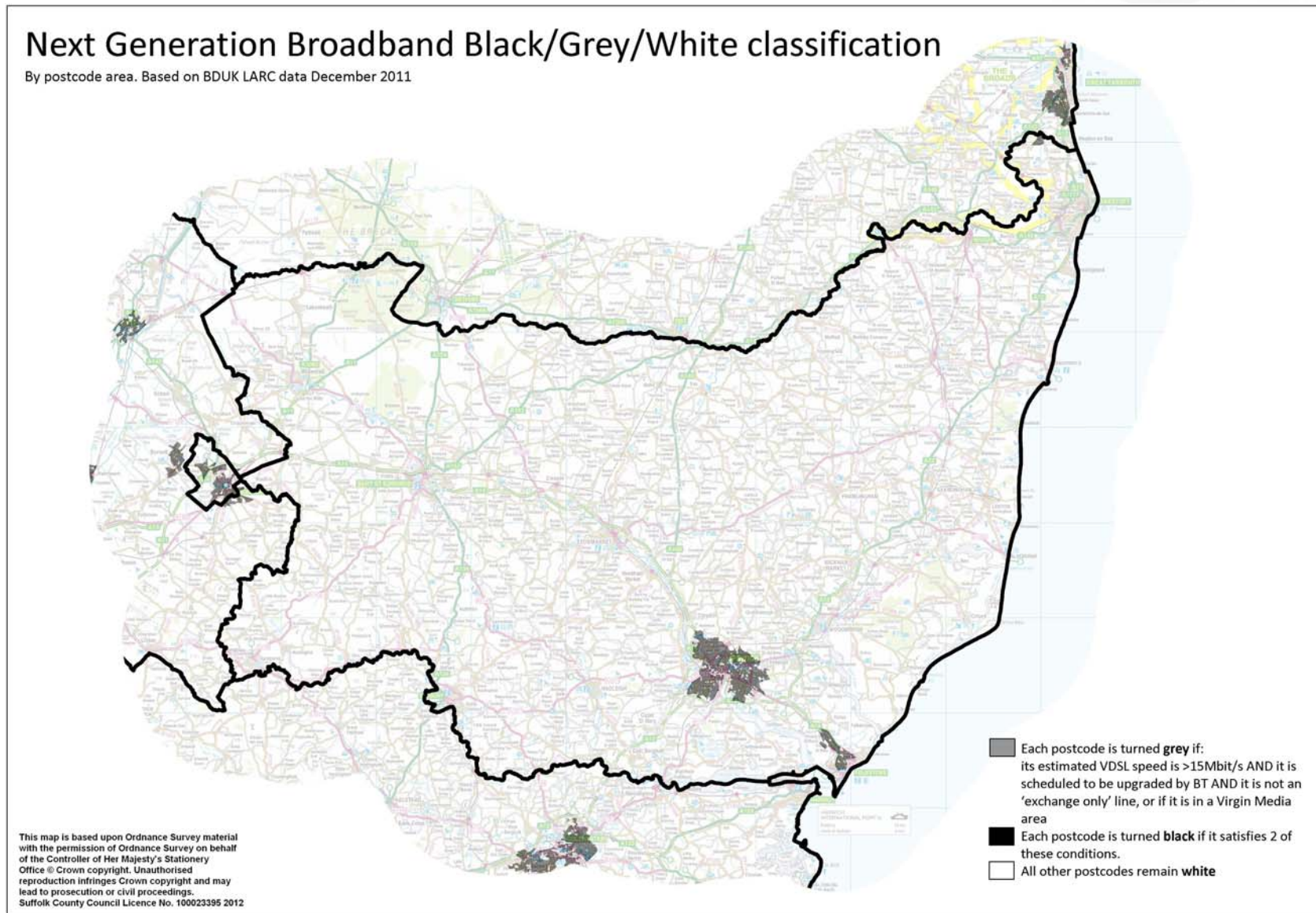


Figure 4: Next Generation Broadband Black/Grey/White classification (including 10km boundary area)





7. Suffolk Local Requirements & Priorities

The Suffolk Local Broadband Plan aims to bring 'Better Broadband' to the whole of Suffolk by using public funding to leverage further private sector investment to extend the coverage of Superfast Broadband beyond the coverage that will otherwise be achieved under operators' own commercial deployment plans.

