



Collected case studies: Smart cities

- *Improving service delivery and supporting growth*

This paper brings together a number of case studies on how cities from the UK and beyond are becoming ‘smart’.

UK cities need to provide public services more efficiently while at the same time supporting sustainable and long term economic growth. The best way to do so is by becoming ‘smart’.

This generally means using new technologies and data to improve service delivery and address various economic, social and environmental challenges.

Cities can deliver a smart agenda by integrating economic development and public services delivery, focusing on projects that are practical, achievable and financially viable and consulting with citizens and businesses on their needs.

The following case studies show how cities are improving service delivery and supporting growth using new technologies.

Delivering efficient services using data

The provision and re-use of public sector information can lead to an increase in economic growth. Improving access to data has a positive impact on the number of people using it, and is associated with greater innovation, improved and new services, and efficiency improvements from better resource allocation and informed policy.

Improving digital inclusion and access to open data

Lead organisation: Greater London Authority

Location: London, UK

Year: 2012 – present

Keywords: Smart Cities; Open and big data; Planning; Infrastructure

Read the full briefing here: [Smart Cities](#)

The ‘Smart London Plan’ launched by the GLA in December 2013 aims to use technology to support the capital’s economic growth and help solve its challenges.¹ The plan consists of six strands mainly focused on increasing citizens’ participation through improving digital inclusion and access to open data, using smart technology to improve the management of the city’s infrastructure and enable cross departmental working, and creating new technology jobs through initiatives such as the Smart London Export programme.

The city also won £3 million through the Technology Strategy Board’s (TSB) Future Cities Demonstrator Programme which is being used to integrate the city’s infrastructure (mainly transport and energy) and create new district heating networks.² Moreover, the capital is already considered a pioneer in the field of smart mobility, mainly through the implementation of congestion charging, ‘Oyster’ smart ticketing, and the release of real time travel information for buses. To develop this further, with the help of UCL, Transport for London is using the data collected from Oyster cards to understand congestion patterns and plan future investment.³ Other initiatives include Talk London which is an interactive website aimed to involve citizens in policy debates, and the London Data Store which gives citizens access to data from different public departments.

Some London Boroughs are also saving money by moving to online services and partnering with neighbouring councils on delivering them. For example, the percentage of services that the Borough of Newham offers online moved from nine to 64 between January and December 2012 and it was able to achieve £11 million in savings as a result.⁴ Also, by sharing ICT services with the neighbouring Borough of Havering, Newham will save 25 percent on its ICT overhead costs and both councils will improve public service delivery by sharing skills and knowledge.⁵

Creating an Innovation Health Hub

Lead organisation: Leeds City Council

Location: Leeds, UK

Year: 2010 to present

Keywords: Smart Cities; Open and big data

Read the full briefing here: [Smart Cities](#)

As part of its long term growth strategy ‘Getting Leeds Working’, Leeds is creating an Innovation Health Hub which aims to create an open platform for healthcare data and will also will incorporate a number of

1 GLA (2013), The Smart London Plan, London: GLA.

2 Williams M (2013), Open data or closed doors, London: Centre for Cities.

3 Campbell M (2014), Smart Cities? Not for me!, blog post published on 28 February, 2014 on <http://professormikecampbell.wordpress.com> and Townsend A (2013), Smart Cities, Big Data, civic hackers and the quest for a new utopia, W. W Norton & Company: New York.

4 Willets D (2014), A driver of innovation and growth, Surveyor, Transport Network, January 2014 issues pp. 23-24.

5 For more information see <http://www.majorcities.eu/conferences/2013-ljubljana/presentations/>.

digitally-driven initiatives such as a clinical training and simulation centre, an innovation lab, health-related mobile applications and a digital teleconferencing centre.⁶

Leeds City Council is making all council data available on its website (such as city centre footfall data) and the Leeds Data Mill (now Data Mill North) also gathers datasets from different organisations on a single platform. The council is also implementing the EU INSPIRE Directive which aims to share spatial information with other EU governments and to facilitate cross boundary policy making.⁷

Focusing on 'people-centred' initiatives

Lead organisation: Manchester Digital Development Agency

Location: Manchester, UK

Year: 2008 to present

Keywords: Smart Cities; Open and big data

Read the full briefing here: [Smart Cities](#)

New technologies can help cities address their challenges and become smart. Manchester's smart initiatives are implemented by the Manchester Digital Development Agency (MDDA) and are in line with the Manchester Digital Strategy launched in 2008.

MDDA focuses on initiatives that are 'people-centred'. These include projects that promote digital inclusion (such as Go ON Manchester and EastServe), enable the development of applications using open data by running Hackathons and improve citizens' participation in planning the city's future (through the Manchester Living Lab).⁸ The city has also implemented several EU-funded projects such as DEHEMS and is also partnering with a number of EU cities and projects such as the European Network of Living Labs and the European Connected Smart Cities network.^{9,10} Another project includes the Greater Manchester Data Synchronisation Project, through which the 10 councils forming the Greater Manchester Combined Authority are working with the Future Cities Catapult and other partners on a new framework that will coordinate data gathering and sharing across departments and boundaries.¹¹

A recent EU report ranked Manchester as the fifth most successful Smart City amongst 240 EU28 cities.¹²

Creating a Smart City Roadmap with multiple actions

Lead organisation: Digital Birmingham

Location: Birmingham, UK

Year: 2012 to present

Keywords: Smart Cities; Open and big data; Planning; Infrastructure

Read the full briefing here: [Smart Cities](#)

6 Straughan T (2013), Leeds Innovation Health Hub, Leaders for Leeds update, PowerPoint presentation accessed online on 20 March 2014. Leeds: Leaders for Leeds and Leeds and Partners.

