

How technology and data can support post pandemic recovery

Dan Clarke
Strategy and Partnerships
Connecting Cambridgeshire













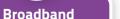


"To investigate, trial and develop emerging technologies and data solutions that can be adopted to assist in the successful mitigation of sustainability challenges across the region, encouraging further economic growth"



Connecting Cambridgeshire Programme Update





- >98% of homes & businesses can now access superfast broadband
- >30% gigabit-capable fibre coverage achieved early ahead of national average
- All broadband delivery now based on Fibre to the Premise (FTTP)
- Developing fibre assets and connecting public buildings

Next steps

- Final phase of superfast rollout
- Working with Government to pilot Project Gigabit full fibre programme for hard to reach rural premises
- Targeting >85% full fibre by 2025



Public Access Wi-Fi

- Free CambWifi in >200 public buildings and open spaces
- CambWifi expanded to more city centres, market towns and village halls
- Supporting digital inclusion activities

Next steps

- CambWifi extended to market towns in Huntingdonshire and coming soon to East Cambridgeshire
- Completion of CambWifi to 36 village halls to support local communities

Mobile 2G - 4G - 5G

- Working with mobile operators to improve poor coverage and support 5G rollout
- Targeting partial notspots identified through detailed surveys
- Working with government, local authority planners and mobile operators to maximise coverage

Next steps

- New planning legislation to support telecoms networks
- Working with mobile operators to facilitate improvements to 4G and 5G coverage

Smart Places

- Using technology and data to develop smart solutions
- Helping to tackle challenges such as transport and air quality
- Exploring next generation connectivity to support market towns growth

Next steps

- Supporting smart projects for Greater Cambridge
 Partnership
- Piloting smart solutions for market towns



Enabling Digital Delivery

Facilitating delivery of better mobile and fibre connectivity



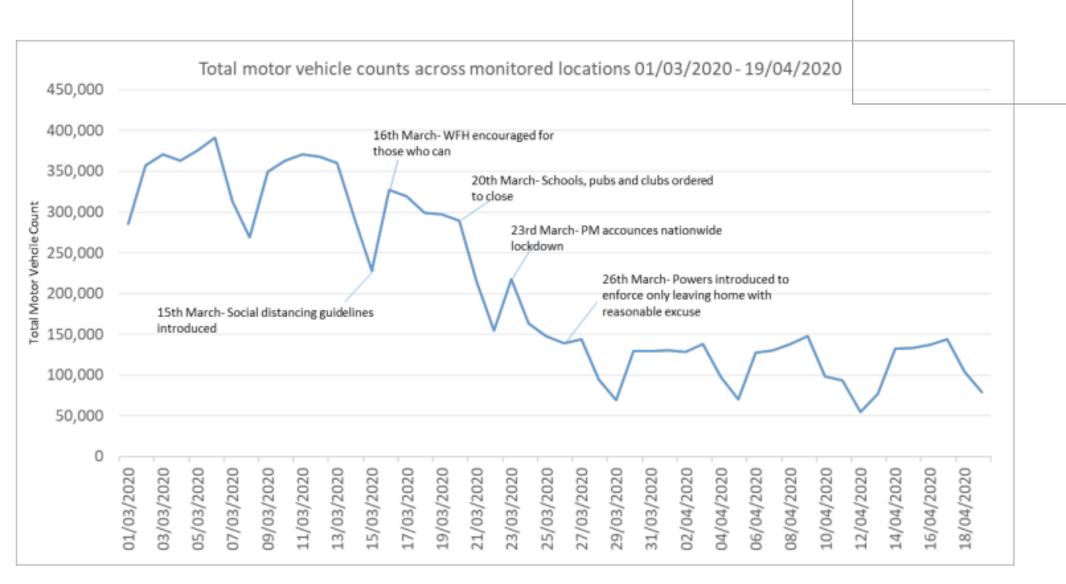
Keeping Everyone Connected

Covid-19 Recovery activities supporting businesses, communities and public services

COVID - Key Challenges

- Measuring and understanding impacts
- Ensuring connectivity is in place to support remote working, education and health care and to support business recovery
- Support businesses in digital transformation
- Helping get visitors back into our cities and market towns
- Ensure the recovery is sustainable
- Address some of the barriers to delivery
- Plan for the future

DATA – Measuring Impacts



DATA – Measuring Impacts

- Measured Vehicle movements, Pedestrian Flows, Car Parking (central car parks, P&R), Air Quality, Bus Ridership
- Built on previous work by the 'Smart' programme deploying new generation sensors, unlocking data and building a sharing platform
- Deployed sensors to support LTNs and fill data gaps

Next Step

- Strategic sensing network (CCC, CPCA & GCP)- Procure Sept
- Joint platform for collating and sharing data Procure Sept
- Exploit data Smart Signals Currently happening



