

## **REPORT OF THE LEADER OF THE COUNCIL**

### **DIGITAL CONNECTIVITY IN NOTTINGHAMSHIRE**

#### **Purpose of the Report**

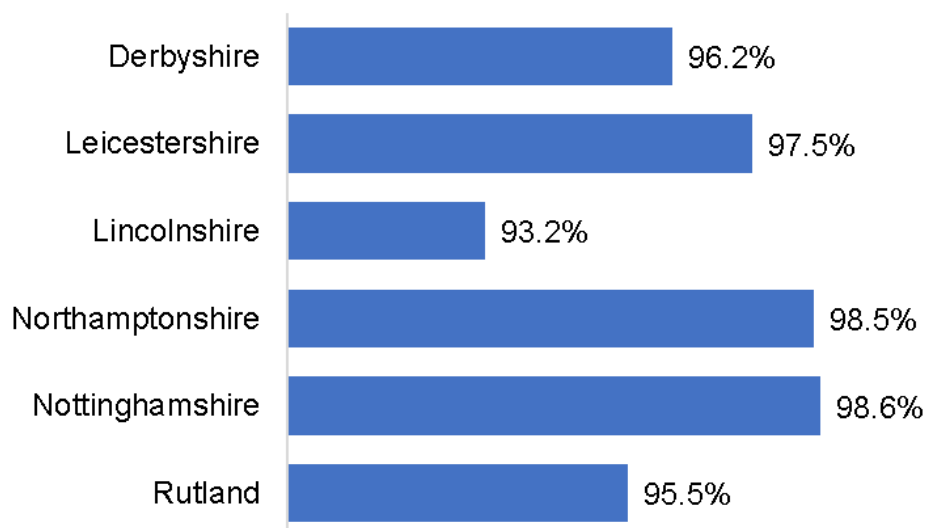
1. This report provides an update on the Council's continued success of delivering world-class digital infrastructure throughout Nottinghamshire, seeks approval for the Council to enter into a lease agreement for the Gateway Lodge and alerts Members to a new project opportunity.

#### **Information**

2. The Council Plan "Your Nottinghamshire, Your Future" 2017-2020 has improving fixed and mobile digital connectivity as one of its 12 commitments. Thanks to the buy-in to improving the digital infrastructure from the leadership of the council, Nottinghamshire has cemented its position in the top three most digitally connected counties in the United Kingdom (UK), through its range of strategies, policy initiatives, investment and funding.
3. The importance of digital infrastructure is widely acknowledged. As evidenced through the three COVID-19 pandemic lockdowns, the Nottinghamshire network has proved to be resilient and fast enough for most households and business use. Recently, the National Audit Office (NAO) reported internet use is rising by 40% a year, driven largely by video streaming. In response, the Council needs to focus on ensuring that Nottinghamshire has a broadband network that will meet this future demand.
4. In November 2018, Gedling was chosen to become the first area in the East Midlands selected by Openreach, to begin their commercial rollout of gigabit-capable broadband of speeds greater than 1,000 megabits per second (1000Mbps). In just 24 months, starting from zero coverage, 47.28% of Gedling premises (both business and residential) can now access gigabit-capable internet speeds (i.e. 10.48% better than the national average). Openreach's own investment through their 'Fibre First' programme, has so far covered 17,300 homes and business in Nottinghamshire. An independent report written by Regeneris, has concluded that British Telecom's (BT) 1,540 employees and contractors who work in the County, will generate an extra £199 million into the Nottinghamshire economy.
5. For ease of reading, the remainder of this report covers four specific items as the Council accelerates its digital ambitions: Better Broadband for Nottinghamshire, Gigabit Broadband, 5G and a new research and innovation proposal.

