

Portsmouth

the great waterfront city



Smart City Transport Systems: Portsmouth
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Transport Environment & Business Support

Aim

To develop and implement cutting edge technology to deliver improved, consistent journey times for all modes, harnessing big data to provide real-time multi modal information enabling informed journeys, and enabling a real time response, with the overall aim of improving the journey experience for all users of the transport network within Portsmouth.

Aspirations

- Improved management of the current network
- Support for the economic and growth strategies of the city
- Improved air quality and environmental objectives
- More informed decision making by members of the public through the provision of more information, leading to greater numbers of sustainable journey choices
- Improved end-to-end journey experience
- Improved uptake of public transport and active travel
- Improved management of events within the city, both regular (e.g. football matches) and irregular (ACWS)

Public Transport

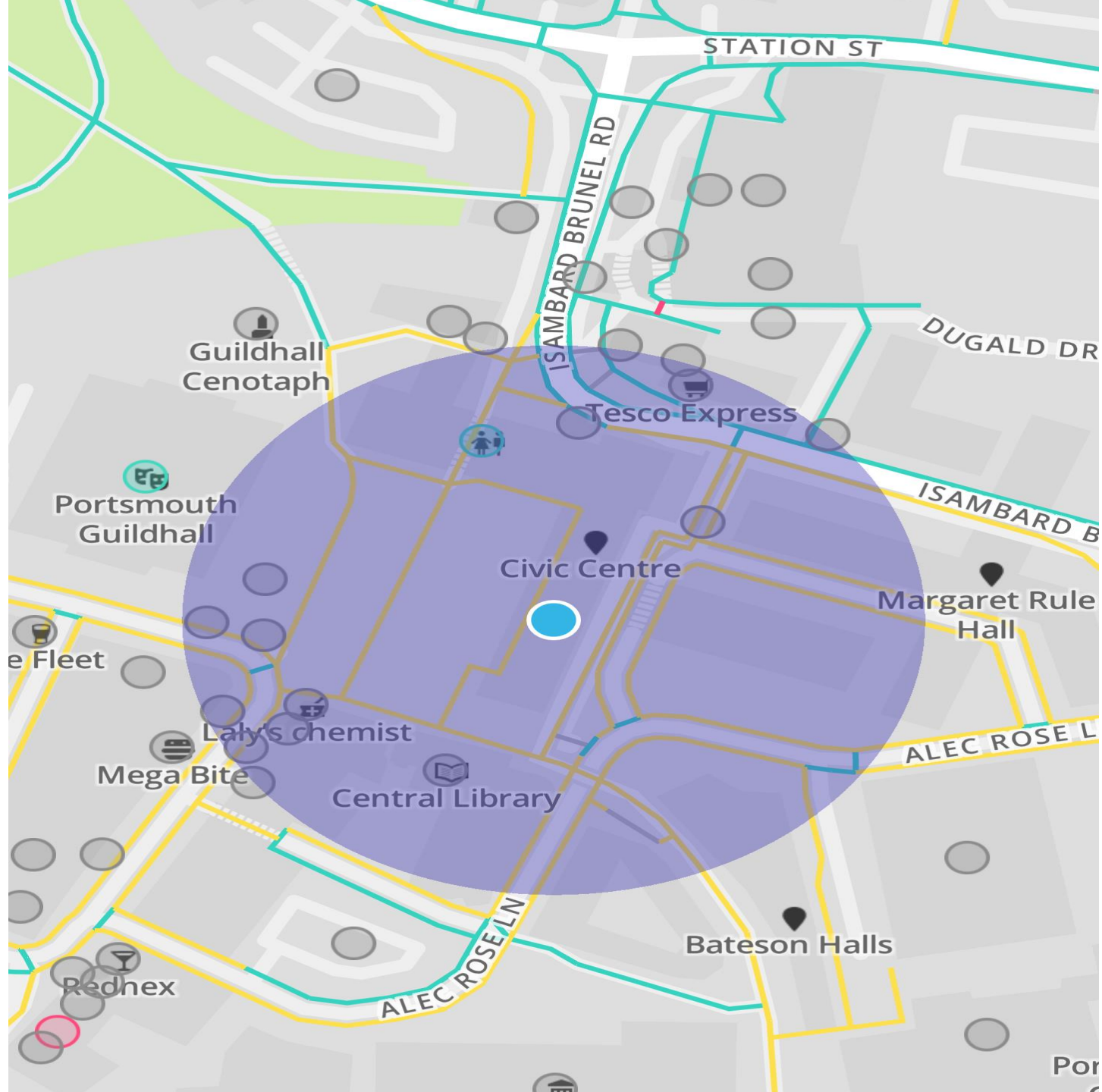
- Real Time Information
- Smartcard Ticketing
 - Solent Go
 - Portsmouth Park and Ride
- Digitising Bus Shelter Advertising
- Audio Announcements
- Traveline



