



<b>Subject:</b>	Delivering the Smart Belfast urban innovation framework
<b>Date:</b>	17 June 2022
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<b>Restricted Reports</b>	
<b>Is this report restricted?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>If Yes, when will the report become unrestricted?</b>	
<b>After Committee Decision</b>	<input type="checkbox"/>
<b>After Council Decision</b>	<input type="checkbox"/>
<b>Some time in the future</b>	<input type="checkbox"/>
<b>Never</b>	<input type="checkbox"/>

<b>Call-in</b>	
<b>Is the decision eligible for Call-in?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

<b>1.0</b>	<b>Purpose of Report or Summary of main Issues</b>
1.1	To provide Members with feedback on the public consultation on the new Smart Belfast urban innovation framework (2022 to 2025); and to set out the key actions in the first year delivery plan 2022/2023.
<b>2.0</b>	<b>Recommendations</b>
2.1	The Committee is asked: <ol style="list-style-type: none"><li>1. Note the consultation feedback on the Smart Belfast urban innovation framework.</li><li>2. Note the main actions for Year 1 (2022 to 2023).</li><li>3. Approve the procurement of the pilot citizen capacity building programme (CODI).</li><li>4. Agree the development of the 'Augment the City' challenge programme</li><li>5. Note the ongoing Advanced Wireless Innovation programme</li></ol>

	<p>6. Note progress on the Belfast Region Innovation Challenge Fund programme</p> <p>7. Note progress on the Urban Data programme</p>
<b>3.0</b>	<b>Main report</b>
	<b>Consulting on the Smart Belfast urban innovation framework</b>
3.1	Following approval by Members at December's SPR committee meeting, the City Innovation Team have been publicly consulting on the draft 'Smart Belfast' urban innovation framework.
3.2	The framework sets out a number of actions, enablers and activities which together are designed to make it easier for the city to exploit digital technologies to better address major urban challenges while at the same time supporting innovation by our SME community. The framework also seeks to maximise forthcoming funding opportunities, including the Belfast Region City Deal investments.
3.3	The framework identifies the Belfast 'Smart District' (covering the city centre area) as key to this approach. It will act as a place where the Council and its partners can directly develop and test real-world innovative policies, interventions and new commercial models in a supportive environment.
3.4	The public consultation ran from 18 January to 15 March 2022. It included presentations to over 150 people across sectors, and an online survey on the Council's 'Your Say' platform promoted via the media and other communication channels. The consultation web page received 837 visitors and 37 people completed the survey. 78% of responses were submitted by individuals and 22% by organisations.
3.5	<p>The majority of responses supported the core elements of the framework:</p> <ul style="list-style-type: none"> <li>• 65% definitely agreed or somewhat agreed with the eight supporting pillars of Belfast's urban innovation ecosystem.</li> <li>• 60% definitely agreed or somewhat agreed with the seven key enablers for the successful delivery of the Belfast Smart District.</li> <li>• 60% definitely agreed or somewhat agreed with the Smart District project criteria.</li> <li>• 63% definitely agreed or somewhat agreed with the seven challenge focus areas in the Smart District.</li> </ul>
3.6	A significant minority of respondents disagreed with the use of digital technology in general in the city and view it as intrusive. They have concerns around data privacy, surveillance, cybersecurity and whether digital infrastructure in general is safe. This may reflect a lack of knowledge and an uncertainty in wider society about the speed and ubiquity of new

