



Cabinet (Resources) Panel

14 April 2015

Report title Progress in developing a Smart City Strategy

Decision designation AMBER

Cabinet member with lead responsibility Councillor Andrew Johnson
Resources

Key decision Yes

In forward plan Yes

Wards affected All

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Report to be/has been considered by

Recommendation(s) for action or decision:

The Cabinet (Resources) Panel is recommended to:

1. Endorse the proposal to adopt the EU framework for Smart City developments.
2. Agree the best approach to driving forward the Smart City agenda branding as a sub-brand of existing brandings existing initiatives as Smart, developing a strong pipeline of projects and seeking funding opportunities and engaging at a wider level to promote Smart City thinking within the council and among partners driving the agenda at sub-regional and regional level.

3. Endorse that the lead for the overall Smart City agenda be moved from ICT service to City Economy service within the Place Directorate with the ICT service continuing to provide technical support and guidance
4. Endorse the priority given to Smart Governance initiatives that promote and support public participation in and transparency of Council decision-making and service delivery.

1.0 Purpose

- 1.1 To inform councillors of progress in developing a Smart City Strategy for Wolverhampton, as part of improving and promoting the city's offer to businesses, investors, developers, visitors and residents.

2.0 Background

- 2.1 Positioning Wolverhampton as a Smart City forms part of improving our city offer and comparative competitiveness. By capitalising on technology and encouraging innovation across the city, we can make the city of Wolverhampton a more attractive place to live, work and invest.
- 2.2 Cabinet (Resources) Panel received a report on 11 November 2014 reviewing the feasibility of a public wifi service for the City. The report noted advice from consultants that "business cases for public wifi may be more effective as part of a larger city-wide digital strategy encompassing digital inclusion, support for local businesses and economic growth, cross-sector partnerships, tourism, and "Smart City" technology initiatives for managing urban infrastructure" (paragraph 3.2). The Panel asked for a Smart City Strategy to be developed.

3.0 Progress and current status

- 3.1 Research was carried out into literature and publicity around Smart Cities in the UK, EU and globally. It is clear from this that the Smart City concept is still very new and there is no general agreement on what it means at the practical level. The most common factor is the use of ICT as an enabler, drawing together and making available data from a range of sources (including real-time metrics). This can be analysed and used to help support, inform and manage decision-making and operational tasks as well as provide new business opportunities and empower citizens. However the technologies involved typically are not the kind of business process automation found in traditional corporate ICT systems.
- 3.2 To provide a foundation for further development of the Smart City concept in Wolverhampton, it is proposed to adopt a framework used by the European Parliament in a recent study of Smart City activities throughout the EU. The framework uses six categories of activity:
 - Smart Governance
 - Smart Economy
 - Smart Mobility
 - Smart Environment

