

REPORT TO:	Employment Business and Investment Scrutiny Committee
REPORT NO:	HHE/31/18s
DATE:	4 July 2018
LEAD MEMBER:	Councillor Mark Pritchard (Lead Member for Organisation – Finance, Performance, Health & Safety and Governance)
CONTACT OFFICER:	Stephen Bayley (Tel: 315621)
SUBJECT:	North Wales Digital Connectivity Strategy
WARD:	All

1. PURPOSE OF THE REPORT

The purpose of this report is to present the North Wales Digital Connectivity Strategy which was considered by the Shadow North Wales Growth Board on 16 March 2018; to inform Members of the next steps which include work on the detailed action plan and the development of a bid to the UK Government's Local Full Fibre Network Fund; and to set out how proposals could benefit Wrexham County Borough.

2. EXECUTIVE SUMMARY

- 2.1 The North Wales Digital Connectivity Strategy (see background papers) sets out in detail how the aspirations contained in the North Wales Growth Vision for enhanced digital connectivity for North Wales can be achieved. The Growth Vision was approved by the Council in October 2016 (see background papers for reference). The North Wales Digital Connectivity Strategy describes why improved digital connectivity is fundamental to support both economic growth and to enable the dispersed communities of North Wales to benefit from the connectivity already enjoyed by many parts of the UK already.
- 2.2 The North Wales Digital Connectivity Strategy provides the context for future funding bids, which may include the UK Government's Local Full Fibre Network Fund (LFFN) and the North Wales Growth Bid to both the UK Government and Welsh Government. For the Member Workshop on 3 July 2018, Members will receive a copy of the Proposition Document for the North Wales Growth Bid. This document has been prepared by the North Wales Economic Ambition Board and sets out the rationale for investment, vision, aims and strategic programmes/projects. This document will eventually need to be agreed by the Executive Board prior to submission to UK and Welsh Governments in September/October 2018.

- 2.3 The North Wales Digital Connectivity Strategy addresses the common issues which impact negatively on current broadband and mobile connectivity within the region and it identifies the key interventions that will help to deliver significant improvements in digital connectivity across the whole of North Wales. The North Wales Digital Connectivity Strategy is supplemented by six individual local strategies (based on each of the local authority administrative boundaries) which identify specific issues and potential interventions at a local level and those which also feed into the regional strategy. A copy of the Wrexham Local Digital Connectivity Strategy is attached at Appendix 1 for reference.
- 2.4 The focus of the report is on the strategic opportunities for improvements in digital connectivity and not on the specific details of the delivery action plan, which is still a work in progress. Neither does it deal with the implementation issues (such as ground works) which can cause issues during construction – these will both be dealt with in a separate report at a later date when the details of the action plan are clear. The purpose of this report is to provide Members with a broader understanding of the issues and the opportunities to secure funding from UK and Welsh Governments to improve digital connectivity.

3. RECOMMENDATION

That Members of the Committee formulate their conclusions and recommendations based on the information in the report and the discussion at the meeting.

REASONS FOR RECOMMENDATIONS

For the Committee to develop a broader understanding of the digital connectivity requirements for North Wales and the opportunities for Wrexham.

4. BACKGROUND INFORMATION

- 4.1 The North Wales Digital Connectivity Strategy (and the local Wrexham strategy) was commissioned by Denbighshire County Council on behalf of the six North Wales local authorities and the North Wales and Mersey Dee Business Council from consultants GreySky. The work was managed by a project group with representatives from each of the partners (including officers from this Council) and it has also involved direct one to one interviews with a number of key businesses located across North Wales.
- 4.2 The key aims of the digital connectivity have been discussed with Welsh Government officials, in order to ensure that they add value to the Welsh Government's programme to rollout improved superfast broadband and mobile connectivity across Wales and specifically, to ensure that they enhance the opportunities for North Wales.
- 4.3 There is significant evidence to support the need for intervention in order to improve digital connectivity. Some of the key facts include:
- demand for high speed broadband and mobile connectivity in North Wales has kept pace with supply. However, the infrastructure in the region has historically lagged behind the rest of the UK in terms of coverage and capacity. With the

emergence of commercially available fibreoptic technology towards the end of the 20th century, the widening of the 'digital divide' now has the potential to increase exponentially where the difference in affordable bandwidth can now be typically 100s of Megabits per second compared to other regions (for example. 4.9% premises in Denbighshire with availability of ultrafast at >100Mbps compared to 49% in North West England)¹ (<https://labs.thinkbroadband.com>. April 2018);

