Southend-on-Sea Borough Council

Agenda Item No.

Report Deputy Chief Executive (Place)
to
Cabinet
On
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Digital Strategy 2017/20

Policy & Resources Scrutiny Committee: Cllr Trevor Byford

A Part 1 Public Agenda Item

1. Purpose of Report

1.1 The purpose of this report is to place before Members details of the Council's strategic digital intentions for the next three years; the 'Digital Strategy 2017/20'.

1.2 Key actions in the strategy are aimed at underpinning the Council's Health & Social Care agenda and the Economic Growth and Tourism strategies where the latter two appear as concurrent items on this Cabinet agenda.

2. Recommendations

2.1 That the strategic direction contained within the 'Digital Strategy 2017/20' be agreed.

2.2 That SMART proof of concept pilots progress across 2017/18.

2.3 The £500,000 identified in the Council's Capital Programme 2018/19 be brought forward for use in 2017/18 for the creation of the Intelligence Hub.

3. Background

3.1 The Southend Digital vision is to utilise technology to support the Council's aims and priorities creating opportunities for energy saving, carbon reduction, cost reduction and sustainable economic growth.

The Digital Strategy requires the Council to adopt a "digital by default" ethos in respect of its interactions with public, its internal processes and, wherever practicable service delivery.

Across the country, Local Authorities are adopting this approach which, although stimulated by the need to deliver efficiencies, is evolving anyway as public expectation, in respect of digitally enabled access to Council services growth.

It should be noted that a local Authority alone cannot deliver this strategy, partnership is vital. Partnership here refers to the involvement of local citizens business' and ICT solution providers in the co-design of services and as well as partnerships across statutory and voluntary sector providers using common technology platforms.

Many authorities have pioneered the adaption of SMART technology to assist them in access and provision of services. The intentions in this strategy, if delivered well, will bring Southend as a SMART city up to a level akin to that of the leaders in the field.

3.2 The digital revolution has resulted in the Council's ICT service extending its outlook to include outward as we all as inward facing activity. It is no longer sufficient for the function to support officers and Members alone. In addition, the service must seek to exploit and maximise the Council's position as 'owner of assets', 'enabler of infrastructure' and 'creator of networks'. This is reflected in the 'Digital Strategy 2017/20' where actions to support the digital revolution are classified in terms of how they address the economic, social and environmental responsibilities of the authority.

The strategy also sets out a framework to develop Southend as a SMART CITY.

3.3 Technology is always evolving. However, over the last decade our ability to harness the data it can generate and the connections it can bring has undergone a step-change. Using the capabilities of smart technology, data analytics, and the networks built around them in the future, systems which have previously worked in silos can be integrated. Most significantly, in the future the wisdom and creativity of people will be harnessed to create residents who are more independent, decision making which is more decentralised, and services which are more agile and responsive to people's needs.

3.4 Over the coming decade, councils are aware that they need to begin to work more openly and collaboratively with residents and the wider public sector, and develop new, sophisticated relationships with the private sector to manage demand. This involves being able to predict and prevent needs, and tackle them early on. To do this, councils need to put in place the hard and soft infrastructure which allows people to live happier, healthier and more independent lives. Smart infrastructure – such as sensors in buildings or mobile phones connected to the internet – and the data and social networks that are built on this, can help to make this shift.

3.5 No longer can a council's ICT function remain 'inward facing' alone. No longer can SMART products be seen as additional rather that core place-related solution. Time and expertise must now be found to make the most of these new capabilities.

3.6 Challenges in respect of annual budget cycles and departmental silos which can make long term investment difficult across areas of multiple responsibility must be overcome and public concern over the way in which data is collected and used addressed. Local Authorities need to find new ways of working.

3.7 Councils are uniquely placed to address this challenge although they do not have to do everything directly. As the owners of assets, gatekeepers to data, makers of connections, and architects of public service delivery, councils should be in the driving seat of change.

3.8 Part of a council's role is to harness its position as an enabler to ensure that all local stakeholders can take part in place-making and delivering the local vision of tomorrow's places. As enablers, councils can change their relationship with communities, businesses, local social entrepreneurs, and other parts of the public sector, by being more open and collaborative.

3.9 In Southend, this process has already started through engaging in concession contracts to deliver the infrastructure that smart capabilities are built upon, the enablement of the Enterprise Business Hub in 'The Hive' and the begging of dialogue with Citizens, Communities and Businesses around a co-produced digital future.

