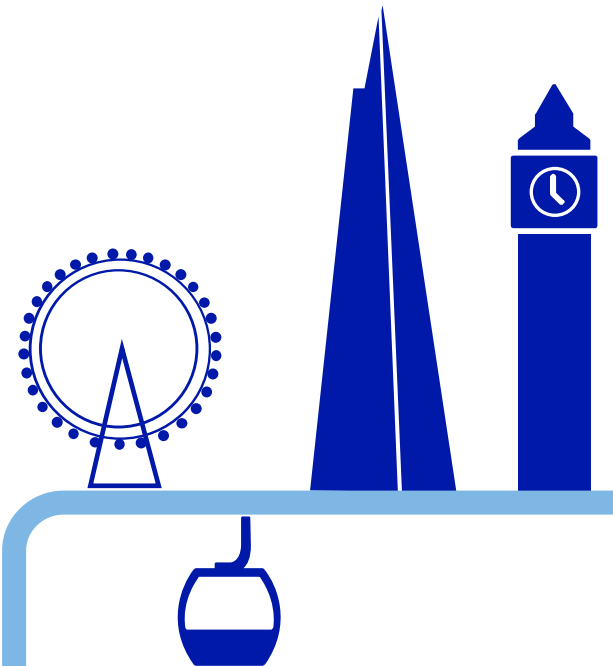


The road to a smarter city

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

Alan Bristow
Director, Road Space Management
Transport for London

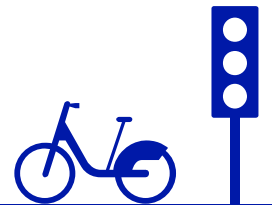


London - An established and integrated transport system



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 $\frac{3}{4}$ 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



TfL Road Network (**red**) and Borough Principal Road Network (**blue**)



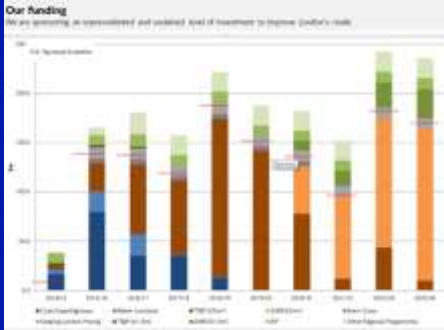
Managing London's road space



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



Our GIS Journey

Data Services

Games Playbook

TIMS

GIS as a Service

Surface Playbook

Release to the London boroughs

240 GIS layers now available

2011

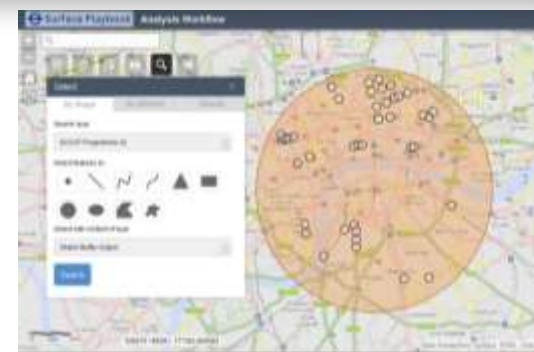
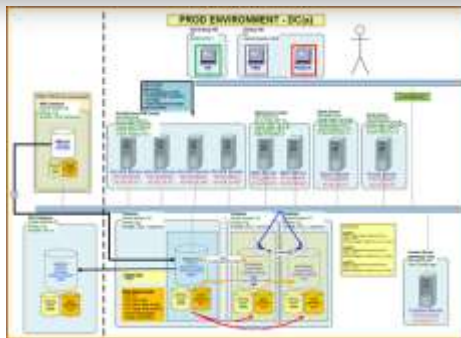
2012

