



## Identifying ITS Opportunities for the HA ITS Research 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, see the web site: [www.itsradarinternational.info](http://www.itsradarinternational.info). 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 ITS RESEARCH

The research projects covered in the European Research newsletters are mainly those which receive funding from the European Commission, through programmes such as the Seventh Framework Programme, EasyWay (implementing ITS on the Trans-European Network) and the e-Safety initiative. Updates on European ITS research projects aim to inform the Highways Agency about project progress and notify when significant milestones and deliverables are achieved. News of newly launched and forthcoming ITS projects are reported to keep the HA up to date with the latest research being carried out in Europe.

### ■ MEETINGS

No new meetings to report.

### ■ CALLS FOR PROPOSALS

#### **Call for detailed European geographical database for transport**

Source: [Eurostat](http://Eurostat)

Eurostat, the Directorate - General of the European Commission which is responsible for providing statistical information and ensuring harmonisation of statistical methods across the EU, has issued a call for proposals to supply geographic information services for the acquisition of an integrated

geographic database on transport networks in Europe. The database will be used to support the European Commission's analysis and decision-making.

The total budget available for the work is 1.6 million euros (£1.4 million) and it is expected to take four years to complete. The database will contain:

- Detailed road network data (including ferry routes and motorail train links) that can be used to create a connected transport network used by motor vehicles
- Railway and navigable waterway data to link up with the road network for intermodal analysis
- Settlements
- Points of interest data for public services
- Traffic information with a high temporal resolution describing traffic flow conditions on road segments.

The deadline for submitting proposals is 5 October 2009.

### **ITS Radar International will monitor developments**

#### ■ HOT TOPICS

#### **Satnavs distract motorists**

Source: [RIN](#)

The RAC, one of UK's motoring organisations, has carried out a survey of 1,109 drivers in the UK and found that 39 percent of those admitted being seriously distracted while driving.

Some of the leading causes of getting distracted while driving included:

- Fiddling with satnavs – over 40 percent
- Coping with warning lights – over 20 percent.

The survey also found that younger motorists were more likely to get distracted, with 55 percent of 17-24 year olds surveyed admitting that they had become seriously distracted while driving.

Deaths that were at least partly due to in-car distractions have risen by 50% in recent years - from 50 in 2005 to 75 in 2007.

The report of the survey is available on the [RAC web site](#).

#### **HA recommended to follow up**

#### **Study shows that traffic-enabled satnavs can reduce driving time and emissions**

Source: [Telematics Update](#)

A recent study carried out by NAVTEQ has shown that in-vehicle satellite navigation devices that are capable of live traffic updates can reduce driving time per trip, on average by around 18 percent.

A number of previous studies have shown the benefits of satnavs in helping motorists to avoid getting lost and to follow the shortest route. However, this

recent study shows that the amount of time motorists are stuck in traffic can also be reduced by using traffic-information-enabled satnavs.

An 18 percent reduction in driving time per trip is equivalent to approximately 21 percent reduction in CO<sub>2</sub> emissions per trip.

The study was conducted in two metropolitan areas of Germany - Dusseldorf and Munich - which evaluated drivers without a navigation system, drivers with a navigation system, and drivers with a navigation system that included real-time traffic information. The participants, none of whom had previously owned navigation devices, had their vehicles fitted with logging devices which were used to track the routes they drove and their driving speed. The study results reflect more than 2,100 individual trips over 20,000 km and almost 500 hours on the road.

### **New cooperative Vulnerable Road User detection system developed in European project**

Source: [ERTICO](#)

The VTT (Technical Research Centre of Finland) has developed a new system for identifying vulnerable road users and informing drivers of nearby vehicles of their presence on, or close to, the road.

The VRU (Vulnerable Road User) system (currently being tested on a motorway in Turin, Italy) is incorporated into the road infrastructure, and alerts the drivers of nearby vehicles by sending them a warning message notifying them of the presence of vulnerable users.

Identification is based on a thermal vision system that uses image analysis (speed, size, shape and temperature information) to detect humans and animals. The system is integrated into a sensor fusion module which sends data to a local dynamic maps database modelling the driving environment.

The system is developed as part of the SAFESPOT project that aims to develop a cooperative traffic safety system which facilitates communication between vehicles and the road infrastructure. More information on the SAFESPOT project can be found in a previous [ITS Radar International article](#).

