



## Identifying ITS Opportunities for the HA Pilots Newsletter: March 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](http://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](mailto: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.

### ■ MEETINGS

None to report

### ■ PROJECTS

#### **GPS technology to be used to determine car insurance payments**

Source: ITS Belgium, <http://social.telematicsupdate.com>, [www.hs.fi](http://www.hs.fi)

PANDA, a consortium of companies based in Finland has begun a new pilot project this year which will test the use of GPS data to determine insurance premiums and road use fees.

Drivers will be able to influence their insurance premium by adjusting the number of miles driven on three types of journey: business, commuting or leisure driving. The user selects their current trip purpose via a three button interface in the vehicle. In the trial, 1,000 cars will be fitted with GPS devices to track speed, sudden braking, rapid acceleration, and when and where a car was driven. The study will also look at whether the car was driven in the city or countryside and if it was driven on a motorway or a private road.

### **ITS Radar International will monitor PANDA**

Keywords: Galileo, Geographic information, In-vehicle systems, Monitoring, Payment

### **EU's advanced active safety project begins**

Source: [www.roadtraffic-technology.com](http://www.roadtraffic-technology.com)

The Accident Avoidance by Active Intervention of Intelligent Vehicles (interactIVe) project is an initiative of a Ford-led consortium of companies, aimed at development of cutting edge incident avoidance and mitigation technologies. Active safety intervention such as autonomous braking and steering in difficult conditions will be tested. This €30m, 42-month project will also support the development of the latest technologies for 'environmentally sensitive' driving.

### **ITS Radar International will monitor interactive**

Keywords: Cooperative vehicle systems, Incident, In-vehicle systems, Safety

### **TrafiCam passes detector trial test**

Source: Traffic Engineering and Control, January 2010, pg. 16-17

A trial of TrafiCam video vehicle detection was carried out by TRL for the Department for Transport at a test site in Winchester. Trial detectors were mounted on a lamp column located next to a SCOOT loop (Split Cycle Offset Optimisation Technique), so the output from the video detector could be compared to a traditional induction loop sensor within the surface of the road, in terms of its effectiveness for detecting traffic approaching signal-controlled junctions.

The TrafiCam was found to produce very similar output to the configured induction loop, even when mounted 4-5m above ground. The trial proved that video detection can be used instead of induction loops for vehicle detection at junctions. It has the benefit of easy installation and maintenance because it is not buried in the road surface like an induction loop. The product will be marketed as a suitable detector for SCOOT and Microprocessor Optimised Vehicle Actuation (MOVA) applications.

Keywords: Architecture, Communications, Identification, Monitoring, Traffic Management

## ■ RECENT PUBLICATIONS

### **Millimetric radar used in incident detection trial**

Source: 'Clear ahead?' Thinking Highways, Vol. 4, No. 4, pg. 56-58

Navtech Radar's latest 77GHz millimetre wave (MMW) radar sensor solution for incident detection was successfully trialled during both a hard shoulder monitoring scheme on the M42 and in a tunnel in the South East of England. Atkins, on behalf of Highways Agency, conducted a trial of the Navtech Radar detection system in the Southwick Tunnel on the A27 in Sussex. In a tunnel environment, the radar system was found to have an extremely low false alarm rate of approximately one per 24 hours.

On the M42, the technology was tested as part of the HASMOS (Hard Shoulder MONitoring System) project. Although the system was only set to report slow moving vehicles, it can also provide data on the speed of vehicles in each lane over an 800m radius from a single roadside-mounted detector. The HASMOS project reported that the millimetric radar system had a good detection rate.

This technology is characterised by low installation and maintenance costs. It also shows promising performance regardless of fog, sunlight, dust grime or snow.

Keywords: Emergency, Incident, Monitoring

### **Automated weigh-in-motion systems trialled in Australia**

Source: ITS International, November/December 2009, pg. 38-40

A high-speed Weigh-In-Motion (WIM) system has recently been trialled on the West Gate Bridge in Melbourne by TDC Systems Australia. The system is the first of its kind with the WIM sensors located in 50mm of asphalt above a steel plate, in the middle of the suspended section of the bridge.

The West Gate Bridge is the third longest bridge in Australia and connects Melbourne's business district with western suburbs. Its four lanes are monitored by WIM sensors that collect weight and classification data about each vehicle for the purpose of the bridge overload monitoring systems.

The author also describes various available WIM technologies, which when combined with other technologies, can be used for a wide range of data collection applications. Future developments are considered as well, with the emphasis on bridge overload protection as a major driving factor for WIM development.

Keywords: Enforcement, Freight, Monitoring, Payment, Traffic management

## ■ GLOSSARY

MMW	Millimetre Wave
MOVA	Microprocessor Optimised Vehicle Actuation
PANDA	Initial letters of the companies in Finland involved in the project for GPS-based insurance data: Pohjola Insurance, Aplicom, Nokia, Destia, and Astarte

SCOOT      Split Cycle Offset Optimisation Technique  
WIM        Weigh in Motion