Smart Signals Trial – 4 Junctions Purpose

- Better Prioritise more sustainable transport modes to reduce stops and delay to encourage modal shift
- Reducing congestion caused by individual traffic signals
- Coordinating the network more effectively to respond to changing traffic patterns
- Providing more comprehensive and accurate data on the use of the network for strategic decision making





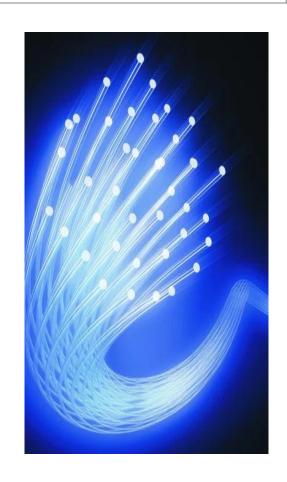
Connectivity

Fibre

- Ensuring communities have connectivity support remote working, education and health care.
- aim to achieve the Government target of >85% gigabit capable coverage by 2025

Public Access WiFi

- already available at over 200 libraries, village halls and other community and public buildings countywide, and is being expanded to town centres
- 36 village halls across the county have also been connected to the network



Connectivity

Mobile

- Removing barriers to delivery EDD ensuring ducting in new schemes, lighting PFI
- Supporting 5G/4G small cells
- Planning Resource support mobile delivery
- consultancy work will set out mobile network operators' plans to deploy 5G in market towns and rural areas and consider how this deployment can be accelerated



Market Town IoT

- Deploying LoRa in a number of Market Towns
- Working on Sensor deployments to support recovery
- Movement data
 - Air Quality Data
 - Bin sensing
- Developing use cases/business cases
- Easy end to end integration



Sensor Network Data Tool



connecting FUTURE SMART STREETS



Street lighting

Current position 2020

Transition 2021-2035

Future Vision post 2035



Micro energy generation



Small Cell Mobile Coverage – 5G



Wifi access points



Sensors for monitoring & data- air quality, temperature, noise, traffic movements etc



Electric Vehicle (EV) charging

Single purpose Street Lighting Columns

- Primary purpose = Street lighting
- Some Xmas lights/hanging baskets
- Limited opportunities to mount sensors, Wifi etc
- 53,500 street lights in Cambridgeshire under CCC PFI contract with Connect Roads - delivery by Balfour Beatty runs to 2035
- 5,331 District and Parish maintained street lights
- 24,000 street lights maintained by Peterborough City Council

Opportunity to model new approach

- New road infrastructure and housing developments
- New contract for multi-use utility poles
- Model specifications power, height, strength etc
- Develop new funding and business models
- Trial accessible, affordable services
- 37,000 new houses by 2035 requiring approx. 9000 street lights
- New infrastructure including roads, Park & Ride sites, Green Cycleways, bridges etc requiring many more street lights

Multi-use Utility Poles

Hosting a range of functions including:

- Street lighting
- Small cell mobile coverage - 5G
- Wifi access points
- Electric Vehicle (EV) charging
- Sensors for monitoring & data
- Adaptive energy saving
- Micro energy generation

EMERGING REQUIREMENTS TO SUPPORT:

- Advances in digital infrastructure
- Increasing reliance on mobile connectivity
- Net zero climate change challenge ■
- Adaptation targets and strategy

- Small cells for mobile coverage and Wifi access points
- Electric Vehicle Charging points
- Environmental monitoring air quality, temperature, noise, traffic etc
- Adaptive energy monitoring and small scale energy generation apparatus

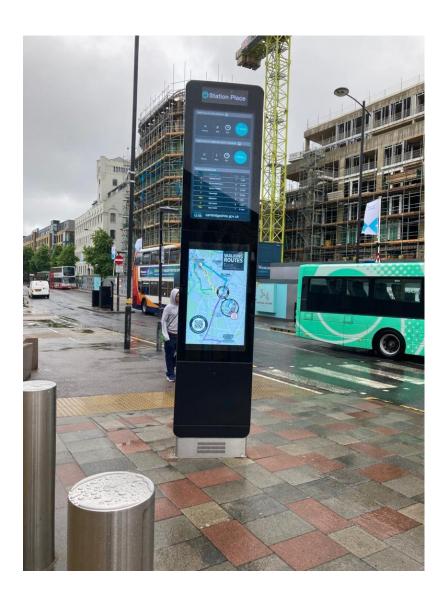


Sustainable recovery

Get travellers back on Sustainable Transport



Visitor information







Thank You – happy to answer any questions

Contact us

Find out more at www.connectingcambridgeshire.co.uk

If you have a query for the Connecting Cambridgeshire team, please email contact@connectingcambridgeshire.co.uk