- Smart People
- Smart Living

- 3.3 Despite Wolverhampton's strong superfast broadband availability at 93%, covering 103,550 dwellings and 236,400 people, there are several areas which do not have access to superfast broadband correlating with the city centre and key business areas, restricting our ability to become a Smart City. The Black Country has been awarded £12.2 million aimed at extending the availability of high-speed fibre broadband to 98 per cent of homes and businesses across the area in less than three years excluding Wolverhampton city centre. Cabinet (Resources) panel on 3 March 2015 received a report on the rollout of broadband vouchers scheme starting 1 April 2015 for one year on a first come first service basis. This could address the gap in superfast broadband in Wolverhampton city centre and also allow a shorter term solution to slow broadband speeds on our business parks. However the infrastructure alone will not be sufficient to making Wolverhampton a "Smart City".
- 3.4 A number of activities currently under way in Wolverhampton and the Black Country can be aligned with the framework, allowing them to be presented as Smart City initiatives. Appendix 2 outlines these in full detail. A Black Country Digital Strategy is being developed bringing together a range of initiatives including the local broadband plan, broadband vouchers and digital inclusion.
- 3.5 **Smart Governance:** initiatives in the smart governance category are attractive to local authorities because typically they can be implemented by the council alone and with little or no capital investment; the main cost is usually staff time. The most common kinds of initiative in this category centre on encouraging and supporting public participation in local democracy, and publishing council data to be exploited by citizens and businesses and to promote transparency. For example, putting annual budget consultations online to improve engagement and online petitions and consultations. Wolverhampton has projects of this kind under way and it is proposed that they should be branded as Smart City initiatives.
- 3.6 **Smart Economy:** the benefits of technology in stimulating economic growth is recognised with highly digitalised small medium sized enterprises (SMEs) growing faster, however studies suggest that without demand stimulation, only 15% of UK businesses will benefit. Therefore a key part of the Black Country broadband demand stimulation plan is to raise awareness of the benefits, increase the take-up and usage by businesses and encourage product and process innovation. Wolverhampton City Council is the accountable body for the Black Country Optimising Business Technology project which aims to support businesses to encourage the take-up and utilisation of technology. The Council is also administering on behalf of the Black Country the rollout of the broadband voucher scheme. In addition, the University of Wolverhampton is proactive in the Smart Economy agenda showcasing the latest technology and demonstrating practical applications at their Visualisation Centre on Wolverhampton Science Park.
- 3.7 **Smart Mobility:** many Smart City initiatives are already supported by the West Midlands Local Transport Plan and being developed at the level of the Black Country or West

Midlands metropolitan area in partnership with the West Midlands Integrated Transport Authority (ITA), Centro, other councils, transport operators and other partners. For example, Urban Traffic Control uses smart technology for traffic control and real time information updates. In view of this it is proposed that additional initiatives of this kind should be pursued through existing partnerships and any new arrangements which may arise, such as the West Midlands Combined Authority. Others are being developed locally and funding opportunities are being explored through the current European Structural Fund call for projects

- 3.8 **Smart Environment:** Smart City thinking emphasises improvements in environmental outcomes such as reduction of carbon emissions and overall efficiency in the use of resources. Many such initiatives are already being pursued locally or at the level of the Black Country or metropolitan area through partnerships with agencies such as local authorities, utilities such as water, power and telecoms and the building supply and construction industries. The Council is developing energy management and generation in council properties including solar and biomass.
- 3.9 **Smart People:** the Black Country demand stimulation plan outlines the approach to getting residents online and taking up superfast broadband by encouraging those online to upgrade and those not online to get online, including supporting those lacking capability or skills to get online, building self-reliance and encouraging home access. Being digitally connected can have significant benefits for our residents including increasing educational performance, chances of getting into employment and boosting lifetime earnings. It can also help to reduce poverty by providing access to cheaper services, health and reduce isolation. The Wolverhampton Digital Inclusion Strategy outlined the key actions to get residents online including ensuring adequate public access points in communities for those without home access and ensuring support is available for those that lack capability or skills to use technologies. Further work is being undertaken in advance of the rollout of Universal Credit in Wolverhampton between December 2015 and April 2016. A range of ICT training is available across Wolverhampton ranging from basic getting online in community venues to courses at a range of levels from adult education, City of Wolverhampton College to the University of Wolverhampton.
- 3.10 **Smart Living:** covers a range of lifestyle, behavioural and cultural initiatives. Housing Associations are looking at Smart technology around assisted living, enabling older people to live for longer in their home, and the NHS are also use Smart technology to enable people to control their condition at home, for example by remotely monitoring key health information such as blood pressure. A range of council services and other public and private sector agencies including Public Health, Wolverhampton Homes, housing associations, house builders, cultural organisations and NHS Trusts will need to be engaged to explore further developments in these areas within the context of the Smart City strategy.

