

A Smart County

Smart cities utilise the latest digital technologies to monitor and optimise their functions. Digital technology has been applied to areas such as waste management, streetlight enhancements, connectivity improvements and noise pollution monitoring. Smart cities have developed quickly in recent years.

However, focusing exclusively on urban areas brings problems in accessibility and inclusivity compared with surrounding rural-urban and rural areas. Working at a county scale means dealing with different needs arising from distinct settings. Oxfordshire combines a number of environments, from new towns, historic market towns, congested urban regions, highways and remote rural areas. So we need to adapt a smart county approach to link these together to provide equitable solutions.

We have developed a selection of smart county principles:

- **Integration:** seeing the county as a 'system of systems' where diverse systems and processes can be integrated into one framework, to deliver better on a social, economic and environmental scale.
- **Digitalisation:** investing in modern digital infrastructure and intelligent smart systems connected to the Internet of Things (IoT) to help improve management and efficiency.
- **Data-centric:** access collection, processing and spreading of data to benefit both businesses and the wider public
- **Engagement:** placing needs of businesses and individuals at the centre of decision making to help shape and design services

Instead of rebuilding the county from the top down Oxfordshire County Council's approach to deliver the Smart County project is by looking to make incremental improvements, building from the bottom up based on existing assets and technologies in place, street to street, city to city and locality to locality.

There are several use cases that have been identified:

Interurban: Connecting the Didcot-Oxford-Bicester growth corridor. Linking the new garden towns of Didcot and Bicester is the main pathway for work and future growth. All three locations have high digital understanding and use, and have embraced innovation, but linking them needs to handle the practical, human-factor and business challenges combining urban, highways and rural environments.

Retail Destination: Bicester Village is the second highest worth retail area in the UK after Oxford Street in London. This is a dedicated retail business case, linked to the Park & Ride and development of the East West Rail Network at Bicester Village Station.

Work/Commuter Destination: Focusing on three of the County's main business and technology parks at Culham, Harwell and Milton Park. These are mostly commuter routes that have a dedicated use case and facilitate exchange of knowledge between the sites

Urban Location: Oxford city is a dense urban area with historic and aesthetic limitations to its growth and a strong innovation culture.

Tourist destination: Blenheim Palace is a world renowned heritage site located in West Oxfordshire. Therefore, this can be a prototype case for tourist destination and development for corresponding use cases.

Freight Delivery: With the gradual introduction of the Zero Emission Zone in Oxford, more innovative freight management is a priority. Potential solutions include consolidation centres at the Park & Ride sites around Oxford, last mile Connected and Autonomous Vehicle (CAV) / Drone or hyperloop (Magway) delivery to the city centre's consolidation centre, and increasing the connectivity of cargo bike deliveries into the city centre.

New developments: The commitments in the Oxfordshire Housing & Growth Deal, along with future planned growth being taken forward through the Oxfordshire Plan 2050 provide the opportunity to plan growth and communities to ensure that houses built are future-proofed to new technologies, through provision of built-in fibre connections, more sustainable energy and Electric Vehicle charging for example.

All of the above use cases need to link together through a shared knowledge base and management. This will allow for shared learning, to be aware of the differences between locations, and to take appropriate actions.

Question 26

A Smart County - What do you think?

What are your views on Smart Cities and a Smart County? What advantages do you think connectivity could bring? What else should or could be put in place through a Smart County approach?

To respond please use the online consultation form.