

CITY OF WOLVERHAMPTON COUNCIL	Cabinet 22 January 2019
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Report title	Digital Infrastructure Strategy	
Decision designation	AMBER	
Cabinet member with lead responsibility	Councillor Louise Miles Resources	
Key decision	Yes	
In forward plan	Yes	
Wards affected	All Wards	
Accountable Director	Charlotte Johns, Director of Strategy	
Originating service	Strategy	
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Report to be/has been considered by	Strategic Executive Board	18 September 2019
	Stronger City Economy	16 July 2019
	Scrutiny Panel	

Recommendation for decision:

The Cabinet is recommended to:

1. Approve the Wolverhampton Digital Infrastructure Strategy.

1.0 Purpose

- 1.1 To adopt the Wolverhampton Digital Infrastructure Strategy to support the rollout of futureproofed digital infrastructure.

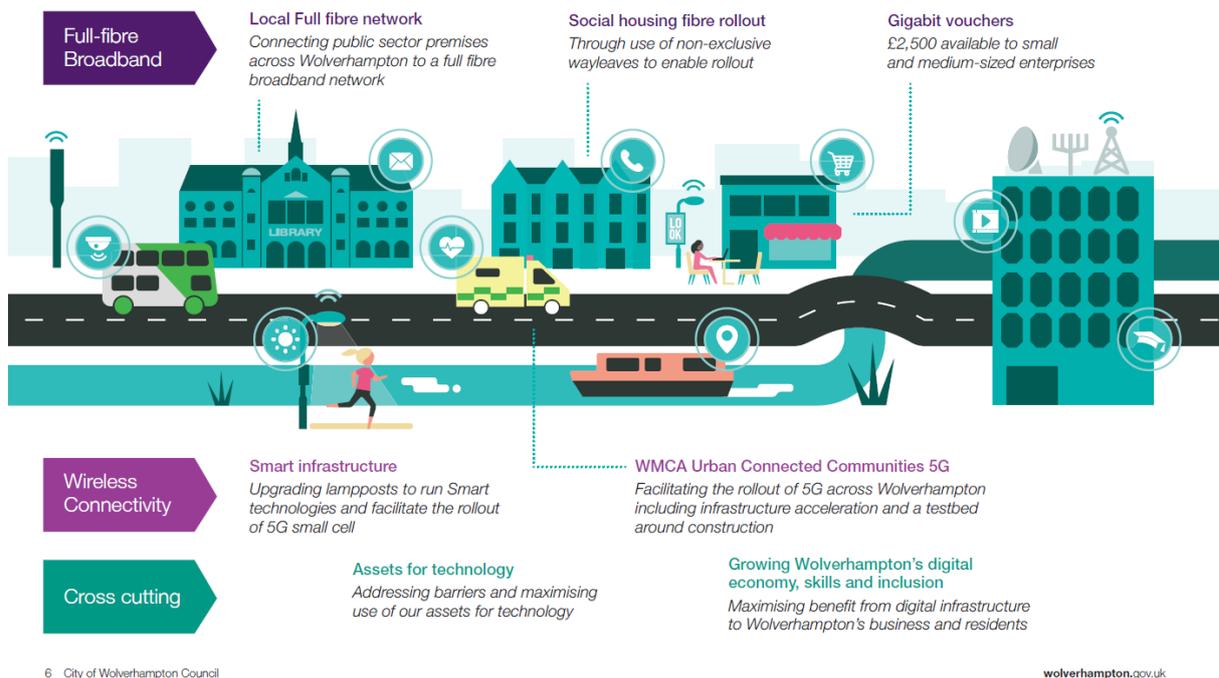
2.0 Background

- 2.1 Having future proofed digital infrastructure is crucial to making Wolverhampton a more attractive place to live, run a business and invest. Currently 97% of Wolverhampton is connected to superfast broadband (fibre to the cabinet and copper to the premise) but the future is full fibre which currently covers only 0.29% of Wolverhampton. The Government has committed to full fibre coverage by 2033, however if the City of Wolverhampton is ahead of the game, this makes us more attractive for investment and supports economic growth. The benefits of full fibre broadband are significant: over 15 years, full fibre broadband in Wolverhampton would lead to £27 million direct impact, £64 million business impact and £58 million of benefits to households (Economic Impact of full fibre infrastructure in 100 towns and cities Regeneris January 2018).
- 2.2 5G is mobile internet as fast as fibre with speeds up to 1GB, five-ten times faster than current home broadband connectivity currently. 5G benefits include huge capacity with the ability to connect thousands of users and devices at the same time at consistently ultrafast speeds and ultra-reliable, secure and low latency which will be transformational for industry. Without intervention, deployment will be in phases with the ambition for the majority of the population to have 5G coverage by 2027, however Wolverhampton's involvement in the West Midlands 5G project could enable us to accelerate 5G connectivity.
- 2.3 The strategy meets the Government's recommendations that local authorities should:
 - a. Develop a Digital Infrastructure Strategy
 - b. Identify a Digital Infrastructure Champion
 - c. Make available your assets
 - d. Work with the Code Operators to accelerate deployment whilst negotiating changes brought about by the Electronic Communications Code
 - e. Ensure that planning policies support the Digital Infrastructure Strategy
 - f. Coordinate Street Works effectively.
- 2.4 Cabinet (Resources) Panel agreed on 16 January 2018 to submit a bid to the Local Full Fibre Network to fill the gap in broadband in the city centre. It was also agreed to engage with UK Government's Barrier Removal Taskforce in relation to adopting a local approach to highways, planning, wayleaves that optimises the local environment to improve digital infrastructure.

2.5 This item was considered as pre-decision scrutiny on 16 July 2019 by Stronger City Economy Scrutiny Panel and will therefore not be available to call in once a decision is made by Cabinet.

3.0 Digital Infrastructure Strategy

3.1 Futureproofed Digital infrastructure is the backbone of a modern thriving economy driving productivity and spreading growth and in delivering effective and efficient public services. The Digital Infrastructure Strategy and Programme is centred around three themes:



