

CARDIFF'S SMART CITY ROADMAP

**FINANCE, MODERNISATION & PERFORMANCE (COUNCILLOR
CHRISTOPHER WEAVER)**

AGENDA ITEM: 5

Reason for this Report

1. To obtain Cabinet approval and authority for the draft document entitled Cardiff's Smart City Roadmap to be the subject of a public consultation exercise. Cardiff's Smart City Roadmap is included as per Appendix 1.

Background

2. Cities around the world are facing the challenges of doing more with less, whilst also ensuring their cities become healthier, more liveable, productive and sustainable.
3. It is widely acknowledged that smart city approaches can help tackle the challenges that cities face. Many cities are digitally transforming and using smart city initiatives to improve environmental, financial and social aspects of urban life. These cities leverage technology and data to create more efficient and effective services, and they collaborate and engage widely to improve outcomes for their citizens.
4. The Capital Ambition along with a number of key strategic Council documents recognise the need to "adopt smart city approaches". Consequently, Cardiff has already started its smart city journey with initiatives such as Smart Lighting, Nextbikes and Smart Parking. However, it has never had a strategy that details its full smart city aspirations.
5. The 'Cardiff of the future' will look very different and bring new challenges and opportunities – increased population, new employment opportunities, increased demand on energy, improved connectivity, better transport links and new innovative technologies will change the way people work, visit and live in the Capital. Smarter approaches that leverage technology and data can allow us to get meaningful, actionable insights that will help us manage, forecast and plan the city more effectively.
6. Cardiff is Wales' strongest economy and is the fastest growing UK core city (in terms of percentages). Cardiff has a rapidly growing Tech community and its size and population make it an ideal location to test and trial new innovative technologies. We envisage that Cardiff's 'Smart City'

and 'Capital City' status will work in harmony to help attract and retain a skilled workforce, bringing economic benefits to the Capital and wider Region.

7. The "UK Smart Cities Index 2017" report was published in October 2017. The report looked at 20 cities that had deployed smart city technology to tackle urban challenges. Cardiff ranked nineteenth out of the twenty cities included in the report. The four top cities were Bristol, London, Manchester and Birmingham. Cardiff needs to build on its smart city reputation to attract leading tech companies, to sustain economic growth and to remain competitive in the future.
8. A smart city approach will be especially important in light of the substantial saving targets the Council has for the next three years. The leveraging of technology and data will improve services, automate processes and result in better decision making.

Smart City Approach

9. Cardiff's definition of a smart city is best summarised as follows; A 'Smart City' is a collaborative space, where people and the use of digital technologies and data are seamlessly woven into day-to-day activities to enhance the lives of the people living and working within the city, as well as those that visit it. The 'Smart City' is responsive to its own unique challenges and is better prepared to address any social, economic, health and environment issues that it may face.
10. Many cities have already begun their smart city journey. Consequently, there have been 'lessons learned' by these early smart city adopters. For instance, most agree that 'using technology for the sake of using technology' is not the best way forward – innovative technology is interesting, however, the novelty value wears off if it does not serve a need. Therefore, citizens should be at the forefront of smart city initiatives (a bottom up approach) as they are more likely to adopt technology if it meets their needs. It is important that Cardiff learns from other cities and adopts them into its smart city aspirations.
11. Cardiff Council has engaged with a range of UK cities to discuss best practise and to obtain advice on smart city approaches. Cardiff is a member of the 'smart core cities working group' who regularly meet and provide guidance and support on smart city initiatives.
12. There is not a universal approach to a smart city. Every city is unique; consequently, every city's approach is different and varied to suit their needs. Smart city approaches are generally designed around the city's drivers and ambitions.
13. Cardiff's Smart City Roadmap aligns with its drivers and ambitions as specified in the Capital Ambition and other strategic documents, including the Transport Strategy and Digital Strategy.

14. Cardiff has some of the best universities in the UK and has over 70,000 students. Our universities are working on great ideas and they regularly develop and use new innovative technologies. Cardiff's universities are in a good position to support Cardiff's Smart City aspirations.
15. Cardiff Council has actively been working with its universities on a range of smart city initiatives. This has strengthened relationships and has proven to be beneficial for both organisations.
16. Key Cardiff Council internal stakeholders from impacted service areas have been consulted and have agreed the actions contained in the Smart City Roadmap.