### **ITS Radar International will continue to monitor developments in SAFESPOT**

#### ■ PROJECTS

### **Predrive-C2X project progress 09**

Source: [Predrive-C2X](#)

The European PREDRIVE-C2X project is funded under the EC 7<sup>th</sup> Framework Programme and is carrying out preparatory work for full scale field trials of vehicular communications technology to support cooperative vehicle systems. The project began in July 2008 and is due to end in June 2010. The project is now developing the building blocks for the Common European Architecture for Cooperative Systems, following the drafting of the document by the COMeSafety project. The European ITS Communication Architecture provides the underlying communications features that are necessary to support cooperative systems and services.

A Special Interest session was held during the 16<sup>th</sup> ITS World Congress in Stockholm. This Special Session entitled: "Towards a pan European architecture for cooperative systems: The PRE-DRIVE C2X, COMeSafety and E-FRAME projects" was held and facilitated the discussion of different key aspects related to the European architecture for cooperative systems. An emphasis was maintained on the future of cooperative systems for a sustainable mobility.

The project is also developing a simulation model for cooperative vehicle systems that will enable their impacts on safety, efficiency and the environment to be estimated.

### **ITS Radar International will monitor developments in Pre-drive-C2X**

#### ■ RECENT PUBLICATIONS

### **eSafety research into "Car Users' acceptance of eSafety technology"**

Source: [eSafety Challenge](#)

The eSafety Aware initiative has published a study on motorists' knowledge about eSafety technologies, their attitude towards these technologies as well as purchase patterns and decision factors when buying a new car. The study was used to support the recent eSafety Challenge event; more details on the event can be found in [ITS Radar International article](#).

The study looked at Electronic Stability Control, Blind Spot Monitoring, Lane Support Systems, warning and emergency braking systems and Speed Alert systems. Some key findings from the report include:

- Of the eSafety technologies studied, consumers are most aware of Speed Alert and Electronic Stability Control (ESC)
- Of the eSafety technologies studied, consumers are least aware of Blind Spot Monitoring and Lane Support Systems
- Awareness of eSafety technologies raises their perceived usefulness among consumers
- Consumers who are aware of the eSafety technologies are more willing to pay for them than those who are not aware
- Consumers buying a new car inform themselves primarily at car dealerships

Another qualitative study is expected to be carried out and, together with this quantitative study, will provide eSafety Aware with updated information about the awareness, knowledge and perceived usefulness of eSafety technologies of European drivers.

### **Swede sixteen**

Source: [Traffic Technology International, August/September 2009 issue](#)

This article summarises twenty key projects and initiatives which were presented at the 16<sup>th</sup> ITS World Congress in Stockholm in September 2009. Some of the key projects and initiatives highlighted include:

- Testing of ADAS for trucks – a large scale Field Operation Test (FOT) is being carried out in the Netherlands to evaluate various Advanced Driver Assistance Systems (ADAS) which are designed to reduce accidents involving trucks. The FOT included over 2,400 trucks and is the largest FOT to have taken place in Europe.
- The GNSS Metering Association for Road User Charging (GMAR) has set out to create the GMAR Performance Analysis Framework (GPAF) to quantifiably address issues associated with GNSS-based Road Pricing systems. This work created a body of criteria, tests and analyses specific to charging reliability.
- The Swedish five year trial of Variable Speed Limits (VSL) involving 20 sites with road crossing control, pedestrian control, weather control, or traffic control. The benefits measured have led to a decision to develop less costly solutions, and to extend the application to other sites and other situations, such as varying speeds in response to air pollution levels.

The article reflects on what initiatives were particularly successful and what results have been achieved.

## **Connect and serve**

Source: [Traffic Technology International, August/September 2009 issue](#)

This article talks about the importance of cooperative systems in improving road transport. In particular, the COOPERS (Co-operative Systems for Intelligent Road Safety) project is used as an example of a project that aims to define, test and validate the potential of infrastructure-to-vehicle communication (I2V) to improve traffic management while enhancing road safety and efficiency. The project also aims to assess driver acceptance and user behaviour as these are seen to be key in assessing the overall impact of cooperative systems on congestion and safety.

### ■ GLOSSARY

ADAS	Advance Driver Assistance System
EC	The European Commission
Eurostat	Directorate-General of the European Commission responsible for providing the European Union with statistical information at European level and promoting the harmonisation of statistical methods across the Member States of the European Union, candidate countries and EFTA countries.
FOT	Field Operation Test
GNSS	Global Navigation Satellite System
GMAR	GNSS Metering Association for Road User Charging
GPAF	GMAR Performance Analysis Framework
I2V	Infrastructure-to-Vehicle communications (same as V2I)
ITS	Intelligent Transportation Systems
V2I	Vehicle to Infrastructure Communications (same as I2V)

VRU            Vulnerable Road User  
VSL            Variable Speed Limit  
VTT            Technical Research Centre of Finland