REPORT OF THE CORPORATE DIRECTOR, PLACE

DIGITAL CONNECTIVITY IN NOTTINGHAMSHIRE

Purpose of the Report

1. This report provides an update on the outstanding digital infrastructure projects across Nottinghamshire. Approval is being sought to:

   a) enter into the proposed Partnership Agreement with Department of Culture, Media and Sport (DCMS) for Project Gigabit
   b) inform members about the work of the Digital Connectivity Team
   c) support a consortium outline bid for Government's 5G Supply Chain funding competition (closing date 28th August) and to seek authority to bring a further report to members, should the consortium be asked to proceed to the second stage of the competition.

Information

Strategic Context

2. Digital connectivity plays a central role in support of communications and economic growth. This has been particularly the case in the context of public health-motivated responses to the Covid-19 pandemic. The Council has responded to the challenge with innovative connectivity solutions for residents, local businesses, and their workforce. A strong mobile and fixed broadband network is also key to ensuring that the county remains competitive nationally and internationally.

3. Building and investment in digital infrastructure when developing connected communities is central to the Council Plan 2017-2020 Commitment 11: 'Nottinghamshire is well-connected'. The dedicated Digital Connectivity Team is working to a pledge that Nottinghamshire will have 'outstanding' digital connectivity. Specifically, it works to leverage the Council's position as place shaper to improve the digital connectivity offer.

Nottinghamshire's Digital Connectivity Team: outstanding performance in achieving superfast connectivity across the county

4. The Digital Connectivity Team already has an outstanding record of delivering world-class digital infrastructure - particularly the successful rollout of superfast broadband. Standing at 76% coverage in 2011, the achievement is now 98.7% - a figure that is 2% higher than the national average and of our neighbouring counties. The programme is now aiming at the goal of achieving 99% by end of 2021/22.

5. Since the February Policy Committee update, the project has continued to progress and has maintained Nottinghamshire's position in the top three most digitally connected counties in the UK. The latest figures for the county's broadband speeds are:

- 98.7% superfast coverage (>30 Megabits per second)
- 76.66% ultrafast coverage (>100 Megabits per second)
- 20.85% gigabit coverage (>1000 Megabits per second)

Note: One gigabit is the same as 1,000Mbps and will provide full fibre (FTTP) optic cable directly to premises. Full fibre networks are future proof and can deliver the connection speeds we need - not only for today, but also for the future.

6. Take-up in the county continues to rise and is among the highest in the country. This demonstrates that the demand and appetite to remain at the leading edge of digital connectivity is important for our businesses and communities. Today, where our new digital infrastructure has been installed, over 70% of premises (homes and businesses) have made the switch to high-speed Internet access. As the programme starts to deliver services to the last 2% of generally hard-to-reach properties in Nottinghamshire, so difficulties will increase. However, the Digital Connectivity Team has been seeking private sector input and are working hard to secure additional investment from the telecom providers.

Gigabit Connectivity: the Next Frontier

7. Delivering gigabit-capable infrastructure across the UK is a government priority - for business/ economic/ competitiveness reasons and with a view to closing the digital divide. Recent research by the Centre for Economics and Business Research (CEBR) estimates that achieving a 100% full fibre connection would create a £3.5 billion boost to the East Midlands economy.[1]

8. To ensure that residents and businesses across the County can take advantage of the social and economic benefits of gigabit connectivity, it is crucial that the programme ensures that rural communities and the most difficult to reach premises are not left behind and that there is good digital coverage where people live, work and travel. The rollout to hard-to-reach areas will be subsidised from the government's £5 billion 'Project Gigabit' over the next few years, until the whole of the UK is connected. Government have set a target to deliver gigabit-capable digital infrastructure to a minimum of 85% of UK premises by 2025 and working in partnership with Local Authorities, will seek to engage the market to accelerate roll-out further to achieve 100% coverage as soon as possible. To formalise the collaboration, Nottinghamshire County Council (in common with all local authorities) has been asked to sign a 'partnership agreement' with the Government's broadband delivery arm: Broadband Delivery UK (BDUK). This non-legally binding document simply outlines the respective roles of the parties and the basis for the future working relationship. Legal officers have advised that – should it be minded to – the Council could withdraw from the 'partnership agreement' at any time, without penalty.

9. Thanks to the productive work of the Digital Connectivity Team, significant gigabit implementation is already anticipated – for example - through the existing Superfast Broadband Programme and via commercial delivery from telecom providers. Because Nottinghamshire is already ahead of the game, it is listed by BDUK within Phase 2 (as opposed to Phase 1) of the procurement pipeline of Project Gigabit.