4.0 Next Steps

- 4.1 The work undertaken demonstrates that Smart City is not purely an internal ICT issue. Rather it is integral to the positioning of the city and delivering the council and its partners wider regeneration, economic development, environmental and social aims. Establishing Wolverhampton as a credible Smart City Strategy has synergies with planning policy where the Black Country Core Strategy, Area Action Plans and Neighbourhood Plans present a vision aligned with Smart City thinking. Promoting such thinking requires partnership across a range of subject areas and agencies covering the public, private and voluntary sectors. It is therefore proposed that the lead for this initiative is moved from the ICT Service to City Economy service within the Place Directorate.
- 4.2 There is convergence between the aims of a Smart City Strategy and other areas such as planning policy, including the Black Country Core Strategy and Area Action Plans/ Neighbourhood Plans. In particular a Smart City Strategy could support the regeneration of the city in areas such as broadband and in turn be supported by policies in areas such as renewable energy and green roofs.
- 4.3 Much of our Smart City activity, such as Smart Economy and Smart Environment work, is currently undertaken at a Black Country, metropolitan or regional level. It therefore needs to be recognised that the most appropriate level for taking this work forward will vary depending on the area of activity. A Digital Strategy is currently being developed at Black Country level.
- 4.4 The next step is to consider the best approach to draw together the areas identified in Annex 2 and promote Smart City thinking. Rather than produce a new strategy, this may be more about seeking ways to engage with existing initiatives and strategies and identify additional opportunities, including seeking funding opportunities.
- 4.5 Funding opportunities include the current call for proposals funded through the European Regional Development Fund under priority axis 4 supporting the shift towards a low carbon economy in all sectors. One investment priority is promoting low carbon strategies for urban areas which can include investments in smart grid, sustainable energy action plans and use of innovative technologies around low carbon transport. Further opportunities exist through Horizon 2020 which has two open bidding rounds: Smart Cities and Communities solutions integrating energy, transport, ICT sectors through large scale demonstration projects and development of system standards for smart cities and communities solutions. However Horizon 2020 is research focused and requires transnational co-operation.

5.0 Financial implications

- 5.1 Existing initiatives have already secured over £12.0 million for existing initiatives across the Black Country. Where Wolverhampton are leading on schemes these are included in existing budgets. Budgetary approval for the Black Country Broadband Vouchers Scheme is also sought at this meeting under a separate report. This includes rollout of the scheme to SMEs plus 10% of any vouchers issued towards project management and demand stimulation activity. Publication of certain kinds of Council data in line with the

Code of Recommended Practice on Transparency attracts a small amount of incentive funding from the Department of Communities and Local Government.

- 5.2 There is currently no additional funding available for additional Smart City initiatives, however resources have been identified in the Black Country European Investment Strategy to stimulate demand and usage of ICT by businesses and to support low carbon projects. [ES/25032015/E]

6.0 Legal implications

- 6.1 Initiatives that involve sensors, monitoring and other data-gathering may raise concerns about privacy. It is not proposed to undertake any projects of this kind without obtaining further legal advice. RB/23032015/X

7.0 Equalities implications

- 7.1 Some aspects of Smart City developments focus on improving access to services of all kind. Typically this is achieved through digital channels. Digital inclusion is part of the Smart People strand and aims to support disadvantaged groups to become digital included thereby reducing inequalities.

8.0 Environmental implications

- 8.1 The development of a more economically, socially and environmentally sustainable city is in line with the key objectives of Smart City strategies and with the council's Sustainability Strategy and Implementation Plan 2013-18. Projects are currently being developed to respond to a call for proposals for low carbon projects funded by European Structural Funding.

9.0 Human resources implications

- 9.1 There are no human resources implications.

10.0 Corporate landlord implications

- 10.1 Several kinds of Smart City initiative involve new approaches to using built resources efficiently. At this stage it is not proposed to undertake any projects of this kind.

11.0 Schedule of background papers

- 11.1 None.