	<p>technologies impacting our lives and our city. As a civic leader this is something the Council and its partners need to engage on proactively with residents and communities.</p>
3.7	<p>Other respondents noted the excellent opportunities that exist to harness urban innovation in Belfast and its potential to transform our economy and to also contribute to the city's wider ambition over the coming decade. A number pointed out that digital disruption was already being felt in the city and that leaders and institutions had an important role to play in responding proactively to digital challenges and opportunities.</p>
3.8	<p>Feedback from Elected Members was very supportive of the aims of the framework, and the plans for the 'Smart District' as a catalyst for urban innovation and for economic transformation. Members did note the need to ensure close links between the work taking place in the Smart District and its impact on communities and businesses elsewhere in the city particularly those living close to the centre.</p>
3.9	<p>The three-month public consultation phase was the culmination of a twelve-month phase of extensive engagement with local businesses, government bodies, academic institutions, charities and other city stakeholders, supported by BABLE, Fraunhofer IAO, Fraunhofer FOKUS, and Eindhoven Brainport. This wider engagement activity included five workshops with 176 participants and detailed interviews with 120 stakeholders.</p>
3.10	<p>Officers are now working to incorporate the findings from the consultation, and from further engagement with Elected Members and across council departments, to complete a final published version of the framework. This will be presented at the September SP&amp;R Committee meeting prior to a public launch.</p>
	<p><b>The Smart District project portfolio for 2022/2023</b></p>
3.11	<p>Projects and activities for the first year of the framework have been developed within the context of the Smart District and are designed to stimulate collaborative innovation activity with public and private investment that can stimulate new ideas and solutions for the city's core challenges. Challenge areas where the District can make a significant contribution include:</p> <ul style="list-style-type: none"> <li>- Re-imagining the future of our 'high street'</li> <li>- Supporting the visitor and tourism experience</li> <li>- Supporting healthy urban neighbourhoods</li> <li>- Contributing to sustainable multi-modal travel and supporting the energy transition to zero carbon</li> </ul>

- Building citizen/community capacity and skills to navigate the opportunities and challenges of our data-driven society and economy.
- Generating opportunities for our SME community to invest in R&D and innovation opportunities
- Supporting research excellence in our universities by providing greater opportunities for social impact.

The key project priorities for the first year are:

### **Citizen Office for Digital Innovation**

- 3.12 Based on the experience of delivering ‘Smart Belfast’ and learning from other places (such as Dublin, Barcelona, and Portland) the team have identified the importance of pro-active engagement and capacity-building with city residents, community groups, officials and elected members on the impact of digital innovation. This is also something confirmed during the engagement phase on the current framework particularly in the relation to the Smart District.
- 3.13 With the right support in place citizens are better able to collaborate with researchers, public officials, and private sector innovators on the co-design of projects that exploit innovative digital technologies to address important urban challenges. Conversely, cities that do not put this foundational work are finding it increasingly difficult to build the necessary understanding and trust amongst citizens to deliver innovative solutions. There is strong evidence<sup>1</sup> that scepticism of digital tech is having an impact on its use in supporting new solutions in health care, mobility, and urban design - and that this scepticism has to be actively challenged.
- 3.14 The ‘Citizen Office for Digital Innovation’ (CODI) is a capacity building programme designed to support the citizen in a digitally enabled world – with an initial focus on the implementation of the Smart District. This support would range from supporting people to engage in data projects to improve health outcomes, through to understanding how Internet of Things and sensors can better understand local air quality or manage traffic problems.
- 3.15 CODI will be part of the city’s wider ‘skills escalator’ offering those who participate not only the chance to shape Smart District project, but also encouraging interested individuals into more formal skills and training programmes.

<sup>1</sup> <https://www.nesta.org.uk/report/when-billboards-stare-back-how-cities-can-reclaim-the-digital-public-space/>  
<https://dtp.helpplaces.com>  
<https://digitalrightsbarcelona.org>