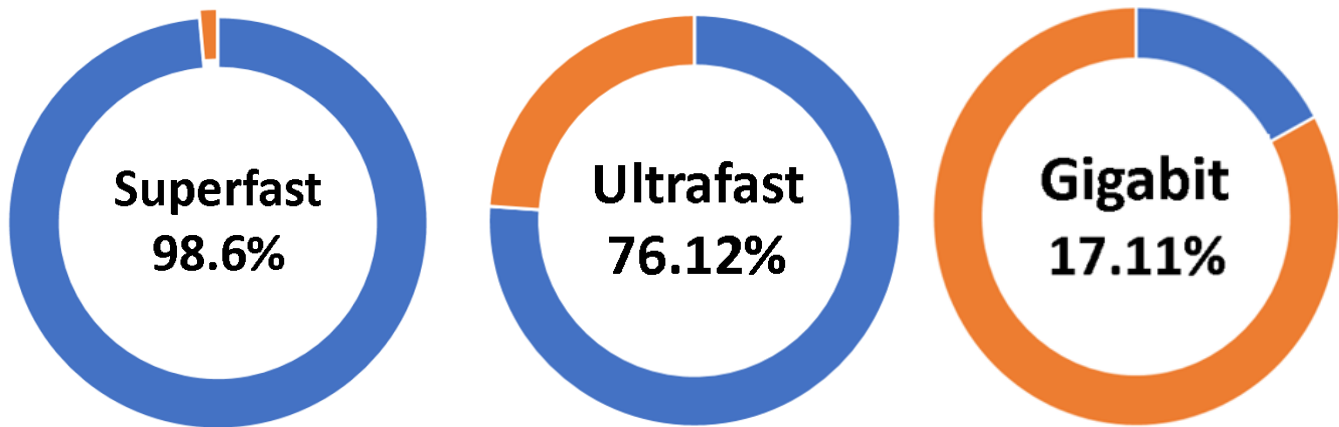
#### **Better Broadband for Nottinghamshire**

6. In just shy of a decade, through three separate contracts with BT and Openreach, Nottinghamshire County Council has taken the superfast digital infrastructure across Nottinghamshire (speeds greater than 24Mbps) from a baseline of 86% to over 98%. Nottinghamshire has maintained its position as the best served superfast broadband county in the East Midlands, as illustrated below:



7. This significant civil-engineering programme began with the first contract with BT, installing a hybrid network consisting of copper and fibre. Over 600 new green street cabinets are now a familiar sight across the County, with the Council's and its partners logos declaring the availability of superfast technology. The Council increased the team, employing a Broadband Engagement Officer to promote the availability of the service within local communities. The original contractual expectations were for 20% of homes and businesses to make the switch to the newly installed superfast connection. This target has been over achieved, with the take-up rate standing at 71.86% (i.e. 359.3% increase).
8. The latter stages of contract two saw the delivery of the first pure fibre connections to the County's homes and businesses. Take up figures for this contract stand at 59.12% against the target of 30% (i.e. 197.07% increase). Both contract one and two have now passed the Government's audit process and have been closed. This has triggered the contractual gainshare mechanism for the next seven years. This essentially means that any switching to the new digital service (referred to hereafter as 'take-up') by local Nottinghamshire homes and businesses above the contractual percentage, will result in BT/Openreach returning some of the public investment. As has happened already, the returned funding can then be reinvested into a further boost of network coverage and faster speeds.
9. The Council is currently midway through the third contract. Fibre optic cables are about as close to future proof as you can get today and this time (exclusively with Openreach), the technology deployed is pure fibre (i.e. no copper and no green street cabinets). The Council has not lost sight of its ambition to ensure every Nottinghamshire home and business has access to superfast speeds and is set to invest further to extend the digital network.
10. To do this, the Council needs to ensure planned further coverage continues to target areas where there is no known superfast coverage already, as well as in areas where the telecommunications market have no investment plans. To ensure continued compliance with State aid rules, the Council is undertaking a consultation exercise with the telecommunications market to establish existing and planned coverage of broadband infrastructure across Nottinghamshire over the next three years. The consultation has been published on the Council's website and can be accessed via the following link: <https://www.nottinghamshire.gov.uk/business-community/better-broadband-for-nottinghamshire-programme/about-the-programme>

11. To date, take-up for contract three stands at 14.4%. There is cautious optimism that as relaxations of COVID-19 restrictions commence, this figure will rise.
12. Illustrated below is the digital coverage across Nottinghamshire: superfast - greater than 24Mbps, ultrafast - greater than 100Mbps and gigabit - greater than 1,000Mbps.



