Corporate Policy and Strategy Committee

10:00am, Tuesday 7th August 2018

Data Driven Community Empowerment

Item number	7.11
Report number	
Executive/routine	
Wards All	
Council Commitments	

Executive Summary

This report sets out action underway to ensure that Data Driven Innovation is used to foster greater community participation in service design, and improve the efficiency of public services in Edinburgh.

The report also describes the Data Driven Innovation (DDI) programme within the Edinburgh and South East Scotland City Region Deal and the commitment to collaboration, exchange and joint working.

Report

Data Driven Community Empowerment

1.   Recommendations

1.1   It is recommended that Committee:

1.1.1   Notes action underway to ensure that Data Driven Innovation is used to foster greater community participation in service design, and improve the efficiency of public services in Edinburgh.

2.   Background

2.1   One of the major aims of the Edinburgh and South East Scotland City Region Deal, is to establish the city region as the data capital of Europe. Led by University of Edinburgh and Heriot Watt University, the data driven innovation (DDI) programme aims to build on the city region's substantial current strengths and opportunities for growth within the digital economy. Fundamental to achieving this is programme's commitment to support the principles of collaboration and exchange, actively supporting joint working between researchers, business, and the public sector.

2.2   Within this programme, the next few years will see significant new investment in the creation of a new "Innovation Corridor" between Potterrow and Fountainbridge. Alongside other sites across the region, this corridor will form the core location among a number of new developments across the city region, investing in spaces and data infrastructure to encourage talent, research, and entrepreneurship. These developments will link the key sectors of our economy together to help attract new inward investment, fuel new businesses, and create new jobs in the city. Critically, the programme will drive good growth in Edinburgh, drawing on data assets to address some of our city's most significant social challenges, and to improve the effectiveness and efficiency of public services.

2.3   A key priority in the design of the programme has been to ensure the investment in innovation encourages more inclusive growth in Edinburgh's economy. Important routes to achieve this include the use of community benefit clauses in procurement, targeted skills programmes, and strong engagement and collaboration between universities, public sector partners, and communities across the city.

2.4   Alongside other City Region Deal investments, the DDI programme includes a substantial element of construction activity in the short term. Within the procurement of this activity, community benefit clauses will be used to drive inclusive employment practices and maximise accessibility of the job opportunities

created. Over the longer term, the programme will support the good growth ambitions of the city by widening access to the skills and employment opportunities created within the data economy, and by using data assets to drive social benefit across the region.

2.5   The programme will also bring together universities and colleges across the region with industry, schools, and other partners to deliver targeted skills gateways, providing routes into Data Driven Innovation careers for people in Edinburgh and the surrounding region. The programme will seek to equip citizens with the skills and aptitudes necessary to succeed in the opportunities that will emerge from developments in Data Driven Innovation, while helping industry source the talent they need to grow and flourish. Encompassing foundation skills in schools through to the advanced postgraduate training and research needed to drive high value growth, this programme aims to ensure all our citizens get maximum benefit (in terms of jobs, wages, and wellbeing) from the growth of this emerging sector.

2.6   The remainder of this report focuses on work planned and underway to ensure collaboration and engagement between partners and communities to foster greater community participation in service design, and improve the efficiency of public services in Edinburgh.

3.   Main report

3.1   The City of Edinburgh Council has a long record of seeking to deliver benefit from its use of data, and data innovation.   As the first authority in Scotland to adopt an Open Data Strategy and through innovative approaches such as the Edinburgh Living Lab, Consultation Hub, Participatory Budgeting, and Dialogue App, Edinburgh has sought to leverage opportunity from data.

3.2   Collaborations with the city's Universities have resulted in a range of challenge-led opportunities being realised. This started in 2014, with the creation of Edinburgh Apps, a civic challenge programme led by the Council that brought together people from across the city to address these issues. Edinburgh Apps has resulted in two new solutions being implemented in the Council. TEND is a routing solution developed with the Community Equipment Store, to improve service efficiency and customer satisfaction. Implementing TEND improved first time delivery rates by 10%, halved average delivery times and responded to a key customer complaint by providing accurate delivery windows. The solution is still in use by the service today. ARC (Addiction Recovery Companion), is an app developed to help ease pressure on front line drug and alcohol services, allowing staff to prioritise urgent needs while still providing support to those in recovery. Over 3000 users have registered for the service, which provides support and signposting to those in recovery. Edinburgh Apps demonstrated the value of data re-use, by generating new products, re-developing services and generating economic growth.

3.3   Edinburgh Collected was developed as part of a Nesta project that expanded on the previous work of Code for Europe Fellows. Edinburgh Collected was built to provide

a solution for Libraries for managing their digital heritage collections. The project provided opportunities for staff to learn new skills and showed how to deliver projects at pace, with a dedicated team. Edinburgh Collected is a unique and award-winning solution, providing an open source application which encourages local citizens to add images – old and new – which automatically become open data. The Library Service is continually expanding its online heritage collection through this application.

