

Press Coverage

Article title: Connected Roadworks
 Publication: SMART Highways
 Date: March 2018

TRAFFIC MANAGEMENT

www.smarthighways.net

Connected roadworks



“ The result is a live ‘map dashboard’ displaying only those works causing a real impact on the road network, and filtering out the ‘noise’ ”

WORDS BY SHANE O'NEILL

Highway infrastructure requires huge investment simply to serve existing and future demands. But, as Shane O'Neill explains, it also requires a step change in its information culture to accommodate the world of intelligent transport and here he describes one initiative showing how existing infrastructure may be used to provide better information to road users and the travelling public

Roads are nothing if not connected – they begin in one place and end in another, in between linking regions and joining cities and towns. Along them now travel intelligent computers on wheels, multi-tasking travellers connected to their in-car sat-nav systems, radios and via their mobile phones to the internet. The technology is there, and so too is the expectation for instant communication of road information – closures, incidents, officially designated diversion routes, advanced warning signs and advice on driver behaviour.



Yet our physical network's connectivity is not yet matched by a similar information connectivity.

Traffic Managers wishing to optimise a diversion off the strategic network often don't have an up-to-date route to choose, nor one that is automatically pre-cleared as being free from other Highways Authority roadworks. Access to critical data is available but is held in multiple places, which to overcome and create inter-operability across highways boundaries has resulted in over budget, over time and still not fit for purpose IT projects.

VOL 6 NO 1



The roadworks.pro Real-Time Map helps to better analyse and understand the cause of traffic jams and recognise their role in improving the planning and management of works

Free movement

The roots of this systemic information weakness are not difficult to analyse. Firstly, the fact that our Highways network is actually managed by over 200 different organisations does not facilitate the free movement of data – the fuel of information systems – across boundaries. Secondly, the grip of a public sector contracting culture, focussed necessarily on long term infrastructure projects, driven to look at their own areas and economies of scale, means that information projects come a long way down in interest for senior decision makers. And finally, there is that peculiar fusion of the public sector, civil engineering and contracting cultures that favours large capital expenditure projects and really doesn't understand anything more modest or agile.

But times are changing, and they are changing rapidly. The intelligent data infrastructure is there, but it is just not connected yet across the boundaries of the 200 different bodies and associated information systems that run Highway networks. Investment cash is desperately needed to repair and build our physical infrastructure. Digital connectivity is perceived as important, but the question is how to achieve it, effectively and at lower costs than these capital projects?

What could be more attractive then in this environment for a solution to provide intelligent information infrastructure without having to invest in additional physical roadside infrastructure and using existing systems?

Movements

Using floating data derived from vehicles and mobile phones, TomTom is able to provide a real-time view of traffic movements across the network on a national basis. And in the UK, Elgin's roadworks.org uniquely provides real-

time and near-real-time coverage of traffic disruptions information (roadworks, incidents, closures and diversion information) across both local authority networks and the strategic network.

By fusing the two services Elgin and TomTom are able to collate and provide a single view of planned roadworks information and real-time travel disruption data. The actual location and timing of works and identifying which are having a significant impact to traffic may be seen at a glance.

The result is a live 'map dashboard' displaying only those works causing a real impact on the road network, and filtering out the 'noise'. This information is then shared with road users receiving TomTom Traffic services via in-dashboard, on-dashboard and mobile devices, commercial fleet navigation devices and other navigation sources.

By offering up-to-the-minute information across the local and strategic road network about traffic jams, it also gives authorities the ability to not only monitor their own roads, but those of other authorities which can feed into or exacerbate congestion problems - enabling deployment of more effective adaptive strategies, eg alteration of traffic signal timings.

Together, Elgin and TomTom have demonstrated a powerful technical solution of how to join Intelligent Data to existing infrastructure and systems without expensive capital programmes and disruption. It is now over to the public sector to find ways to incentivise data and information sharing to the benefit of the end user - the travelling public.

SHANE O'NEILL is Chairman of Elgin
shane.oneill@elgin.org.uk
www.elgin.org.uk