13. The Council's open for business approach and strong partnership with Openreach continues to go from strength to strength. Most recently to support the Government's ambition for gigabit-capable broadband network to reach every corner of the UK, Openreach announced 140 new engineering jobs in the East Midlands, of which 35 will be in Nottinghamshire. In 2020, Openreach was placed 15<sup>th</sup> in The Sunday Times '25 Best Big Companies to Work For'. Those interested in joining Openreach can apply online via the following link: <https://www.openreach.com/careers/trainee-engineer-roles>

### Gigabit Broadband

14. To meet future demands of consumers and businesses, Government announced a new policy for the UK's telecoms industry to provide nationwide gigabit-capable infrastructure by 2025. £5 billion has been allocated for the UK gigabit programme (The Outside-In programme), to subsidise roll-out to the most difficult to reach 20% of premises. In September 2020, Policy Committee responded by giving approval to use all of the £750,000 remaining gainshare from the first superfast broadband contract with BT, to complement Government's proposal for a 'Gigabit Broadband Voucher Scheme - Top-up'. This was specifically aimed at targeting properties classified as rural, hamlets and isolated dwellings i.e. 1.3% of the County unable to access speeds greater than 24Mbps.
15. In the successive three months, 39 individual group schemes, spanning over 2,000 premises in Nottinghamshire, have been assisted with their application and are currently discussing options with their chosen internet service providers. In parallel, the Council's Engagement Officer continues to run demand stimulation activities by attending parish and community group meetings and via social media. This scheme is open until 31 March 2021.
16. Nottinghamshire County Council continues to work closely with the Government's broadband delivery arm - Building Digital UK (BDUK). In line with the levelling up agenda, Government want to become a world class leader in digital connectivity. To achieve this requires the delivery of reliable, long-lasting, gigabit-capable connections, and ensuring wide availability at pace.

17. The 2020 Spending Review set out the timeline for how the first tranche of the promised £5 billion will be made available to industry. The judgment of industry and the Government is that the initial phasing of the spending reflects the maximum that can be delivered in the period up to 2025.
18. As outlined in the 'Planning for Gigabit Delivery in 2021' document (details of which are contained in the background section of the report), the 'ask' of telecoms providers is to demonstrate how they can go faster, while maintaining value for public money. The aim is to work with a broad range of providers, making sure that the hardest to reach areas are provided for.
19. As Nottinghamshire County Council looks to accelerate future schemes, work will continue with BDUK to support communities and small to medium sized enterprises (SMEs) through gigabit vouchers, providing access to better broadband to many more of the hardest-to-reach communities in rural areas.
20. Government intends to start the formal procurement process anytime now. Larger contracts will be designed to drive competition among network providers and give the supply chain enough certainty to scale-up. Targeted contracts will stimulate competition for smaller network providers and drive innovative solutions. The ambition is to fill a pipeline for these procurements full of opportunities, which target the areas of greatest need and where telecoms providers are best placed to move quickly.
21. The Council's newly appointed Digital Connectivity Manager will give their expertise and insights to help Government shape the first Nottinghamshire intervention areas for these procurements. This shared endeavour will mean working collaboratively and quickly through the provision of specific information to help providers deliver across Nottinghamshire.

## 5G

22. 5G is the 5th generation mobile network. It is a new global wireless standard and enables an innovative network that is designed to connect virtually everyone and everything together; including machines, objects and devices.
23. Commitment 5 of the Council Plan "Your Nottinghamshire, Your Future" 2017-2021 focusses on ensuring Nottinghamshire is a great place to live, work, visit and relax. Our intention is to become a low carbon, sustainable destination and support technical innovation that could affect change on a larger scale, allowing future generations to remain in the County. Both 5G Council-led projects pave the way for the future.
24. The 5G Connected Forest project received Member's approval in March 2020, seven months later, the Council secured funding to establish a 5G Enabled Digital Centre in North Nottinghamshire.
  - a) **5G Connected Forest project:** £5 million was secured from the Government's 5G Rural Connected Communities funding competition to establish the world's first 5G network in a forest setting. Through the establishment of a consortium, a further £5 million was aggregated to realise a 25-month test bed and trial programme. Since the Leader of the Council launched the project in Sherwood Forest, the project team have completed the network design and undertaken research and development activities. Despite the economic impact of COVID-19 and it being in their financial interests to furlough the staff, consortium partners took the decision to keep those intended to work the project on full pay and dedicated their resources to the project.