- the current options for businesses in North Wales are predominantly limited to superfast connectivity (suitable for simultaneous use by a few users with moderate data demand) or leased line contracts (which offer resilient and fast broadband supporting multiple users but are very expensive to sustain and generally only adopted by medium to large businesses employing relatively large workforces);
- there is therefore a significant gap in provision of affordable high-speed broadband available to growing SMEs. This gap can often be ably filled by full fibre broadband costing less than £100 per month compared to several hundred pounds per month, plus high initial installation charges for traditional leased lines;
- businesses consulted in the region have cited improved digital connectivity as the single most important aspect of the Growth Vision for the North Wales economy;
- in the UK between 2010-2016 the number of businesses employing 50-249 employees *needing* 100Mbps (ultrafast) or more increased from 9.7% to 27.1%, with similar increases in the other employment bands 10-49 (3.4-10.4%), 250-1,000 (23.1-62.2%)² The Benefits of Ultrafast Broadband Deployment (2018) by WIK Consult GmbH for Ofcom
https://www.ofcom.org.uk/data/assets/pdf_file/0016/111481/WIK-Consult-report-The-Benefits-of-Ultrafast-Broadband-Deployment.pdf;
- in the same period, the number of businesses employing 50-249 employees needing 30Mbps (superfast) *or less* fell from 78.1% to 34.8%;
- Welsh Government's 2017 Open Market Review of superfast broadband availability and subsequent update in preparing tender documentation for the *Next Generation Broadband in Wales* programme has identified around 24,000 premises in the region unable to get superfast broadband and for which there are no commercial plans within the next three years (it is estimated that there 4,500 of these premises are in Wrexham County Borough). It is estimated that a further 24,000+ properties are included in commercial plans but are at risk of not being addressed;
- with the exception of Virgin Media in Wrexham, no other network operator providing broadband to residential and business customers has a significant presence in North Wales, other than BT Plc via Openreach Ltd. This contrasts with the UK and particularly English regions, where the market has been rapidly populated with new entrants in the last decade providing competitively priced ultrafast broadband;

- Gwynedd, Denbighshire, Isle of Anglesey and Conwy rank in the bottom 25% of UK local authority areas for superfast (>30Mbps) broadband coverage (March 2018);
- Conwy, Denbighshire, Wrexham and Flintshire rank in the **bottom 25%** of UK local authority areas for ultrafast (>100Mbps) broadband coverage (March 2018);
- while ‘superfast’ coverage is relatively poor (by UK rates) in Gwynedd and Isle of Anglesey, these counties have some of the highest coverages of ‘ultrafast’ broadband – representing a widening ‘digital divide’ in broadband speeds. In other words, a large proportion of premises have access only to relatively poor broadband but those who can access *the best* broadband are in a group relatively larger than elsewhere in the UK (but still small nevertheless);
- this is explained to some extent by the concentration of premises in a few urbanised areas of these counties, e.g. Bangor, Caernarfon, Holyhead;
- in contrast, the more urban counties in the east of the region (Flintshire and Wrexham) have more homogenous broadband coverage, with overall much higher rates of superfast broadband and a low (but steadily rising) level of ultrafast broadband;
- Members of the Independent Networks Cooperative Association have indicated that the commercial case for investing in new infrastructure in North Wales to serve communities is not yet sufficient;
- elsewhere in the UK competition in this market has seen a surge in the last decade, initially in urban areas (e.g. CityFibre, Vodafone, Hyperoptic, TalkTalk) but more lately in rural communities of England (e.g. Gigaclear);
- this expansion almost exclusively involves deployment of full fibre networks (or hybrid fibre coax in the case of Virgin Media); and
- mobile network operators have similarly explained that their commercial deployment is constrained by population density and significant cost of establishing new infrastructure in hard to reach areas, which also involves extensive expansion of fibreoptic networks.

4.4 The Digital Connectivity Strategy responds to this evidence by taking into account the different economic sectors and the different geography of North Wales. It identifies a number of interventions to improve different aspects of digital connectivity in the region, by sector and geographically. Four key requirements are identified:

- (i) to provide gigabit full fibre broadband connectivity for key economic sites to support key economic growth and employment sites;
- (ii) to ensure that ultrafast broadband is widely available to support tourism, digital sectors;
- (iii) to ensure that superfast broadband is available for all – to support micro-businesses and social sustainability; and

- (iv) to ensure that mobile broadband on main transport routes is improved to support basic business and social requirements and expectations.

4.5 In order to deliver on these four key requirements, it is important to understand the differing needs of the key business growth sectors and then the range of options available to the region to help improve digital connectivity.

4.6 Different industry sectors have different demands for their digital connectivity. The key sectors identified are taken from the North Wales Growth Vision and the Welsh Government's foundation economy sectors.

