

SUPERFAST BROADBAND UPDATE PAPER

1.0 Purpose

- 1.1 To provide Scrutiny members with an update of progress on the county's programme of broadband activity. This centres on the Bucks-Herts Broadband Project and the direct investment of public and private sector funding to deliver enhanced connectivity to communities and businesses who currently sit outside of the commercial rollout of superfast broadband.

Alongside this, the county, via Bucks Business First and respective Local Enterprise Partnerships, is exploring other opportunities to maximise access to next generation broadband.

Recommendation

That Scrutiny Committee is asked to:

- To review the paper and consider the requirement for both additional information and/or more detailed updates as the programme gets rolled out
- Members are encouraged to support the programme of broadband activity as it deems appropriate, with a view that this will stimulate further commercial investment, accelerate processes associated with deployment (such as planning etc), improve local intelligence and liaison with communities and ensure strong take-up of available services.

2. Summary

- 2.1 Improving broadband connectivity across Buckinghamshire has been a strategic objective for a considerable period of time, driven through Central Government policy, implemented by Local Authorities and economic development bodies, such as Buckinghamshire Business First (BBF) and Local Enterprise Partnerships (LEPs). This is emphasised by the increased need for online access as a key utility, matching the demand for increased bandwidth and speed as required by applications and end-users alike. The benefits associated with superfast broadband¹ investment have been explored in significant detail, as outlined within a multitude of research and reports. These emphasise the following:

- Is integral to the county's economic growth in an increasingly globalised marketplace
- Is a driver of business competitiveness and a key attractor for inward investment
- Has demonstrable impacts on job creation, stimulating entrepreneurship and innovation

¹ Superfast broadband is defined by the European Union as achieving download speeds of 30 Mbps or greater. The UK Government, in some instances, recognises superfast broadband as achieving download speeds of 24 Mbps or more.

- Accelerates shift changes in relation to flexible working and the adoption of sustainable travel and work practices
 - Is a facilitator of increasingly streamlined and efficient public sector service delivery
 - Is a tangible contributor to social equity, including online access to essential services
- 2.2 Early efforts to improve broadband provision across the county focused on the development of a robust evidence base, data analysis, the establishment of a regular dialogue with suppliers and the seed funding of small-scale community trial Projects. This yielded good progress, particularly in relation to understanding the impact of commercial rollout plans, assessing technological developments and delivering small-scale solutions.
- 2.3 In response to the national challenge and in recognition of the need for economic growth within a period of significant recession, the existing Government developed a digital strategy, emphasising the need for public sector support to accelerate the rollout of superfast broadband. Broadband Delivery UK (BDUK), as subsidiary of the Department for Culture Media and Sport, was established to administer £530m of funding, as well as being the custodian of the Framework procurement process. Alongside this, the Government subsequently launched parallel schemes aimed at stimulating investment in the UK's core cities, as well as in the most rural and disadvantaged communities; the Super Connected City and Rural Community Broadband Schemes², respectively.
- 2.4 Following a lengthy due diligence process and securing mandatory local match funding, Buckinghamshire was successful in gaining approval for its Local Broadband Plan in February 2012, outlining proposals for public and private sector investment in superfast broadband. Aligned to Government targets, this proposes the extension of superfast connectivity to at least 90% of the county's premises (residential and business) by 2015; the remainder to be delivered a universal service commitment of at least 2 Mbps (download).
- 2.5 The Project represents a collaborative investment between Buckinghamshire and Hertfordshire Local Authorities and LEPs. It is proposed that this will enhance the outcomes of the Project, increasing commercial attractiveness and value for money. Constituent partners have been working closely on all aspects of Project delivery and this will be reflected in the contractual agreement with the preferred supplier.
- 2.6 The Project is utilising the BDUK Framework to acquire wholesale accessible broadband infrastructure, utilising a gap funding (subsidy) model. As such, the Project will be engaging with pre-approved suppliers who will bid via a designated call-off process, which is quicker and more cost effective than other forms of procurement. The process is strictly governed via EU State Aid regulations, ensuring customer choice, whilst also minimising the likelihood of anti-competitive investment and market distortion. The Project has secured an advanced position on the national pipeline, placing it ahead of over 30 similar county-based Projects.
- 2.7 In parallel, the county has expanded its strategic broadband activity to incorporate a number of additional work streams including the exploration of supplier propositions, the use of other fibre assets, stimulating existing take-up and demand for next generation services and exploring the options for emerging commercial and residential

