The road to a smarter city

Innovative use of data to meet London’s road network challenges

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Transport for London
London - An established and integrated transport system

Tube, DLR, London Overground, TfL Rail, Emirates Air Line, Tramlink, Santander Cycles, Taxis, River and all 8,000 London buses in Greater London:

- 6.5 million journeys are made on London’s buses
- 3.1 million on the Underground
- 6.0 million on foot
- 0.6 million by bicycle
- 0.2 million by taxi
- 11 million car / motorcycle trips
Importance of the Road Network

Over 80% of passenger trips and 90% of freight is on the road network

- London’s streets are therefore very busy and getting busier
- We don’t have the extensive grid road capacity of New York or the wide boulevards of Paris
- London’s strategic roads are on average 40% more densely trafficked than roads in other UK conurbations
- London has around 20% of the UK congestion, with over ¾ of this on the main strategic network
- 15% of UK congestion is therefore concentrated on around 1,500km of the UK’s 400,000km of road network
Managing London’s road space

To be seen as exemplar in the sponsorship, design, operation and management of London’s road network, for our customers, through the use of 21st century techniques and technology.
Sponsorship

Surface Transport’s largest dedicated Sponsorship team

Own the improvement strategy for TLRN

Outcomes Delivery

Design, analyse, monitor and optimise the road network

Creating innovative solutions to keep London Moving

Operations

Assess and coordination of work schemes to minimise disruption

24/7 Control room to keep London moving

Strategic Coordination Unit

Support, reporting and coordination during disruption

Surface Transport Command and Control

EVERY JOURNEY MATTERS
Our GIS Journey

- **2011**: Data Services
- **2012**: Games Playbook
- **2013**: TIMS
- **2014**: GIS as a Service
- **2015**: Surface Playbook
- **2016**: Release to the London boroughs

240 GIS layers now available.
How we are using Geospatial Data
Surface Playbook Video
Surface Playbook in action
Real Time Origin Destination Analysis Tool
Open data

Trial using ArcGIS Online to share our Roads Modernisation Plan data with all London Boroughs and our highway contractors

Using API data streams to provide our customers with real time traffic data from TIMS
BIM – Better Information Management

An IT platform that supports the efficient creation, access and approval of digital content across project and asset lifecycle.

Training and support arrangements to ensure successful and sustainable information management and better ways of working.

Documented and agreed processes, roles and responsibilities for the management of information.

Standards that move us from paper and file based to a truly digital organisation.
What next: Surface Intelligent Transport System (SITS)
In summary

- GIS is an enabler to keep London moving
- GIS is helping us to integrate our data and systems
- Teams across TfL are now using the same data to support their business activities
- Customers now benefit from spatially accurate and timely travel information
Thank you