Sector	Key Digital Connectivity Requirements	Intervention
Manufacturing and Energy	Large manufacturing facilities use high bandwidth leased lines - which are widely available. The need for high bandwidth connectivity is now well established in the more advanced manufacturing businesses – consequently ultrafast and full fibre are required to support growth in the sector, particularly in the supply chain.	Support for full fibre connectivity in key areas for the sector
Digital	The digital sector is an early adopter of high bandwidth services. The sector is characterised by SMEs in geographically dispersed clusters with some larger businesses (with more employees and greater data requirements) in the main industrial centres.	Support for ultrafast connectivity to be as widely available as possible with full fibre for larger digital businesses
Tourism and Hospitality	The tourism and associated sectors increasingly need to accommodate the “always connected” expectations of their customers, as well as the ability to communicate with customers online, including booking online. Although the individual connectivity requirements and online booking of individuals are easily met with superfast broadband, the aggregated bandwidth demands of several users represents a greater challenge. Ultrafast broadband is becoming a necessary requirement for all tourism businesses.	Support for widespread ultrafast and superfast broadband connectivity for tourism business locations. Increased superfast and mobile connectivity throughout the region to improve visitor engagement
Public sector, health and social care, real estate	The public sector, including health and social care sector has demands for digital transformation development and adoption. Developments can be expected to be undertaken in strategic locations with existing connectivity. Adoption of digital transformed service, however, requires superfast connectivity at the care service user's premise, and data and voice connectivity for a mobile workforce.	Support for superfast and ultrafast connectivity at end care service user premises (ubiquitous superfast broadband). Improved mobile and Wi-Fi connectivity for mobile workers.

4.7 Various options are available in relation to particular situations, these can be summarised as follows:

- Full Fibre passive infrastructure - building a comprehensive access duct network and ensuring backhaul provision to facilitate end-user access to advanced full fibre services provided at the identified key sites. With appropriate planning of duct infrastructure, this will support the key manufacturing and energy sectors;
- Affordable gigabit services - businesses need affordable high bandwidth services to 'fill the gap' between FTTC broadband and leased lines. Service providers should be encouraged to ensure suitable services are available over their networks;
- Improved backhaul - development of the core infrastructure will benefit the development of all digital connectivity in North Wales. The development of the FibreSpeed network and other infrastructure assets present opportunities to improve core connectivity;
- SME Demand stimulation - encouraging the use of higher bandwidth connectivity, particularly in key local business sectors (including hotel and leisure). Connectivity delivery initiatives can only be successful if demand is present – a range of targeted demand stimulation activities will be required to support all interventions. Voucher schemes for SMEs have proven successful in the past and provide a basis for demand stimulation;
- Rural Broadband Deployment - the availability of superfast and ultrafast connectivity to all businesses and communities in North Wales is important to the sustainability of the region. Engagement and interventions to extend the deployment of Superfast Cymru, Next Generation Access Broadband Wales and other national initiatives into rural areas are required. A range of approaches including gap funding, voucher schemes and direct community build may contribute to the extended coverage;
- Social Housing Broadband - social housing presents areas of high need for a range of health and social care services, and typically areas of poor availability and use of digital connectivity. Direct provision of digital connectivity can improve service efficiency and social outcomes;
- Public Sector Anchor Tenant - the use of connectivity to public sector buildings can extend the core network. This effect can be maximised by ensuring appropriate connectivity to all public sector sites, particularly in areas of poor local connectivity;
- Policy Support - direct intervention is not always possible or appropriate – for example to improve mobile coverage. However, reducing the barriers to investment that complex planning and similar policies can impose will support greater investment and deployment. A review and improvement of planning and similar policies can be undertaken to reduce policy barriers;

- Market intelligence - service providers (fixed and mobile) do not always know the local demand requirements. Where there are key factors that may affect demand, the information should be provided, and effective communication channels established to service providers.
- 5G Demonstrators - the development of 5G services presents another important development. Demonstrations within the region will help stimulate further development and deployment.