² Bucks does not contain towns which are eligible for Super Connected Cities Funding. The Rural Community Broadband Fund requires communities to meet strict criteria, including a commitment to 50% funding. The scheme has had a lukewarm response supporting small number of projects across the UK. Interest in Bucks was minimal given the eligibility criteria. Round 3 funding availability has not yet been confirmed.

developments. In addition, the county has been active in influencing Government strategy and policy, as well as assessing the impact of 4G technologies.

3. Progress to date

- 3.1 The Project has made significant progress over the past twelve months, with a plethora of critical activity initiated to ensure due diligence, Government and State Aid compliance, alongside the capture of commercial data, enabling a definitive view of broadband connectivity across the county at a postcode level. In parallel, the Project continues to undertake a substantial outreach and communication exercise, under the guise of 'Connected Counties' branding. This has a particular focus on communicating Project progress, capturing public demand and providing additional insight into broadband service availability (www.superfastforbucks.org).
- 3.2 More recent critical outcomes and achievements are identified below, with an emphasis on procurement preparation:
- Sept – Oct '12 – Open Market Review process completed, full capture of commercial data and investment plans, subsequently analysed and mapped
 - Oct '12 – Jan '13 – Development of draft Invitation to Tender (ITT), contract, evaluation & Value for Money strategies
 - Nov – Dec '12 – State Aid Consultation completed, statutory one month period, consolidated data cleansed and re-mapped
 - Dec '12 – Jan '13 – Intervention area clarified, detailed data breakdown, maps generated, State Aid application completed
 - Dec '12 – Jan '13 – Supplier engagement underway, tender approach considered
 - Jan 29th '13 – ITT issued to Broadband suppliers (see separate timetable), 12 week response deadline
 - February – March '13 – Supplier clarification sessions, State Aid part 2 development, contract mobilisation preparation
 - On-going demand stimulation activity - 10,228 registrations, community liaison and enquiries
 - Tailored information provided to communities, parishes and Local Area Fora
- 3.3 In addition, there has been a variety of complimentary work undertaken, supporting broadband take-up, dealing with technical enquiries as well as keeping abreast of additional exchange and cabinet 'infill' announcements.

4. The funding position

- 4.1 The Bucks-Herts Broadband Project is a combination of public and private sector capital funding. The breakdown of this is detailed below. Please note that the private sector contribution will be fully defined upon the submission supplier tenders.

Bucks:

Bucks CC	£2m
Bucks TV LEP	£1.7m
BDUK	£2.82m
Supplier	TBC as part of bid

Herts:

Herts CC	£1.11m
Herts LEP	£500k
BDUK	£1.33m
Supplier	TBC as part of bid

- 4.2 In February, the Project was awarded an additional £1.08m of BDUK funding - £860k Bucks, £220k Herts. This followed the submission of a business case which outlined the scale of the Project intervention area as defined by consolidated market data,

when compared with the methodology used for the initial BDUK allocation. This is a significant achievement for the Project, enabling greater investment; there are few precedents of such a substantial increase in Government funding.

- 4.3 Revenue funding is also being provided the Local Authorities and BBF for the Project management components of the Project. Supplier input will encapsulate Project management and network operation costs.