3.2 **Full Fibre Rollout:** through implementation of the Local Full Fibre Network (LFFN) project to connect public sector premises to full fibre broadband including Council premises, schools and the College. In addition, there is commercial interest in rolling out full fibre broadband across social housing estates. This could be enabled through the use of non-exclusive wayleave agreements. Gigabit Vouchers, which contribute to the cost of fibre to the premise for businesses, are being promoted through the Black Country Growth Hub and Enterprise team. We are also exploring ways that the requirement for futureproofed digital infrastructure is built into future planning guidance and encouraging discussions with developers to ensure full fibre is included in new build developments.

3.3 **Wireless Connectivity:** covers a wide range of technology including wireless technology on rooftops and highrise aerials, small cell technology and Wi-Fi meshes. The Council successfully bid for European Regional Development Fund (ERDF) for a **Smart Infrastructure** project which embeds smart enabled technology within street lighting

including facilitating network capability. There is further potential to identify future Smart and Internet of Things (IOT) opportunities leading to efficiency savings and improved quality of life embedding in service delivery.

- 3.4 As part of West Midlands Combined Authority (WMCA) **Urban Connected Communities 5G** programme, WM5G are supporting the Council to facilitate the rollout of 5G whilst remove barriers. We are also exploring potential use cases to demonstrate the benefits of 5G in both industry and public service delivery. We will also work with WM5G to test different models for deployment of 5G infrastructure, and maximise benefits to local people through these.
- 3.5 A key requirement for enabling digital infrastructure rollout is to facilitate access to local authority owned assets and street furniture. **Assets for Technology** aims to put systems in place to support the commercial rollout in line with the Electronic Communication Code, [good practice guidance](#) and removal of barriers. This includes identifying suitable assets that are viable for telecoms uses, agreeing a commercial model to facilitate the rollout and improving access arrangements including wayleaves and leases.
- 3.6 Consultation on the draft strategy took place for six weeks closing on 30 August 2019. Four responses were received. Two related to poor broadband coverage in their areas. As a response of enquiries into one of the areas, a broadband infrastructure provider has upgraded the estate to full fibre broadband. Two further enquiries related to free WiFi which will be explored through the testing of different models of deployment of infrastructure and the impact of 5G on health (see 12.1 below).

4.0 Evaluation of alternative options

- 4.1 Option 1: the Digital Infrastructure Strategy will support the rollout of full fibre and 5G in Wolverhampton making us more attractive for investment and support our the delivery of our Council Plan. There is also scope for savings, both monetary and efficiency.
- 4.2 Option 2: do nothing. The Government has committed to full fibre coverage by 2033. Currently only 0.29% of Wolverhampton has full fibre therefore without intervention, Wolverhampton would be less attractive for investment in full fibre and wireless connectivity impacting on the city's attractiveness for investment and economic impact. There is currently insufficient commercial business case to rollout 5G infrastructure. Without intervention, 5G deployment will be in phases with the ambition for the majority of the population to have 5G coverage by 2027.

5.0 Reasons for decision

- 5.1 The Digital Infrastructure Strategy will deliver benefits to the economy of the city and support the delivery of the Council Plan.