Appendix 1: EU Smart City framework

The EU framework comprises six categories of projects and initiatives. Below are the six categories, with explanatory comments taken from the report “Mapping Smart Cities In The EU” (RAND Corporation, for the European Parliament, January 2014:

http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOP-ITRE_ET%282014%29507480).

Smart Governance

- participation of citizens through ICT-enabled platforms
- transparency of city decision-making and enabling better feedback from citizens to civil servants
- citizen and business participants set the agenda
- open data strategies and platforms, crowdsourcing and co-creation platforms, etc
- open data projects
 - include citizen or user competitions to develop apps and other digital services (often reusing public data)
 - are regarded by participants and government officials as providing better Smart Governance and Smart Economy outcomes than conventional approaches
- tend to have only modest capital costs, most of which are already sunk
 - primary cost associated with such projects is the opportunity cost of time, which is provided by the participants
- joined up within-city and across-city governance, including services and interactions which link and [...] integrate public, private, civil [...] organisations so the city can function efficiently and effectively as one organism
- main enabling tool to achieve this is ICT (infrastructures, hardware and software), enabled by smart processes and interoperability and fuelled by data
- International, national and hinterland links are also important (beyond the city), given that a Smart City could be described as quintessentially a globally networked hub
- public, private and civil partnerships and collaboration with different stakeholders working together in pursuing smart objectives at city level
- Smart objectives include transparency and open data by using ICT and e-government in participatory decision-making and co-created e-services, for example apps
- can also orchestrate and integrate some or all of the other smart characteristics

Smart Economy

- e-business and e-commerce
- increased productivity
- ICT-enabled and advanced manufacturing and delivery of services
- ICT-enabled innovation, as well as new products, new services and business models
- smart clusters and eco-systems (e.g. digital business and entrepreneurship)
- local and global inter-connectedness and international embeddedness with physical and virtual flows of goods, services and knowledge

Smart Mobility

- ICT supported and integrated transport and logistics systems

- sustainable, safe and interconnected transportation systems can encompass trams, buses, trains, metros, cars, cycles and pedestrians in situations using one or more modes of transport
- prioritises clean and often non-motorised options
- Relevant and real-time information accessed by
 - the public, in order to save time and improve commuting efficiency, save costs and reduce CO₂ emissions
 - network transport managers, to improve services and provide feedback to citizens
- Mobility system users might also provide their own real-time data or contribute to long-term planning

Smart Environment

- Smart energy including renewables, ICT-enabled energy grids, metering, pollution control and monitoring, renovation of buildings and amenities, green buildings, green urban planning
- Resource use efficiency, re-use and resource substitution
- Urban services such as street lighting, waste management, drainage systems, and water resource systems that are monitored to evaluate the system, reduce pollution and improve water quality

Smart People

- e-skills
- working in ICT-enabled working
- access to education and training
- human resources and capacity management
- an inclusive society that improves creativity and fosters innovation
- enable people and communities to themselves input, use, manipulate and personalise data, for example through appropriate data analytic tools and dashboards, to make decisions and create products and services

Smart Living

- ICT-enabled life styles, behaviour and consumption
- healthy and safe living in a culturally vibrant city with diverse cultural facilities
- good quality housing and accommodation
- high levels of social cohesion and social capital

Appendix 2: Current Council projects that may be designated Smart City initiatives

The following initiatives are already under way:

