

Brighton & Hove City Council

Policy & Resources Committee

Agenda Item 126

Subject: Research and Innovation Fibre Ring

Date of meeting: 24th March 2022

Report of: Executive Director for Economy, Environment and Culture

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Ward(s) affected: All

For general release

1. Purpose of the report and policy context

1.1 This report updates members on the progress towards delivery of the Research and Innovation Fibre Ring (RIFR) project: A digital project which seeks to lay new municipally controlled fibre-optic cables linking strategic digital sites within the city. The report also updates members on the strategic and community wealth building benefits of the project, and also seeks agreement to participate on some city-wide digital development workstreams with Wired Sussex which will work with communities in the city to help them to benefit from new digital opportunities.

1.2 The RIFR project allows co-operatives of locally owned digital businesses to access and commercialise some of the new fibre, without having to rely on infrastructure owned by (multi) national businesses. The project enables the provision of an upgraded 5G test-bed at the Fusebox and at Brighton Dome and Corn Exchange to assist local businesses in learning about and experimenting with 5G technology and understanding how new connectivity technologies might operate in an arts and culture setting. The report seeks agreement to changes in the way the project is delivered to keep it within budget.

2. Recommendations

2.1 That Committee notes the work done to date to deliver the RIFR project using Getting Building Fund money from government, including the progress made to date on the 5G test bed and further notes the procurement options that have been explored to deliver the fibre.

2.2 That Committee agrees to the council joining the Cooperative Network Infrastructure (CNI) and Brighton Digital Exchange co-operatives.

2.3 That Committee agrees to use £310,000 of the Getting Building Fund grant, to commission CNI to use their status as a Communications Provider to ensure access to existing Openreach infrastructure, and notes that this fibre will be delivered broadly in line with the map shown at Appendix 1.

- 2.4 That Committee delegates authority to the Executive Director for Economy, Environment and Culture to enter into the agreements necessary to deliver the fibre element of the RIFR.
- 2.5 That Committee note how the RIFR project fits into a wider sub-regional digital delivery programme at a Greater Brighton level, as set out at paragraph 3.19, and that Brighton & Hove will work with the Greater Brighton Economic Board to maximise the strategic benefits of the new fibre.
- 2.6 That Committee agrees to commission a £25,000 (maximum) programme of digital education and support to maximise the benefits of the RIFR project to the wider digital economy of the city and to the city's communities – as set out at Appendix 2.

3. Context and background information

RIFR: Background

- 3.1 The Brighton Research and Innovation Fibre ring was first proposed in the Coast to Capital (C2C) LEP's Strategic Economic Plan. It was conceived to address issues highlighted by the council's 2012 Super Connected Cities Programme, which identified that most of the city's small and medium digital businesses – comprising a nationally important digital sector – were located in parts of the city that were poorly served by existing broadband. Many such firms were having to pay for expensive bespoke leased lines. As such, these firms were being poorly served by the national connectivity infrastructure providers, who were not incentivised to invest in new fibre as that would diminish their income from leased lines. The city council and C2C therefore identified the need for locally owned fibre in a ring in the city that linked up key digital sites, such as New England House.
- 3.2 At the same time, the Digital Catapult Centre Brighton (DCCB) wanted to expand on their existing 5G test bed at New England House by creating a new and upgraded test bed in a more 'real world' setting that meant local businesses could innovate and create applications for 5G technology that were more applicable in a variety of settings. Having looked at various options, they agreed with Brighton Dome Brighton Festival to set up and upgrade a 5G test bed at the Dome and refurbished Corn Exchange which could look at applications for 5G technology as part of the creation and consumption of arts and culture content and in a heritage setting.
- 3.3 The City Council and DCCB [originally applied to C2C for Local Growth Funding](#) to fund a project that delivered both the fibre ring and the 5G test bed in August 2019, and members [agreed to the project at a meeting of this committee on 13th February 2020](#). This application was successful. However, the Covid Pandemic meant that the city council had to [put a hold on all new capital projects in March 2020](#), resulting in the LEP having to withdraw the funding as the project could no longer be delivered within the timescales required by the funding.

- 3.4 In June 2020 the government announced a new £900m round of funding, called Getting Building Fund, as part of the response to the pandemic. This funding was also overseen by C2C locally. BHCC and DCCB reapplied with the RIFR project in July 2020, but this time it only required a match funding contribution from the city council of £25,000 – with £200,000 match funding also offered by DCCB for their part of the project. Previously the city council had suggested match funding of £283,000. This is because the Getting Building Fund had more money available to the city council, and it had also been difficult to get to a business case under the previous version of the project that saw the council’s investment being repaid.