2013

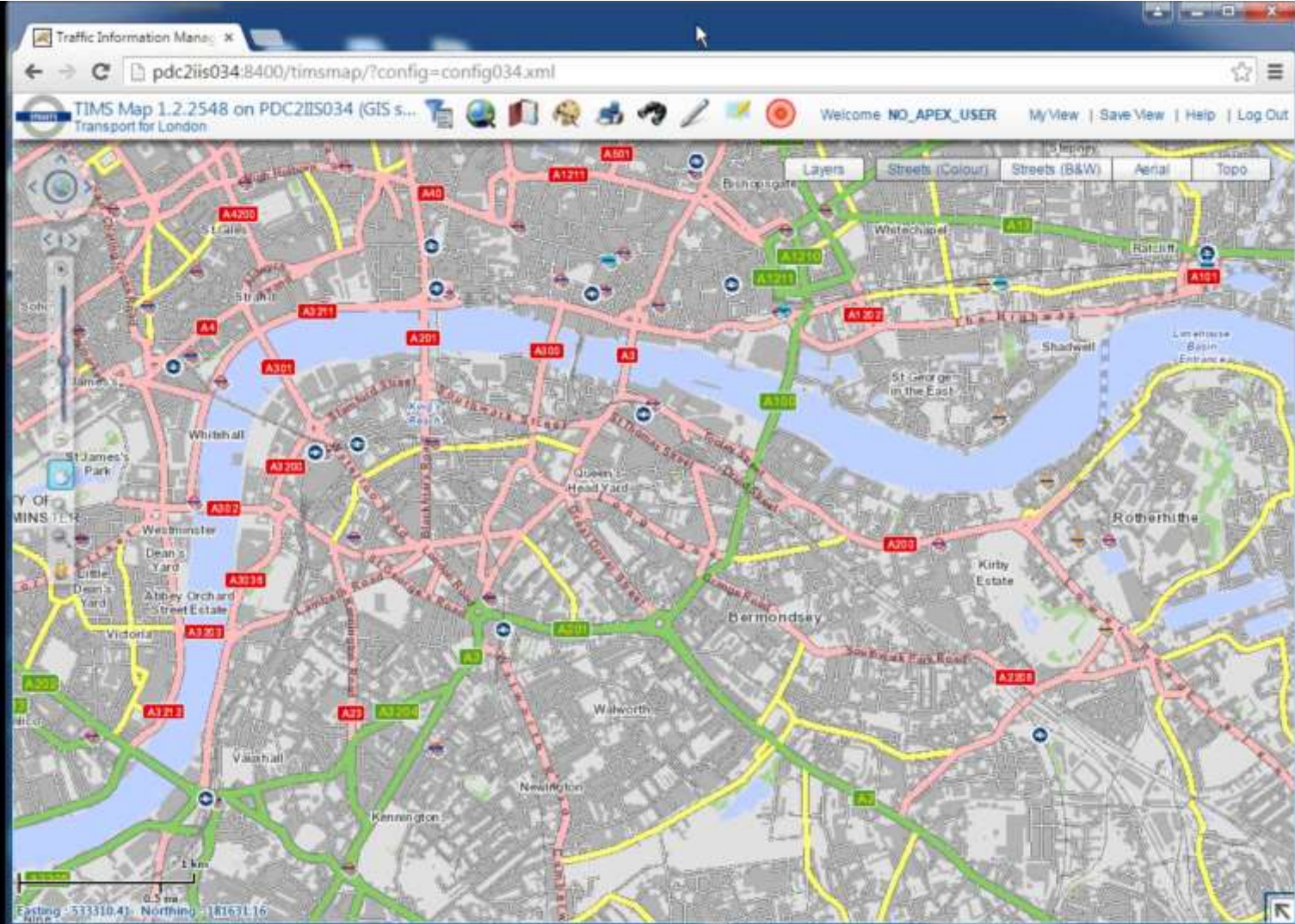
2014

2015

2016



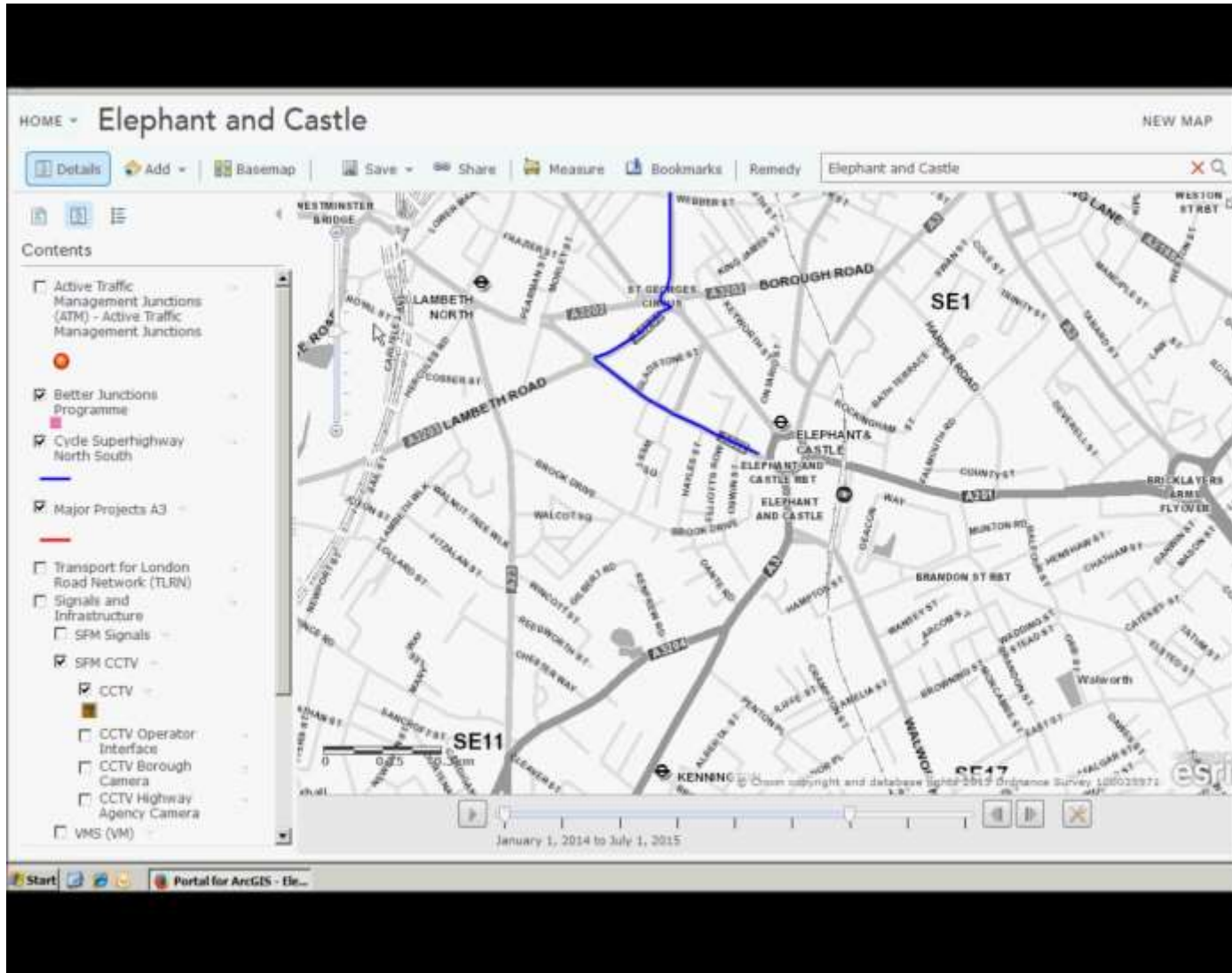
How we are using Geospatial Data



Surface Playbook Video



Surface Playbook in action

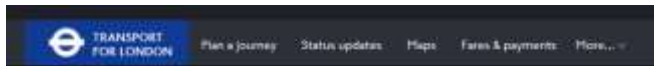
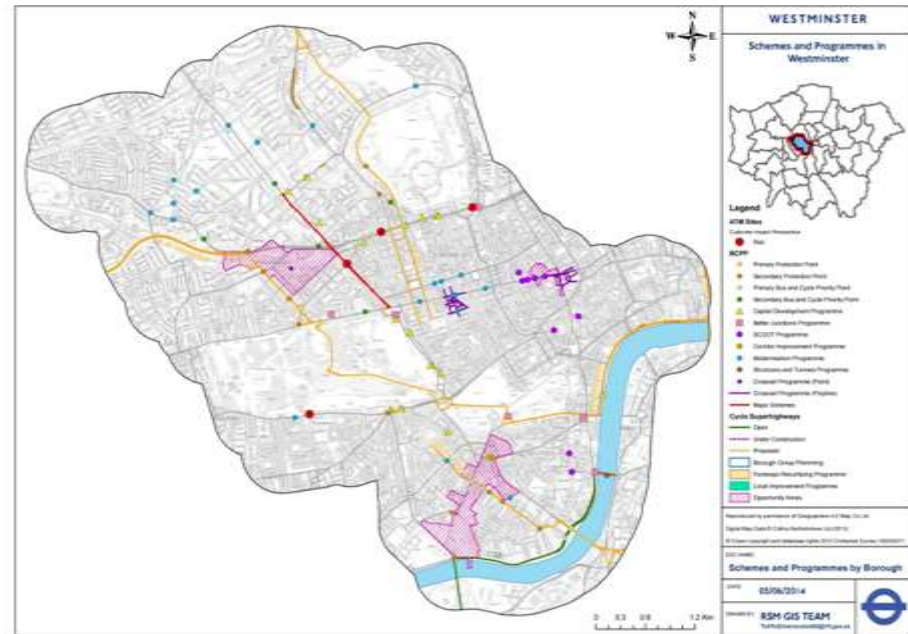


Real Time Origin Destination Analysis Tool



Open data

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



Open data users

OPEN DATA USERS

All public TfL data (or 'open data') is released here for developers to use in their own software and services. We encourage software developers to use these feeds to present customer travel information in innovative ways - providing they adhere to the transport data terms and conditions.



Data feeds

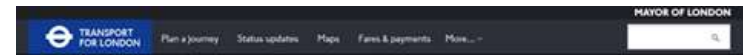
Find the data feed you need in our new improved Unified API



Widgets

Stay updated with our services for your website, blog or desktop

Using API data streams to provide our customers with real time traffic data from TIMS



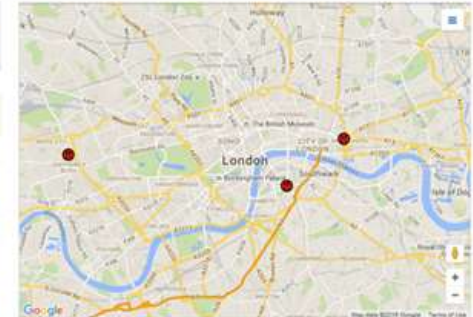
STATUS UPDATES

Tube, Overground, TfL Rail & DLR Buses Traffic Tram River Bus Emirates Air Line National Rail

