



Subject:	Delivering a Smart Belfast
Date:	24 January 2020
Reporting Officer:	Ronan Cregan, Deputy Chief Executive and Director of Finance and Resources
Contact Officer:	Deborah Colville, City Innovation Manager Mark McCann, City Innovation Programme Lead Andrea Thornbury, City Innovation - Data Specialist Gareth Downey, Researcher, Strategic Hub

Restricted Reports	
Is this report restricted?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If Yes, when will the report become unrestricted?	
After Committee Decision	<input type="checkbox"/>
After Council Decision	<input type="checkbox"/>
Some time in the future	<input type="checkbox"/>
Never	<input type="checkbox"/>

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

1.0	Purpose of Report or Summary of main Issues
1.1	The Smart Belfast programme established by the Council in 2017 fosters collaborative innovation between our universities, industry and the public sector. In doing so the Council seeks to develop innovative solutions to urban challenges, while at the same time supporting local business to prepare for the disruption that new technologies are expected to make across our economy.

1.2	The approach has informed the Digital Pillar of the Belfast Region City Deal and has been an important factor in securing these investments for the city.
1.3	In order to maximise the opportunities that digital investments represent, and to continue to grow Belfast's reputation as a globally significant location for technological innovation, Smart Belfast has identified a number of critical foundations that the city needs to have in place going forward. This report seeks Members approval to proceed on these strands of work.
2.0	Recommendations
2.1	<p>The Committee is asked:</p> <ol style="list-style-type: none"> 1. To approve the development of an urban data framework for Belfast City Council which would be informed by an initial internal Data Maturity exercise, the recommendations from which would be presented to Members later in 2020. 2. To approve a contribution to support a doctoral student to work with Belfast City Council and its partners on the ethical and legal implications of a data-driven Smart Belfast. 3. To approve the commissioning of expert support for digital infrastructure 'barrier-busting'.
3.0	Main report
3.1	The 'Smart Belfast' framework fosters the conditions in which city partners can work together to exploit leading-edge technologies (such as AI, robotics, wireless networks, data science and industrial service design practices) to address urban challenges in more innovative ways. These conditions also provide a rich environment in which researchers, start-ups, business, and public sector agencies, can innovate in the development of new products and services.
3.2	The value of the 'smart cities' market is estimated to be worth over £2 trillion within the next five years and Belfast is well-placed to position itself as a global location for digital innovation. The city has already begun to prove the value of the approach – successfully attracting co-investments and delivering joint projects with our universities and industry. The proposed £350 million of digital innovation pillar investments from the Belfast Region City Deal will be an important element in accelerating this success.
3.3	Each place has its own unique approach; however, there are a number of common foundations that a successful smart city needs to have in place and which Belfast's partners need to focus on:

<p>3.4</p> <p>3.5</p> <p>3.6</p> <p>3.7</p> <p>3.8</p> <p>3.9</p>	<p>A data-enabled city</p> <p>Data lies at the core of most modern urban services, whether public or private. This is a trend that is only likely to accelerate over the coming decade as technology continues to permeate most aspects of city life. This has implications for Belfast City Council not only as an organisation that designs and delivers its own data-driven services, but also in terms of our role and responsibilities as the civic leader of a ‘smart city’. It is important that the Council continues to build its capabilities in this area and learns from the experience of other places.</p> <p>Having a well-planned approach to urban data will also help make us a more attractive location for investing in innovation while at the same time making sure that our approach is citizen focused.</p> <p>Other local authorities are already addressing their data challenges, improving their data maturity and implementing radical changes in their services and programmes. For example, Smart Cambridge (ie, a partnership of local councils, technology businesses, the University of Cambridge and other partner organisations) has built the council’s own capabilities in this area; established data partnerships; and set up a ‘data trust’ to address key city challenges.</p> <p>With this in mind it is proposed that the Council initiate the development of an urban data framework that will (i) seek to enhance the Council’s own approach to generating and managing its data in relation to the delivery of its services and (ii) develop the organisation’s capabilities as the lead partner in a data-driven Smart Belfast. The programme would begin with a Data Maturity exercise that would establish the organisation’s current baseline and help to identify action that would inform the design and delivery of a full data framework programme. These recommendations would be presented at a committee meeting later in 2020.</p> <p>Complementing this approach, the Council has been engaging with Professor Daithí Mac Síthigh at the School of Law at Queen’s University to develop an opportunity for a Phd researcher to support the Council to explore the legal and ethical implications of a data-driven Smart Belfast.</p> <p>Prof MacSíthigh has applied for funding to the Collaborative Doctoral Awards scheme for a full time studentship and, if successful, is seeking a financial contribution from Belfast City Council of £2,000 pa for three years to support the work. If awarded this researcher would be</p>
---	--