RIFR Outputs and Benefits

- 3.5 The project as funded by the LEP has a number of outputs it needs to deliver. This including 5.6km of new fibre in the city centre. The council will end up with this dark fibre in its control. This has potential to be used for future smart cities projects, as well as having the potential to save money under the [South East Grid procurement](#) delivering network services for the city council – because the council will own its own fibre connections to buildings on the RIFR route and therefore not have to pay for third party connections via the South East Grid. However, the project’s primary focus is not financial savings for the city council.
- 3.6 More important than the direct outputs are the Community Wealth Building benefits of the project. Community Wealth Building is an approach to local economic development which supports keeping assets in local ownership with value generated and retained locally. Often this can be enabled by anchor institutions, such as the local authority, using their purchasing and regulatory powers to give certainty and to make business cases work for local investment. The RIFR Project delivers a 5G test bed for local businesses to do important R&D. But it has also always been envisioned that the new fibre being provided would only be partly retained by the local authority for its own use. The rest of the fibre was always meant to be offered to local digital firms to commercialise, probably via an existing co-operative of digital businesses such as the Brighton Digital Exchange (BDX), who already own a data centre and digital connecting and hosting point at New England House. The BDX was another project delivered by the city council and Wired Sussex acting jointly to deliver locally owned digital assets.
- 3.7 This control of local assets by local businesses, to commercialise and do business with one another while not having to rely on the infrastructure owned by large (multi) national providers, is one of the key outcomes from the project. It will create an environment where local businesses can innovate and flourish on their own terms.
- 3.8 As set out at paragraphs 3.12 to 3.18, this model is proposed to change slightly, but in a way that continues to benefit local businesses without harming the interests of the city council.

The city council has signed a funding agreement with C2C for the project, and has a separate agreement with DCCB, who have started to deliver the

5G test bed elements of the project. They are progressing with procurement of the equipment and are awaiting delivery so they can proceed with installation. The impact on supply chains of the global pandemic has meant the equipment has a longer lead-in time from ordering.

Strategic Activity to Build on the Benefits of RIFR

3.9 The RIFR project will deliver new digital hardware in the city. However, work needs to be done to ensure that the benefits of that new infrastructure are felt as quickly as possible and as widely as possible. To this end, work has been done with Wired Sussex, the digital sector representative group, to look at how the city council and Wired Sussex can work together on a programme of Strategic Activity to Build on the Benefits of RIFR. The proposal from Wired Sussex is included at appendix 2.

3.10 The proposal sets out three main objectives:

- To enable Brighton & Hove's digital, media and tech sector to engage effectively and consistently with the city council.
- Enable communities under-represented in our digital sector to learn about the sector, the opportunities it provides and how to benefit from it.
- Support and add additional value to existing BHCC-funded initiatives that support the creative industries.

It then proposes five main workstreams to deliver this, including working with organisations and institutions to facilitate information and activity about what the local digital sector does and how to build a career in it. That activity would be based around building ongoing and sustainable relationships between digital companies in the city and community organisations. To kickstart the programme, a number of Wired Sussex Board member companies have already committed themselves and their staff to support the project.

3.11 This is work that can only be directly delivered by Wired Sussex, given their membership offers the breadth and depth of the city's digital sector to be able to work with communities. They are also uniquely placed to be able to make the links between the cooperatives backing RIFR (Brighton Digital Exchange and CNI) and the arts and culture sectors. This work would cost a maximum of £25,000 and would be funded from Economic Development budgets.

RIFR Update: Procurement and Delivery Options

3.12 The part of the project to deliver new fibre has proved more difficult to deliver within the budget. BHCC has worked with Mid Sussex District Council (see paragraph 3.19, below) to look at options. The original intention had been to call Balfour Beatty off the SCAPE framework to do the digging and instal the ductwork for the new fibre, as Mid Sussex are doing for their fibre projects. However, a combination of the complexity of digging in Brighton's constrained streets and the uncertainties in supply chain and costs for capital projects has meant the project team could not get the delivery price down to a level the project could afford. We have looked at other options, including using the Highways Term Maintenance contractors – because much of the cost is linked to the fact that pavements in the area

proposed would need to be reinstated. However, this too has proven outside of the contract budget. The project team has therefore come to the conclusion that digging up streets to lay new ducting to house the new fibre is too expensive for the project to support.