Cardiff's Smart City Roadmap

17. Cardiff's Smart City Roadmap is a single document that sets out its aspirations to make Cardiff a smart city.
18. The overarching vision of Cardiff's Smart City Roadmap "is for Cardiff to become an inclusive, sustainable, healthy and productive city that uses technology and data to enhance the lives of the people living, working and visiting the Capital".
19. Underpinning this vision is a challenge "To Transform Cardiff into a Smart City". To drive this challenge five missions have been defined. The five missions look to promote collaborative working, advocate data driven decision-making, aim to expand connectivity, seek to improve health and well-being, enhance mobility, and will help to ensure that Cardiff continues to be a sustainable city.
20. Each of the five missions has four initiatives and a number of actions. These actions are not exhaustive but have been created to provide direction. The roadmap has adopted a mission orientated approach which allows for a bottom up approach; where citizens, the private, public and education sector can be involved.
21. The Smart City Roadmap has a three-year lifecycle. The short lifecycle will provide focus, takes into account the progressive nature of technology and will 'lay the foundations' for our future smart city initiatives.
22. Cardiff's Smart City Roadmap has been designed based on consultation to date and actively encourages further internal and external engagement. This will help capture ideas and improve engagement so that we can improve services and find efficiencies through data and technology.

The Missions

23. *Mission 1: A Collaborative City* - Cardiff's smart city aspirations need to put people at the forefront. Better citywide engagement and stronger links with partners will allow us to create a smart city that meets the needs and expectations of the whole city.

24. *Mission 2: A Data-Driven City* - Data Driven decision-making has become the 'norm' for most private sector organisations. Data is a vital resource for any city, it brings economic benefits and provides insights that can help reduce costs and provide better services. Becoming strategic with data will not only benefit Cardiff Council, it will benefit our partner organisations, businesses and citizens.
25. *Mission 3: A Connected City* - Cardiff will always need improved digital infrastructure to answer the digital needs of a growing population and business community. The number of connected devices is expected to increase rapidly over the coming years and it is important that Cardiff's digital infrastructure is able to support increased demand for services and is ready for the future (e.g. 5G and Internet of Things IoT).
26. *Mission 4: A Mobile & Sustainable City* - Cardiff is expected to grow exponentially over the next 20 years. This growth will put pressure on the city's transport and energy infrastructure as well as the natural environment. Cardiff needs to ensure that the city grows in a sustainable manner. The use of technology and data will play a huge role in helping Cardiff become more sustainable and ensure Cardiff keeps moving.
27. *Mission 5: A Healthy City* - The health and well-being of the citizens that live, work and visit the city is important. The use of technology and data in Wales is under-utilised in areas such as health and well-being. The better use of technology and data will help provide more efficient and effective services. Thus, allowing citizens to remain healthy and independent.

The Way Forward

28. The Council's Chief Digital Officer leads on the Smart City Roadmap. However, the missions that are set out within the Roadmap involve cross-departmental working within the Council. Collaborative working both within and externally to the council is essential for the missions to be completed.
29. Cardiff's Smart City Roadmap lays the foundations for Cardiff's smart city aspirations. The actions should not be considered as exhaustive but merely areas of focus.
30. A Smart City website will be setup to accompany the roadmap. The purpose of this website will be to promote Cardiff's smart city aspirations, to provide citizens with regular progress updates and to obtain ideas for smart city initiatives.
31. The Smart City Roadmap should undertake an eight-week period of public consultation. This is to ensure that citizens have an opportunity to feedback on the initiatives and proposals outlined in the roadmap.
32. Following the consultation exercise a further report will be brought before Cabinet to approve the final version of the Smart City Roadmap

Reason for Recommendation

33. To ensure an effective public consultation exercise takes place. This will allow us to engage with citizens and give them an opportunity to influence the outcomes of Cardiff's Smart City Roadmap.