7 Leeds City Council website www.leeds.gov.uk.

8 More information can be found on the projects' website <http://go-on-manchester.com/> and <http://www.eastserve.com/>.

9 More information on the Digital Environment Home Energy System can be found here <http://www.dehems.eu/>.

10 More information can be found on the MDDA website <http://www.manchesterdda.com/smartcity/>.

11 More information can be found here <http://futureeverything.org/ongoing-projects/greater-manchester-data-synchronisation-project/>.

12 European Parliament, Directorate General for internal policies (2014), Mapping Smart Cities in the EU, Brussels: European Parliament.

Digital Birmingham (a council-owned partnership organisation) formed a Smart City Commission in July 2012 and launched the Birmingham Smart City Roadmap in March 2014. The roadmap sets out 49 actions grouped under three main themes: Technology and Place (which involves improving broadband connectivity and sharing open data), People (focusing on digital inclusion, improving citizens' ICT skills and implementing new business procurement processes) and economy (mainly around digitalising social care, improving energy efficiency and smart mobility).¹³

The roadmap will also build on Digital Birmingham's existing projects, such as investment in ultrafast broadband and a number of initiatives aimed to improve technology skills and encourage the use of data (such as Go on Birmingham and Hello Business).¹⁴ Through the Urban Traffic Control Major Scheme, £26 million was invested in integrating transport data from different agencies (highways agency, police etc.) into a single platform and the city is also participating in EU-funded smart initiatives such as the Smart Spaces project and Discover.¹⁵

Using data gathered from the city's censored infrastructure

Lead organisation: Open University

Location: Milton Keynes, UK

Year: 2014 to present

Keywords: Smart Cities; Open and big data; Planning

Read the full briefing here: [Smart Cities](#)

In January 2014, Milton Keynes received a £16 million grant from the Higher Education Funding Council for England (HEFCE) to take forward a Smart City, Big Data (also called MK:Smart) project.

Led by the Open University, the project will aim to demonstrate how data gathered from the city's censored infrastructure and other sources (through the new MK Data Hub) can help better manage utilities and decrease the city's carbon footprint.¹⁶ The city also hosts the £150 million new Transport City Catapult and is trialling a number of smart initiatives such as installing smart street lighting in order to reduce energy use by 40 per cent.¹⁷

Using smart technology for the reduction of CO₂ emissions

Lead organisation: Bristol City Council

Location: Bristol, UK

Year: 2011 to present

Keywords: Smart Cities; Open and big data; Low carbon; Environment

Read the full briefing here: [Smart Cities](#)

Smart City Bristol, launched in 2011, aims to use smart technology to meet its ambition of reducing CO₂ emissions by 45 per cent by 2020.

¹³ Birmingham Smart City blog <http://birminghamsmartcity.wordpress.com/>.

¹⁴ More information can be found on Digital Birmingham website <http://www.digitalbirmingham.co.uk/about>.

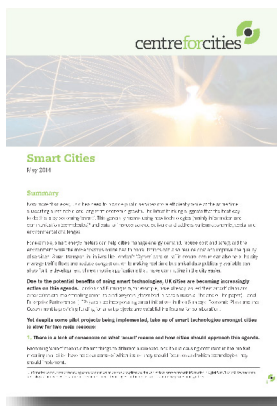
¹⁵ More information on both projects can be found here <http://smartspace.eu/> and here <http://digitalbirmingham.co.uk/project/discover—skills-for-carers/>.

¹⁶ More information on the project can be found on this website <http://www.mksmart.org/?q=node/1>.

¹⁷ Echelon (2007), City Cuts Energy Use, CO₂ Emissions with LONWORKS®Technology.

The strategy, led by the council's Smart Cities team, focuses on smart transport, smart energy and smart data and includes pilot projects (such as 3e-Houses and Smart Spaces) which are mostly funded by the EU.¹⁸ Currently the city is exploring new mechanisms and sources of funding to scale up these projects, mainly through looking at international case studies and learning what models can be imported and used.¹⁹ In April 2013, the city was also granted £3 million from TSB through the Future Cities Demonstrator Programme to open its City Living Lab which will combine data from different sources and host hack events in order to encourage citizens and businesses to use them. The city council is also implementing a number of challenges and gathering citizens' feedback through initiatives such as the Bristol Open Data energy challenge and 'George's Ideas Lab'.

More information



The case studies in this document came from the briefing 'Smart cities' published in 2014. Read it at: www.centreforcities.org/publication/smart-cities/

You can find more case studies on our website across key areas of economic growth policy such as housing, transport, business growth and innovation.

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August 2017

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¹⁸ For more details see <http://www.slideshare.net/Bristolcc/bristol-smart-city-report-7579696>.

¹⁹ Centre for Cities interview.