



Identifying ITS Opportunities for the HA Standards Newsletter: November 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 STANDARDS

A standard is a technical specification or report that is developed with consensus across industry and is then approved by a body recognised at the national or international level. Standards specify how systems, products and services should operate. Standards should facilitate inter-operability without impeding innovation as new technologies and approaches develop.

ITS Radar International aims to keep the HA informed on developments in standards relevant to ITS, at a national (British Standards Institution, BSI), European (Comité de Européen Normalisation, CEN, and European Telecommunications Standards Institute, ETSI) and international (International Organisation for Standardisation, ISO) level.

A document will be periodically maintained, which tracks the progress of new and developing standards, as well as listing published standards with any updates or reviews. The ITS Standards Spreadsheet can be downloaded from www.itsradarinternational.info/. The main ITS technical committees are:

- ISO TC 204 Technical Committee – Intelligent Transport Systems
- CEN TC 278 Technical Committee – Road Transport & Traffic Telematics
- ETSI TC ITS Technical Committee – Intelligent Transport Systems

These and other relevant bodies are regularly monitored for developments.

In addition, the project provides information about agreements, protocols, common approaches and guidelines relevant to ITS in the Highways Agency, such as location referencing and data exchange.

■ MEETINGS

ITS World Congress 2009, Stockholm – Standards

Source: www.itsworldcongress.com/

The annual ITS World Congress was held in Stockholm on 21-25 September 2009. Standardisation and Interoperability were key topics.

Sessions of particular relevance from the event programme include:

- **Towards a common approach to Cooperative Systems (ES 05)** - This session reviewed the progress of co-operation between Asia-Pacific, Europe and the Americas in the three key areas of: a common architecture for cooperative systems; spectrum allocation; and standardisation.
- **Policy, strategy and standards for future ITS communications (ES08)** - A discussion of the communication policy and strategy for ITS, and the importance of public-private collaborations for further innovations.
- **Standards development for vehicle and infrastructure connectivity (SIS66)** - Information on the status and direction of standards being developed for vehicle and infrastructure connectivity. Attendees were provided with highlights of global research and development efforts including successes, lessons learned, and opportunities for international standards cooperation and harmonisation.
- **Towards a pan European architecture for cooperative systems, the PRE-DRIVE C2X, COMeSafety and E-FRAME projects (SIS17)** - The European ITS Communication Architecture provides the underlying communications features that are necessary to support cooperative systems and services. The development was started by COMeSafety in cooperation with SAFESPOT, CVIS and COOPERS. The PRE-DRIVE C2X project is now developing its building blocks following the Common European Architecture document drafted by COMeSafety. At the same time the E-FRAME project is extending the European ITS Framework (FRAME) Architecture, which provides tools to define the building blocks needed for ITS implementation, to include cooperative systems services, and support its use in Europe. A task force of these projects is now working with the Car2Car Consortium and the relevant standardisation bodies, e.g. ETSI TC ITS, CEN and ISO TC 204, to create the required standards.

■ PROJECTS

Viajeo project – supporting data exchange

Source: ERTICO

Viajeo is the International Demonstrations of the Platform for Transport and Travel Information project, co-funded by the European Commission, DG Research for Specific International Cooperation Actions (SICA) and supported by the Italian Ministry for the Environment, Land and Sea.

The aims of the project are to create, demonstrate and validate an open platform which will enable information exchange and sharing among various stakeholders. This open platform will facilitate data exchange, centralise processed data from various sources and thus improve traveller information services, support transport management and more sustainable transport and city planning.

The demonstrations are planned to start from 2010 in a number of cities in Europe and partner countries Brazil and China: Athens, São Paulo, Beijing and Shanghai. The cities have been chosen to serve as role models and encourage other cities and even countries to follow in their lead.

Project partners believe that informed travellers, transport operators and city planners, who are given comprehensive and high-quality information, will actively help reduce congestion and its negative environmental impact in urban areas. The project also looks to involve a wide range of stakeholders including end users, traffic managers, public authorities, service providers and research organisations. It is hoped that this multi-sector approach will allow for a comprehensive social, economic and environmental assessment of the implementation of the Viajeo's open platform.

