

Date: 7 July 2015

Item: Intelligent Speed Assistance

This paper will be considered in public

1 Summary

- 1.1 The accompanying presentation provides an update of the trial of Intelligent Speed Assistance (ISA) on London Buses.
- 1.2 The presentation covers the following areas:
 - (a) how ISA works;
 - (b) the benefits of ISA;
 - (c) why London is running a trial of ISA on buses;
 - (d) London's trial of ISA;
 - (e) trial routes; and
 - (f) trial suppliers;

2 Recommendation

- 2.1 The Panel is asked to note this paper and presentation.

List of appendices to this report:

Appendix 1: Intelligent Speed Assistance (ISA) on London buses presentation

List of Background Papers:

None

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Trial of Intelligent Speed Assistance (ISA) on London buses

Safety Accessibility and Sustainability Panel

7 July 2015

TfL Surface Strategy and Planning

Contents

- This slide deck intends to provide an update to the Safety Accessibility and Sustainability Panel on the trial of Intelligent Speed Assistance technology on London buses.

Contents:

- How ISA works
- The benefits of ISA
- Why London is running a trial of ISA on buses
- London's trial of ISA
- Trial routes
- Trial suppliers



How ISA works

- The term ISA (Intelligent Speed Assistance) covers a range of systems designed to assist drivers in complying with speed limits, as a low-cost, network-wide alternative to engineering and enforcement measures.
- The technology brings together internal information on the vehicle speed and external information on the speed limit, and communicates with or aids the driver.
- London's Digital Speed Limit Map provides the external information required on the speed limit of all roads in the city.

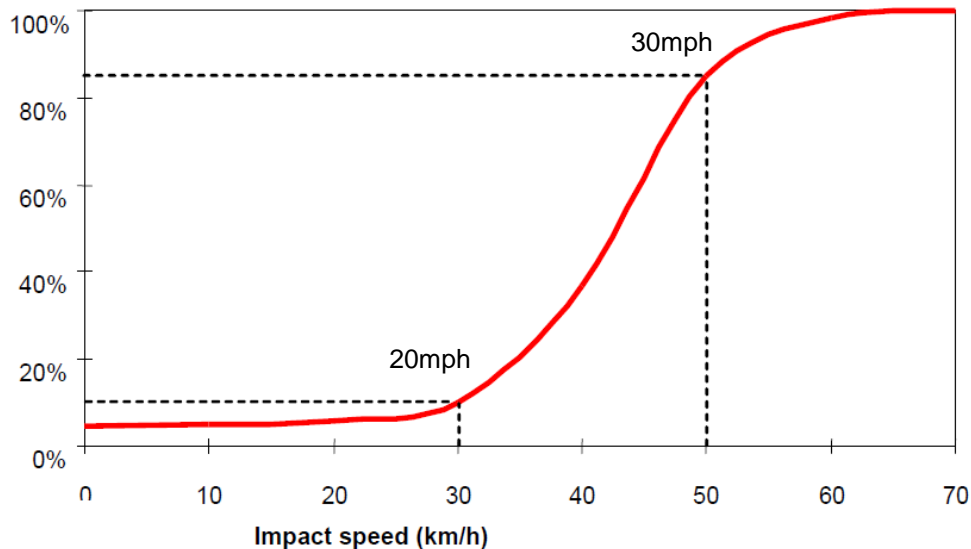


KEY	
	20mph
	30mph
	40mph
	50mph
	60mph
	National Speed Limit



The benefits of ISA

- ISA improves road safety as a result of improved speed limit compliance
- Vehicles fitted with ISA also encourage speed limit compliance by other vehicles not fitted with ISA, as their speed is restricted by the vehicle they are following
- Improved speed compliance results in fewer collisions, when collisions do occur the resulting injuries are less severe



Probability of fatal injury for a pedestrian colliding with a vehicle Tingvall and Haworth 1999

ISA trials have previously taken place in countries highlighted in orange.



Why London is running a trial of ISA on buses



Pedestrian Safety Action Plan

Working together, towards roads free from death and serious injury

MAYOR OF LONDON



Cycle Safety Action Plan

Working together, towards roads free from death and serious injury

MAYOR OF LONDON

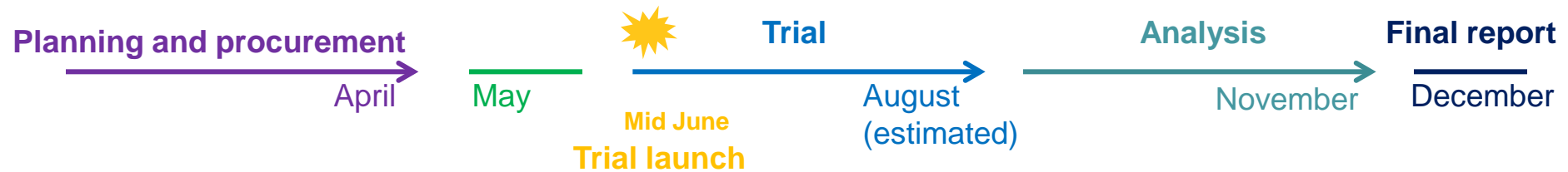


- TfL's Pedestrian Safety Action Plan and Cycle Safety Action Plan contained actions to run *a trial of Intelligent Speed Assistance technology on a small number of vehicles in the bus fleet to understand the potential role of this technology in promoting adherence to speed limits across the road network.*
- A recent report from the European Commission recommended mandating ISA in all commercial vehicles. This trial will therefore ensure that London is prepared for any future legislation with a full understanding of the potential effects.
- The trial will inform future decisions on the role of ISA in promoting speed compliance in London through further introduction across the London fleet.