3.16	<p>The City Innovation team plan to work with local delivery partners to design and test a pilot version of the capacity programme with local communities starting in autumn 2022 and completing by the end of March 2023. The learning from the pilot would then shape the content of a future 'open source' capacity programme; test its core modules; and help establish a commissioning model. The results would also be used to inform future business cases for a more ambition programme.</p>
3.17	<p>Running alongside this pilot will be a strand of work focused primarily on public sector officials aimed at supporting the greater adoption of digital across government. Innovation often involves a degree of risk-taking and experimentation – something that can be difficult to manage within a public organisation.</p>
3.18	<p>Members are asked to approve £70,000 procurement for the design and delivery of the CODI citizen capacity building programme. The design of the programme would go out the public tender with bids being particularly welcome from local organisations with strong innovation and community capacity experience. (This falls within current City Innovation budget.)</p>
<p><b>'Augment the City' challenge competition for SMEs</b></p>	
3.19	<p>As noted above, one of the early priorities of the Smart District is a focus on the visitor and tourist experience in our city centre and the 'high street'. Digital technology has already proved disruptive to city tourism offerings and, as various technologies reach maturity (such as AR/VR/5G/AI), this disruption is only likely to increase. With a large number of city and neighbourhood visitor investments planned or already underway, it is important for Belfast's partners to explore just how such technologies are likely to shape the city's unique offering.</p>
3.20	<p>Working with the Council's Enterprise &amp; Business Growth unit, the Belfast Stories team, Ulster University, the Digital Catapult NI and others, the City Innovation team is designing an 'Augment the City' challenge programme to commence later in 2022. The challenge programme would encourage our SMEs and innovators to harness immersive technologies to showcase innovative ways for communities and visitors to explore our city and its stories. It would complement a proposed capacity building programme being designed by the Enterprise &amp; Business Growth unit for the local immersive SME sector (a sector that has been receiving international attention for its creativity).</p>
3.21	<p>An associated challenge 'competition' in the smart district will allow our creative sector to invest further in immersive R&amp;D, while at the same time supporting city organisations, such as Belfast Stories, to gain insights into how immersive tech can shape the future of Belfast's visitor experience.</p>

3.22	<p>The proposal has received strong interest from a number of global platform and technology infrastructure providers with several million pounds of co-investment funding potentially being made available. Engagement is also under way with Digital Catapult UK, which is currently planning a major Immersive XR programme with cities, to consider how the two programmes could complement each other – and potentially attract further opportunities for our local creative SMEs.</p>
3.23	<p>Members are asked to note the development of ‘Augment the City’; following a range of planned cross sector workshops an update will be brought to committee later in the summer detailing options for industry co-investment opportunities.</p>
<p><b>Smart District and advanced wireless innovation</b></p>	
3.24	<p>Broadband fibre is currently the connectivity ‘backbone’ of the modern digital economy. However, the coming decade will see the rise of advanced wireless networks as the underlying infrastructure for connecting businesses, services, and new technologies. It’s a technology that will allow many millions of devices to work together simultaneously across a city. It will be the basis on which ‘Industry 4.0 Factories of the Future’ and ‘connected health environment’ will be established.</p>
3.25	<p>Other UK cities are already vying to be first in the queue to deploy advanced wireless networks to support local innovation and research in areas such as connected health, advanced manufacturing, cybersecurity, tourism and logistics. DCMS have awarded over £250 million to UK cities and regions to trial advanced wireless and to address barriers to its deployment – and have plans to invest similar sums over the next period. Cities such as Liverpool, Manchester, Sunderland and Dublin are already investing many millions of pounds to make sure they are early adopters.</p>
3.26	<p>Belfast, and in particular the Smart District, is well-placed to be the home for wireless innovation. Both our universities have enviable track records in this space, and their planned City Deal Investment in Centres of Excellence will all have research strands that seek to exploit advanced wireless. Across our businesses and in our advanced manufacturing sector in particular, advanced wireless innovation is growing, with companies not only innovating in the wireless network service ecosystem, but also harnessing the technologies to transform their traditional products and processes. Belfast Harbour are currently exploring the use of 5G private networks to transform the management of Port operations. And public sector agencies are beginning to recognise the need to think about the opportunity that wireless represents.</p>

