

Cabinet

28 July 2020

Digital Infrastructure Projects to Accelerate Economic Recovery from the Impact of the Coronavirus Pandemic

For Decision

Portfolio Holder: Cllr P Wharf, Corporate Development and Change
Cllr G Suttle, Economic Growth and Skills

Local Councillor(s): All rural wards

Executive Director: John Sellgren, Executive Director of Place

Report Author: Dugald Lockhart
Title: Senior Project Manager
Tel: 01305 224207
Email: dugald.lockhart@dorsetcouncil.gov.uk

Report Status: Public

Recommendation:

That Cabinet:

- a) Supports the creation of a full business case to accelerate the deployment of full fibre and wireless / mobile connectivity predominately in the rural parts of the Dorset Council area.
- b) Subject to the bid to the LEP being successful, agrees the Dorset Council budgetary commitment of up to £1m capital (from the Ringfenced Superfast Broadband budget) and revenue implementation commitment of £285k (funded from the Dorset Council Transformation fund) to leverage in external capital and commercial investment of up to £8.9m
- c) Approves the commencement of the required public procurements
- d) Delegates authority to the portfolio holder for Corporate Development, in consultation with the Executive Director of Place, to submit a full business

- case, procure and award services and enter into the necessary grant agreements to deliver this programme of activity
- e) Notes the unusually short timescales involved in developing these proposals, and the importance of responding and mobilising quickly to meet delivery deadlines to facilitate economic recovery from the impacts of the Coronavirus pandemic.

Reason for Recommendation:

To enable the business case process to be submitted, complete due diligence and to facilitate the quickest possible deployment by March 2022.

1. Executive Summary

The Secretary of State for Housing, Communities and Local Government wrote to Local Enterprise Partnership (LEP) chairs on 10 June 2020 inviting them to come forward with ideas for accelerating existing Government funded capital projects, to generate new activity within 18 months, to help create jobs and raise overall demand in the economy. The funding available is the Covid Recovery Infrastructure Fund and will be managed through LEPs.

In response to this, a business case is in rapid development for bringing multiple interventions together under one programme that will accelerate activity and close the digital connectivity gap, continuing progress in Dorset in the next 18 months or so, before the next major full fibre government intervention programme begins delivery during 2022 and beyond.

This report outlines progress to date, addresses high-level budget issues and seeks to delegate decisions to enable the work to progress against very tight timescales.

2. Financial Implications

Capital Budget to March 2022

£k	Description	Notes
5,084	Capital requirement from Covid Recovery Infrastructure Fund	Subject to business case approval and actual spend confirmed through procurement
2,000	(up to) Consumption of voucher capital (DCMS)	Utilises Gigabit voucher scheme funds – actual value dependent on number of schemes developed (up to £3,500 per business, £1,500 per residential premise)
1,850	Estimated commercial investment from infrastructure providers	Infrastructure providers contribution confirmed through procurement for hubs and for each scheme package agreed

1,000	(up to) Voucher top-up where required from Dorset Council capital sourced from underspend and claw-back generated from Superfast Dorset programme	Where scheme costs are greater than the aggregate national voucher value (top up capped at additional £2,500 per business, £1,000 per residential premise).
9,934	(Max) total capital programme value	Funded from Dorset Council Transformation fund.
£285	Additional project management and admin cost of running these projects to March 2022	

Capital investment from Dorset Council of up to £1.285m will unlock and leverage in capital grant and inward investment from infrastructure suppliers of up to £8.649m.

Project management and stakeholder engagement capability is essential to ensure that:

- Procurement is undertaken swiftly and that contract delivery is tightly managed, against challenging timelines.
- Community demand is stimulated, managed and satisfied (through use of vouchers).
- Public sector sites, in particular schools take up the new capabilities.
- Benefits are realised.

3. Climate implications

Industry research shows a number of carbon footprint reductions that arise from moving from copper networks to full fibre networks. These are referenced in the background documents.

4. Other Implications

None

5. Risk Assessment

Having considered the risks associated with this decision, the level of risk has been identified as:

Current Risk: HIGH

Residual Risk: MEDIUM

Summary risks	Mitigations
Short timescales at all stages of the project,	Early mobilisation of project staff Work with the LEP to minimise time to grant award.

