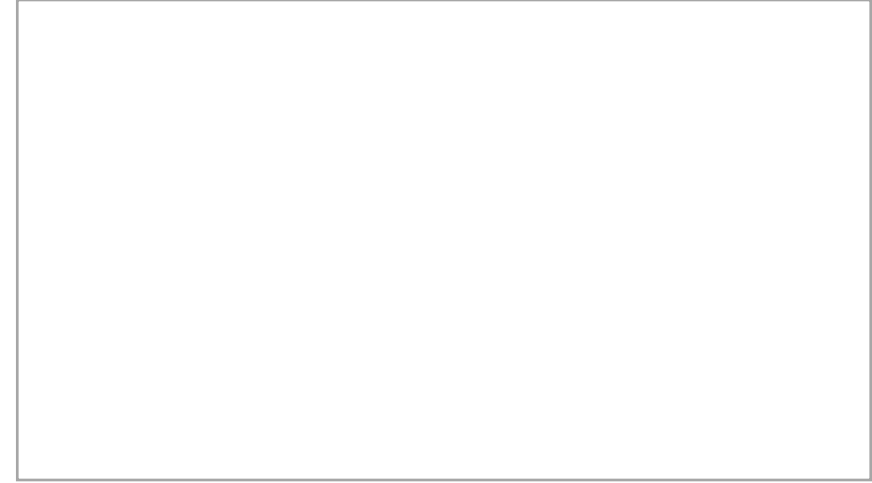




How technology and data can support post pandemic recovery

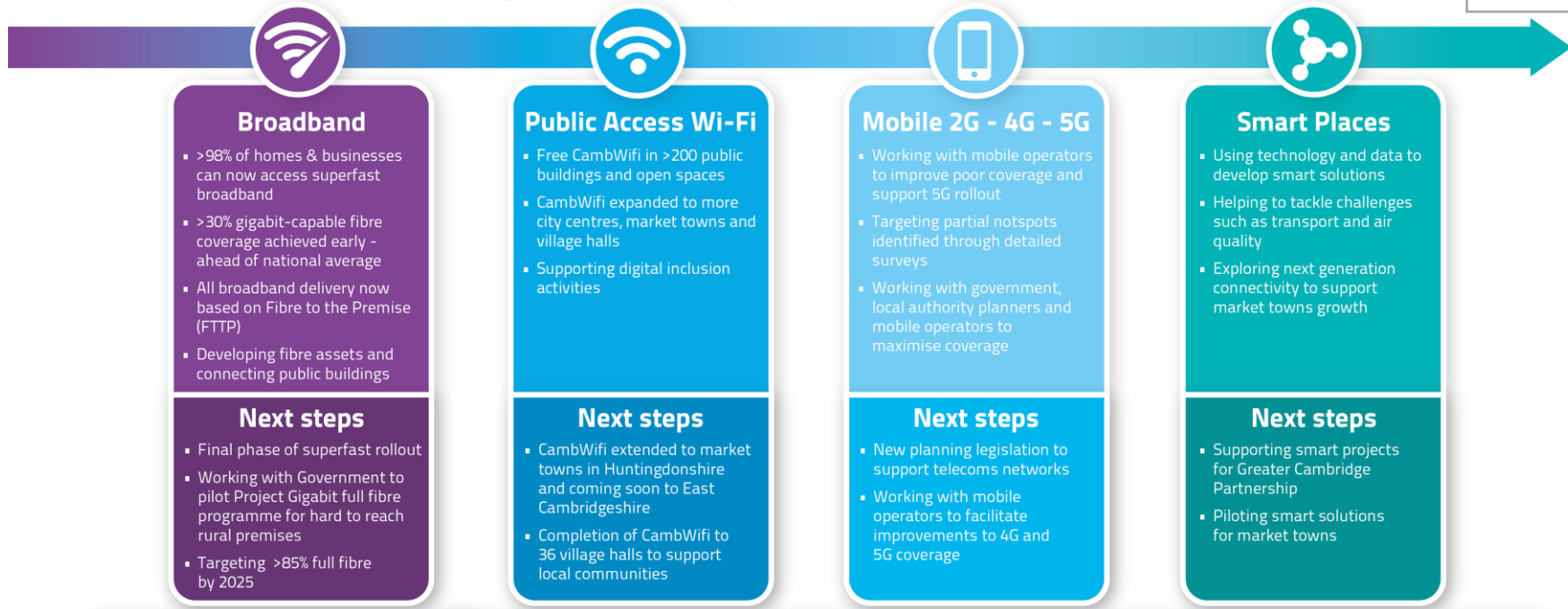
Dan Clarke
Strategy and Partnerships
Connecting Cambridgeshire