3.4   The Council's expertise in using data to drive change has been recognised through election to the post of co-Chair of the Data Working Group of the Eurocities Knowledge Society Forum.

3.5   Edinburgh Living Lab is a partnership between the University of Edinburgh and the Council. This partnership has been developed over the past 5 years, and is refining a process for facilitating co-designed data driven innovation projects. Previous projects have included hackathons around fly tipping and road safety. Current projects include work with Localities, to support delivery of the LIPs (currently three projects, looking at community safety in NW, anti-social behaviour in SW and employability and skills in NE), and an Estates pilot project looking at how to improve the use of council buildings to provide better services to residents. Edinburgh Living Lab will likely be a key partner and delivery mechanism for the City Region Deal Data Driven Innovation Programme.

3.6   The Edinburgh Tree Map project has shown the value of opening up access to data. It started after an approach to the Council for its tree data, and has evolved into a consortium project with partners from the University, Forest Research and the Royal Botanic Garden Edinburgh to investigate the distribution of trees in the city, and how these trees could impact factors like air quality or correlate with socio-economic indicators like anti-social behaviour.

3.7   On 27 November 2017, the City of Edinburgh Council, along with the Edinburgh Partnership and the Edinburgh Living Lab hosted the Developing Innovation through Data conference. With presentations from the Council, the University of Edinburgh and experts in engaging citizens with data and creating value from public sector data, the morning session of the conference highlighted how:

3.7.1   The City Deal is shaping Edinburgh's future through investing in data driven innovation;

3.7.2   Data and information that are already available are being and could be used to support services; and

3.7.3   Partners across the Localities can make better use of data as well as identifying problems, ideas, and opportunities.

3.8   The afternoon session focused on how to identify and develop data innovation projects across the Localities. Participants explored priority challenges in the Localities based on key themes in the Locality Improvement Plans, discussed how data could bring new insights and approaches to addressing the challenges, and

began scoping out potential projects. From this work two events have emerged focusing on 'Civic Innovation with Data and Citizens'.

3.9 These workshops explored questions and issues around emerging opportunities to make better use of data in our cities and to use city data to provide insights into creating healthier, safer, more accessible and vibrant municipalities that meet the needs of all citizens. They will support research engagement with city challenges and citizen participation in data-driven innovation, as part of ongoing work by the University, including the Edinburgh Futures Institute, Bayes Institute, and projects associated with the City Region Deal.

3.9.1 The First Workshop ('Data in the City' – 1 June, 9:30am-12pm - https://datainthecity.eventbrite.co.uk), focused on case studies and allow participants to hear from researchers and practitioners, to discuss how to find, curate and create value from data for the city - for residents, researchers, charities, businesses and the public sector.

3.9.2 The Second Workshop ('Community KPIs' – 5 June, 2:30-5pm- https://communitykpis.eventbrite.co.uk) featured a presentation from Mel Woods, whose work on Making Sense and the GROW observatory has been supporting citizen science and demonstrating how open source software, open source hardware, digital maker practices and open design can be effectively used by local communities to fabricate their own sensing tools, make sense of their environments and address pressing environmental problems in air, water, soil and sound pollution. The workshop discussed how to develop Community KPIs and to reclaim data as a tool for engagement and participatory democracy.

3.10 As the collaboration with the University has developed, new approaches to community-led data driven innovation projects are being developed. Currently the University of Edinburgh IoT Initiative, Edinburgh Living Lab, Edinburgh Living Landscape, coordinated by Scottish Wildlife Trust, Friends of the Meadows and Bruntsfield Links, New Media Scotland and the City of Edinburgh Council, are engaged in a European-funded Organicity project, CitySounds, in Edinburgh's Meadows Park. The CitySounds experiment is a valuable first step in exploring and celebrating the richness of sounds in the city, benefiting from recent innovations in digital technology and network infrastructure. It has focused on how biotic and anthropogenic sounds captured in a central urban greenspace can inform community groups and citizens about biodiversity and health and well-being, as well as providing a unique resource for artists and data scientists.

3.11 Wide frequency audio data is being both streamed in real-time and stored for subsequent processing and analysis. The team have constructed a sensor kit that enables the capture of a rich array of biotic and anthropogenic sounds in both the audible and ultrasonic range. After anonymization, the audio data is being made available via the OrganiCity API and stored for further analysis.

3.12 Based on the success of this project, and the partnership developed, the University has led a funding proposal to Nesta's Rethinking Parks fund, with the support of the Council's Parks, Greenspace and Cemeteries team, to investigate the development of a data toolkit for better understanding who's using parks (both people, and flora and fauna), to change parks management models. This proposal has been shortlisted, and is currently under final review by Nesta.