- 3.13 Therefore a new proposal has emerged as a way of delivering the new fibre. The existing Openreach duct and pole infrastructure (which carries Openreach fibre, as well as older copper cables) is required by law to be open to other Communications Providers. This is due to Openreach's (formerly part of British Telecom) role as the national connectivity infrastructure provider. The now private company of Openreach retains some universal service obligations in return for controlling what was a state owned asset. This is known as [Physical Infrastructure Access, or PIA](#).
- 3.14 Therefore, the project could be delivered by putting new sub-duct within the existing Openreach ducting, and then putting new fibre into that sub-duct. This has the benefit of not needing kilometres of city streets to be dug up. In most cases the sub-duct can be pushed through the main duct from an open inspection chamber, and the fibre then blown through that sub duct. The only places where digging will be required is where the old Openreach duct has been blocked or where the RIFR project needs to put in a new cabinet as a connection point. Only three or four cabinets are likely to be needed. In addition, where the city council already have ducting in the right places – for example for traffic signals – then that can also be reused. This aligns with the government's Public Asset Reuse approach to new fibre.
- 3.15 This method of delivering fibre is obviously much cheaper than digging up streets and then reinstating them. The £310,000 project budget for new fibre will therefore deliver approximately 10km of new fibre. The map at Appendix 1 shows the current working proposal for the route of the new fibre. The absolute minimum necessary connection is between the original 5G test bed at New England House, and the new upgraded test bed at the Dome. The rest of the route is intended to pass as many elements of the city's digital economy as is possible. In addition, there is an intention to link up with the privately owned Zayo fibre spine that heads west along the coast towards Chichester and Portsmouth (though Zayo are also a CNI member). The exact route and how far the spurs out from the central ring go will be impacted by issues like the number of blockages found in Openreach ducts.
- 3.16 Accessing the Openreach network under the PIA rules can only be done by accredited Communications Providers, as Openreach need to ensure that any access into the infrastructure does not damage it or cause problems for other users. The City Council is not a Communications Provider so there have been discussions with BDX, as the local digital co-operative, about how to implement a PIA solution. BDX is a member of a nationwide digital co-operative called Cooperative Network Infrastructure (CNI). CNI can commission one of its members who is a Communications Provider (and is based in Brighton & Hove) to deliver the fibre in the Openreach network.
- 3.17 The fibre being delivered by CNI would require a change in the ownership and operation model. Previously the city council would have commissioned

and paid for the new ducting and fibre, would have owned that asset and would have then handed over 50% of the fibres to the co-operative to manage. Under the new model, the co-operative will be the neutral host for the new fibre in the Openreach network, but will grant the city council Indefeasible Right of Use of 50% of the fibres for 30 years (the assumed lifetime of the asset). The city council still ends up with control of 50% of the fibres for the life of the asset, so the fundamental benefits proposition doesn't change. In reality, the city council may not need to make full use of the 50% of the fibres in its control, and may rent unused fibres back to the co-operative at a market rate, delivering an income source.

- 3.18 The method for delivering this is for the city council to become a member of both the Brighton Digital Exchange and CNI co-operatives. It then uses £285,000 Getting Building Fund grant money (plus its own £25k match funding to make the £310,000 total) to commission CNI to deliver the fibre. External legal advice has confirmed that the Council does not need to undertake a competitive tender process for the reasons set out in the legal implications.

Greater Brighton Fibre Spine

- 3.19 The proposed RIFR fibre ring will be part of a wider network of fibre spine projects being delivered in the city region. Mid-Sussex District Council have a number of such projects, funded via Local Growth Fund, Getting Building Fund and the national Local Full Fibre Networks Programme. This includes linking Burgess Hill to Crawley, putting fibre into the Northern Arc around Burgess Hill using 'dig once' principles (putting fibre in as part of any development involving works to a highway) and connecting rural communities with new fibre. Mid-Sussex are also looking to use more affordable PIA solutions to use Openreach infrastructure to provide fibre to rural communities they otherwise could not reach.
- 3.20 Mid-Sussex also have an existing project to dig new fibre from Burgess Hill to New England House, to link Brighton's digital cluster with a cluster of their own they are looking to grow. Given the work Mid-Sussex are doing, and the fact they are delivering similar projects (and in some cases running fibre along the same streets), BHCC have been working very closely with them. Their project team have done much of the work around procurement options for the fibre ring. Given the close working between the two councils, and the fact we are delivering very similar projects, in similar ways, it is proposed that Mid-Sussex deliver the project management of the RIFR project to exploit economies of scale. There have already been elements of dig coming out of New England House where the costs have been directly split between BHCC and Mid Sussex, rather than both councils duplicating one another. It is proposed that all elements of project management of the RIFR project – including management of the build stages of the project – continue to be delivered by Mid-Sussex District Council. BHCC would need to directly award this work to Mid-Sussex under a co-operation agreement, and it is proposed that the Executive Director for Economy Environment & Culture uses their delegated powers to issue a waiver of contract standing orders to regularise this.

- 3.21 This network of government and LEP funded fibre spines in public and/or co-operative ownership offer an opportunity for the digital sector in the city and wider city region. The Greater Brighton Economic Board agreed a [Greater Brighton Digital Action Plan](#) in January 2019. One of the key deliverables in that plan was new Multimode strategy to delivering fibre, which these projects represent. City region partners can now use this spine network, along with the availability of privately funded networks such as City Fibre, to shape the next iteration of the plan, and start to think in more detail about the strategic, environmental, economic and social benefits the new fibre can deliver. This includes considering how to address issues of digital exclusion and how we might grow our leading digital sector across the city region, such as the work proposed with Wired Sussex as set out above.