Proposed Category	Description	Lead Department/ Partner
Smart Governance	<p>Open Data and Transparency Wolverhampton CC now has Data Share in place in order to support the transparency agenda: http://data.wolverhampton.gov.uk/</p> <p>It is a simple programme that hosts Excel files, and allows them to be accessed by the public. The programme acts as a central storage point for a number of data sets and enables greater transparency for the authority. One of DataShare's main benefits is that it allows people to sort and filter data themselves. In this respect it is an efficient way of saving both time and money when processing FOI requests. Rather than employees having to response to FOI requests, this task can now be left to the public who do the filtering by using DataShare. Over the last six months, finance has been actively publishing datasets about the council's expenditure and this has seen a drop in the number FOI requests. The IG team is therefore keen to identify other areas where directorates can actively publish data.</p> <p>The authority is also required by law to publish a series of information sets as part of the Transparency Code, such as parking spaces, senior salaries and land assets. As of 1 January 2015 the first three of these sets went live meaning the council is currently meeting its statutory requirements. It will publish another series of data sets at the end of January.</p> <p>The Council is also currently developing a disclosure log to publish all FOIs responded to by the Council.</p>	Scrutiny and Transparency
Smart Governance	<p>Annual Budget Consultation The budget consultation invites public engagement via a number of channels including digital (web site and social media).</p>	Financial Services

Proposed Category	Description	Lead Department/ Partner
Smart Governance	<p>Webcasting public meetings As part of its support for transparency and open government, the Council is evaluating the possibility of webcasting key public meetings (e.g. Council, Planning, Cabinet, etc.). Options were considered by Councillors earlier in the year.</p>	Democratic Services
Smart Governance	<p>Online Petitions Wolverhampton Council remains one of only a few local authorities to have a petitions committee. A group of residents can lodge a paper or online petition, have it heard by the committee and action to respond agreed. When a group is larger than 2,500 people, the petition is considered by the Full Council, following a presentation from the lead petitioners.</p>	Democratic Services
Smart Governance	<p>Social Media presence Wolverhampton is one of the leading local authorities for social media activity, with the second largest Facebook following in the country generating dynamic interaction between the Council and local people. Live tweets are sent out during key meetings (e.g. when the Council sets the budget).</p>	Democratic Services
Smart Governance	<p>Online consultation The Council has an online consultation portal, enabling local residents to respond to statutory and other consultations. In recent months this has included consultations on licensing policy, the future of bungalows in Duke Street, sexual health and the city centre area action plan. The Council also conducts a significant budget consultation exercise each year, including both an online survey and a series of community meetings in different localities.</p>	Democratic Services

Proposed Category	Description	Lead Department/ Partner
Smart Economy	<p>Black Country Local Broadband Plan</p> <p>The Black Country has been awarded £12.2 million aimed at extending the availability of high-speed fibre broadband to 98 per cent of homes and businesses across the area in less than three years. Funding for the programme is made up of £2.9 million from the Broadband Delivery (BDUK), £6.4 million from BT and £2.9 million from the Black Country LEP's Growing Places Fund. Since gaps in Wolverhampton's superfast broadband coverage is primarily business areas, this will have greatest impact on local businesses.</p>	City Economy
Smart Economy	<p>Black Country Broadband Demand Stimulation Plan</p> <p>In recognition of the benefits that superfast broadband can play in stimulating economic growth and without a programme of demand stimulation and skills development, take-up amongst businesses would be low, this plan outlines Black Country's approach to stimulating demand amongst our businesses:</p> <ol style="list-style-type: none"> 1. Raise awareness of businesses of the benefits of superfast broadband; 2. Increase number of businesses taking up and using superfast broadband; 3. Encourage product and process innovation enabled through superfast broadband. 	City Economy
Smart Economy	<p>Black Country Broadband Business Support Project</p> <p>Optimising Business Technology provides tailored business support to companies promoting the take-up and utilisation of superfast broadband. It aims to assist 180 businesses across the Black Country to increase productivity. Funding has been allocated for this activity in the new European programme.</p>	City Economy