Hard Interchange

- Integrating 'smart' opportunities
 - RTI Screens
 - Touch screens
 - Wi-fi
 - Beacon Technology





STATION ST

ISAMBARD BRUNEL RD

DUGALD DR

Guildhall
Cenotaph

Tesco Express

Portsmouth
Guildhall

Civic Centre

Margaret Rule
Hall

e Fleet

Laly's chemist

ALEC ROSE L

Mega Bite

Central Library

Bateson Halls

Rednex

ALEC ROSE LN

Por



X-Cam

- XCam smart video sensor technology sites
- Detects both standing and moving traffic at the junctions
- interfaces with the on-street traffic signal controller
- Priority can be adjusted to prevent undue delays for general traffic and and public transport.

Traffic Signal Optimisation Programme

- upgrade of 11 signalised junctions
- installation of MOVA detection equipment (Microprocessor Optimised Vehicle Actuation)
- MOVA is designed to cater for the full range of traffic conditions



Pedestrian Facilities

- Improved Pedestrian Facilities through TSOP
- Upgrade of Wayfinding totems
- Zebrite Beacons

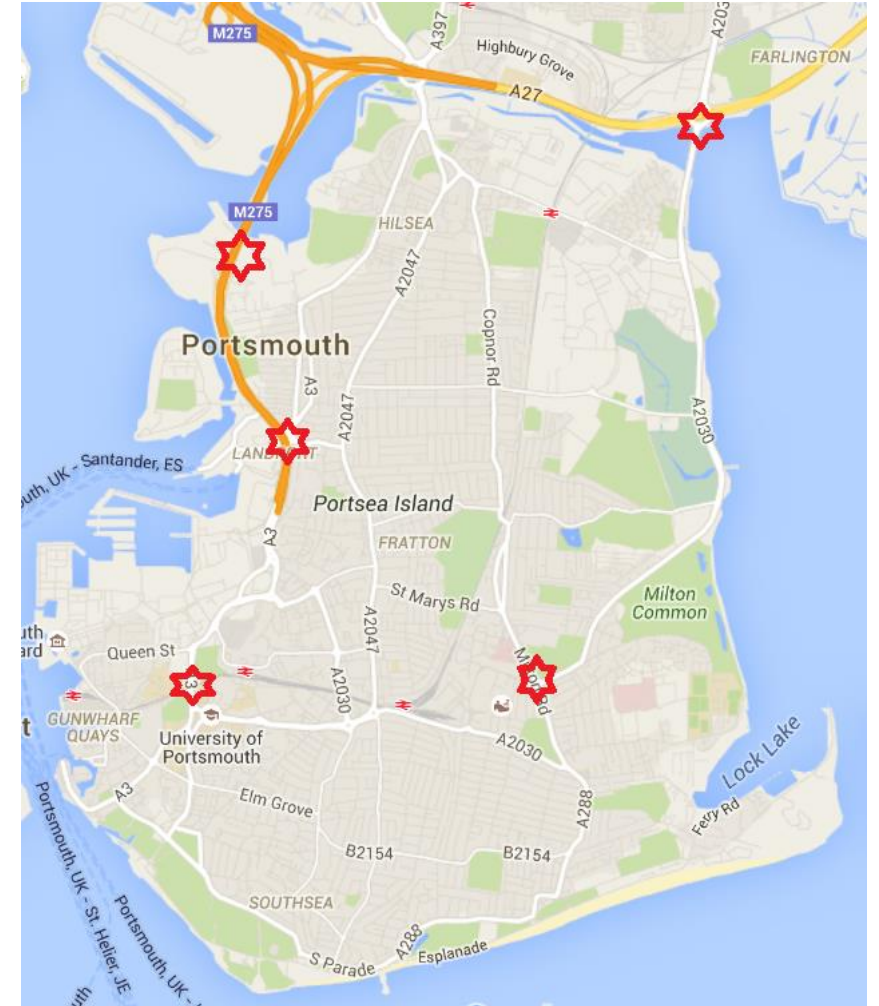


TMC Upgrade: Stratos

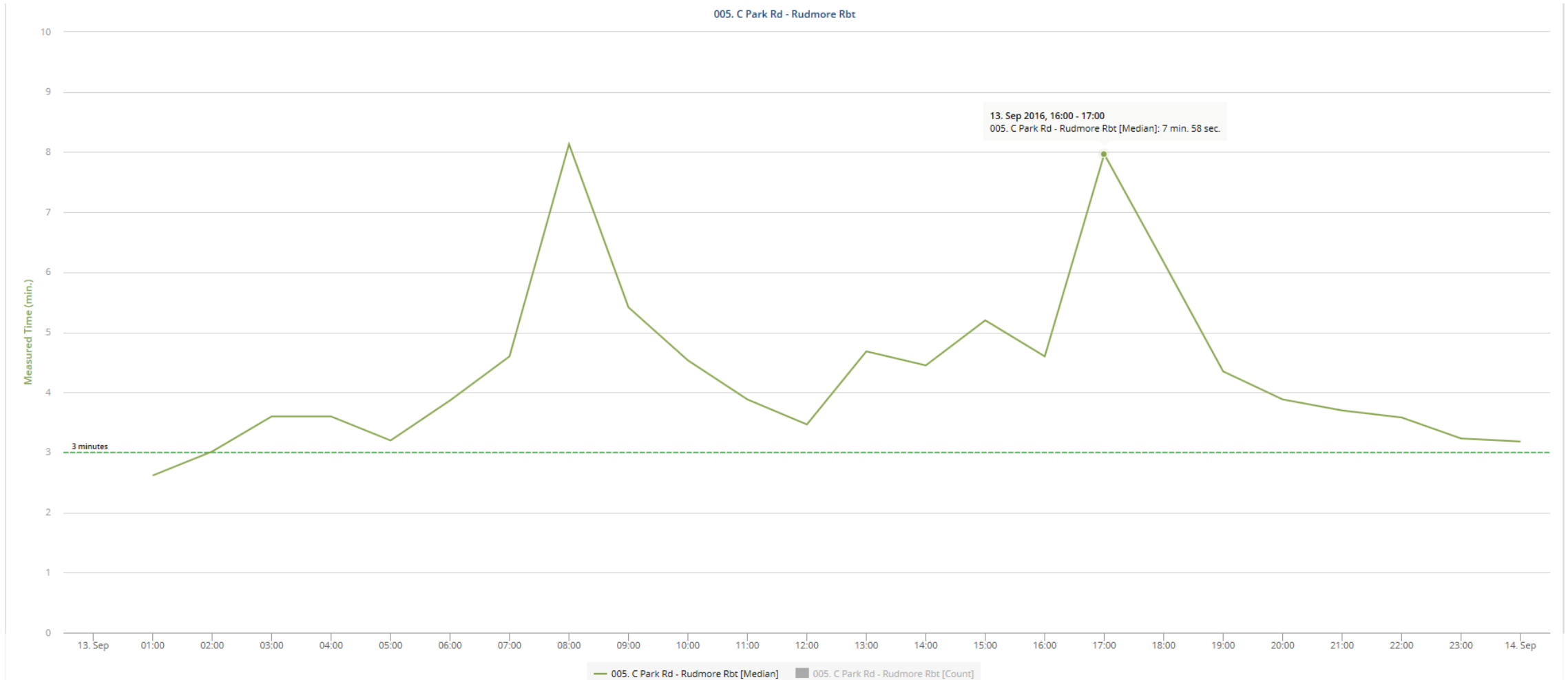
- Centralised traffic control centre with connected systems, development and implementation of innovative technology for monitoring the road network, harnessing multiple data feeds to create strategies in real time to respond to traffic (congestion and incidents) and air pollution levels within the city.
 - Scalable Real-Time Traffic Management System (Stratos)
 - Information Management and control
 - Journey Time Monitoring
 - Real-Time Car Park Information
 - Incident detection and management
 - Enhanced Traffic Modelling and prediction
 - Incorporation of a range of data feeds (e.g., air pollution)
 - Leveraging Big Data Analytics