5. Background - current picture in Aylesbury Vale

- 5.1 Existing broadband connectivity is a mixed bag – the majority of coverage is average to poor, inclusive of some wireless provision and also 'not-spots', where speeds will be low. See the attached maps for a visual representation of this in **Appendix C1**.
- 5.2 Superfast broadband penetration based on market intervention (by 2014) will extend to circa 48% premises. This is focused on exchanges in Aylesbury, Wendover and Buckingham, where fibre broadband has been enabled and is extended to neighbouring cabinets. There is also some overlapping coverage from neighbouring exchanges such as Leighton Buzzard and Stony Stratford. This is primarily predicated on BT Openreach Fibre to the Cabinet technology, capable of download speeds up to 80 Mbps (predominantly fibre, using existing copper for the localised connection to the home/business). Despite the presence of an enabled exchange, some cabinets/areas may not be covered initially, due to commercial variables.
- 5.3 Virgin Media (fibre/coaxial) network extensiveness is limited primarily to Aylesbury Town – 24,000 premises able to access 100 Mbps services. Virgin Media have no plans to extend their own network coverage, rather continue to improve the existing footprint over time; this is not wholesale accessible. Virgin Media also sell ISP services via the BT Openreach infrastructure, available across the District but not achieving superfast speeds.
- 5.4 The Cheddington exchange was announced by BT in February – not reflected in market data capture, thus this will remove some of the 'challenge' from the Project. This will see fibre broadband available to the village and outlying areas, such as the Cheddington, Pitstone and Wingrave wards. BT Openreach has suggested this should be 'live' by Spring 2014. The precise coverage and phased timetable is not yet known and will become clearer in due course. As a benchmark, one can expect circa 75% of premises to be covered initially.
- 5.5 Some exchanges have been upgraded to ADSL2+ – this can achieve speeds of up to 20Mbps using existing copper infrastructure, but is susceptible to limitations of distance and degradation of performance. Some examples of such in rural areas are exchanges are Brill, Wing and Steeple Claydon. A full breakdown of BT Openreach investment can be seen in the **Appendix C2**.
- 5.6 Village Networks supplies wireless broadband services across Bucks, including considerable parts of the Vale, with the ability to serve over 3,000 premises. This emphasises the use of point-to-point wireless technologies, enabling end-users to access broadband via the installation of mounted premises equipment. The service can currently achieve download speeds of up to 10 Mbps (download) and this can be adjusted to flexibly match user needs. The East of Vale installation, which was supported by Aylesbury Vale Advantage funding, centred on Wingbury Courtyard Business Village, has now passed its 100th subscriber, serving a variety of surrounding

communities such as Mentmore and Aston Abbots. The Bucks-Herts Project is aiming to add value to the development of Village Networks, given their ability to provide enhanced services utilising fibre-based infrastructure.

6. Implications for the District

6.1 Aylesbury Vale comprises the largest component of the intervention area, indicative of the greatest degree of market failure. As a result, the District stands to be a significant benefactor of the Bucks-Herts investment. A breakdown of Project scope is detailed below:

- Total intervention premises (Bucks & Herts) – 118,113, 17% (713,238 total premises)
- Superfast 'white' premises in Bucks – 61,564 (no ≥30Mbps broadband available), 28% of total premises in Bucks (220,234), suggests 72% commercial coverage by 2014
- Basic 'white' premises in Bucks – 7,403 (<2Mbps and not spots), 3% of total premises in Bucks, 12% of total intervention area
- Bucks-Herts split – 52% of 'white' premises in Bucks
- District breakdown:

Aylesbury Vale DC – 36,699 premises (60% of Bucks total), 3,265 <2Mbps
 Chiltern DC – 5,554 premises (9% of Bucks total)
 South Bucks DC – 5,512 premises (9% of Bucks total)
 Wycombe DC – 13,707 premises (22% of Bucks total)

6.2 The table below lists the exchanges in Aylesbury Vale which will be targeted for intervention as part of the Bucks-Herts Broadband Project. Please note that this includes areas/cabinets that are attached to a superfast enabled exchange (such as Aylesbury), but have not been upgraded as part of the commercial rollout programme. It also includes some exchanges located in neighbouring counties, which serve small numbers of premises within the Vale.