Key intentions in the Southend 'Digital Strategy 2017/20' include the need to:

- harness and mobilise existing physical assets (like rooftops, street furniture and ducting) to deliver or enable improved connectivity and incentivise behaviour change delivering some of the infrastructure needed to increase the uptake of smart capabilities by developing new and sophisticated relationships with providers

- work towards more openness in data collection, analysis and place-based decision-making through collaboration across the Council, fellow statutory bodies, the third and private sectors; create an inventory of place-based intelligence

- support wide reaching participation in the use of smart capabilities while working with partners to minimise digital exclusion

- establish across all stakeholders, a clear set of policy principles and practical guidance for the development of the Borough as a smarter place, establish a common language and a way for organisation systems to work together and partnership working; create a multi-agency governance model

- partner with universities and academics to optimise data and develop more intelligent solutions

- develop joint-ventures with experienced companies to work through incremental changes progressively. Such companies may include Marlborough, Veolia and Conduent (formerly Xerox) with which the Council has recently entered into significant long-term contracts for highways, waste and parking enforcement related matters.

3.10 In addition to the enablement of infrastructure, the Council needs now to create a locality back to which monitoring of 'people' and 'place' related events can be

reported - a Southend 'Intelligence Hub'. The creation of such a facility constitutes a significant step forward in the ability of the Council to transform the way in which services are delivered while, in longer term offering potential for revenue generation and trading.

3.11 The remote management of events across the Borough will be achieved by the deployment of cameras, sensors or assistive technology with data being relayed back to the 'Intelligence Hub' using 3G/4G or the newly installed borough wide infrastructure; radio frequency canopy, full fibre or the yet to be deployed WiMesh.

In this sense, the Intelligence Hub becomes the 'eyes and ears' of the Borough, the 'nerve centre' through which service responses, manual or automated, can be triggered on a 24/7 basis.

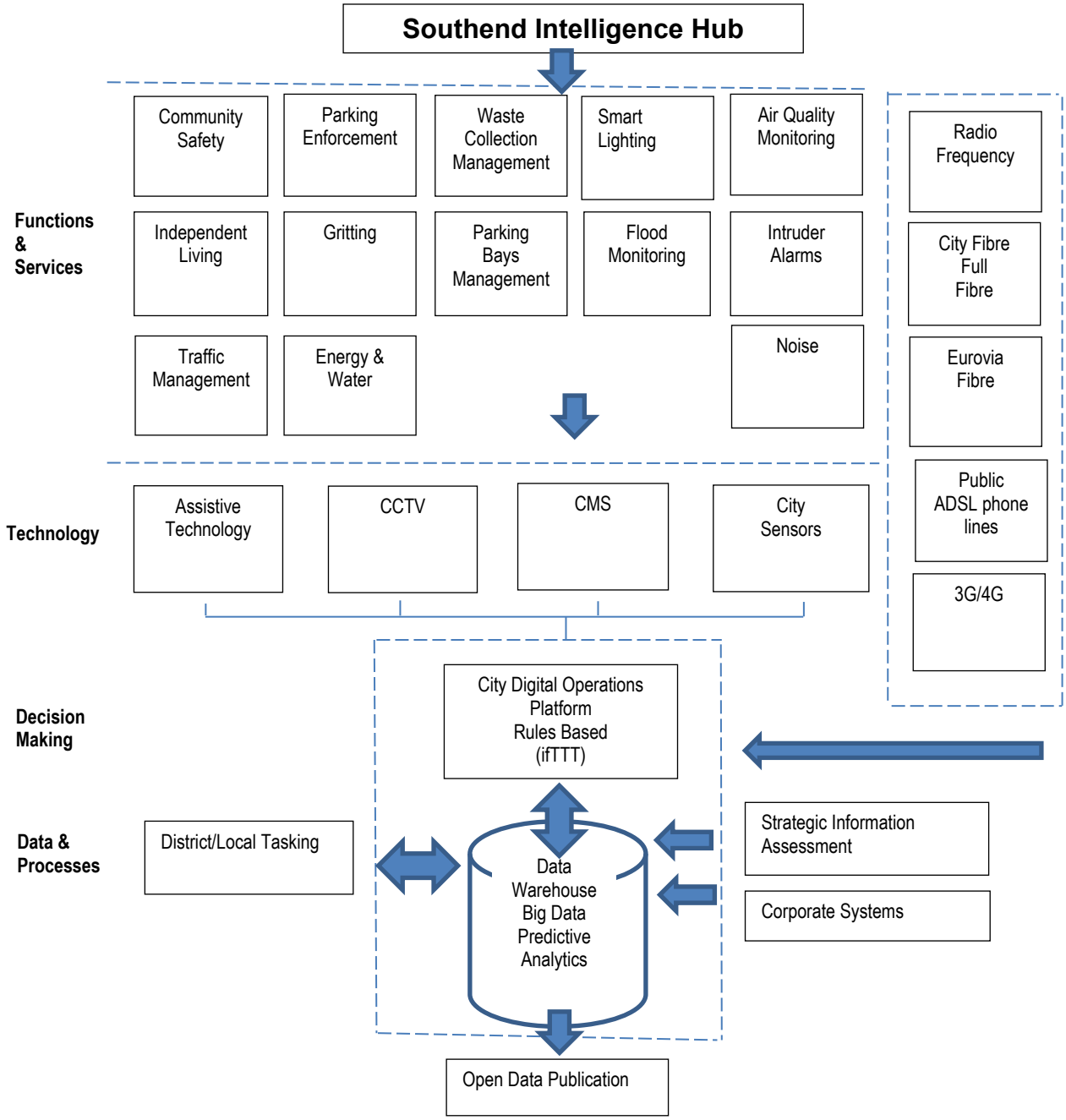
3.12 The Hub will enable the Council and its partners to begin to:

