MCA AWARDS 2017 HIGHLY COMMENDED

Innovation

Deloitte with Transport for London (TfL)

Congestion costs the UK economy £4.3bn annually and 40% of the gridlock occurs in London1. Deloitte has supported Transport for London (TfL) for over 10 years to address many of its challenges, including analysis of congestion and relocation of the systems managing traffic signals. When TfL needed to build an advanced tool to understand dynamic changes in road traffic flows, they selected Deloitte to work with them.

TfL's Road Space Management function uses data from a large number of on-street sensors strategically placed across London's road corridors - providing millions of vehicle records per day. However, TfL did not previously have the capability to combine data in real-time from these diverse networks in order to get a full picture of traffic flows across the city and manage congestion.

Deloitte designed and built an innovative solution that combines, analyses and visualises information from thousands of roadside sensors with other sources of 'big data' to support TfL's traffic managers in alleviating congestion. The solution, referred to as the Real-Time Origin Destination Analysis Tool (RODAT), for the first time also offered the capability to generate insights in real-time.   This was achieved through two major innovations:

- A real-time algorithm which matches number plate data, cross-references other data sources and calculates actual journey times and traffic flows
- Visualisation for decision support to alert traffic analysts to unusual road conditions with a classification of the vehicle types involved.

Since the solution went live, it has captured 8 million journeys on London's roads every day. TfL is now able to understand traffic flows and journey times in real-time, make timely interventions to manage traffic, and mitigate the future impacts of infrastructure and other road projects, helping them to deliver on their objective of 'keeping London moving'.

1 Source: Telegraph