London's trial of ISA

- London's trial of ISA is already underway, involving the fitment of ISA technology to all buses running on two routes in London.



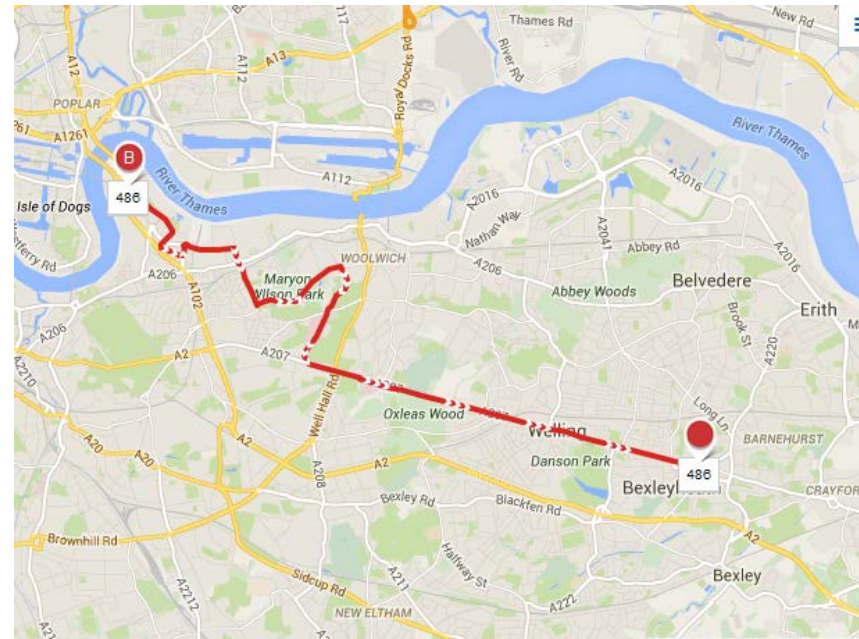
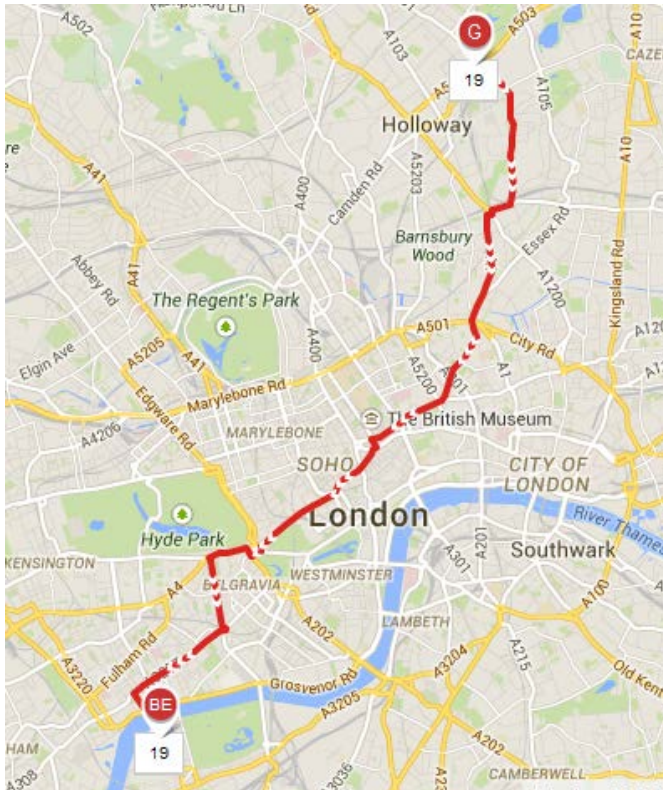
Various data sources will be monitored during the trial and analysed in order to inform TfL of:

- the effectiveness of ISA in promoting speed compliance,
- the impact of ISA on the speed/behaviour of surrounding traffic,
- the benefits and disbenefits of ISA for drivers, passengers, TfL and the bus operator, including safety, journey times, fuel efficiency.



Trial routes

- Routes 19 and 486 were selected using customer service data, and data analysis of the following criteria:
 - Lower compliance with speed limits;
 - Higher percentage of 20mph streets;
 - Fewer opportunities for cars to overtake buses; and
 - Higher number of collisions with pedestrians and cyclists.



Trial suppliers



The ISA technology is being supplied by Zeta Automotive, who have adapted their current product, Econospeed, into an ISA device.

The device will limit acceleration to speed limits through the bus Controller Area Network (CAN). Zeta has tested the new product on one bus before fitting all the buses across the two routes.

Go-Ahead

Go Ahead London, the operator of the two trial routes, is working closely with Zeta Automotive and TfL to implement the trial.



Transport Research Laboratory (TRL) will monitor data sources and evaluate the trial, mainly by comparing pre-trial data to data collected during the trial.



2CV (market research company) will conduct surveys of bus drivers and passengers in two waves, the first ascertaining initial reactions, and the second once drivers are more accustomed to the technology.



Summary and next steps

- TfL is investigating the potential role of Intelligent Speed Assistance technology in promoting speed compliance across London's road network, through trialling the technology on two London bus routes
- Evaluation of the trial will understand its benefits and disbenefits for drivers, passengers, TfL and the bus operator and the impacts on traffic speeds and driver behaviour
- TfL will be carrying out the trial over the course of summer 2015, with the launch of the trial announced in June
- The final evaluation report is expected in late 2015, which will inform future decisions about wider deployment