- Act on better information and data and respond faster to Borough management decisions. This will be achieved by:

  - creating a more holistic, integrated and simplified view of the service delivery picture for 'people' and 'place' related services within Southend;
  - improving situational awareness leading to actionable insights and co-ordinated approaches;
  - placing a range of information/data at the fingertips of key decision-makers;
  - accommodating the citizen/customer experience/expectation in working practices; and,
  - responding more effectively to the needs and feedback of the citizens;

- Provide flexibility and robust service resilience
- Respond to significant events in a collective and effective manner
- Foster collaboration, innovation and 'joined-up' service delivery amongst strategic partners

The concept of the Intelligence Hub is captured in summary in the diagram below:



3.13 During 2017/18 it is proposed to develop the following "proof of concept" pilot projects:

SMART Community Safety
SMART Traffic Flow and Parking Management
SMART Health & Well Being (Assistive Living)
SMART Environment Monitoring and Management
SMART Energy

3.14 SMART Community Safety refers to the traditional CCTV service enhanced by additional functionality. Cameras to be procured will provide alerts to staff, be

capable of counting both traffic flows and pedestrian numbers and enable facial recognition in a crowd. The hub will make the link between the location of an incident and the location of those best placed to respond maximising the potential of the Councils 'feet on the street'.

3.15 SMART Traffic Flow and Parking Management refers to the ability to monitor in real time parking spaces in any defined geographical area and relay details of vacant spaces to incoming visitors via an App. The quickest route to the next nearest available space is also provided. Ultimately, the system being piloted as part of the Parking Strategy for the Borough could enable both pre-booking and variable pricing should the Council so wish.

3.16 SMART Heath & Well-Being establishes a paradigm shift in the care provision model, from the traditional institutionalised hospital setting to the home setting. Through technology it enables vulnerable citizens, mainly elderly, to be monitored within the comfort of their own home as opposed to occupying a hospital bed. Assisted living solutions have also been linked with self-care, via scheduling tools and medication reminders.

3.17 SMART Environmental Monitoring and Management refers to the use of the street lighting Central Management System (CMS) and sensors to monitor for example, water course height and flow rate, noise, air quality and full waste bins, details of which can be relayed back to the Hub via the Radio Frequency canopy. The managed use of the CMS system alone via the Hub can be beneficial. At night, the system can be used as a deterrent for crime and anti-social behaviour. CMS has proven to be very effective in dissipating crowds or incivilities, hence preventing escalations and costs to the judicial system.

3.18 SMART Energy refers to exploiting of alternate energy management opportunities like solar, LED and battery and exploring options for local generation including tidal and wave. Provision of advice and information on energy switching and efficiency and income generation through 'grid rebalancing' and selling energy back are also included.

3.19 These projects have been chosen because they represent real and current challenges for the authority both in terms of its service quality and its ability to deliver efficiencies. The 'Intelligence Hub' will play a vital role as the location through which the above and monitored, managed and developed.