3.13 Data is a key component of the ERDF-funded 8th City programme, which is a collaboration between all seven Scottish cities that focuses on improving smart city maturity in Scotland. Edinburgh has been involved in the 'data cluster' project, providing expertise and guidance to cities that were developing an open data portal, as well as delivering a smart waste project looking at on-street litter bins. Additional funding for Phase 2 projects is being sought, looking at a range of projects around smart mobility, city operations and place management. The smart mobility project is part of the Digital Wayfinding programme that the Council has been working on for a number of years, and is looking to develop a platform to help improve navigation around the city for those with mobility challenges.

3.14 Going forward, as part of the City Region Deal, the University is going to be creating the World Class Data Infrastructure, (WCDI), which will offer the opportunity for safe storage of data, to allow for data innovation to be undertaken, supporting the exploration of how to make better use of data in support service provision to enable better outcomes for public services, as one of ten sectors the University is targeting. Preparatory steps are being taken to develop the Partnership arrangement with the University, and other City Deal Partners, to enable Data Driven Innovation, that can be adopted over the next decade.

4.   Measures of success

4.1   An annual report will be produced to update on all city region deal activity.

4.2   The Data Driven Innovation thematic group will also produce a quarterly Risk and Performance Monitoring Report that will assess progress against milestones set out in relevant business cases.

5.   Financial impact

5.1   There are no significant financial impacts as a result of this report to the City of Edinburgh Council.

6.   Risk, policy, compliance and governance impact

6.1   No adverse risks or policy impacts have been identified as associated with this report. As described at 4.2 above, the Data Driven Innovation thematic group will also produce a quarterly Risk and Performance Monitoring Report that will assess

progress against milestones set out in relevant business cases. This will be included within an overall Programme Risk Register and Performance Monitoring Report that will also be considered every quarter by the Edinburgh and South East Scotland City Region Deal Joint Committee and Executive Board.

7. Equalities impact

7.1 Inclusive Growth is one of the Scottish Government's four priority areas in its Economic Strategy, and a key driver for the Edinburgh and South East Scotland City Region Deal is to promote equality through addressing inclusion across the region.

7.2 Partners recognise that prosperity and success is not universal across the region: 21% of children are living in poverty; there is a lack of mid-market and affordable housing; and too many people are unable to move on from low wage/low skills jobs. The deal will address these issues, create new economic opportunities, and is expected to provide up to a substantial number of new jobs.

7.3 The City Region Deal's inclusive growth ambitions are embedded in its plans and aligned with the Scottish Government's Economic Strategy ambitions, responding to the particular challenges faced across the region. A detailed analysis of the region's economy, accredited by the Scottish Government, was undertaken in 2018 and identified six key inclusion challenges:

- Slow Growth;
- Regional disparities in jobs density;
- Housing, transport and connectivity;
- Skills inequality and polarisation;
- Gender and age inequalities; and
- Low income and low pay.

7.4 An inclusive growth framework is being developed to ensure that the city region deal projects can address these issues. Five thematic interventions to target these challenges will go some way towards ensuring that the benefits of the city region deal investment are shared as widely as possible:

- Accelerating inclusive growth;
- Removing the physical barriers to growth;
- A significant programme of construction;
- Targeted skills interventions; and
- Social benefit through innovation.

7.5 Business cases for projects included in the programme have demonstrated, or will demonstrate, how they will reduce inequalities and tackle the inclusion challenges specific to the city region.

7.6 A Monitoring and Evaluation Framework is being developed for the programme, which will incorporate clear indicators to align with the Scottish Government

Inclusive Growth Framework, also under development. This will form part of the Annual Report described in Sections 4 and 6.

8. Sustainability impact

8.1 Within the City Region Deal, partners are developing a cross-regional approach to community benefits that will help to capture job opportunities for regional citizens and the help to develop local supply chains.

9. Consultation and engagement

9.1 All projects in the City Region Deal have been consulted on, through the local and regional strategic planning processes.

9.2 A Regional Enterprise Council will be formed and will facilitate suitable links to the business sector, third sector and social enterprises.

9.3 Beyond this, further measures will be taken to actively ensure scrutiny, and effective consultation with the business community, third sector and general public. The Regional Enterprise Council and Joint Committee will develop these measures in partnership with Government. Options may include:

9.3.1 an annual conference/seminar(s) tackling a key priority in the region;

9.3.2 an annual online consultation with key stakeholders in the region/the general public; and

9.3.3 a regular "roadshow" consultations on key upcoming projects across the region (linking in with the planning process).

10. Background reading/external references

None

Andrew Kerr

Chief Executive

Laurence Rockey, Head of Strategy and Insight

e-mail: laurence.rockey@edinburgh.gov.uk Tel: 0131 469 3493

11. Appendices

None