



Identifying ITS Opportunities for the HA Pilots Newsletter: October 2009

■ ITS RADAR INTERNATIONAL PROJECT

This project is providing intelligence for the Highways Agency on ITS developments in Europe and around the world. It is carried out by TRL and AECOM on behalf of the HA. The project summarises key information for decision makers and practitioners on activities related to Intelligent Transport Systems (ITS). The project covers specific areas of key interest to the HA.

Regular newsletters are being produced, covering information which is in the public domain. For more information about the project and the services provided, the web site can be reached at: www.highways.gov.uk/itsradar.

To contact us and let us know what you would like this project to deliver please email us at: ITSRadarInternational@trl.co.uk

■ ABOUT PILOTS

Developments in innovative pilot projects for ITS technologies and services from around the world are monitored and reported here.

These pilots are used to test and assess the potential and impacts of newly developed services before they are deployed for widespread use by the travelling public and those who manage the transport system.

Intelligence on such pilots supports the development of new systems and services in the Highways Agency and on the road network.

Note that pilots and demonstrations which are part of European Research Programmes can be found in the European Research Newsletter.

■ PROJECTS

Above average – speed enforcement

Source: Thinking Highways, Volume 4, Issue 3, September/October 2009, pg. 80-82

When the Highways Agency upgraded the communications infrastructure between junctions 10 and 12 of the M4, a 50mph speed limit and narrow lanes were introduced to accommodate the roadworks. As with many HA motorway and trunk road schemes that require roadworks, average speed enforcement cameras (SPECS) were used.

A study was undertaken using three years of baseline data before the roadworks took place to monitor the effects of the SPECS system and measure the influence on driver behaviour. As a result of the project, the following benefits were reported:

- 100 percent KSI (Killed and Seriously Injured) casualty reduction;
- 38 percent reduction in injuries compared with a three year baseline;
- Improved journey reliability;
- Reduced congestion;
- 85th percentile speeds were consistently below the 50mph limit;
- Average speeds were consistently around 46mph, and
- Very low levels of enforcement were required.

SPECS technology was found to effectively maintain (and anecdotally improve) traffic flow and reduce the number of casualties during the period of the roadworks.

Key words: Monitoring, traffic management

Child safety

Source: Vision Zero International, June 2009, pg. 5-8, www.MotorAuthority.com

AMULETT was a three year research project funded by the Bavarian State Ministry of Public Affairs and carried out by several research partners including BMW and Continental. AMULETT is a cooperative sensor system designed to improve the safety of vulnerable road users such as children. The vulnerable road user carries a lightweight robust transponder which communicates with the AMULETT-enabled vehicle and identifies its location. The vehicle can alert the driver of a potential collision with the vulnerable road user, even if they are not yet visible.

If the driver does not take action, the system can be set to undertake emergency collision actions such as emergency braking, or deploy other measures to mitigate the effects of the impact. Further work is being carried out to refine the system.

Key words: In-vehicle systems, Safety

The safety equation

Source: Vision Zero International, June 2009, pg. 66-69

The SAFESPOT project is aimed at design and validation of cooperative ITS systems for enhanced road safety. The project began in February 2006 and is expected to end in January 2010, allowing for introduction of cooperative systems in 2015. It is managed by Centro Ricerche FIAT and is supported by 52 consortium partners. SAFESPOT is focusing on development of a Safety Margin Assistant (SMA) to prevent road accidents. SMA makes it possible to detect in advance any potential threats and warn drivers about them to

prevent road accidents. In addition, SAFESPOT developed a local dynamic map (LDM), capable of continually reconstructing the details of area around a vehicle/ infrastructure equipment.

ITS Radar International will monitor the outcome of SAFESPOT

Key words: Communications, Geographic information, Incident, In-vehicle systems, Project, Safety

■ NEWS

Mobile phones could become lead ticketing technology says DfT

Source: Local Transport Today, 28 August-10 September 2009, pg. 6

In a consultation on ticketing in England, the Department for Transport reported that traditional paper tickets are likely to be replaced by smart cards, mobile phones and EMV contactless bank cards (Europay, Mastercard and Visa bank card standard).

The DfT believes that mobile phones using Near Field Communication (NFC) could become a predominant ticketing system along with EMV contactless bank cards. They would mainly be used for low value journeys. However, they foresee that smartcards, probably using the ITSO standard, are more likely to be used for higher value transactions such as season tickets as they are easier to identify as a physical 'ticket'.

The same transaction methods may eventually be used for other low-cost transport costs such as parking or toll charges.

Key words: Communications, Payment

ISA presents huge potential to deliver safety benefits

Source: Traffic Engineering and Control, September 2009, pg. 348-350;
Traffic Technology International, August/September 2009, pg. 52-57

The six-month trial of Intelligent Speed Adaptation (ISA) began in May 2009 in London within the M25 motorway area. Transport for London hired Technolution, a Dutch provider of technological solutions, to introduce an ISA system in 20 of its vehicles. Eighty drivers are taking part in the field trials, each of whom will have had the ISA for six months.

Chris Lines, the head of TfL's Road Safety Unit said "if two-thirds of drivers start to use this technology in London alone, the number of road casualties could be cut by 10%". Oliver Carsten, the head of the University of Leeds Institute of Transport Safety said that if 100% of the population used ISA, the casualty reductions would be as follows:

- 3% in the case of an advisory system (drivers are warned if they are speeding);
- 12% in the case of a voluntary system (the vehicle prevents speeding, but can be overridden), and
- 29% in the case of a non-overrideable system.

The system uses a digital map and GPS to identify the speed limit appropriate for the vehicle at each location.

The study also looked at how deployment in vehicles would affect accident severity long-term. Simulations indicate that if it became mandatory for all new vehicles to have voluntary ISA installed, road accidents are likely to be reduced by:

- 15% for accidents of 'slight' severity;
- 25% for 'serious' accidents, and
- 30% of all 'fatal' accidents.

Results of another field-testing trial conducted in Waalwijk in Netherlands were remarkable. Dirk Jan Huisman, senior advisor of DHV Group, reported that "most drivers were found to obey the speed limits and drive more slowly in built-up areas and near schools".

ITS Radar International will monitor the outcome of the trial

Key words: In-vehicle systems, Safety

Driving change

Source: [Thinking Highways, Volume 4, Issue 3, September/October 2009, pg. 48-52](#)

Following the successful deployment of the Active Traffic Management pilot project on the M42, the Department for Transport has conducted a study into the feasibility of deploying Managed Motorways across England. This study compares managed motorways to conventional motorway widening, specifically looking at the carbon footprint of implementation of these two techniques to relieve traffic congestion.

By implementing hard shoulder running instead of widening to provide additional capacity, it has been estimated that 850,000 tonnes of CO₂ could be saved from materials, construction and traffic delays during construction across the 546km of motorway that are currently earmarked for improvement.

Key words: Environment, Policy, Project, Traffic management

■ GLOSSARY

AMULETT	German project for active mobile accident avoidance and mitigation of accident effects through cooperative data acquisition and tracking technology
DfT	Department for Transport
EMV	(Europay, MasterCard and VISA) bank card standard
ISA	Intelligent Speed Adaptation
ITSO	Integrated Transport Smartcard Organisation
KSI	Killed and Seriously Injured (road casualties)

LDM Local Dynamic Map
NFC Near Field Communication
SMA Safety Margin Assistant