3.20 The SMART agenda for the authority also seeks to include the provision of data warehouse to host the multiplicity of data sets currently published about the Borough or generated by organisations within it. It is intended that this 'Big Data' be used to inform strategic thinking and for predictive analytics. Elements of it may be published as 'Open Data' for general consumption by all.

3.21 The current Public Space CCTV operation is located in a facility which has spare capacity and the functions and capabilities of the CCTV platform are underutilised. Therefore, as a low effort and high impact Smart City initiative, it is proposed the CCTV Control Room be incrementally converted into an

Intelligence Hub as each of the SMART pilots proves its worth both operationally and financially. Step 1 would see the re-location of the Careline Service currently provided by South Essex Homes from Nicholson House into an enlarged control room space. Careline staff will work alongside although separate from CCTV staff. Dialogue has already commenced with South Essex Homes on how this could be best achieved.

4. Other Options

4.1 Failure to capitalise on the utilisation of its assets, the provision / enablement of core infrastructure for the Borough and the creation of an Intelligence Hub to ease the way for the digital revolution would be remiss. Indeed, the authority would be left behind and opportunity to share and develop technology enabled solutions across the public and community / voluntary sectors would be lost. The potential to make Southend 'open for business' would pass us by. Revenue generating opportunities could be lost. The Council cannot succeed with this agenda in isolation; actions included within the strategy mirror and support the aims of the National Health Service in respect of its local Sustainability & Transformation Plan (STP) and the Heath & Well Being agenda of Public Health England. The Council must plan and dovetail its activity with these bodies.

4.2 The progressive creation of a SMART City agenda and an Intelligence Hub for the Borough is not mandatory. The option to do nothing and continue with traditional service interventions and responses is a possibility. However, given the pervasive nature of technology in society today and the national drive to exploit its potential across the entire spectrum of public sector activity the Council has little option but to seek to learn from others and deploy technological based solutions which meet customer needs.

4.2 The Borough of Southend cannot claim to be a leader in this field, this title rightly belongs to authorities like Glasgow, Bristol, Milton Keynes and Manchester all of which have benefitted from significant externally provided capital investment to drive their SMART agendas.

4.3 While Southend has not benefited in such a way, the Council has used its position as an 'owner of assets' to enable infrastructure deployment which can in turn be leveraged to support its SMART agenda. Not to leverage assets would represent a missed opportunity for the Council and, indeed, the Borough.

5. Reasons for Recommendations

5.1 The Council has little option other than to join the digital revolution. Indeed, the Government is actively pushing for a stepped change in on-line service delivery aspirating to have 9 out of 10 interactions with public bodies on-line by 2019/20. Moreover, the reduction in grant funding in favour of the local retention of business rates creates an imperative for councils to create local business growth. The emphasis on place and aspiration for high tech growth within the Economic Growth strategy requires the Council to create better conditions for this sector.

5.2 The SMART CITY journey is a journey for the Borough and all its stakeholders and not just the Council. The Council is able to lead and facilitate stakeholder participation but not prescribe.

5.3 Given all major infrastructure projects will conclude in 2017/18, plans to leverage the infrastructure are already well advanced.

5.4 The proof of concept pilots across the 5 service areas referred to in the Digital Strategy are being drawn up and the Council has had significant dialogue with major international technology companies which wish to assist and work with the Borough on its SMART journey. BT, Huawei and CICSO have already declared an interest and the Council has signed a Memorandum of Understanding (MoU) for joint working with the latter.

5.5 The incremental creation of a central location for the coordination, management of 24/7 activity and the delivery of the proposed SMART solutions will require the Intelligence Hub as the next vital step and its delivery across 2017/18 is now timely and appropriate.

6. Corporate Implications

6.1 Contribution to Council's Vision & Corporate Priorities

The Digital Strategy 2017-20 in its totality supports all Council aims and priorities. The Intelligence Hub is seen as a key plank in underpinning delivery and in progressing the SMART elements of the Digital Strategy.

6.2 Financial Implications

The delivery of the Council's Digital Strategy does have financial implications and its funding is reflected if the Council's Capital Programme.

It should be noted however, that to date, the Council has acted as enabler of infrastructure as opposed to direct provider. Indeed, the provision of full fibre broadband across the Borough and the planned deployment of free public WiFi in areas of high footfall are, in fact, small net contributors to income for the Council. They have been delivered at the providers expense through enablement and concession contracts wherein the council has rented its ducting and street furniture. These contracts have also benefited from significant 'social value'.