“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



 **Enabling Digital Delivery**
Facilitating delivery of better mobile and fibre connectivity

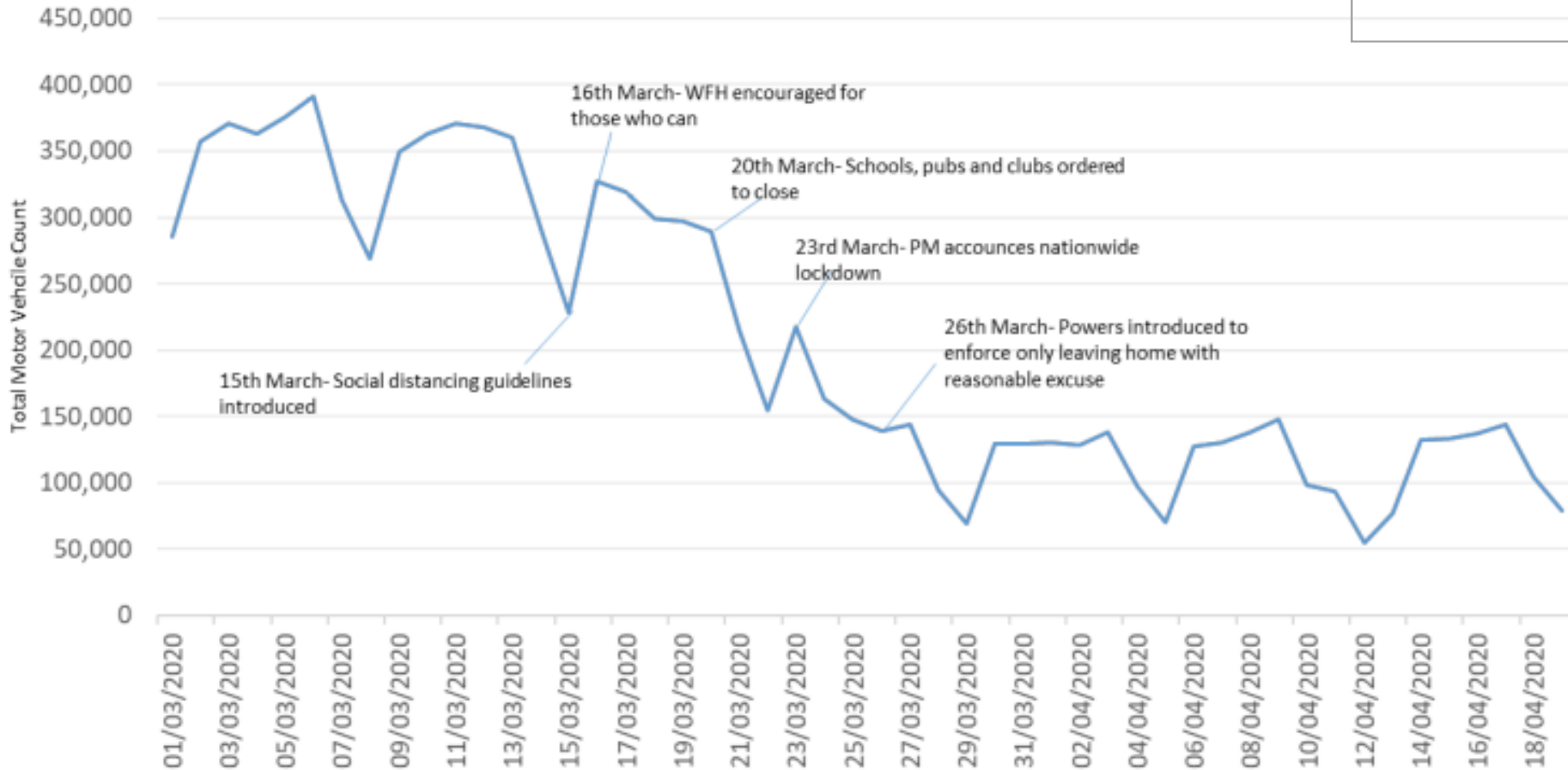
 **Keeping Everyone Connected**
Covid-19 Recovery activities supporting businesses, communities and public services