Access to funding – Capital and Revenue	Purpose of this paper is to approve the Dorset Council element – confirmation of grant award will resolve risk
Data inaccuracies	The Superfast Dorset programme has an effective GIS database and engages with central government and suppliers to validate data
State Aid	State aid approach will be confirmed by the time the business case is submitted. The Digital Place team has experience in managing this in relation to multiple fixed and mobile intervention programmes. Legal advice will be sought.
Commercial appetite, even with subsidy	Early and continued engagement with infrastructure suppliers (within the boundaries of public procurement rules). Failure to manage this will have a reputational impact on Dorset Council and the supplier.
Community appetite (where community model / voucher consumption is utilised)	The model is based upon engagement at a parish / grouped parish level Commitment to connect to deployed infrastructure from hub site's contracting body is essential.
Rural deployment practicalities	Joint programme management with the infrastructure provider through delivery

6. Equalities Impact Assessment

An initial Equalities Impact Assessment has been carried out on proposals; this suggests a positive impact in terms of greater digital connectivity to a number of protected characteristic groups; no negative impacts were recorded.

This programme is all about the benefits of improved fixed and mobile connectivity in rural areas, and these generally have a positive effect.

7. Appendix

Digital Infrastructure to accelerate Economic Recovery - The Delivery Model

8. Background Papers

Letter from Secretary of State for Housing, Communities and Local Government to LEP Chairs on acceleration of projects for economic recovery, 10 June 2020

<https://cebr.com/reports/using-digital-to-revive-the-uk-full-fibre-broadband-and-the-growth-of-the-digital-economy-could-create-an-additional-1-2-million-skilled-jobs-by-2025/>

<https://www.weforum.org/agenda/2020/04/coronavirus-covid-19-sustainable-infrastructure-investments-aid-recovery/>

<https://www.cityfibre.com/wp-content/uploads/2018/04/Carbon-Smart-Our-digital-infrastructure-neednt-cost-the-earth-1.pdf>

https://www.ftthcouncil.eu/documents/Publications/Impact_fibre_optique_UK260208.pdf

<https://www.openreach.com/content/dam/openreach/openreach-dam-files/images/hidden-pages/full-fibre-impact/Full%20fibre%20broadband%20-%20A%20Cebr%20report%20for%20Openreach.pdf>

9. Programme to accelerate delivery of gigabit full fibre and capabilities for wireless and 5G mobile services

Background

- 9.1 The Secretary of State for Housing, Communities and Local Government wrote to Local Enterprise Partnership (LEP) chairs on 10 June 2020 inviting them to come forward with ideas for accelerating existing Government funded capital projects, to generate new activity within 18 months, to help create jobs and raise overall demand in the economy. The funding available is the Covid Recovery Infrastructure Fund and will be managed through LEPs.
- 9.2 With a turn-around time of less than 3 working days, Dorset Council submitted outline proposals for three linked digital projects to provide a full system solution to address all forms of digital exclusion: poor connectivity due to rural location, connection/device cost and motivation/skills to access the internet. Two of the three projects were prioritised, and Dorset Council has been asked to produce a Full Business Case by 2 August 2020, which we understand will be considered at the Dorset LEP meeting on 22 September 2020.
- 9.3 This is an extremely rapid turnaround for the development of a compliant detailed business case. ***Elements of the business case will have evolved and been firmed up between the writing of this cabinet report and the meeting date. An oral update of any changes will be given at the meeting if necessary.***
- 9.4 The timescales for delivery are also challenging, so the proposals and business case focuses on interventions with a proven track record in Dorset and nationally.

Strategic Context

- 9.5 Digital connectivity is of great importance to all
- Digital connectivity is acknowledged as a key economic driver in Dorset Council's Economic Growth Strategy and the draft Dorset Local Industrial Strategy.
 - Increasing socioeconomic activity online: in health and social care, education, business, retail and elsewhere
 - Data requirements and use continue to rise very quickly
 - Lack of connectivity in rural areas an impediment to economic growth and social mobility.
- 9.6 This has never been more apparent than during the Covid pandemic. An essential element of economic recovery will be improvements to digital infrastructure
- 9.7 The economics of telecoms infrastructure deployment are challenging – multiple central government, local government and community interventions are required as the market alone has not delivered and is not predicted to do so in the future in rural and other hard to reach areas.

