



Smart Cities

The UK's offer

Definition

- A smart city uses intelligent technology to enhance quality of life in urban environments, for instance by minimising waste, optimising energy usage, or reducing congestion. A smart city uses digital and ICT technologies to improve the quality of urban services. This reduces the costs and resource consumption. Governments are then able to engage more effectively and actively with its citizens. The UK Government is fully committed to ensuring that Britain stays ahead of the curve in smart cities and smart technologies internationally.

Key facts

- By 2040, 65 percent of the world's population will be living in cities. 1.3 million people move into cities every day. ¹
- Private smart cities consultancy Arup estimates that UK companies could gain 10% of a \$400bn global market by 2020. ²
- Bristol has overtaken London as the UK's leading smart city according to the second UK Smart Cities Index, commissioned by Huawei UK and conducted by Navigant Consulting. ³

Why the UK

Market Opportunity

- The UK has internationally recognised strengths in integrating city wide systems around transport, energy and security networks as well as in data and specialist analytics.
- The UK's engineering and architectural firms have already used their urban planning and design expertise to create smart cities around the world.

Ecosystem

- Central government initiatives have played an important part, notably in the £24 million Glasgow future Cities Demonstrator, which has catalysed many cities to develop smart city initiatives. ⁴
- Elected mayors for combined authorities in UK city regions, including Liverpool, Birmingham, and Manchester are already having an impact on the shape and scope of smart city programmes in those areas. ⁵
- The 2016 IoT Challenge awarded to City Verve, Manchester has galvanised a number of significant collaborations improving services using the Internet of Things technology. ⁶
- Bristol is Open is one of the cities key collaborative partners helping to enable the Smart City program to move the technology from its R&D stages to becoming a network that will support the future needs of the Bristol City Council, businesses, the University of Bristol and its citizens.

¹ <http://smartcityhub.com/governance-economy/smart-cities-facts-and-figures-drivers-and-solutions/>

² <https://www.arup.com/expertise/services/planning/smart-cities>

³ http://e.huawei.com/uk/special_topic/solution/smart_cities_index_2017

⁴ http://e.huawei.com/uk/special_topic/solution/smart_cities_index_2017

⁵ http://e.huawei.com/uk/special_topic/solution/smart_cities_index_2017

⁶ <https://www.gov.uk/government/news/manchester-wins-10m-prize-to-become-world-leader-in-smart-city-technology>

Talent and skills

- The UK is taking the lead in becoming the smartest country in the world with innovative companies providing cutting edge solutions for cities and people. In big data and open data, Internet of Things (IoT), cloud computing, mobile internet, IT services and financial technology. These are all UK strengths.

Innovation and collaboration

- £32m has been spent on the UK's internet of things (IoT) programme, including CityVerve in Manchester - a smart city demonstrator that will help improve public services for local citizens, such as transport, energy, health and culture. This demonstrator brings together local government with academic and business partners including the University of Manchester, Cisco and BT.
- Manchester has established itself as a key centre for smart cities in the UK, with other developments including:
 - MediaCityUK, an £850m development hosting numerous tech and innovation companies, and seen as a micro template on what Smart Cities could look like on bigger sites
 - The Salford Energy House, the only full-scale building in an environmental chamber in Europe, which tests new materials, systems and products to improve the energy efficiency of existing buildings.

Supportive environment

- The Future Cities Catapult was established to accelerate UK adoption and awareness of smart cities and has developed a Cities Lab to provide international cities data analysis and simulation services.
- The Department for International Trade's Technology and Smart Cities team is supporting UK companies to take advantage of overseas opportunities, as well as attracting inward investment for UK smart city projects.

Key stakeholders

- Future Cities Catapult
<http://futurecities.catapult.org.uk>
- London Technology Week
<https://londontechweek.com>
- ODI
<https://theodi.org>
- London Data Store
<https://data.london.gov.uk>
- Open Glasgow
<http://open.glasgow.gov.uk>
- Innovate UK
<https://apply-for-innovation-funding.service.gov.uk/competition/search>

Policy highlights

- As set out in our Industrial Strategy, the government launched a £1.7bn Transforming Cities Fund for projects that drive productivity by improving connectivity, reducing congestion and utilising new mobility services and technology, transform local productivity in city-regions. The first £840m has already begun to be allocated via competition to cities across the country, with 6 Mayoral Combined Authorities empowered to deliver schemes that will make commuter journeys faster, better and safer.