Journey time monitoring

- 5 detector units located at strategical points in the city
- Enables real-time journey time monitoring



Journey Time Outputs



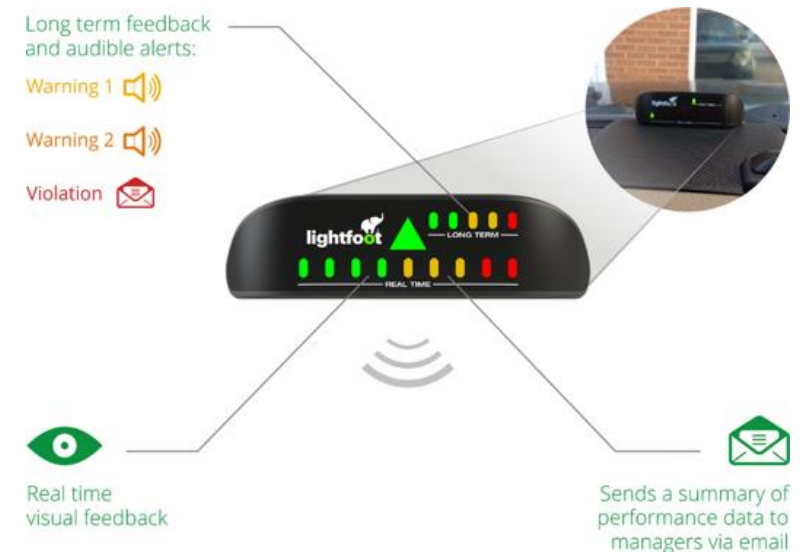
Parking

- Car Park Counters
- Possibility of a 'where to park' app
- Wave and Pay

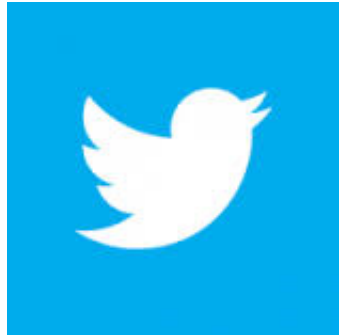


PCC Vehicles

- Lightfoot: In-vehicle System to provide information on driver behaviour, encouraging sustainable driving techniques
 - Helps to reduce costs, and vehicle emissions
- Tracking