3.27	<p>The ambition of the Smart District is to make Belfast the natural home for the development of new commercial models for wireless services, and a place where researchers and innovators can develop new solutions. The Belfast Advanced Wireless programme is seeking to do this in four main ways:</p> <ol style="list-style-type: none"> <li>1. Developing and managing a set of shared physical assets that can be made readily available to the mobile industry in a single, coherent and low-cost manner.</li> <li>2. Removing unnecessary barriers to investment by creating a shared approach to engaging with industry.</li> <li>3. Making a small number of capital investments in core telecoms infrastructure at key locations in the city which can be made available to any wireless provider in a coherent, low-cost manner.</li> <li>4. Stimulating demand for wireless services by aggregating existing and future demand with key partners including our universities, businesses and public agencies. And working together to bid for new funding and investment.</li> </ol>
3.28	<p>The City Innovation team have been working with industry experts and UK Government advisors, Real Wireless, to design a scalable and replicable model that can be harnessed by any council in Northern Ireland. The team are also working on a £30 million City Deal business case to fund item (3) above. A first draft of the business case for investment was recently completed, and over the coming months the city will be engaging with industry, NI Government Departments and UK Government departments towards developing agreement for funding.</p>
3.29	<p>The Smart District programme is also about stimulating and aggregating demand for advanced wireless services (item 4 above) and we are currently engaging with a wide range of partners including a number of the large mobile network operators, a large cloud platform provider, Digital Catapult UK, and others to create collaborative innovation projects for the city.</p>
3.30	<p><b>Challenge Funds for Innovation</b></p> <p>The City Innovation team have recently appointed two Challenge Fund managers who are working with regional partners to develop a major funding programme to support digital innovation across the private and public sectors. This £54 million regional programme, funded via the Belfast Region City Deal, will have a number of investment mechanisms – each designed to achieve complementary outcomes.</p>

3.31	<p>The design of the mechanisms is at an early stage – however, early concepts include an evergreen ‘Digital Innovation Venture Fund’ which would invest in a small number of exciting, high potential/high growth companies in the region. In parallel an ‘Innovation for Societal Impact’ fund would seek to encourage greater investment by SMEs in R&amp;D while at the same time working directly with these SMEs to harness their innovation for wider societal impact. This is aimed at providing a stimulus in the Smart District as well as across the region.</p>
3.32	<p>The Challenge Fund managers have commenced work on the individual business cases with the expectation that open calls for first phase one of more of the funds could be announced early in 2024. (Members should also note that the learning from the ‘Augment the City’ competition proposed above will provide early practical learning in the design and operation of these funds.)</p>
	<p><b>Data, Insights and Impact</b></p>
3.33	<p>A key asset of the modern economy is data. Data is the most important part of the innovation economy and the fuel for digital innovation. This is widely recognised in the private sector with the most successful companies putting in place sophisticated strategies to capture, manage and interpret data for more effective decision-making. Data is also key for the effective management of the modern city and public services. While a number of public organisations have sought to develop data strategies, there is still substantial work to be done – particularly at the integrated level of a city – in order to become a truly data-driven city. The Smart District programme seeks to encourage city partners to push the boundaries in relation to data-informed decision making. The use of real-time Internet of Things sensors, Machine Learning, cloud computing and urban digital twins together offer opportunities for Belfast to think differently about complex challenges, and the capabilities to build much more responsive and bespoke solutions.</p>
3.34	<p>The City Innovation Team recently completed a data maturity project to pinpoint where Belfast City Council has to build internal capabilities to lead a data-enabled city. And our work with European Data experts, Fraunhofer FOKUS have identified the frameworks, policies and infrastructure that needs to be in place to harness data to better manage mobility solutions, climate monitoring, etc.</p>
3.35	<p>As part of the Digital Pillar of the Belfast Region City Deal, partners have identified a potential £5 million investment in a shared urban platform that can begin to make this ambition a reality. The City Innovation team will be developing its approach over the summer months to the completion of a feasibility study on a data platform and hub for the smart district and its supporting architecture.</p>

3.36	Running alongside this work, the team's Impact and Insights officer has begun work on a digital twin of the Smart District. This data-rich representation of the city centre will begin to bring together fine-grain detail on the physical, social, and investment characteristics of the area – providing decision-makers with the detail to inform planning and investment decisions.
	<b>Financial &amp; Resource Implications</b>
3.37	<ul style="list-style-type: none"> <li>• Proposed projects have been identified in the existing City Innovation team budget.</li> <li>• Resources for activities associated with the Belfast Region City Deal have already been identified within the existing Council City Deal budget.</li> </ul>
	<b>Equality or Good Relations Implications / Rural Needs Assessment</b>
3.38	An equality screening was carried out as part of the consultation programme.
<b>4.0</b>	<b>Appendices – Documents Attached</b>
	None