The proposal to build an Intelligence Hub / Operations Centre through modifications to the existing CCTV room will require capital investment but could also in the longer term deliver revenue streams into the authority. However, the build can be done incrementally as each SMART proof of concept pilot proves its worth both operationally and financially.

Ultimately, it is envisaged that the Intelligence Hub / Operations Centre would accommodate

- the existing CCTV staffing compliment

- the existing SEH Careline Team relocated from Nicholson House
- additional functionality including

  - centralised view / control of street lighting 24/7
  - feedback from sensors (e.g. air quality, water course and commercial bins)
  - single view of 'place based' event reports (fly posting, fly tipping, graffiti, missed bins etc.)
  - centralised 24/7 overview of independent living support solution
  - centralised control of the Variable Message Signage (VMS) for traffic management
  - centralised overview of parking management in keeping with the 2017/18 strategy
  - 24/7 ICT network monitoring
  - provision of required 'dashboards' for status monitoring of people and place related matters

An estimated figure of £500,000 has been included in the Council's capital programme for 2018/19 for the creation of an Intelligence Hub and agreement is sought to utilises this funding in an incremental way across 2017/18 should the need arise.

The creation of the Intelligence Hub must not be seen as a discrete project divorced from the wider intentions of the Council.

The proposal is inextricably linked to the progress of the SMART pilots which themselves are linked to other provision in the council's capital programme for 2017/18 and beyond. Namely:

Network Monitoring Equipment	- £60,000
Energy Projects	- £250,000
CCTV Equipment Renewal	- £420,000
Improved Car Park Signage and Guidance System	- £485,000
Wireless Borough	- £350,000
Intelligence Hub	- £500,000

These capital proposals will be considered in unison for co-delivery to ensure that while the potential of each is optimised, when combined in a SMART way the total gain for the Council is greater than the sum of the parts. Return on investment will be optimised.

6.3 Legal Implications

There are no specific legal implications associated with the strategic proposals as they currently stand, other than those related to local agreements for co-location of infrastructure within the Council's data centre, concession licensing of street furniture owned by the authority and associated insurance requirements.

The Council would be obliged to comply with all relevant legislation in respect of Data Protection, the Surveillance Camera Commissioners Code of Practice and the standards and requirements of the Careline Service.

6.4 People Implications

There will be people related implications associated with delivering this agenda. This proposal would impact staff employed by the Council and engaged in CCTV provision whose remit may be extended and staff employed by South Essex Homes in Careline provision in respect of relocation.

6.5 Property Implications

None directly other than the intended incremental enhancement of the current CCTV room at Tickfield into an Intelligence Hub / Operations Centre. The site currently occupied by Careline staff at Nicholson House would be vacated.

6.6 Consultation

Delivering the ambitions of the strategy will require significant consultation in the first instance with citizens and businesses in the Borough.

In addition, there will be a need to establish the 'quadruple helix', a forum within which the four key players (statutory bodies, academics, local businesses and the community / voluntary sector) come together to liaise, plan and co-design technology enabled solutions for the borough.

Work on the above has already commenced and the multi-agency group formed.

This proposal would impact two sets of staff, those currently employed by the Borough Council within the CCTV service and those currently employed by SEH within the Careline Service. It is likely that both would be consulted on this proposal each by their respective employing body. Council staff in respect of an extended role and Careline staff in respect of a relocation. The approach would be in keeping with prevailing Council policy.

6.7 Equalities and Diversity Implications

None specifically related to the agenda but equality and diversity will need to be considered as a component part of each project.

6.8 Risk Assessment

Each project will have its own risk and issues log.

6.9 Value for Money

Each proposed project or SMART proof of concept pilot will need to be considered its own merits and subjected to a business case.

6.10 Community Safety Implications

Enhanced community safety will feature as one of the five core SMART Projects planned for commencement in 2017/18 and for which capital funding has been approved in the capital programme.

6.11 Environmental Impact

There are indirect environmental implications associated with the intentions contained within this strategy. Digitally driven projects highlighted in the strategy will seek to support delivery of a number of the council's core aims and priorities in particular:

- To promote the use of green technology and initiatives to benefit the local economy and environment
- Encourage and enforce high standard of environment stewardship

7. Background Papers

7.1 None

8. Appendices

8.1 Appendix 1 - The Councils 'Digital Strategy 2017/20'.