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[1] CebrReport_online.pdf (openreach.com)

10. Thanks to the reputation of the Council in this area, successive waves of private sector innovation and investment recently saw Openreach supporting the Council's ambition for growth in Nottinghamshire as they outlined plans to build and connect ultrafast, ultra-reliable full fibre broadband to 107,000 more homes and businesses. This means that fewer homes and businesses will require taxpayer subsidies to upgrade. Work will take place between now and 2026. A total of 13 exchanges across the county (Collingham, East Bridgford, East Stoke, Edwinstowe, Misterton, Retford, Saundby, Southwell, Sturton Le Steeple, Sutton On Trent, Mansfield, Worksop and Tuxford) are being upgraded with other locations to follow.

11. Openreach's plans also include an extension to the company's biggest ever recruitment drive, with a further 1,000 new jobs being created in 2021 - of which around 140 were in the East Midlands. Openreach plays an important role across the East Midlands as more than 1,600 of Openreach employees live and work in the region.

12. City Fibre also have plans to reach circa 95k premises in Nottinghamshire, mainly in urban areas, as part of their build plan. The build is planned over 7 years, so should be drawing to a close by 2028. Over 95,000 premises will be connected in Ashfield, Gedling, Rushcliffe, and Broxtowe.

Connecting Remote Properties and Rural Communities

13. A voucher scheme is used to help relatively geographically inaccessible residents and businesses to get access to gigabit connectivity. Earlier this year, the Government released an extra £210m worth of vouchers. The new scheme offers up to £3,500 for businesses and £1,500 for homes located in remote areas (as defined by Ofcom as their 'Area 3'). The Council has supplemented this scheme through a budget of £750,000 that effectively doubles the payment available to each premises (to up to £7,000 for businesses and £3,000 for homes). In order to qualify for grants, property owners must meet the eligibility criteria. In practice, this means voucher funding can only be used through a broadband supplier as part of a broadband upgrade project applied as a remote community. Currently 28 community or 'group' schemes are working with registered suppliers to deliver full-fibre connectivity to 6,120 Nottinghamshire premises at an estimated accumulative value of £8,027,797. So far, over £375,000 of the Council's top-up funding has been utilised for 475 premises in the county, which means the Council have contributed £793 per premise to help deliver gigabit connectivity.

14. Nottinghamshire County Council continues to work closely with BDUK with a view to connecting up to 7,000 rural public buildings such as rural schools, doctors' surgeries, and libraries to gigabit broadband. The idea is that these will serve as hubs to get gigabit-capable networks into the heart of countryside communities and incentivise other broadband companies to build off them. Project Gigabit will invest up to £110 million in pursuit of this objective. The Digital Connectivity Team has already engaged with the relevant government department (DCMS) to identify suitable projects and benefit from this opportunity.

A '5G Connected Forest'

15. As outlined in the previous Policy Committee report, Sherwood Forest-based creative projects are being realised, with a view to stimulating Nottinghamshire innovators to further develop initiatives using the power of 5G.

16. Fifteen months since the launch of the 5G Connected Forest project, the consortium have made excellent progress. These include an informal assessment of the hardware and software; work towards the objective of demonstrating an augmented reality experience in

the story of Robin Hood; 'releasing' the first robot dog to maintain the health of the forest, and the flying of drones in support of environmental protection.

17. During the previous quarter, our project partner Gooii Ltd has been working on creating the content for 'Robin Hood: An Arrow Through Time', using a script co-written by Bafta Award Winning CBBC writer and producer Nick Hutchings. The project team worked hard to reflect the pace, story, excitement, and flow of the action, as well as the technical aspects required for this Robin Hood Augmented Reality experience. Below is an illustrated image based on what is aimed to achieve.

18. The Council-led 5G Connected Forest project will also enable real-time or near-real-time monitoring of the forest via a 5G network through data gathering in accessible areas via ground robots and in inaccessible areas via drones.

19. The Council is preparing for a visit to Sherwood Forest by the Minister for Digital Infrastructure Matt Warman MP in Autumn. This will be an opportunity to highlight the innovative work of the County Council in creating these demonstration projects in Sherwood Forest.