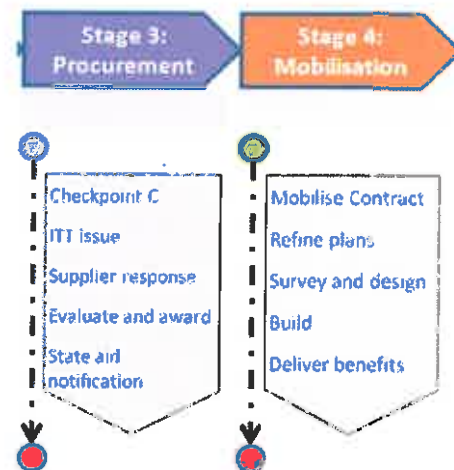
Aldbury Common	Finmere	Milton Keynes	Stony Stratford
Aston Clinton	Great Brickhill	Mursley	Stratton Audley
Aylesbury	Great Missenden	North Marston	Syresham
Brackley	Grendon Underwood	Princes Risborough	Tring
Bradwell Abbey	Haddenham	Shenley Church End	Waddesdon
Brill	Heath And Reach	Soulbury	Wendover
Buckingham	Ickford	Steeple Claydon	Whitchurch
Cheddington	Lillingstone Dayrell	Stewkley	Wing
Cholesbury	Little Gaddesden	Stoke Mandeville	Winslow
Eaton Bray	Long Crendon	Stone	Woburn Sands

7. Next steps/timetable

7.1 The Bucks-Herts Project is now in the midst of the procurement phase, which began upon the launch of the ITT at the end of January 2013. This process will culminate in the award of a contract to the preferred supplier. Within this, there is considerable amount of activity that will take place, including bid evaluation, State Aid compliance, contractual and grant agreement arrangements and financial due diligence.

7.2 The anticipated timetable is detailed below:

ITT release	Jan-13
Bids received	Apr-13
Bids evaluated	Apr-13
Funding and State Aid approvals	May-13
Contract award	May-13
Detailed surveys	Summer-13
First phase implementation	Autumn/Winter-13



7.3 Tender responses will present bidders' detailed approaches to the Project, incorporating technical, financial, logistical and administrative information. Critically, this will provide a clear insight into the private sector funding contribution, the mix of technologies employed (with an emphasis on fibre, which has long-term future proof capabilities) and the geographical areas that are targeted for investment.

7.4 Once the bids and have been evaluated and a contract awarded to the preferred supplier, there will be an opportunity to fully assess the implications for individual Districts and communities at a local level. This will emphasise the technologies employed and the expected achievable speeds, as well as outlining the timetable for delivery; these are the outcomes of most interest to residents and businesses alike.

7.5 It is therefore expected that this information, specific to localities, will be made available for wider interest during the Summer/Autumn '13. This will align with the surveying phase, which is a detailed assessment looking at the feasibility of infrastructure deployment and any associated commercial/engineering challenges.

7.6 It is expected that the Project will be phased in multiple geographies; an understanding of this will emerge through the process described above. There will therefore be a significant focus on communications to ensure that communities are kept abreast of progress and the impact of the investment. In addition, upon contract award, the supplier will be directly integrated into an operational Project governance structure, enabling a collaborative approach to delivery. It is anticipated that this relationship will empower a more dynamic relationship with partners such as the planning and

highways authorities, as well as the potential to explore innovative deployment and the use of Local Authority assets.

7.7 Alongside the delivery of the Bucks-Herts Project, wider strategic broadband activity will continue apace. This includes:

- Monitoring progress of on-going commercial roll-out, assisting with demand stimulation, awareness raising activities. This includes the launch of new products such as Fibre on Demand; delivering fibre direct to the premise from the nearest enabled cabinet.
- Digital Business First campaign – spearheading efforts to ensure the Government places sufficient policy and investment focus on digital infrastructure as the key driver of transformational change and economic growth. This is being launched to a national audience with high level support from key industry stakeholders including the European Internet Foundation and Digital Policy Alliance. Both AVDC and SEMLEP are involved – see Mark Wathen for more information (<http://www.digitalbusinessfirst.com>).
- Keeping abreast of the implications of 4G rollout and the Government's Mobile Infrastructure Project.
- Exploring the potential for the utilisation of other fibre assets which could serve business park locations in particular – the Highways Authority fibre infrastructure for instance.