- 4.8 Each of these possible interventions will be used to help deliver the Digital Connectivity Strategy and will be set out in the action plan. However, in terms of funding, some will be more relevant to the North Wales Growth bid, others to the UK Government's Local Full Fibre Network Programme (LFFN) and others to Welsh Government programmes.
- 4.9 The next step therefore, is to develop a detailed action plan to show how this can be delivered. This includes the identification of key projects, estimated costs and timescales for delivery. This information is also needed to help firm up the bid for funding for improved digital connectivity within the North Wales Growth Bid and can be considered by the Scrutiny Committee at a later date.
- 4.10 However, whilst the logical next step is to develop the action plan for the strategy, an opportunity has arisen for North Wales to bid into the UK Government's £200 million LFFN fund, (which was announced in the Spring Budget in March 2017) – which will be needed before the detailed action plan is completed. In order to achieve this, key interventions identified in the North Wales Digital Connectivity Strategy that could qualify for funding from the LFFN Fund have been extracted and a bid is being prepared based on these. It is anticipated that the UK Government will call for bids for "Phase 3" of the LFFN Programme in July 2018.
- 4.11 The North Wales Shadow Growth Board agreed the North Wales Digital Connectivity Strategy at its meeting on 16 March 2018 and agreed to move forward with both the preparation of the action plan and the LFFN bid. This work is now underway and is being led by Denbighshire County Council on behalf of the six North Wales local authorities. Officers from this Council are directly involved in this work. The support from consultants, GreySky is being funded by the North Wales Economic Ambition Board.
- 4.12 The LFFN Programme is administered by UK Government and is designed to promote full fibre connectivity, emphasising best practice around using the public sector as an "anchor tenant" to deliver improved fixed broadband to an area, upgrading connectivity to public sector buildings, improving public sector assets (such as Fibrespeed) and the stimulation of demand using vouchers.
- 4.13 There is a clear opportunity to bid into this fund to improve public sector assets by building duct infrastructure at key sites to improve connectivity to Fibrespeed. In Wrexham that could include Wrexham Industrial Estate, Wrexham Technology Park, Llay Industrial Estate, Vauxhall Industrial Estate, Rhosddu Industrial Estate, Five Crosses Industrial Estate and Whitegate Industrial Estate.

- 4.14 In addition, targeting public sector buildings (including GP Surgeries) where there is currently a copper connection could open up the opportunity to extend fibre connectivity into more remote areas. There are 38 public buildings in Wrexham which could benefit from this.
- 4.15 The overall cost of the interventions is difficult to assess at this stage but figures included in the Project Definition Document for the North Wales Growth bid were as follows:

UK DCMS Local Fullfibre Network Programme (LFFN)	£12 million (capital)
Welsh Government SME Demand Stimulation (Vouchers)	£1 million (capital)
Welsh Government Next Generation Broadband Programme (Improving Rural Broadband)	£15 million (capital)
North Wales Growth Bid	£27.5 million (capital)
TOTAL	£55.5 million (capital)

- 4.16 The draft LFFN bid is currently in preparation and will be considered by the North Wales Economic Ambition Board on 20 July 2018 prior to submission to UK Government. These proposals also form part of the overall action plan for the Digital Strategy which could be considered by EBISC when the draft has been completed.

5. IMPLICATIONS

- 5.1 **Policy Framework** – improving digital connectivity supports Council Plan E1 – encouraging people to live, work, learn, visit and invest here and E2 – supporting businesses to locate and grow here.
- 5.2 **Budget** – all budget issues are covered in the body of the report.
- 5.3 **Legal** – no legal issues identified at this stage. In future, depending on the success of the LFFN bid and Growth bid, design, delivery and ownership of duct infrastructure will need to be resolved between the LA partners and Welsh Government.
- 5.4 **Staffing** – no staffing issues identified.
- 5.5 **Equality/Human Rights** – Members are advised of their duty to consider the full Equality Impact Assessment which is available at <http://vmwinsqld/equalityisalive/Menu.aspx> report number [HE/EIA00149/2018]. Members of the public can request a copy of the full Equality Impact Assessment from the Contact Officer named in the header box of this report. A summary of the Equality Impact Assessment is attached as Appendix 2.
- 5.6 **Risks** – the North Wales Digital Connectivity Strategy has been agreed. When the action plan is prepared, a risk assessment will be completed to help mitigate any potential issue which could impede delivery.

6. CONSULTATION

- 6.1 Work on the Digital Connectivity Strategy has been undertaken by specialist consultants – GreySky, commissioned by Denbighshire County Council on behalf of the six North Wales Local authorities and the North Wales and Mersey Dee Business Council (which includes HE, FE and private sector). GreySky also undertook direct 1-1 consultations with a number of individual businesses and organisations.

BACKGROUND PAPERS	LOCATION	WEBSITE INFO.
A Growth Vision for the Economy of North Wales) - Executive Board - October 2016	Wrexham County Borough Council website	http://moderngov.wrexham.gov.uk/ieListDocuments.aspx?CId=129&MId=3392
North Wales Digital Connectivity Strategy - Information Report to all Members which was referred to on the Executive Board Agenda May 2018 -	Wrexham County Borough Council website	http://moderngov.wrexham.gov.uk/ieListDocuments.aspx?CId=129&MId=3761