Proposed Category	Description	Lead Department/ Partner
Smart Economy	<p>Rollout of Black Country Broadband Vouchers Scheme The broadband connection voucher scheme provides up to £3,000 grants to SME's to cover the installation costs of a faster and better broadband service. Vouchers will be available in Wolverhampton from April 2015 available on a first come, first serve basis. The extension will allow Wolverhampton to address the gap in superfast broadband in Wolverhampton city centre and also allow a shorter term solution to slow broadband speeds on our business parks prior to the rollout of infrastructure as part of the Black Country Local Broadband Plan</p>	City Economy
Smart Economy	<p>The University of Wolverhampton are proactive in supporting a Smart Economy. Their ERDF funded Visualisation Centre, part of Innovation First, showcases the latest technology and demonstrating practical applications offered by technology. It is based adjacent to the Business Solutions Centre, home to the Black Country Growth Hub.</p>	University of Wolverhampton
Smart Economy	<p>The Business Champion's Innovation Series involved large strategic businesses supporting smaller businesses to innovate and become part of the supply chain. These included a large aerospace business talking about the use of computer simulations to help engineers design, modify, analyse and optimise their design without the need for costly prototypes. Another business talked about how social media can be a low cost, highly effective tool.</p>	Enterprise and Skills

Proposed Category	Description	Lead Department/ Partner
Smart Mobility	<p>Urban Traffic Control (UTC)</p> <p>As part of a £26.6 million project funded by the Department for Transport, the seven West Midlands metropolitan councils are introducing smart technology for traffic control by moving traffic signals, cameras and variable message systems (VMS) to digital technology. Wolverhampton is ahead of other councils and is due to complete the transfer by summer 2015.</p> <p>From 5/1/15, the management of Walsall's UTC has been merged with that for Wolverhampton and Dudley, meaning an integrated system for managing the three council's UTC will be run from Wolverhampton.</p> <p>The council is also about to introduce automatic number plate recognition (ANPR) for journey time monitoring and bus lane enforcement in the city.</p>	Transportation
Smart Mobility	<p>Integrated Sustainable Transport System</p> <p>The West Midlands Integrated Transport Authority (ITA)/ Centro have produced the Local Transport Plan (LTP) for West Midlands Metropolitan Area (WMMA), 'Making the Connections', which supports an integrated, inclusive, safe and low carbon transport system which supports use of low emission vehicles, public transport, walking and cycling.</p> <p>See: http://www.centro.org.uk/about-us/corporate-publications/local-transport-plan/</p>	West Midlands ITA/ Centro
Smart Mobility	<p>Sustainable Transport Projects - Wolverhampton</p> <p>The city council has a number of initiatives to promote sustainable and low carbon transport including:</p> <p>Staff Travel Plan - recently published - aimed at encouraging council staff to car share, use public transport, walk or cycle to work</p> <p>Active Travel Strategy - under development – aimed at promoting healthy travel within the city, in particular walking and cycling</p>	WCC Transportation

Proposed Category	Description	Lead Department/ Partner
Smart Mobility	<p>Sustainable Transport Projects - West Midlands / Black Country</p> <p>The West Midlands ITA/ Centro and partner councils, including Wolverhampton City Council, are currently coming towards the end of a three-year, £48 million programme, 'Smarter Network, Smarter Choices', funded by the Local Sustainable Transport Fund, to promote sustainable and low carbon travel along key corridors including:</p> <ul style="list-style-type: none"> • A4123/A459 between Wolverhampton, Dudley and Quinton • A41 Wolverhampton to West Bromwich <p>See: https://www.centro.org.uk/sustainability/smart-network-smarter-choices/</p> <p>A £3 million extension to this project for the Black Country will take place during 2015-16 and will cover the A449 Stafford Road corridor in Wolverhampton</p> <p>See: http://www.centro.org.uk/about-us/news/2014/black-country-istf-legacy/</p> <p>The Black Country councils and LEP are also developing a £4.6 million 'Managing Short Trips' programme for promoting walking and cycling for local journeys, funded by the government's Local Growth Fund.</p>	WCC Transportation, West Midlands ITA/ Centro
Smart Mobility	<p>Smart Ticketing</p> <p>The West Midlands ITA/ Centro are currently developing a smart ticketing project, in partnership with public transport operators, called 'Swift'. See: https://www.centro.org.uk/projects/in-development/swift-smartcard/</p>	West Midlands ITA/ Centro
Smart Mobility	<p>Real Time Information System/ Journey Planner</p> <p>The West Midlands ITA/ Centro has an Integrated Passenger Information Strategy and provides real time information and updates via its mobile phone app alongside its journey planner service, 'Network West Midlands'. See: https://www.centro.org.uk/media/17247/IPIS-1-.pdf http://www.centro.org.uk/about-us/news/2014/groundbreaking-step-brings-public-transport-information-to-google/ http://www.networkwestmidlands.com/</p>	West Midlands ITA/ Centro