8. Community ambitions

8.1 The Bucks-Herts Project is seeking to maximise the impact of the capital funding available, with a view that superfast speed and coverage is maximised, where possible. We have been working with a good number of communities across the county, who have a well-developed understanding of local broadband provision and have explored the possibility of supporting an investment in a localised solution. In many instances, the Project will enable access to enhanced broadband, without the need for a localised investment or the development of parallel network infrastructure.

8.2 In some localities, the ambition for broadband performance may exceed the outcomes as delivered via the Bucks-Herts Project. In this instance, there is an opportunity for the presence of new infrastructure (fibre) to support the utilisation of technologies, such as wireless and 4G. Equally, the contract and implementation plan provides an opportunity to fully explore capacity, resources and added value as offered by a local community. In these instances, the presence of private land access, wayleave rate reduction and alternative enabling infrastructure may provide opportunities to maximise the extensiveness of superfast broadband. There is also a process of change control that could accommodate additional local funding to secure enhanced outcomes, should this be appropriate.

8.3 The emphasis of the above will be on improving the commercial viability of fibre deployment in these localities. Such a dialogue with relevant communities will be initiated once the nature of the intended rollout programme is fully understood. This will align with the Project's willingness to consider innovative approaches to delivery, including the Government's proposals which comprise overhead line installation and reduced planning burdens.