- An illustrative map of the testbed and its four trial locations (Sherwood Forest, Thoresby Vale, Rufford Park and the Council offices in Ollerton) can be found in the background section of the report as **Appendix A**. To date, all four sites have been surveyed for deployment and trial headsets purchased for development. Partners have commenced work on the Augmented and Virtual Reality (AR/VR) content to enhance the 5G-enabled visitor experience to bring the forest's rich history to life (both fact and legend), including a focus on legendary heroic outlaw Robin Hood. Using innovative technologies, visitors will:



Be immersed in the stories of Robin Hood



Solve puzzles to unlock rewards (the aim being to encourage visitors to return to unlock more secrets of Sherwood Forest)



Experience the magic of audio global position system (GPS) guided tours



Experience a mix of video, sound and three-dimensional (3D) models to bring the experience to life



Virtually find and collect wildlife



Re-create the Sherwood Forest of yesteryear



Take their virtual creations home

- In terms of other project innovations, the deployment of robots and drones will enable entry to inaccessible or restricted areas of the forest. Forestry management and conservation leads continue to play a pivotal role in the project to ensure the maintaining health of the forest and supporting the overall environmental protection and sustainability of ecosystems. Academic partners have been undertaking activities for robotic sensing requirements and consulted stakeholders (such as the Royal Society for the Protection of Birds - RSPB) and other consortium partners, in terms of the operational requirements and constraints.
  - The outdoor coverage for visitor attractions will be provided around the existing amphitheatre. To provide a year-round visitor experience, especially during inclement weather, a review of available options for an indoor digital hub concluded that the Gateway Lodge (located at Forest Corner close to the visitor centre) is the ideal location for trialling the new AR/VR applications. Subject to Member's approval, it is proposed that the Council will lease the Gateway Lodge from Newark & Sherwood District Council in order for this to be used as a digital visitor attraction from Summer 2021.
- b) **5G Digital Turbine Centre:** In June 2020, the £900 million Getting Building Fund was announced by the Prime Minister, aimed at investing in shovel-ready housing and infrastructure projects creating jobs and supporting economic recovery across the country. Seizing the opportunity, the Council was successful in bringing forward a range

of projects in a very short period of time. The 5G Digital Turbine Centre project will explicitly be creating not only high-quality office accommodation and employment space within the council-owned Turbine Centre (in Worksop) but also a programme of training and business support activities to engage, inspire and develop the skills of our current and future workforces.

- The expected outcomes of this project are illustrated as follows:



- Full technical site surveys and network design are completed. The upgraded fibre roll out to the Turbine Centre will commence once the national lockdown is lifted which will be swiftly followed by deployment of the 5G network. It is currently envisaged that by Autumn 2021, the Digital Innovation Centre will start its operation whereby the SME community on-site will be able to immediately access the support.

### World Wide Wildfire Workforce Proposal (4Ws)

25. Nottinghamshire County Council has the opportunity to participate in a worldwide research activity which includes 12 pilots in 12 different European countries. The overall project cost is 20 Million Euros. The desired inclusion of Sherwood Forest would result in this being the only UK-based test site. Discussion amongst the 5G Connected Forest partners and consultation with RSPB, has concluded that this is an opportunity worthy of pursuing.
26. This European Union (EU) funding opportunity is being led by the University of Leicester and involves a team of European and global partners who will be conducting research, development and innovation actions to minimize the prevalence and negative effects of wildfires. The aim is to provide live monitoring of the health of Sherwood Forest to preserve the site for future generations. This project will support ambitions for net zero carbon by 2050 and contributes to implementing a Green Economic Recovery as part of the Council's response to the COVID-19 pandemic.
27. There is no financial contribution required from the authority. However if successful, the Council will receive up to 200,000 Euros to cover the cost of participation. In the time available, it was not possible to obtain formal Council approval to support this funding opportunity. However an informal support letter to this initiative was provided by the Service Director, Innovation and Growth. If the University of Leicester is successful in their application, formal Council approval will be sought to receive the circa 200,000 Euros at the next available opportunity.