The project was officially launched in September 2009 and is scheduled to last for 36 months. More information about the project is available on the [Viajeo project web site](#).

ITS Radar International will monitor Viajeo

■ RECENT PUBLICATIONS

European Electronic Toll Service (EETS) – EC “Clears the Way for a Single European Road Toll Service”

Source: europa.eu/, www.ertico.com/, Traffic Technology International

The European Commission has adopted a decision setting out the essential technical specifications and requirements needed to launch a European Electronic Toll Service (EETS).

EC Vice-President Antonio Tajani considers this decision to be the most important improvement for drivers since the abolition of border controls, stating that

"The European Electronic Toll Service will enable road users to easily pay tolls throughout the whole European Union thanks to one subscription contract with one service provider and one single on-board unit".

The decision, which was signed on 6th October 2009, also lays down the rights and obligations of toll chargers, service providers, and users. Users will be able to subscribe to the service provider of their choice. Toll chargers will communicate the tolls due to the service providers, who will eventually invoice the users.

The EC press release says:

"Electronic toll systems were introduced in several European countries in the early 1990s... However, the various national and local electronic road toll systems are generally incompatible and can only communicate with their respective on-board units. These non-interoperable road toll

systems especially hinder international road transport; for example, to travel from Portugal to Denmark five or more on-board units might be needed on the vehicle's dashboard... For the transporter this entails time-consuming paperwork and costly administrative burden in reconciling travel data, received invoices, contracts clauses and payment orders.”

It is planned that EETS will be available on all infrastructures in the entire Community such as motorways, tunnels and bridges where tolls can be paid using on-board equipment. EETS will eventually limit cash transactions at toll stations, thereby improving traffic flow and reducing congestion. It will be available within three years for all road vehicles above 3.5 tonnes or that can carry more than nine passengers. It will be available for all other vehicles within five years.

An article on www.ertico.com/ says,

“The Commission Decision on the definition of the European Electronic Toll Service and its technical elements has been adopted. It will be notified to the Member States under document C(2009)7547.

Between 2005 and 2008, ERTICO ITS - Europe coordinated the Road Charging Interoperability (RCI) project which was contributing to the Directive 2004/52, the basis for the Decision currently adopted. In the RCI project, 26 Road Operators, potential Toll Service Providers and industry suppliers demonstrated interoperable tolling in 6 of the biggest existing tolling markets in Europe. The project specified the European technical framework for interoperable solutions providing a cornerstone for the CEN TC278 standardisation work and the finalisation of the Decision.

Following the decision, ERTICO is ready to start the preparative work with its Partners, Road Operators, Member States, Toll Service Providers and Industry towards the operational implementation of the EETS in Europe.”

An article in the August/September 2009 issue of Traffic Technology International also discusses EETS further.

ITS Radar International will continue to monitor EETS developments

EC issues Mandate for European Co-operative Systems Standards

Source: ec.europa.eu/ [1], ec.europa.eu/ [2]

The European Commission has issued a mandate inviting three European standardisation bodies to develop a “coherent set of standards, specifications and guidelines to support European Community wide implementation and deployment of Co-operative ITS systems”.

The Mandate addresses CEN, CENELEC and ETSI (the European Committee for Standardisation, the European Committee for Electrotechnical Standardisation and the European Telecommunications Standards Institute, respectively).

The mandate, which can be downloaded from ec.europa.eu/, describes the following work:

1. "Carry out an analysis of the required European standardisation activity based on the existing roadmaps of the standardisation process for Co-operative ITS services within the European Standardisation organisations. The analysis should:
 - Include a detailed work programme covering the necessary standardisation work
 - Identify which are the potential functionalities that the new systems can supply... identify the risks for the privacy of the users of these functionalities and the measures to be taken to eliminate these risks. The work programme should detail the expected economic impact of these new functionalities and their requirements in terms of exchange of information and communications
 - Identify the minimum set of European standards required in the field of Cooperative systems... This set of standards should be divided into communication, information and security standards and should take into account existing work, such as DATEX (CEN TC 278 WG8).
2. Develop the identified minimum set of European standards (ENs) contained in the work programme within the stated time schedule
3. Develop test methods for assessing the conformity of the identified minimum set of standards
4. Develop the rest of the identified standards and technical specifications for Cooperative ITS.