Financial Implications

34. Whilst there are no financial implications arising directly from this report, as specific initiatives connected with the Smart City Road Map are further developed, financial advice will need to be taken in order to demonstrate appropriate diligence and affordability within the parameters of the Medium Term Financial Plan and Capital Strategy. Initiatives will need to be managed within existing resources wherever possible, or subject to a robust business case, seeking to identify and maximise any grant funding streams that may be available to support innovation in this area.

Legal Implications

35. Cardiff's Smart City Roadmap is a non-statutory document that serves as a statement of the Council's aspirations to make Cardiff a smart city and as such raises no direct legal implications. However the report refers to a public consultation exercise being undertaken in relation to draft Smart City Roadmap. Consultation gives rise to the legitimate expectation that due regard will be given to the outcome of the consultation in determining the way forward.
36. Any decision made relating to the recommendation set out in this report must be made in the context of the Council's public sector equality duties. The Council also has to satisfy its public sector duties under the Equality Act 2010 (including specific Welsh public sector duties). Pursuant to these legal duties, Councils must in making decisions have due regard to the need to (1) eliminate unlawful discrimination, (2) advance equality of opportunity and (3) foster good relations on the basis of protected characteristics. The Protected characteristics are age, gender reassignment, sex, race – including ethnic or national origin, colour or nationality, disability, pregnancy and maternity, marriage and civil partnership, sexual orientation, religion or belief – including lack of belief.
37. The report identifies that an Equality Impact Assessment has been carried out and is appended to this report. The purpose of the Equality Impact Assessment is to ensure that the Council has understood the potential impacts of the proposal in terms of equality so that it can ensure that it is making proportionate and rational decisions having due regard to its public sector equality duty. The decision maker must have due regard to the Equality Impact Assessment in making its decision.
38. The Well-Being of Future Generations (Wales) Act 2015 ("the Act") places a 'well-being duty' on public bodies aimed at achieving 7 national well-being goals for Wales – a Wales that is prosperous, resilient, healthier,

more equal, has cohesive communities, a vibrant culture and thriving Welsh language, and is globally responsible.

39. In discharging its duties under the Act, the Council has set and published well-being objectives designed to maximise its contribution to achieving the national well-being goals. The well-being objectives are set out in Cardiff's Corporate Plan 2019-22: <https://www.cardiff.gov.uk/ENG/Your-Council/Strategies-plans-and-policies/Corporate-Plan/Pages/Corporate-Plan.aspx>
40. The well-being duty also requires the Council to act in accordance with 'sustainable development principle'. This principle requires the Council to act in a way, which seeks to ensure that the needs of the present are met without comprising the ability of future generations to meet their own needs. Put simply, this means that Council decision makers must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, the Council must:
 - Look to the long term
 - Focus on prevention by understanding the root causes of problems
 - Deliver an integrates approach to achieving the 7 national well-being goals
 - Work in collaboration with others to find shared sustainable solutions
 - Involve people from all sections of the community in the decisions which affect them
41. The decision maker must be satisfied that the proposed decision accords with the principles above; and due regard must be given to the Statutory Guidance issued by the Welsh Ministers, which is accessible using the link below: <http://gov.wales/topics/people-and-communities/people/future-generations-act/statutory-guidance/?lang=en>
42. The Council has to be mindful of the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards when making any policy decisions and consider the impact upon the Welsh language, the report and Equality Impact Assessment deals with all these obligations. The Council has to consider the Well-being of Future Guidance (Wales) Act 2015 and how this strategy may improve the social, economic, environmental and cultural well-being of Wales.
43. Cabinet must be satisfied that the proposal is within the Policy and Budget Framework, if it is not then the matter must be referred to the Council. All decisions taken by or on behalf the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers of behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Council Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances

HR Implications

44. There are no foreseen HR issues. The Roadmap looks to enhance skills within the Council for employees who use data and technology.

RECOMMENDATIONS

Cabinet is recommended to approve the draft Smart City Roadmap and authorise a public consultation exercise being carried out in relation to the same.

SENIOR RESPONSIBLE OFFICER	Chris Lee Corporate Director Resources
	13 December 2019

The following appendices are attached:

Appendix 1– Smart City Roadmap

Appendix 2 – Equality Impact Assessment