Proposed Category	Description	Lead Department/ Partner
Smart Mobility	<p>Low Emission Vehicles</p> <p>The city council is exploring opportunities to promote low emission vehicles (LEVs) including:</p> <ul style="list-style-type: none"> • Installing electric vehicle charging points in car parks, on the highway and in new developments • Including LEV vehicles in the council's fleet • Promoting joined up charging infrastructure across the West Midlands • Supporting the vehicle supply chain and the local automotive industry • Applying for grant funding to schemes run by the Office of Low Emission Vehicles (OLEV) <p>These opportunities include working in partnership with other councils, West Midlands Low Emissions Towns and Cities Programme (LETCP), the West Midlands ITA/ Centro and Black Country LEP.</p>	WCC Transportation & Sustainability Services, West Midlands ITA/ Centro, Black Country Local Enterprise Partnership
Smart Environment	<p>Smart Energy: Renewable and Low Carbon Energy and energy networks</p> <p>The council commissioned a Renewable Energy and Carbon Reduction Study which reported in 2011: See http://www.wolverhampton.gov.uk/CHttpHandler.ashx?id=1567&p=0</p> <p>This followed a regional study and has itself been followed by production of a Green Growth Plan for the Black Country Local Enterprise Partnership (LEP) which identifies renewable and low carbon energy generation and smart energy grids as key areas for investment in the Black Country. See: http://www.blackcountrylep.co.uk/place/green-growth-plan</p> <p>The LEP is in the process of developing a range of projects in these areas to be included in proposals for funding by both the UK government (such as Growth Plan) and EU (such as European Structural & Investment Fund).</p>	WCC Planning/ Sustainability/ Economic Partnerships Services, Black Country LEP

Proposed Category	Description	Lead Department/ Partner
Smart Environment	<p>ICT-enabled energy grids</p> <p>In support of the council's and LEP's aspirations, the council is involved in a smart grid project called Optimising Regional Clusters of Smart Electricity Networks (ORCSEN) which seeks to develop means of managing demand for power at a sub-station level, allowing locally-generated power to be stored, traded and distributed at a local level. This is intended to improve local economic resilience, reduce carbon emissions, reduce fuel costs and support the local economy. It is a pilot for wider smart grids across the Black Country, a project called Black Country Smart Power</p>	Sustainability Service, Planning
Smart Environment	<p>Energy management and generation in council property</p> <p>The council has a rolling fund which supports energy improvement measures on council property including more energy efficient boilers and lighting and a programme of solar panels and biomass boilers.</p>	WCC Energy Service
Smart Environment	<p>Energy management and generation in housing</p> <p>Wolverhampton Homes has a rolling programme of improvements to the council's housing, through initiatives such as the Decent Homes Initiative, to improve its energy efficiency. It has implemented a number of renewable energy projects, including installing a biomass boiler at Heath Town estate, and is investigating further opportunities.</p> <p>The council's Housing Service has implemented a number of initiatives, to tackle fuel poverty and improve energy efficiency for vulnerable private sector households, produces a biennial report as required by the Home Energy Conservation Act (HECA)</p>	WCC Housing