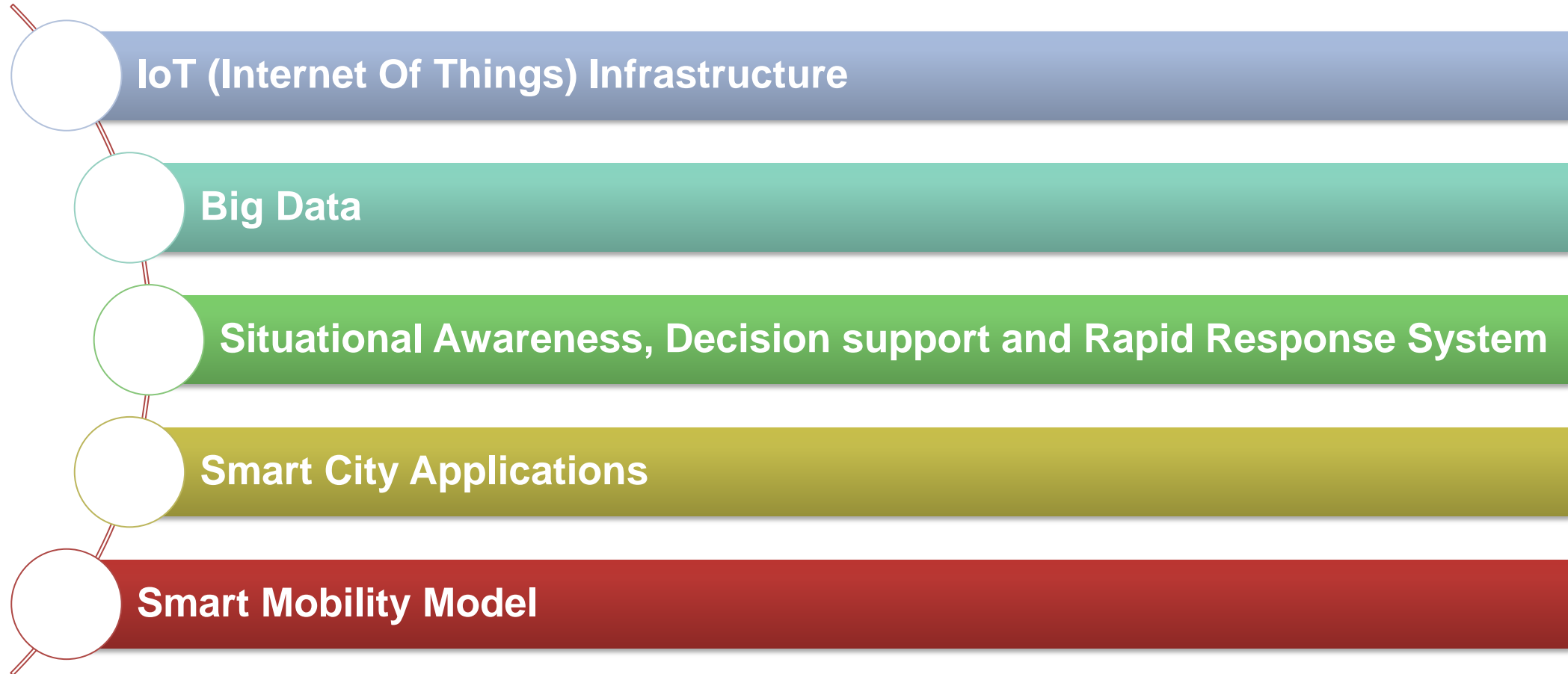


Information Provision

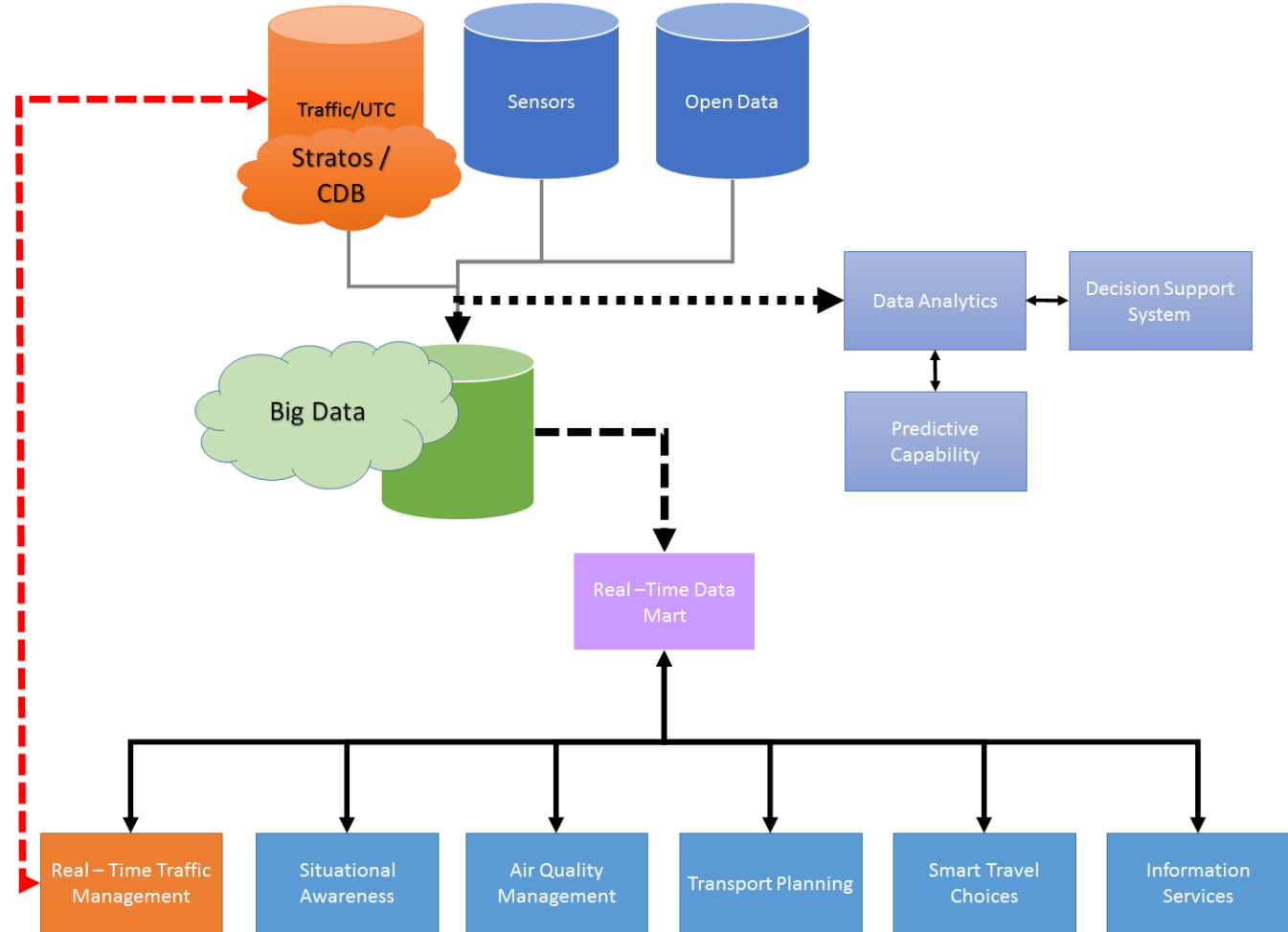