The total public sector capital contribution (from UK Government and Suffolk's local authorities) is around £23.5m³⁷, which we hope to use to leverage a total investment of around £47m.

The Plan aims to extend Superfast Broadband coverage beyond commercial operators' own plans (around 33%) to meet the UK wide target of 90% of Superfast Broadband, with the remaining 10% getting a universal service commitment of at least 2Mbps. While Suffolk would like to see as wide a coverage of Superfast Broadband (greater than 24Mbps) as possible, a priority for Suffolk is for an early uplift for those premises currently worst affected by not-spots and slow-spots (ie the circa 60,000 premises currently getting less than 2Mbps), within the overall affordability envelope. Wherever possible, we will prioritise the early uplift of broadband speeds for premises currently getting less than 2Mbps, with technology solutions that offer broadband speeds significantly better than 2Mbps and an upgrade path to even better performance in future (in preference to solutions that only just meet the 2Mbps universal service commitment and which have no upgrade path to better performance). We intend to test the market through the Suffolk Local Call-off Contract award process to get the optimum value for money in meeting our requirements.

Some parts of Suffolk will benefit from earlier deployments of Superfast Broadband because of existing network footprints or operators' own commercial deployment plans. The Suffolk Local Broadband Plan aims to extend coverage beyond commercial deployments to the rest of the county. Under the plan, and within the usual constraints of cost effective network planning and deployment, we intend that the uplift to better broadband to the rest of Suffolk will be as uniform as possible (by geography and geo-type) across the county. The aims are to ensure that all areas of the county benefit as equitably as possible from better broadband, and to minimise the risk of the chosen supplier targeting ('cherry picking') the most favourable economic areas to the exclusion of the least favourable economic areas.

Consistent with the UK Government's and Suffolk's policies of ensuring Superfast Broadband for designated Local Enterprise Zone areas (currently the four areas in the Waveney District around Lowestoft), the Suffolk Local Broadband Plan will aim to prioritise the deployment of Superfast Broadband to Local Enterprise Zones (if these areas are not already planned to be covered by operators' own commercial deployment plans).

We do not propose to detail 'place-based' priorities for specific locations in Suffolk prior to award of contract with the chosen supplier, to avoid unfairly favouring one location over another, and because

³⁷ The total public sector capital contribution to the Suffolk Local Broadband Plan includes an indicative level of funding from BDUK of £11.68m (based on BDUK forecast of the number of premises in Suffolk within the intervention area for Superfast Broadband (226,184 premises)).

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the detailed prioritisation within each local area is likely to be better informed and offer better value-for-money if conducted jointly with the chosen supplier post contract award during the detailed solution design stage for each area (pre-Milestone 0, in the language of the BDUK Procurement Framework). We will work with the chosen supplier to design a roll-out plan taking into consideration the requirements as set-out above and other relevant local policy priorities such as:

- supporting the development of the local economy, particularly SMEs;
- supporting our urban centres as drivers of economic growth in Suffolk;
- having the greatest impact on raising educational attainment;
- enabling people to live independently and healthily by accessing the services they need online; and
- reducing travel and CO₂ emissions, reducing costs and improving productivity.



8. State Aid Confirmations

8.1 UK Government/BDUK State Aid Position³⁸

The UK Government has stated³⁹ its confidence that the aid which it proposes be granted to each broadband project will be compatible with the EU State aid rules, including as set out in the Commission's Broadband Guidelines as they currently stand. The UK Government seeks to have the approved aid scheme in place for no later than March 2012.

8.2 Confirmation of compliance with State Aid requirements

This section confirms the compliance of the Suffolk Local Broadband Plan with State Aid requirements, as follows:

- detailed mapping of the target areas (provided in section 7);
- a public consultation of at least one month is being held to test that mapping (this consultation);
- an open tender process will be held to deliver the most economically advantageous offer (the Suffolk Local Call-off Contract award process, under the BDUK Procurement Framework process);
- the tender process and specification will be technology neutral;
- a minimum 7 year effective wholesale access obligation will be imposed on the successful supplier;
- prices for wholesale access to the subsidised network will be subject to a benchmarking mechanism to be included in our contract with the successful supplier;
- a claw-back mechanism (and associated reporting obligations) will be included in our contract with the successful supplier.

