SERVICE UPDATE

Name of Service:	City Growth
Date:	5th December 2019
Title of Update:	Smart City Strategy and Action Plan
Report Author:	Wendy Robertson
Contact Details:	wenrobertson@aberdencity.gov.uk 01224 522840

UPDATE:

Background

The Smart City Strategy and Action Plan is a multi-agency and collaborative approach and will be governed and reported through the City Region Deal working group, Programme Board and Joint Committee for those projects within the Digital workstream. Other emerging projects will be assessed and reported upon through the Multi -Agency Management Group. This is a live working document that will focus on areas of priority as decided upon by the Multi-Agency Group.

Aberdeen Smart City Strategy
Context

What is a Smart City and what does it really mean for the Council, the place of Aberdeen and the wider region? To most people it is an idea, a concept that is difficult to tie-in to day to day business and real examples of how a smart city can enhance service delivery for citizens, customers and businesses. "A smart sustainable city is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects."[1]

A 'smart city' is collaborative and people focused and a connected city, a 'base layer' of infrastructure, the core that everything else is built upon.

A successful smart city thinks about the integration and application of technologies to become more citizen focused and sustainable. Technology is an important element but there is a strong focus on citizens and user needs.
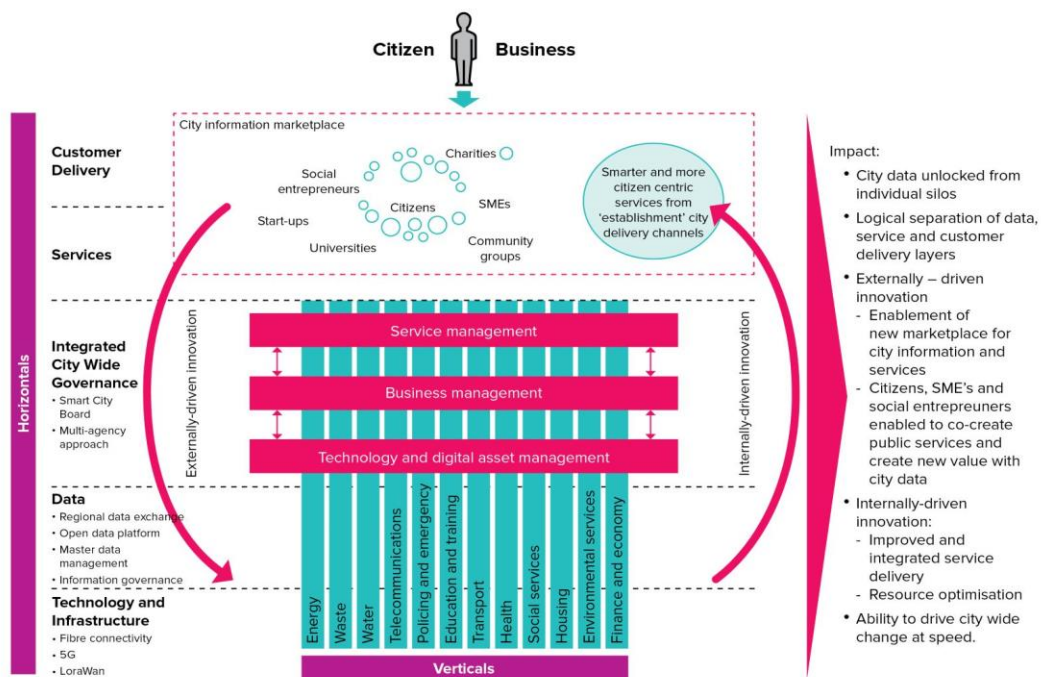
Vision and Strategy

- Our vision for a smart city is to be a "sustainable city at the forefront of digital connectivity, technologies and infrastructure, where everyone can prosper, to ensure digital inclusion for all and to bridge the digital skills gap and to ensure the city is an attractive place to invest, live and visit" and to collaborate with our multi- agency partners to maximise the opportunities that this strategy will create.