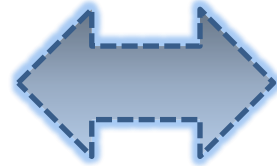
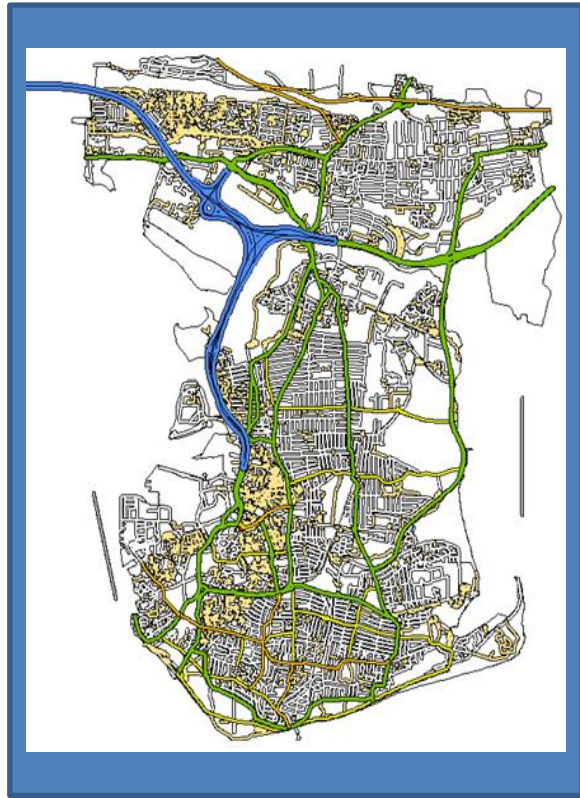