## **Reason for recommendations**

28. All monies related to the 5G Connected Forest project are required to be spent by March 2022. Any delay in signing the lease agreement for the Gateway Lodge compromises both the outcomes and end date of the project. Members approval for the lease agreement is therefore recommended as it will enable the Council to immediately lead the suite of new visitor attractions to be completed before summer. The Council's participation in digital interventions are specifically aimed at stimulating economic activity and supporting the visitor economy post COVID-19 recovery, the 'do nothing' option has therefore been discounted.

## **Statutory and Policy Implications**

29. This report has been compiled after consideration of implications in respect of crime and disorder, data protection and information governance finance, human resources, human rights, the NHS Constitution (public health services), the public sector equality duty, safeguarding of children and adults at risk, service users, smarter working, sustainability and the environment and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

## **Financial Implications**

30. Whilst there are no financial implications arising from the recommendations of this report, if the 4Ws proposal is successful, the Council will be a recipient of funds as outlined in paragraph 27.

31. Approval is not being sought for any additional funding. The lease agreement for the Gateway Lodge will incur rent, service charge and running costs, for which provision has already been made within the overall £10 million project funding envelope.

## **RECOMMENDATIONS**

In noting the considerable progress made by the Council in both deploying a new digital network across Nottinghamshire and in bringing new innovations, it is recommended that Policy Committee:

- 1) Delegates authority to the Corporate Director for Place, subject to consultation with the Chair or Vice Chair and the Group Manager, Legal and Democratic Services and the Section 151 Officer, to agree the terms for the lease to be entered into with Newark & Sherwood District Council for the Gateway Lodge to be used as a location dedicated to offer a year-round immersive attraction at Sherwood Forest.
- 2) Agrees to receive a report to formalise the Council's participation in the World Wide Wildfire Workforce project, in the event of the University of Leicester's application being successful.
- 3) Considers whether there are any further actions required and agrees to receive further reports to future meetings should any further project opportunities aligned with the Council's digital priorities emerge; and

**COUNCILLOR MRS KAY CUTTS MBE**  
**Leader of the Council**

**For any enquiries about this report please contact:** Nicola M<sup>c</sup>Coy-Brown, Growth and Economic Development ext. 72580

### **Constitutional Comments (CEH 02.02.2021)**

32. The recommendations fall within the remit of Policy Committee under its terms of reference. If the bid for the World Wide Wildfire Workforce project is successful, the Council will need to consider any funding conditions that may be attached to the funding, and any procurement issues and subsidy regime considerations if applicable. Advice on these points should be sought from Legal Services as early as possible to ensure all conditions and issues are known and evaluated so that they can be included in the future report to Policy Committee should the bid be successful.

### **Financial Comments (SES 15/01/2021)**

33. The financial implications are set out in paragraphs 30 and 31 of the report. Whilst there are no financial implications arising from the recommendations of this report, if the 4Ws proposal is successful, the Council will be a recipient of funds as outlined in paragraph 27.

34. Approval is not being sought for any additional funding. The lease agreement for the Gateway Lodge will incur rent, service charge and running costs, for which provision has already been made within the overall £10 million project funding envelope.

### **Background Papers and Published Documents**

Except for previously published documents, which will be available elsewhere, the documents listed here will be available for inspection in accordance with Section 100D of the Local Government Act 1972.

- *Improving Broadband* - National Audit Office report, published on 16 October 2020, accessed online via: <https://www.nao.org.uk/wp-content/uploads/2020/10/Improving-broadband.pdf>
- [Planning for Gigabit Delivery in 2021 \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/92112/planning-for-gigabit-delivery-in-2021.pdf)
- [Gigabit Broadband Voucher Scheme \(GBVS\) - UK - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/gigabit-broadband-voucher-scheme)
- [Building Digital UK - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/building-digital-uk)
- *Better Broadband for Nottinghamshire – Resources to 31 March 2020* – Report to Policy Committee, published 13 November 2019
- *Getting Building Fund* - Report to Policy Committee, published 30 September 2020
- *Digital Connectivity in Nottinghamshire* - Report to Policy Committee, published 18 March 2020

### **Electoral Divisions and Members Affected**

- All