Specifically, where the evaluation of bidders' tenders is otherwise tied, we will select the bidder offering to use the least public subsidy, and our evaluation will differentiate bidders' wholesale access products support for competitive provision.

³⁸ BDUK State Aid Notification Paper Jan 2012

³⁹ The Best Superfast Broadband Network in Europe, DCMS, December 2011



9. Invitation to Respond to this Consultation

Stakeholders are invited to respond to this consultation.

In particular, we are addressing a specific consultation question to each of two groups of stakeholders: operators of existing or planned (next 3 years) broadband infrastructure within the county of Suffolk, and local stakeholders in Suffolk, as follows:

Consulting operators

Q1) Operators of existing or planned (next 3 years) broadband infrastructure in Suffolk are invited to confirm or correct our understanding of their deployment plans (to 2015) by post code and/or premises for next generation or basic broadband services (consistent with the European Commission's BGW classification scheme).

The purpose of seeking responses to this consultation question are to ensure that the public funding intervention envisaged in the Suffolk Local Broadband Plan will not duplicate planned private sector investment or distort an otherwise competitive market.

Operators must respond to this consultation by 31st March 2012 if we are to take into account their responses before we issue the Suffolk Local Call-off Contract ITT. While we will have due regard for all consultation responses that we receive from operators by the close of the consultation, the burden of evidence to justify a change in the proposed intervention area will lay with the operators. For the avoidance of doubt, we do not plan to intervene in areas where we are confident of existing or planned coverage within the next 3 years. However, neither do we want to rule 'out of scope' any areas at risk of not being covered by commercial operators' plans within that period. Operator responses to this consultation will be used to refine the proposed intervention area for the Suffolk Local Call-off Contract Invitation to Tender (ITT).

Consulting the people of Suffolk

Q2) Local stakeholders (including businesses, public sector and voluntary groups, communities, and people that live and work in Suffolk) are invited to comment on our Suffolk Local Broadband Plan and on our statement of local requirements and priorities.

This consultation provides a further opportunity for local stakeholders to comment on our plan and our local requirements and priorities. Your views are important to us, and will be taken into account in finalising our plans.

The Suffolk Better Broadband Programme has had a widespread local communications campaign, and has already invited businesses, consumers and communities to complete surveys on existing and desired broadband coverage. If you have not already done so, please also complete the survey via the link in Annex 2.



Responses to this consultation from people in Suffolk must be received by 31st March 2012. Public responses to this consultation will be used to refine the local requirements for the Suffolk Local Call-off Contract Invitation to Tender (ITT).

A summary version of the public consultation for the people of Suffolk is also available, and can be found at: www.suffolk.gov.uk/broadband



Annex 1: Summary of Consultation questions

Consulting operators

Q1) Operators of existing or planned (next 3 years) broadband infrastructure in Suffolk are invited to confirm or correct our understanding of their deployment plans (to 2015) by post code and/or premises for next generation or basic broadband services (consistent with the European Commission's BGW classification scheme).

Consulting the people of Suffolk

Q2) Local stakeholders (including businesses, public sector and voluntary groups, communities, groups, and people that live and work in Suffolk) are invited to comment on our Suffolk Local Broadband Plan and on our statement of local requirements and priorities.



Annex 2: How to respond to this consultation

In order to respond to this consultation, please write to:

Jonathan Chown
Business Development
Suffolk County Council
Endeavour House
Russell Road
Ipswich
IP1 2BX

Alternatively, email your response to broadband@suffolk.gov.uk

Please include your name and address, and clearly mark that you are responding to the Suffolk Better Broadband Programme State Aid Public Consultation. Responses to this consultation must be received no later than close of business (5pm) on 31st March 2012.

If you wish your responses to be treated as 'Confidential' please clearly mark your responses as 'Confidential'. Confidential responses may be taken into account, but will be redacted from any published summary of the consultation responses received.