Portsmouth Roads
@portsmouthroads

Towards Smart City Digital Platform



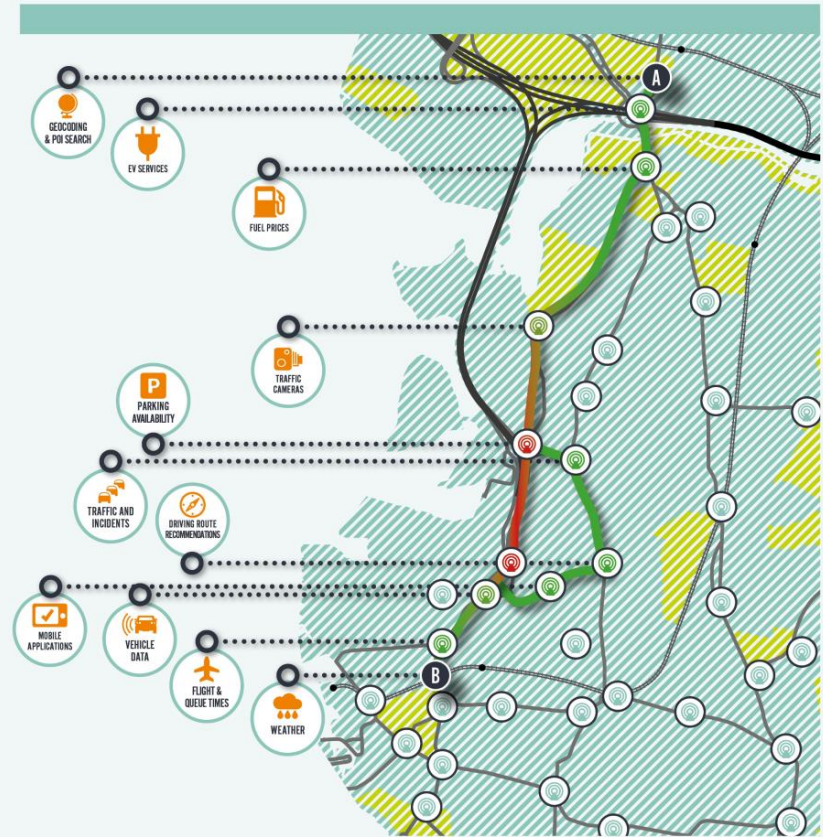
Digital Platform Overview



Next Steps: Smart City Applications

- Predict real-time traffic conditions
- Dynamic route guidance systems
- Cooperative ITS systems
 - vehicle to vehicle and vehicle to infrastructure
 - Visual/audible displays;
- C-ITS Bids (£300k)
- Low Leve Cycle Signals (£300k)
- Smart Mobility Model
- Visualise journeys to/from work in Portsmouth
- Predictive Modelling Capability

C-ITS APPLICATIONS



Questions and Discussion