4. Analysis and consideration of alternative options

- 4.1 As set out at 3.12 and 3.13, the project team has exhausted all options for delivering the RIFR project within budget during the process of seeking procurement options that work. This is now the only way of delivering the project within budget. But this method of delivery using PIA also has positive benefits including: Considerably more fibre being delivered for the money; much less roadworks and digging in the city centre and a quicker delivery time.

5. Community engagement and consultation

- 5.1 During the development of this project there has been consultation and engagement with the digital business sector through Wired Sussex, Brighton Digital Exchange and CNI.
- 5.2 The fact that the PIA method of delivery will not require significant digging up of roads means there is less of a requirement to consult with affected residents.

6. Conclusion

- 6.1 The RIFR project is an innovative way of delivering new fibre to serve the city's digital economy in a way with fits with Community Wealth Building principles. The project team has identified the most cost efficient and least disruptive way to deliver the project. The proposal from Wired Sussex will enable the benefits of RIFR to be felt most widely.

7. Financial implications

- 7.1 The council has been awarded a total of £1,266,000 from the Getting Building Fund toward the Research and Innovation Fibre Ring as reported to Policy & Resources Committee in February 2020. Match funding of £200,000 from the Digital Catapult Centre Brighton and £25,000 from Brighton and Hove City Council has provided a total of £1,491,000 toward the delivery of the project. A total of £310,000 from this budget will be invested into the delivery of the fibre into the CNI Digital Operative. This funding will be made up of £285,000 from the Getting Building Fund and the

council match funding of £25,000. The match funding will be met through the corporate Strategic Investment Fund.

Name of finance officer consulted: Rob Allen Date consulted: 28/02/22

8. Legal implications

- 8.1 The Council is required to comply with the Public Contracts Regulations 2015 in relation to the procurement and award of contracts above the relevant financial thresholds for services, supplies and works.
- 8.2 External legal advice has confirmed that the Council can rely on regulation 32(2)(b)(ii) and/ or (iii) to enable it to work with CNI without undertaking a procurement. The type of the arrangement with CNI, which is set out at 3.14 to 3.16 above, supports these grounds. The ducts which are to be utilised for the infrastructure are owned and operated by Openreach and they require any third party intending to use the ducts to be accredited as a Communications Provider. It is therefore only possible for a Communications Provider, such as CNI, to use the ducts. This technical requirement and the requirement that the role of the neutral host be carried out by a cooperative (set out in the Council's LEP grant application) means that there are no reasonable alternative providers and justify the use of Regulation 32. A Contract Award Notice will need to be published to explain the basis on which the Council is relying on Regulation 32.
- 8.3 A Waiver of the Council's Contract Standing Orders will also be required.
- 8.4 The external legal advice confirms that the Council's investment in CNI should be treated as constituting a subsidy. It is a lawful subsidy as it meets a number of principles which apply in the current subsidy control regime. Details of the subsidy will need to be published on the Government's transparency database.
- 8.5 Mid Sussex District Council, Brighton & Hove City Council and CNI will enter into a Collaboration Agreement which will set out terms on which the project will be delivered.

Name of lawyer consulted: Eleanor Richards Date consulted: 09/03/2022

9. Equalities implications

- 9.1 Digital inclusion is an equalities consideration that is growing in importance. The Greater Brighton Digital Strategy sets a key design principle that all parts of our communities should be included and access the benefits of the digital future. Whilst the RIFR is initially focused on businesses rather than residents, it is a step towards the roll out of more ubiquitous full fibre. Once that full fibre is rolled out it should bring down the costs of higher speed connections to all citizens, and so help to reduce digital exclusion. The programme of work proposed with Wired Sussex will also address issue of representation in the digital sector.

- 9.2 Furthermore, being a community wealth building project, it ensures that smaller local digital SMEs and start ups are more able to benefit from the value created by the ring.

10. Sustainability implications

- 10.1 Improved fibre connectivity enables a number of applications that should help to reduce travel related carbon by enabling better use of teleconferencing, telehealth etc. Furthermore, fibre in city centres drives the uptake of Smart Cities solutions. This involves the collection, transmission and sharing of large amounts of data that can be used to improve the efficiency of how cities operate.

11. Other Implications

Social Value and procurement implications

- 11.1 The report sets out above how the RIFR project is fundamentally one about developing social value through Community Wealth Building.

Supporting Documentation

1. Appendices

1. Proposed map of RIFR Route (subject to condition of Openreach Infrastructure)
2. Wired Sussex Proposal: Strategic Activity to Build on the Benefits of RIFR