9. Resource implications

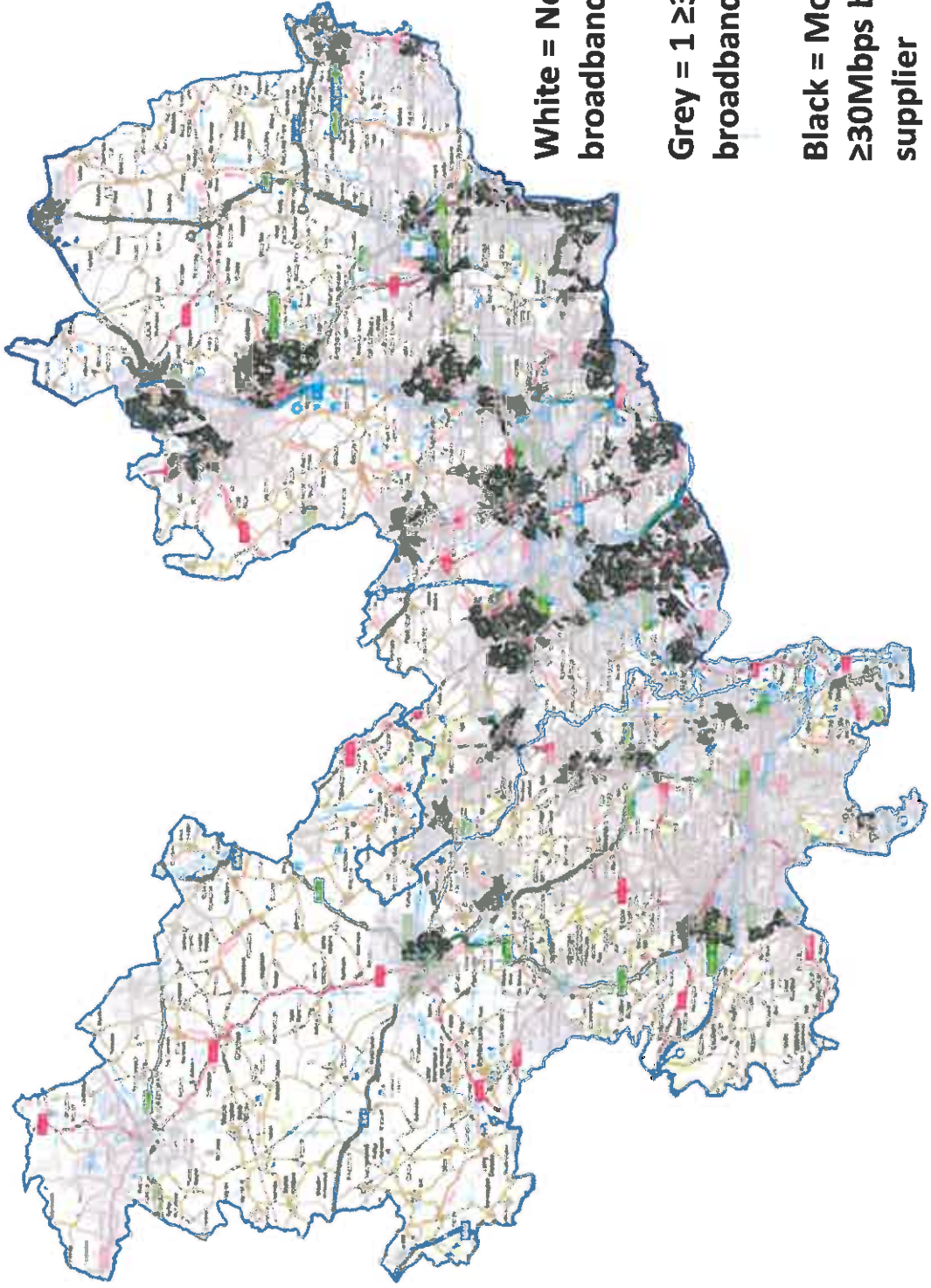
There are no issues for AVDC

10. Response to Key Aims and Objectives

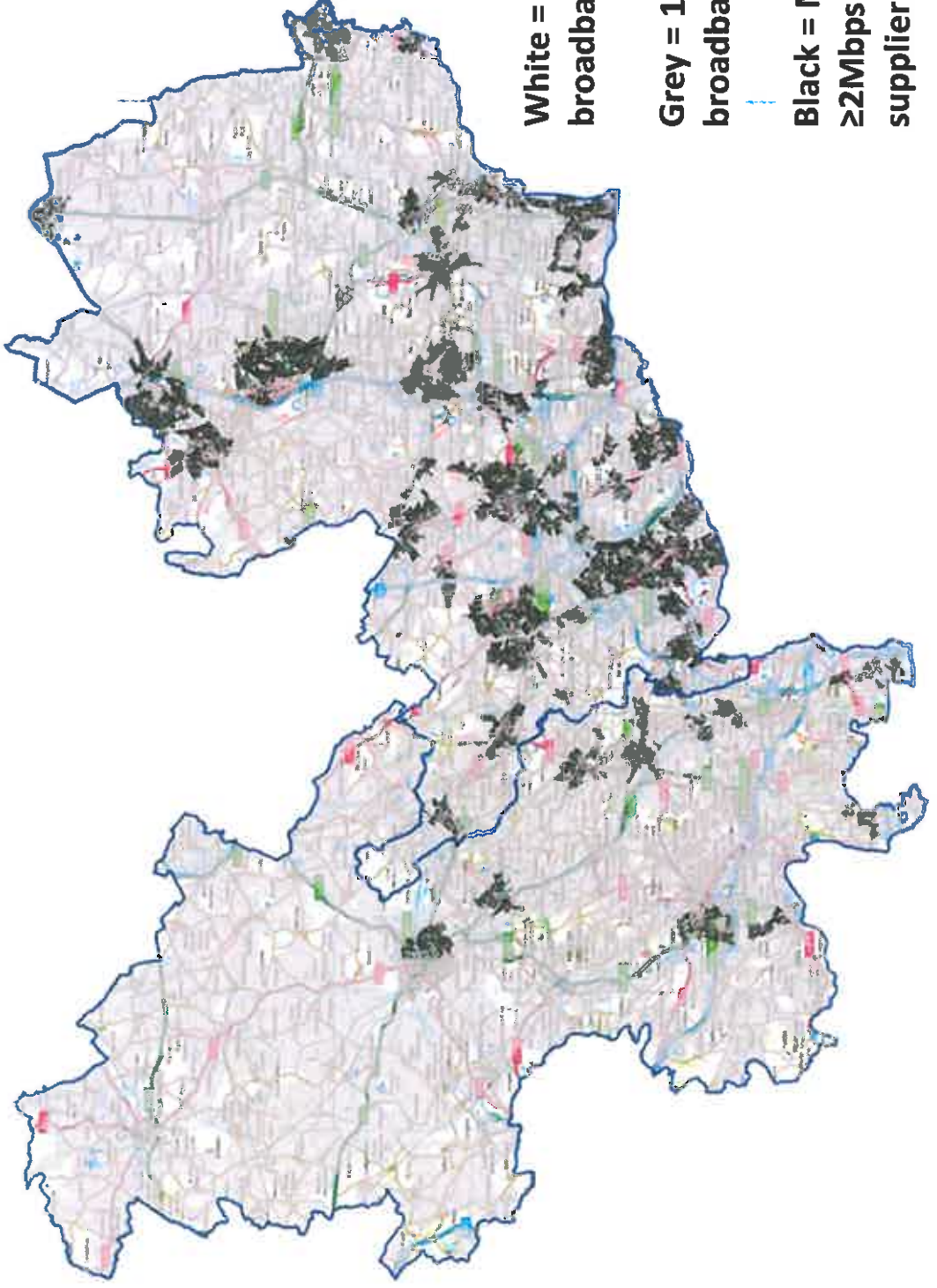
Economic Development functions of the council contribute to the corporate plan objectives of Growing the Economy of the Vale and Deliver Efficient and Economic Services.