If you have not already completed our survey of demand for better broadband, please do so at the following link:

www.suffolk.gov.uk/broadband

In conducting this State Aid Public Consultation, we aim to adopt the latest guidance and best practise in the conduct of public consultations. If you have any feedback on the conduct of this public consultation, your views would be welcomed by our Consultation Champion. Please write to:

Julian Brown
Business Development
Suffolk County Council
Endeavour House
Russell Road
Ipswich
IP1 2BX

Alternatively, email your feedback to julian.brown@suffolk.gov.uk

Annex 3: Glossary of terms and abbreviations

3G	The third-generation of mobile technology, currently used to deliver mobile broadband.
4G / LTE	The emerging fourth-generation mobile technology (also known as Long Term Evolution), that will be used to deliver mobile broadband
ADSL or ADSL1	A type of technology (Asynchronous Digital Subscriber Line) used to deliver broadband over copper lines, at speeds up to 8Mbps
ADSL2+	A second generation of ADSL technology used to deliver broadband over copper lines, at speeds up to 24Mbps
Backhaul	Backhaul is the means of conveying data to/from the core network and access network..
Basic Broadband	A broadband service delivering speeds up to 24Mbps
BDUK	Broadband Delivery UK are the body set up by Government to sign-off local broadband plans and handle the bidding process for the £530m available for investment in broadband nationally.
BDUK Framework	The process by which BDUK have selected providers who are capable of delivering solutions for local broadband projects, and are hence eligible to bid for the Suffolk broadband contract.
Call-Off Procurement	A local call-off contract award process that appoints a chosen supplier from pre-qualified suppliers on the BDUK Framework
Commercial Deployments	Deployments of Broadband/Superfast Broadband funded by private sector commercial operators on the basis of a sustainable business case to earn a return on their investment.
Copper Cables	The type of cable (made of copper) that has historically been installed to provide voice telephony, and is being re-used to provide broadband (but does not support speeds as fast as optical fibre).
Digital Divide	A term used to describe the potential divide between those who have access to, and use, digital services, and those that do not have access to, and/or do not use, them, because of availability or socio-economic reasons.
Fixed Wireless Broadband	Broadband that is delivered to a fixed location through a wireless connection, often where it may be uneconomic to provide a wired connection.
FTTC	Fibre-to-the-Cabinet, where a optical fibre cable is taken from the exchange to the street cabinet, using the remaining copper line from the cabinet to the premises.
FTTP	Fibre to the premises, where an optical fibre cable is taken all the way to the premise.
ITT	The invitation issued for providers to tender (bid) for a contract, in this case to deploy broadband in Suffolk.
LA	Local Authority or Council.
LLU / Unbundled Exchange	The regulatory process of allowing multiple telecommunications operators to use ('unbundle') connections from the exchange to customers' premises (the 'local loop').
Local Broadband Plan	A Local Broadband Plan sets-out the plan for broadband in a local project area. An approved Local Broadband Plan is a requirement of the BDUK process.
Mobile Broadband	Broadband that is delivered over mobile networks to mobile devices.
Mbps	Megabits per second – a measure of broadband speed.
Ofcom	The regulator for the UK's communications sector.
Optical Fibre	The type of cable that transmits data as optical light (rather than as an electrical signal as with copper cables), which supports much higher speeds and capacity.
Prime Contractor	The Suffolk contract may be awarded to a prime contractor, the one supplier who will be responsible for delivering the solution for Suffolk
PSN	Public Service Network, a national initiative to develop networks for the public sector, using common standards to ensure interoperability..
Satellite Broadband	Broadband delivered via a satellite to an antenna at the customer's premise. Most commonly used in remote locations where wired or wireless services are not available.
State Aid Approval	EU State Aid rules prevent the use of public funding duplicating existing or planned commercial deployments of broadband, to avoid the risk of public subsidy distorting an otherwise competitive market. This consultation is part of the process required to ensure compatibility of the Suffolk Local Broadband Plan with EU State Aid rules.



Subcontractor	Any prime contractor may wish to subcontract areas of their work, for example, their marketing, support or civil engineering work.
Suffolk Better Broadband Programme Board	The Governance Board for the Suffolk Better Broadband Programme and the Suffolk Local Broadband Plan, which has delegated authority for the programme/plan from Suffolk County Council, and is made-up of representatives of local stakeholders groups.
Superfast Broadband	A broadband service delivering speeds over 24Mbps.