Performance context

- 9.8 Two measures of broadband speed and coverage are commonly used.
- 9.9 **Superfast** (more than 24Mbps) is the broadband speed we need now, **Gigabit** is the speed and capacity we will need in the future (exactly when will depend on the uses and varies between types of businesses and domestic use)
- **Superfast** current coverage in Dorset is: **95.84%** (nationally 96.74%) at the conclusion of the Superfast Dorset contract with Openreach at the end of 2021 we expect this to have risen by an additional 1.2% - this still leaves many thousand premises with poor broadband.
 - **Gigabit** capable networks (usually described as full fibre) are the next generation of connectivity Dorset's current gigabit coverage is **4%**, compared with a national figure of 23%. Central government has set the aspiration of 100% gigabit connectivity by the end of 2025; this will be achieved by a combination of commercial deployment and in rural and other high-cost areas through government intervention, currently known as the 'outside -in' programme. The first (of 1,500 planned) contracts nationally are likely to begin deployment mid-2022. It is not currently known when Dorset will begin to benefit.
- 9.10 The proposed programme will deliver immediate improvements to both of the broadband coverages measures and build infrastructure that will

facilitate longer term improvements and reduce the commercial cost of mobile deployments, including the latest 5G standards.

Benefits

- 9.11 Improved ability for schools and public sector hubs that are currently not connected to adequate high speed broadband to provide on-line / blended learning delivery and to deliver public services in rural areas.
- 9.12 Increased productivity and growth for rural businesses through improved connectivity. Provides opportunity for business start-ups and once established supports businesses staying in Dorset.
- 9.13 Contributes to Dorset's Climate Change response through reduction in travel due to improved connectivity to support the current (and likely ongoing) requirement for home working, online shopping and other online activity. (CEBR modelling suggests by 2025, a quarter of the workforce will work from home on any one day. CEBR also predicts a substantial and accelerated move from London and urban centres to rural areas. Dorset needs digital networks that will attract skilled, entrepreneurial homeworkers. Furthermore, making it easy for people to work from home will bring carers into the labour force. Through the Covid pandemic it has been estimated as much as 50% of the working population has been working from home, and it has certainly been a key feature of Dorset Council's operations.)
- 9.14 Social benefits of getting elderly and shielding community online and able to access services remotely. Mental health benefits of reducing loneliness and social isolation.
- 9.15 Ensuring vulnerable children who cannot attend school or who are expected to access blended learning can participate effectively in classes. Currently many cannot participate due to poor internet connectivity, a lack of awareness/digital skills within the family to manage a broadband account or because of cost barriers.
- 9.16 Enabling video GP consultations and access to other health interventions remotely, providing efficiencies for the NHS and the Integrated Care System.
- 9.17 Enabling greater independence and virtual social care provision at home and in the community of vulnerable adults and children, reducing the cost of service delivery, and removing 'bed blockers' from the NHS
- 9.18 Boost the local skills and digital capabilities in both young and older generations, providing those most vulnerable to the economic impact of

Covid-19 eg unemployment with new, relevant skills to support their job search/ability to access better-paid opportunities.

9.19 Initial analysis suggests:

- that the total number of newly created, permanent full-time equivalent jobs as a direct result of the intervention. – 162 (BDUK's Connection Voucher Scheme evaluation report identifies £1 investment in business broadband connectivity returns £6 to the local economy in the short term.)
- productivity gain £1,403 per worker (CEBR Oct 2019)

9.20 Full detail on economic and social benefit is being modelled and will be finalised in the business case.

Outcomes

9.21 The programme will comprise two linked projects, with the following broad outcomes:

9.22 FIBRE extending rural digital connectivity, so Dorset's communities benefit from the rapid movement of businesses and public services on-line:

- Over 100 schools in Dorset with gigabit fibre connectivity (all schools that currently remain without gigabit fibre).
- A number to be confirmed of additional rural public sector / community hubs provisioned with gigabit fibre (from a long list of 400);
- 32,650 rural businesses and homes targeted by locally co-ordinated programme of voucher delivery from those rural spines reducing costs, including an increase in the commercial viability through subsidised spine build and an increase in voucher value in the most rural and expensive premises without fast and reliable broadband.
- 1,350 residents and businesses with the opportunity to move from the poorest broadband connectivity to full-fibre gigabit-capable services
- 79,000 residents and businesses with the opportunity to move from superfast broadband to full-fibre gigabit-capable services.

(Actual numbers achieved will depend on demand within communities and supplier capacity / appetite.)

9.23 MOBILE extending rural digital connectivity, so Dorset's communities benefit from the rapid movement of businesses and public services on-line.

- Providing a spine network facilitating wireless and small cell mobile transmission, including 5G.
- In appropriate locations (to be confirmed), and with increasing levels of complexity delivering:
 - Outdoor WiFi deployment

- Narrow-band IOT networks capability
 - Rural 5G infill provision capability
- Provision of end-user devices, SIMS and data packages to take advantage of the connectivity provision, with wrap-around skills provision.