For more information, please contact Mark Wathen on 01296 585064 and Chris Rawson, Bucks Business First Broadband Manager: chris@bbf.uk.com 01494 568942

Intervention maps – NGA broadband



Intervention maps – Basic broadband



Broadband BT Openreach investment update

Investment to date (Exchanges)

Superfast (speeds up to 80mbps):

- September 2011 – Amersham, Chesham
- December 2011 – Aylesbury, Beaconsfield, Holmer Green, High Wycombe, Penn, Bourne End, Burnham, Gerrards Cross, Marlow (plus neighbouring exchanges which serve some Bucks premises), Iver
- March 2012 – Buckingham, Great Missenden, Wendover, Farnham Common
- September 2012 – Princes Risborough, 2013 Chalfont St Giles, 2014 Cheddington

WBC/ADSL2+ (speeds up to 20mbps):

- Live – Denham, Amersham, Aylesbury, Beaconsfield, Buckingham, Chalfont St Giles, Cheddington, Chesham, Great Missenden, Holmer Green, High Wycombe, Princes Risborough, Wendover, Bourne End, Burnham, Gerrards Cross, Marlow (plus neighbouring exchanges which serve some Bucks premises)
- Planned – Aston Clinton, Brill, Little Chalfont, Lane End, Stone, Stoke Mandeville, Winslow, Farnham Common, Haddenham, Steeple Claydon, Iver, Wing

Ethernet (direct to premises, fibre enabled)

- Live – Amersham, Aylesbury, Beaconsfield, Buckingham, Chesham, High Wycombe, Bourne End, Burnham, Gerrards Cross, Marlow (plus neighbouring exchanges which serve some Bucks premises) – continuing to expand

Projected Bucks/Herts superfast footprint (2014)

- Combined Bucks-Herts total – circa 83%, Bucks 72%

Latest Ofcom data for Bucks

- Superfast broadband availability – 50%
- Broadband take up – 78%

Forthcoming activity

- Additional 'infill' announcements – additional cabinets able to access superfast services from a 'live' exchange (expected Spring onwards)
- Assessment of large commercial/residential development sites for potential fibre investment, acting as the catalyst for serving surrounding areas
- Educational and stakeholder activity aimed at improving take-up and demonstrating importance of high speed connectivity