A '5G Digital Turbine Centre'

20. With the Support of £900,000 from the Government's Getting Building Fund, awarded through D2N2 LEP, the 5G Digital Turbine project continues its successful development. In 12 months, the project team has comprehensively upgraded the existing digital IT infrastructure of the centre, boosting the productivity of the more than 40 businesses already on site, and other local businesses who use the casual facilities. 230 learners have already been engaged and given an opportunity to explore the potential offered by 5G and its associated technologies. Local schools and training providers started to benefit from the

development of learning content which could be incorporated into their existing course curricula. It is envisaged that by end of 2021, the deployment of 5G network will be complete - providing businesses with space to trial and develop their own innovations using 5G related technologies. The project team has already received significant expressions of interest in using 5G in innovative solutions.

The Future RAN Competition (FRANC)

21. In the past 15 months, the Digital Connectivity Team have been exploring how to create an environment that encourages private sector innovations in support of the Council's ambition to support digital interventions, specifically aimed at stimulating economic activity post COVID-19.

22. On 2 July 2021, the UK Government committed £30 million and launched another funding competition titled, 'Future RAN Competition' (FRANC). The goal of this future programme is to increase choice in the UK's telecoms supply chain. It will do this by fast-tracking the availability of viable OpenRAN products and suppliers and creating a stronger case for government and business investment in the technology.

Note: Open RAN gives an option to suppliers to design their own network from scratch. It is also cost effective compared to traditional networks.

23. Having reviewed the guidance and attended a DCMS-led briefing event, an expression of interest for an intelligent Open RAN network deployment to some of the county's cultural heritage sites is being proposed. This would support the Council's net-zero ambitions. A world-leading cutting-edge partnership centred around 5G enabled services in Nottinghamshire would attract new 5G suppliers to conduct research and development and foster professional collaborations between potential new entrants into the market in Nottinghamshire.

24. By building upon the contacts from both 5G projects (above), the Digital Connectivity team is working on bringing relevant partners together. The consortium is to involve at least one business, a national mobile network operator and one of the universities. In recognising the conflict between commercial sensitivity and a competitive process, only these headlines can be shared in this public report.

25. In making an outline bid to FRANC (closing date 28th August 2021), the Council will not enter into any legal or financial commitments. Should the consortium bid be shortlisted for the second round of the competition, authority will be sought from members to proceed.

Other Options Considered

26. The do-nothing option was discounted for the following three reasons:
- Project Gigabit Partnership Agreement: This is not legally binding and therefore does not create enforceable obligations on either the Council or BDUK. It is essentially a statement of intentions by the parties in connection with trying to achieve the government's target of delivering 100% gigabit capable infrastructure across the UK.
- FRANC: Policy Committee agreed to receive a further report should any further project opportunities aligned with the Council's digital priorities emerge. Further, the DCMS briefing event confirmed that the proposal mentioned in Paragraph 20 would have a high possibility of being shortlisted for the next stage.

Reasons for Recommendations

27. To ensure Committee receives up-to-date knowledge on the progress of the ongoing digital connectivity projects in the County. Also, to accelerate the deployment of 5G and fixed broadband and ensure Nottinghamshire can take early advantage of the applications which those networks can enable.

Statutory and Policy Implications

28. 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

29. Whilst there are no financial implications arising from the recommendations of this report, if the 'FRANC' proposal is successful, the Council will be a recipient of £5 million funds. Approval is not being sought for any additional funding at this time.

RECOMMENDATIONS

It is recommended that Economic Development and Asset Management Committee:

1) delegates authority to the Corporate Director for Place to sign the Partnership Agreement for Project Gigabit

2) empower officers to continue with the 'Future RAN: Diversifying the 5G Supply Chain' bid and agree to receive a report in the event of the concept proposal for the Future RAN Competition (FRANC) being invited to the second stage.

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Constitutional Comments (KK 30/07/2021)

30. The proposals in this report are within the remit of the Economic Development and Asset Management Committee.

Financial Comments (RWK 05/08/2021)

31. Whilst there are no specific financial implications arising directly from the report if the 'FRANC' proposal is successful the County Council will receive funding of £5 million. Further reports will be presented to committee regarding the progress of this proposal.

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.

- Planning for Gigabit Delivery in 2021 (publishing.service.gov.uk)
- Gigabit Broadband Voucher Scheme (GBVS) - UK - GOV.UK (www.gov.uk)
- Building Digital UK - GOV.UK (www.gov.uk)
- *Digital Connectivity in Nottinghamshire* - Report to Policy Committee, published 10 February 2021
- Full fibre delivering for the UK | Openreach

Electoral Divisions and Members Affected

- All