Footnote:

Issues relating to financial, legal, environmental, economic and equalities implications have been considered and any information relevant to the decision is included within the report.

APPENDIX

Digital Infrastructure to accelerate Economic Recovery - The Delivery Model

Fibre infrastructure

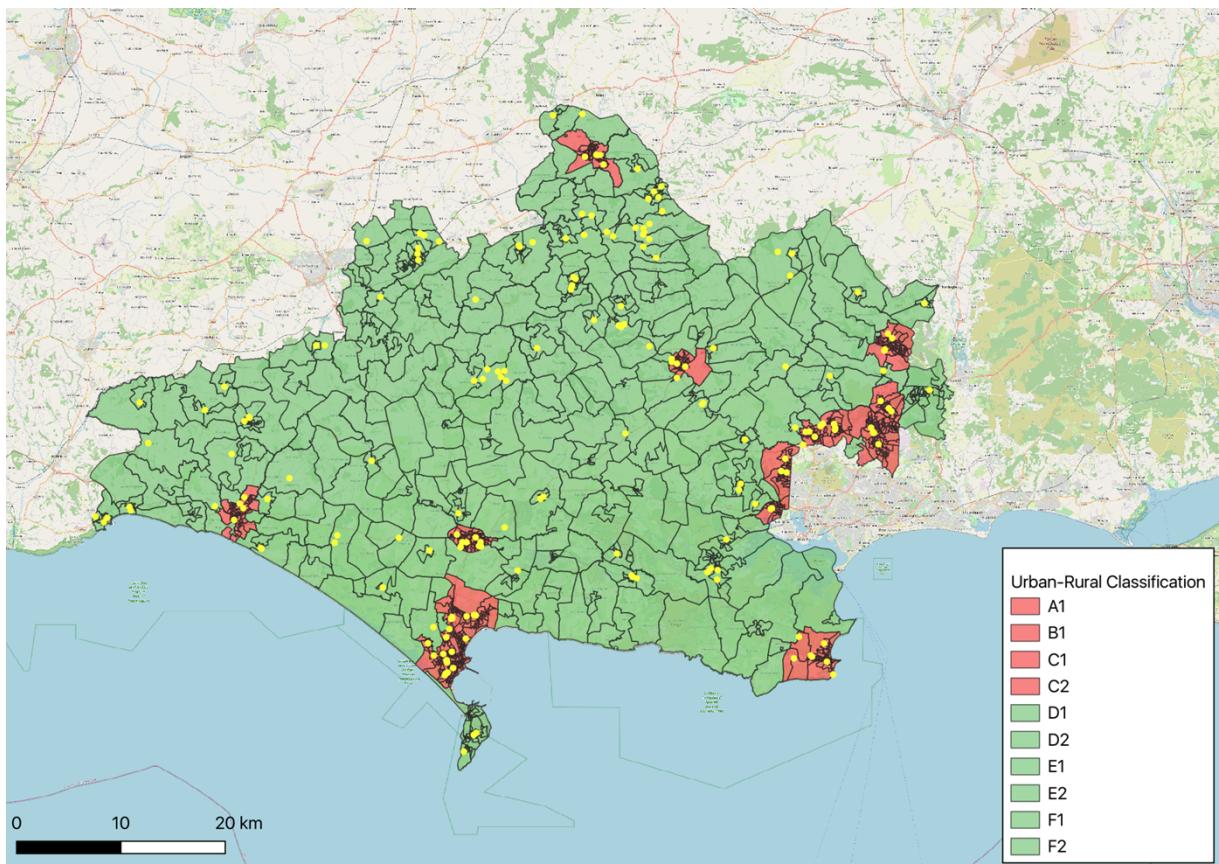
Fibre spine infrastructure to 100 / 150 locations ‘hubs’ across rural Dorset, extending the core network reach:

- providing direct connectivity for those public service sites (predominantly schools)
- reducing the commercial cost of extending network into the community
- providing a spine network which could reduce the cost of delivering wireless and small cell mobile transmission, including 5G

This project builds upon the tried, tested and proven model of “hub-and-spoke” full-fibre connectivity, as used by Dorset Council with success already, in very rural areas of the county. This means we can demonstrate this proposal is feasible and deliverable.