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

Total motor vehicle counts across monitored locations 01/03/2020 - 19/04/2020



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



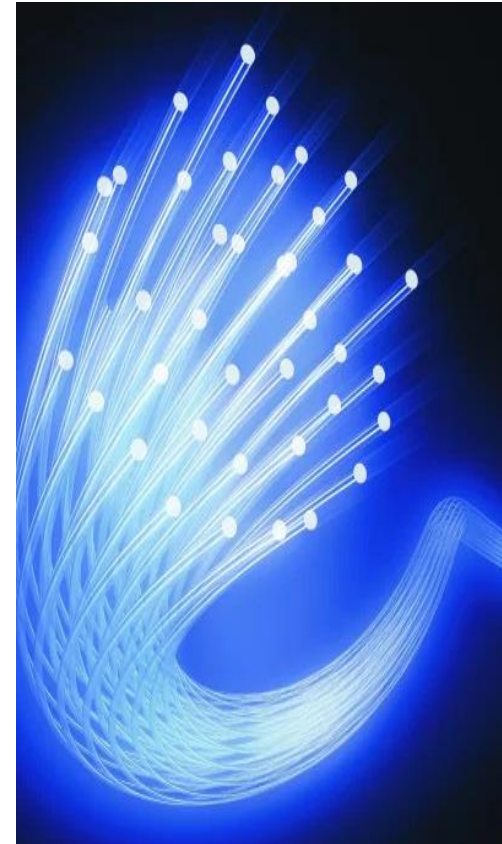
Connectivity

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

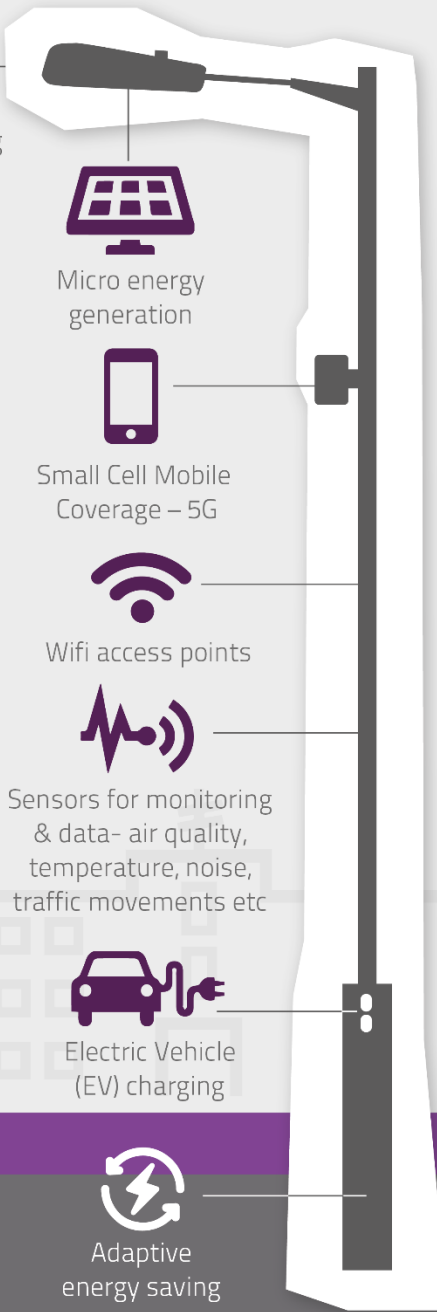
- Removing barriers to delivery – EDD – ensuring ducting in new schemes, lighting PFI
- Supporting 5G/4G small cells
- Planning Resource – support mobile delivery
- consultancy work will set out mobile network operators' plans to deploy 5G in market towns and rural areas and consider how this deployment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





Current position 2020

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

Transition 2021-2035

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

Future Vision post 2035

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 → Small cells for mobile coverage and Wifi access points
- Increasing reliance on mobile connectivity → Electric Vehicle Charging points
- Net zero climate change challenge → Environmental monitoring - air quality, temperature, noise, traffic etc
- Adaptation targets and strategy → 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