	able to draw on emerging thinking on these issues to assist Belfast City Council and its partners in the development of an ethical data model.
3.10	The City Innovation team has also been asked to contribute to the new Law & Technology Masters degree (LLM) which is being launched by Queen's University in September 2020. This Masters examines the legal work and practice on technological innovation and introduces students to the interplay of and interfaces between technology and law.
3.11	<p>Digital infrastructure</p> <p>Alongside data, a digital innovation economy is also dependent on state-of-the-art digital connectivity. Much of the planned investment under the Digital Pillar of the Belfast Region City Deal is focused on ensuring Belfast and the region has the latest wireless and fibre connectivity to ensure that the city is capable of supporting the data-intensive services of the future (such as autonomous vehicles, remote bio-medical monitoring, energy management, etc.) Belfast City Council has also been successful in attracting substantial funding for Local Full Fibre deployment across its estate.</p>
3.12	Members may also be aware that the national mobile telecoms operators (including EE, Vodafone, O2 and Three) have also pledged that Belfast will be at the forefront of future wireless investment.
3.13	These infrastructure investment projects are complex and have the potential to be disruptive if not well co-ordinated. Other places, such as Glasgow, Manchester, Dublin, Birmingham, etc, have established small 'barrier-busting' groups that brings together planners, regeneration and digital staff to ensure the positive impact of such infrastructure investments for the city. They also seek to ensure that other capital urban regeneration projects (eg) road improvements, new builds, have digital embedded in their plans.
3.14	<p>Drawing on advice from other cities, it is proposed that Belfast City Council establish a small infrastructure group that, with cooperation from relevant Government Departments and agencies, would work to ensure that a city level approach to digital infrastructure is adopted. In support of this ambition it is proposed that the group seek expert support in the following areas over a six month period:</p> <ul style="list-style-type: none"> - Assisting our planning services to identify efficiencies in working with the mobile network operators (MNOs) and smaller companies re planning application process. - Support for the development of the city level 'barrier-busting' resource.

3.15	<ul style="list-style-type: none"> - Support for policy engagement at UK and Northern Ireland levels (eg, in terms of understanding how regional and national infrastructure policies will support the city's Digital Innovation objectives.) - Specific support in developing a wireless infrastructure model that supports local innovation at the proposed smart district level. This might include some form of shared infrastructure model. <p>In support of this ambition Members are asked to approve the commissioning of this expert support.</p>
Financial & Resource Implications	
3.16	<p>The initial Data Maturity exercise will cost approximately £5,000 (excluding VAT) with an additional £8,400 (excluding VAT) at a later stage to provide training workshops with a cross section of staff from different functions for shared learning and to support the roll out of recommendations from the data maturity exercise. This has been identified within existing departmental budgets.</p>
3.17	<p>If the application to the Collaborative Doctoral Awards scheme is successful Belfast City Council would contribute £2,000 pa to a full-time Law and Technology Phd student working with Smart Belfast for three years. The council would also provide in-kind contributions (eg) access to staff; meetings; hot-desking facilities. The financial contribution for 2020/2021 has been identified within existing departmental budgets.</p>
3.18	<p>The commissioning of strategic support for digital infrastructure barrier busting is approximately £75,000. This has been identified within existing departmental budgets.</p>
Equality or Good Relations Implications / Rural Needs Assessment	
3.19	None.
4.0 Appendices – Documents Attached	
	None.