6.0 Financial implications

- 6.1 The Digital Infrastructure Strategy has been produced using in house resources and associated costs have therefore been accommodated within existing Service Development Team revenue budgets.
- 6.2 £4.9 million of Challenge Fund grant has been secured from the Department for Digital, Culture, Media and Sports for the Local Full Fibre Network (LFFN). This grant supports the full fibre broadband theme and funds the roll out of full fibre broadband infrastructure in the city for public sector usage and is reflected in the approved ICT capital programme.
- 6.3 £2.3 million European Regional Development Fund (ERDF) grant has been secured for smart infrastructure contributing to a smart street lighting project. This grant supports the wireless connectivity theme and funds smart enabled technology within street lighting, including the facilitation of network capability.
- 6.4 Approval to the above LFFN and ERDF grants has been subject of previous reports to Councillors.
- 6.5 A need to fund a dedicated Local Full Fibre Network Project Manager who will work with the Digital Co-ordinator and Smart Infrastructure Project Manager to form a Digital Infrastructure team has been identified. Proposals for the allocation of up to £84,000 from the Efficiency Reserve to fund and enable recruitment of a Local Full Fibre Network Project Manager for an 18-month period to October 2020 will be subject of future reports for approval.
- 6.6 It is anticipated that a reduction in annual broadband rental costs will be realised as a result of the Local Full Fibre Network project. This will support the delivery of revenue budget reductions already assumed in the Medium Term Financial Strategy for ICT services.
- 6.7 In line with the Electronics Communication Code the Council must ensure that charges for use of our assets for technology are based on actual costs incurred. These costs include; structural engineers fees to conduct due diligence, access and agreeing terms for a major/minor upgrade, annual operation and maintenance costs.
- 6.8 The Service Development Team, in partnership with the West Midlands Combined Authority (WMCA), as part of WMCA Urban Connected Communities 5G programme have explored a revised basis for charging in line with the Electronics Communication Code has been explored. It is anticipated that this will fully recover associated costs incurred.
[TT/29102019/K]

7.0 Legal implications

- 7.1 Smart Infrastructure and Local Full Fibre Network will be subject to Grant Funding Agreements in April 2019 and November 2019 respectively. Part of the Assets for

Technology workstream will be to look at access arrangements including standardising wayleaves and leases. To enable the rollout of full fibre broadband on residential estates, we are looking at a non-exclusive wayleave agreement covering whole estates. Independent State Aid advice has advised that there are no state aid implications for Local Full Fibre Network and the use of non-exclusive wayleaves.

[TS/23102019/W]

8.0 Equalities implications

8.1 Digital and smart technology could potentially have significant positive equalities implications, for example making it easier for people with health problems to live more independently through the provision of telecare and e-health solutions.

9.0 Climate change and environmental implications

9.1 Digital Infrastructure enabling Smart technology can have positive implications on the environment and climate change, for example enabling the Council to capture environmental information and improve service delivery.

10.0 Human resources implications

10.1 To support the delivery of externally funded projects, a Local Full Fibre Network Project Manager and ERDF funded Smart Infrastructure Project Manager will be appointed.

11.0 Corporate landlord implications

11.1 Corporate landlord are fully involved in the Assets for Technology workstream including mapping of assets to review their suitability for technology.

12.0 Health and Wellbeing Implications

12.1 The approach is in line with the guidance from Public Health England (3 October 2019) which states that the health effects of exposure to radio waves have been researched extensively over several decades, and very many publications can be found in scientific journals and elsewhere. Coordinated research around the world has addressed concerns about rapidly proliferating mobile communications technologies. Independent expert groups in the UK and at international level have examined the accumulated body of research evidence and their conclusions support the view that health effects are unlikely to occur if exposures are below international guideline levels. Overall exposure is expected to remain low relative to guidelines and, as such, there should be no consequences for public health.

12.2 Fibre broadband will have health benefits arising from increased of technology in the delivery of health and social care. The city's Health and Wellbeing Board are exploring opportunities to test various use cases around health. As part of WM5G, a 5G pilot around Citizen Wellbeing in partnership with University Hospital Birmingham NHS Trust is being developed, and the outcome of these will be shared locally.

13.0 Schedule of background papers

- 13.1 Cabinet (Resources) Panel, 16 January 2018 – [‘Achieving Our Broadband Vision’](#)
- 13.2 Cabinet (Resources) Panel 15 January 2019 – [External Funding Update 2018](#)
- 13.3 Stronger City Economy Scrutiny 16 July 2019 – [Digital Infrastructure Strategy](#)

14.0 Appendices

- 14.1 Appendix 1 – Wolverhampton Digital Infrastructure Strategy