ITS Radar International will monitor developments in these standards

ISO standard for cruise control systems promises safer and more enjoyable driving

Source: www.iso.org/

ISO has recently published a new standard, ISO 22179:2009, "Intelligent transport systems – Full speed range adaptive cruise control (FSRA) systems – Performance requirements and test procedures". The ISO website says that it "will improve safety for all highway users by automatically adjusting vehicle speed and, in so doing, enhance driving comfort and convenience".

The convenor of ISO WG 14, Yoshimi Furukawa, said in a statement:

"Conventional cruise control is very useful, but can become a source of irritation when used in moderate or heavy traffic... Traffic conditions can change quickly from slowing vehicles, or close cut-ins by other vehicles. The FSRA not only takes action when the distance to the vehicle in front changes, it also resumes the speed when the road is clear."

The new standard covers the following aspects:

- Basic control strategy
- Minimum functionality requirements
- Basic driver interface elements
- Minimum requirements for diagnostics and reaction to failure

- Performance test procedures.

■ HOT TOPICS

None to report.

■ CALLS FOR PROPOSALS

None to report.

■ GLOSSARY

BSI	British Standards Institution
CEN	Comité de Européen Normalisation: European Committee for Standardisation
CEN TC 278	CEN Technical Committee for Road Transport & Traffic Telematics
CENELEC	Comité Européen de Normalisation Electrotechnique: European Committee for Electrotechnical Standardisation
COMeSafety	Communication for eSafety: A project that supports the eSafety Forum with respect to all issues relating to vehicle-to-vehicle and vehicle-to-infrastructure communications as the basis for co-operative intelligent road transport systems
COOPERS	COOPERative systems for intelligent Road Safety: EC project on the development of innovative telematics applications on the road infrastructure with the long term goal of a "Co-operative Traffic Management"
CVIS	Cooperative Vehicle-Infrastructure Systems: A European research and development project aiming to design, develop and test the technologies needed to allow cars to communicate with each other and with the nearby roadside infrastructure.
DATEX	DATa EXchange: Series of standards for exchange of traffic and travel information
EC	European Commission
EETS	European Electronic Toll Service, currently under development.
E-FRAME	Extend FRAMEwork architecture for cooperative systems: Extension to the "FRAME" Project
ENs	European standards
ERTICO	A multi-sector, public/private partnership created to develop and deploy ITS
ETSI	European Telecommunications Standards Institute
ETSI TC ITS	ETSI Technical Committee for Intelligent Transport Systems
FSRA	Full Speed Range Adaptive cruise control

ISO	International Organisation for Standardisation
ISO TC 204	ISO Technical Committee for Intelligent Transport Systems
ITS	Intelligent Transport Systems: "The integration of information and communications technology with transport infrastructure, vehicles and users" [ERTICO]
PRE-DRIVE C2X	PREparation for driving implementation and evaluation of Car 2 X communication technology: European project (07/2008 to 06/2010) to prepare a large scale field trial for vehicular communication technology. Based on the European COMeSafety architecture for a vehicle-to-x communication system, the project develops a detailed specification for such a system and a functionally verified prototype. The prototype will be robust enough to be used in future field operational tests.
RCI	Road Charging Interoperability: Project funded by the European Commission to develop an open, integrated framework enabling road charging interoperability at a technical level based on key existing and planned road charging schemes in Europe
SAFESPOT	FP6 Project identifying how intelligent vehicles and intelligent roads can cooperate to produce a breakthrough for road safety
Viajeo	European project running from 2009 to 2012 that will design, demonstrate and validate an open platform which will facilitate data sharing and exchange from different sources and provide data processing and management to support a variety of services
WG	Working Group