---

[1] https://www.unitedsmartcities-profiling.org

- The Smart City Strategy follows the principles of British Standards Institute PAS 181 as best practice. [2] This is adopted by many cities in producing their smart city strategies. The Smart City Strategy builds upon and aligns with the Regional Economic Strategy[3] and the updated Action Plan[4], the City Region Deal [5] and the Local Outcome Improvement Plan (LOIP)[6]. The City Region Deal was the catalyst that will enable the infrastructure needed to deliver this strategy.
- Local authorities have increased demand on resources, rising populations alongside declining budgets and less funding from central government. There needs to be a channel shift to deliver services differently while thinking about these pressures. There is a need for collaboration between all service areas within the council, and collaboration with our multi-agency partners to ensure a smart city perspective is accounted for when making service and city-wide decisions

Smart City Operating Model

The traditional operating model for a city has been based around functions and services operating in unconnected vertical silos, which are often not built around user needs. This smart city strategy aims to drive innovation and integration horizontally, cross cutting these silos detailed in the BSI Smart Cities Framework diagram below [7]

[2] https://shop.bsigroup.com/forms/PASs/PAS-18120142/
[3] https://committees.aberdeencity.gov.uk/documents/s52770/Regional%20Economic%20Strategy.pdf
[4] https://www.investaberdeen.co.uk/images/uploads/RES%20Action%20Plan%202018-2023%20FINAL.pdf
[5] http://www.abzdeal.com/
[6] https://communityplanningaberdeen.org.uk/wp-content/uploads/2019/02/Final-Draft-LOIP-2016-26-web-version.pdf
[7] https://www.bsigroup.com/en-GB/smart-cities/Smart-Cities-Standards-and-Publication/PAS-181-smart-cities-framework/

This will be achieved through:-

A: Objectives
- To maximise the opportunity of enabling digital infrastructure and technologies
- To work collaboratively across the public and private sector with a citizen focused approach
- To focus on digital skills in education, learning and the workplace to ensure the region is future focused for
- To develop projects based around key smart city themes

B: Governance and Leadership
- Smart City board to have strategic oversight of programme.
- To ensure appropriate level of engagement and consultation with stakeholders.
- To follow best practice and be mindful of ethics around data and its usage.

C: Benefits Realisation strategy
Benefits realisation strategy to ensure intended benefits are delivered in practice.
- Benefit mapping
- Benefit tracking
- Benefit delivery

D: Critical Success Factors
Attributing success factors to the development and execution of a Smart City Strategy can be challenging and often qualitative in nature. Whilst many of the specific initiatives will be quantifiable, the expected results may be less measurable, particularly if there is limited current information to measure against. A process needs to be established so that critical success factors can be identified, measured and managed. Following ISO Standard TS37151 for smart city performance metrics ensures we will follow best practice.[8]

Smart City Action Plan
The Action Plan to deliver the strategy will have oversight of all current Smart City projects throughout the Council to ensure they aren't delivered in silos and ensure future projects are looked at holistically. The key to this Action Plan is to have the fibre connectivity deployed as the base layer upon which to build all other digital services whether that be IoT networks, 5G small cells, Wi-Fi with a focus on sustainability and citizen focus.
As in Diagram 1, a city has key vertical streams running throughout which smart city thinking can impact upon.
- Energy
- Waste
- Water
- Telecommunications
- Policing and Emergency
- Education and Training
- Transport and Mobility
- Health and Social Services
- Housing
- Environmental Services

---

[8] https://www.iso.org/standard/61057.html

- Finance and Economy

Technologies will enable more efficient service delivery models to enable a city to function in a different more cohesive way.
Key initial vertical themes to explore are as follows:
- Smart Public Sector
- Smart Technologies
- Smart Mobility and Transport
- Smart Skills and Education
- Smart Tourism
- Smart Living

Roadmap
Where we are
Aberdeen is already undertaking a wide range of smart city projects and activities. The city is held in high regard within smart city industry and other local authorities as a good example of how smart cities should be delivered.
- Advanced Fibre infrastructure – large footprint across the city both corporately and commercially
- Ducting – 20km of ducting for traffic management purposes and excess capacity leased commercially. Enabling the future of mobility by futureproofing for 5G and autonomous vehicles.
- Delivering the first 4G small cell network in Europe to boost mobile phone signal strength and capacity
- Smart Street lighting and LoraWan network enabling a city-wide sensor network and trialling flood monitoring
- Public building and city centre wi-fi
- Delivering a city operations centre to co-locate and integrate CCTV systems

Where we want to get to
To become a smart sustainable city to meet the needs of present and future generations, delivering excellent public services through the use and integration of technologies. To become more citizen focused and user led and to use data available to gain insight to deliver city operations in a different more efficient way.

- City Region Deal Regional data exchange – To use and share data to change the way we deliver services using the insight we gain from data and its analysis.
- City Region Deal sensor network – To expand the existing network
- Advanced technologies – to explore the opportunities and delivery of 5G and other advanced technologies and what that will mean for residents and businesses.