Proposed Category	Description	Lead Department/ Partner
Smart Environment	<p>Energy-efficient Buildings</p> <p>The council has developed a number of buildings with advanced levels of energy efficiency including:</p> <ul style="list-style-type: none"> • New primary schools at St Lukes (biomass boilers) and Willows campus (Green Park & Stowlawn) (green roof & biomass) + Bushbury Hill, Oak Meadow & Wilkinson (all Passivhaus) • Green roofs at Bantock Park changing rooms and Dovecotes Nursery • In partnership, BREEAM very good standard at the Wolverhampton Bus Station and excellent at the Interchange Block 10 development (currently under construction) 	WCC Property & Regeneration Services
Smart Environment	<p>Urban Services</p> <p>The council:</p> <ul style="list-style-type: none"> • Has a rolling programme of introducing energy-efficient street lighting and reduction in lighting of highway signs • Has improved its recycling rates from domestic waste • Is developing a programme to improve surface water management and reduce flooding • Is seeking to improve air quality through the Low Emission Towns & Cities Programme 	WCC Public Realm, Waste, Transport & Regulatory Services
Smart People	<p>Black Country Broadband Demand Stimulation Plan</p> <p>In summary of the benefits to residents to getting online, the Black Country's approach to stimulating demand amongst our residents:</p> <ol style="list-style-type: none"> 1. Encourage residents already connected to upgrade to superfast broadband by raising awareness of availability, the benefits and methods of switching; 2. Encourage residents who are not connected to get online, including supporting those who lack the capability or skills to get online, build self-reliance and home access. 	City Economy

Proposed Category	Description	Lead Department/ Partner
Smart People	<p>Wolverhampton Digital Inclusion Strategy Recognises the benefits that digital inclusion can bring around digital by default, with transactions with government increasingly online e.g. online jobsearch, applying for benefits etc; skills and employment benefits; consumer benefits and access to cheaper services; and health and reducing isolation. Current activities are primarily focusing on encouraging residents who are not connected to get online, including supporting those who lack the capability or skills to get online, build self-reliance and home access by:</p> <ol style="list-style-type: none"> 1. Ensure adequate public access points in communities in partnership with libraries and community organisations. 2. Ensure support is available for those that lack capacity or skills to use technology including rolling out digital mentor schemes providing support to complete online forms, set up e-mails, job search and online applications. 3. Influence resources to meet anticipated increase in demand due to welfare changes and rollout of Universal Credit 4. Seek the buy in from public sector agencies to become champions to promote the benefits and support residents along the journey. <p>Digital inclusion is one of the support structures being built into Universal Support Services activity to support transition onto Universal Credit (replacement for current out and in work benefits) which must be applied for and managed online.</p>	City Economy / Libraries
Smart People	<p>Access to education and training Online access and digital skills are increasingly important for education, training and employment. Home access to a computer and the internet can improve children's educational performance, being online could boost changes of getting employment lifetime earnings, people with ICT skills earn more. Adult education and other training providers provide support for people to improve their ICT skills.</p>	Adult Education
Smart People	<p>Building Schools for the Future As part of the Building Schools for the Future, £1 million was invested in ICT in schools. One school invested the resource in laptops for their students to take home.</p>	Building Schools for the Future

Proposed Category	Description	Lead Department/ Partner
Smart Living	Healthy & Safe Living The council has made healthy lifestyles and healthy eating a major priority with the launch of its Obesity Strategy in November 2014 and the launch of a range of web-based support and advice including the 'Million Miles/ Million Pounds' initiative which encourages residents to collectively walk, swim or cycle a million miles and to lose a million pounds in weight. The NHS is using Smart technology to enable people to control their condition at home, for example through remotely monitoring key health information.	WCC Public Health
Smart Living	Good Quality Housing The council's Local Plan, through the Black Country Core Strategy, and Housing Strategy seek to provide a range of housing to meet the needs of the city's residents and support the broader aims of a Smart City initiative. Housing Associations are using Smart technology around assisted living, enabling older people to live at home for longer.	WCC Planning/ Housing