Initial modelling of hub locations

(subject to development through business case process and confirmation through procurement)

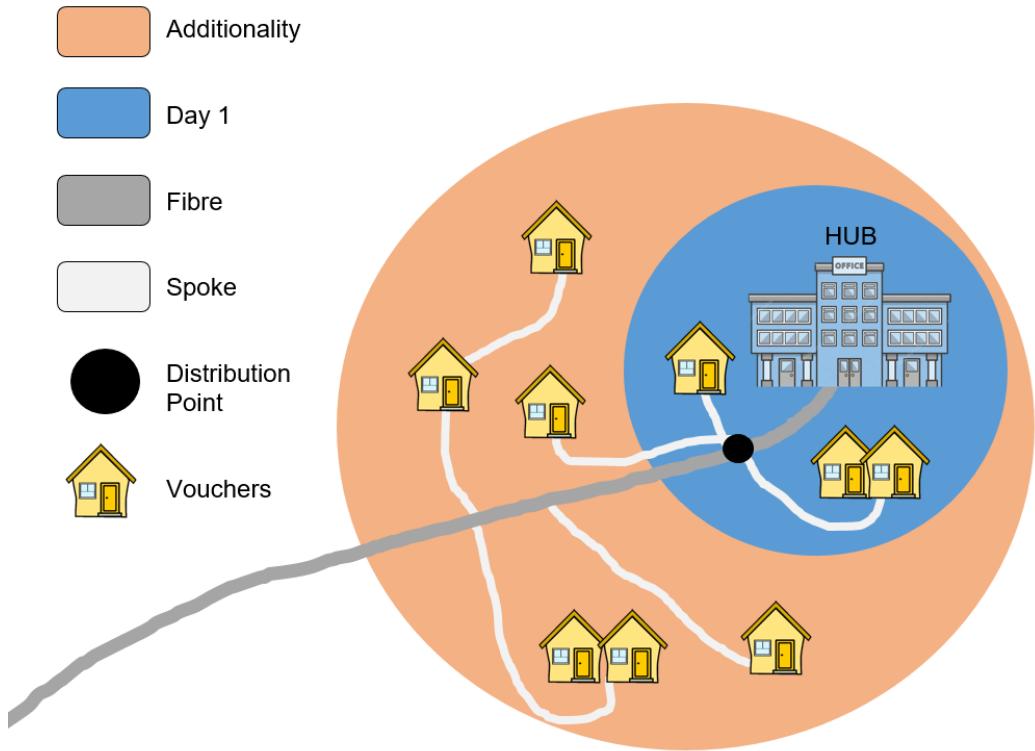


Under this model, Government intervention funding will be used to procure and fund the installation of a new direct-buried fibre to a series of council sites across Dorset. These are all public buildings, comprising schools and others like NHS/council facilities). This forms the “**hub**” – fibre to the local public building.

- By getting fibre into these “hubs”, it unlocks access to Gigabit-capable and superfast broadband for large numbers of homes and businesses.
- Delivering connectivity to “**spoke**” premises (homes and businesses) in the vicinity of these hubs is not commercially feasible, or it would already have been done under the existing Gigabit/BDUK broadband voucher schemes, which have been available to homes and businesses already.
- Developing solutions jointly in conjunction with local community and supplier, featuring community engagement and co-production of solutions., focussing on utilising voucher subsidy and additional top-up subsidy where needed. This will enable us to go more deeply into expensive hard to reach premises than has previously proved possible.

Programme will be delivered at a community level eg by ward (52) or parish (210, or fewer if looking at grouped parish councils). This would largely utilise available government capital subsidy, using Dorset Council subsidy only where needed. A managed and resourced programme will utilise several million pounds of government subsidy for better outcomes in communities.

Schematic diagram



Vouchers are good value for Dorset, utilising central government funding and supplier contribution. The issues are driving out higher volumes through the demand-led approach by encouraging demand and matching it to supplier appetite and providing additional subsidy to bring more rural premises into scope.

Wireless / Mobile

Providing a spine network which could reduce the cost of delivering wireless and small cell mobile transmission, including 5G. In appropriate locations (to be confirmed), and with increasing levels of complexity:

- Outdoor WiFi deployment
 - connectivity bubbles to improve connection for council staff and other public sector staff (utilising Govroam)
 - connectivity bubbles with public access, as well as council staff access
- Narrow-band internet of things (IOT) networks

- Rural 5G infill provision
 - longer range connectivity bubbles
 - longer range bubbles with public access via SIM cards, for outreach/education/elderly support as well as council staff
 - Long range connectivity bubbles to be made available for businesses on demand (industry 4.0)
- Provision of end-user devices, SIMS and data packages to take advantage of the connectivity provision, with wrap-around skills provision