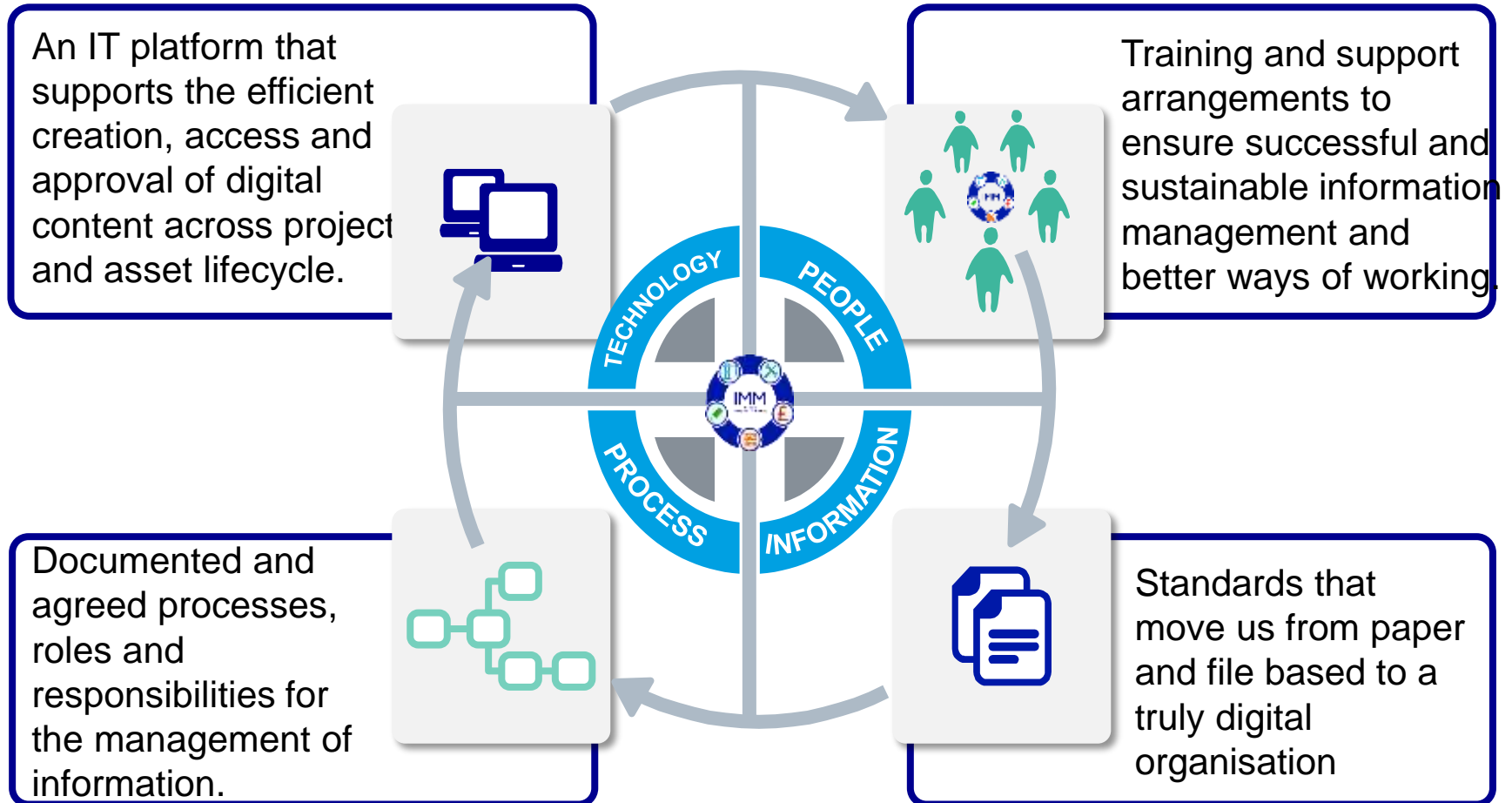
Now 12:08 This weekend Future date

Find a postcode, place or road

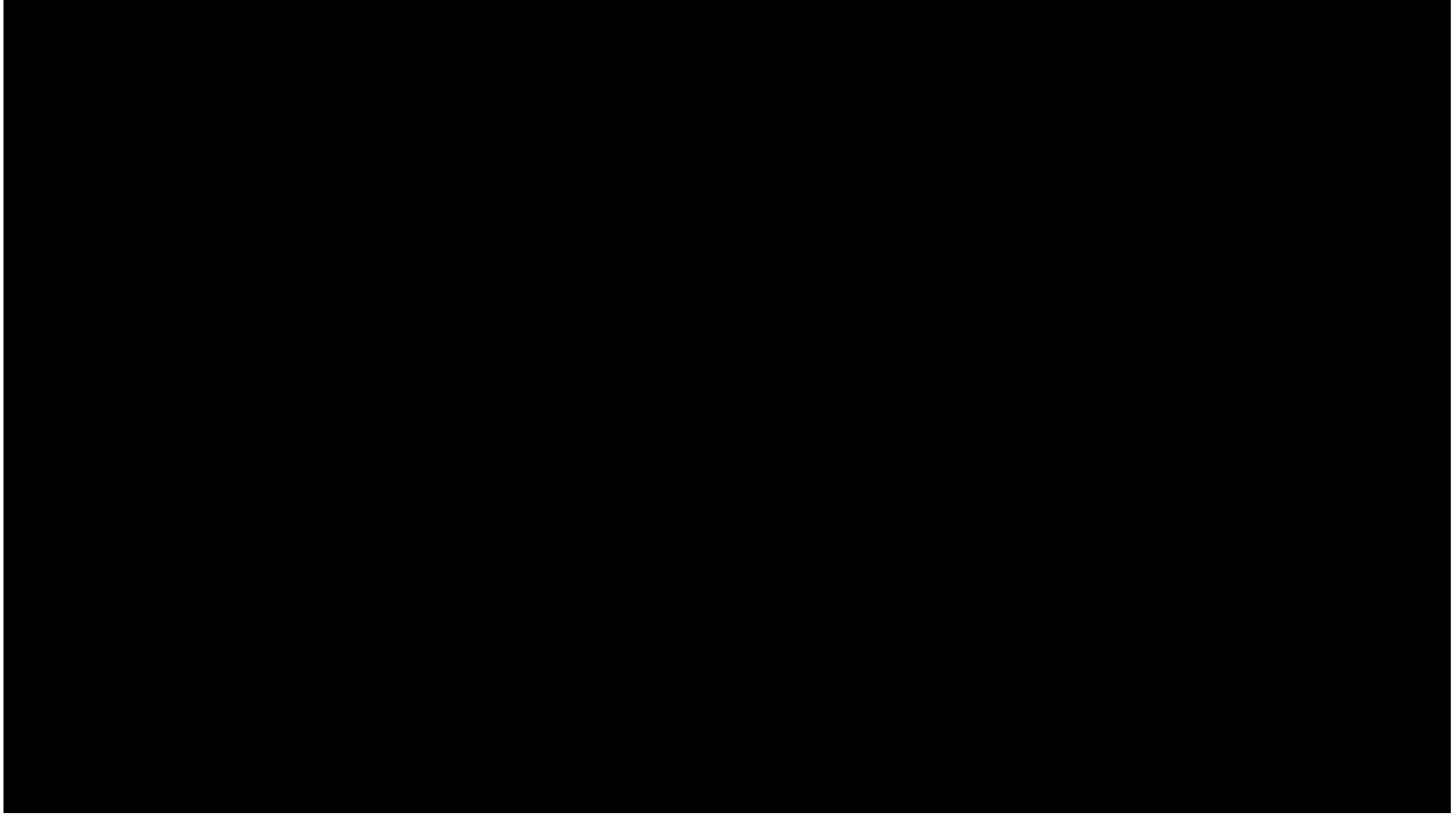
- Central London Red Routes Closures
- A1 No exceptional delays
- A10 No exceptional delays
- A12 No exceptional delays
- A13 No exceptional delays
- A2 No exceptional delays
- A20 No exceptional delays
- A21 No exceptional delays



BIM – Better Information Management

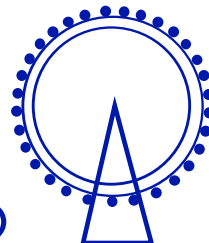


What next: Surface Intelligent Transport System (SITS)



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

