

» About iCars Network

The aim of the iCars Network is to contribute to the deployment of Transport ICT technologies (or ITS – “Intelligent Transport Systems”) by exchanging knowledge and experience on these technologies among a wide variety of stakeholders on four specific topics, each addressed by a Thematic Group:

- » **Thematic group 1** – “Pre-commercial public procurement (PCP)” – deals with the use of the instrument of pre-commercial public procurement in the world of ITS development;
- » **Thematic group 2** – “Information and Awareness methods” – covers practices of dissemination of information and awareness actions on ITS among authorities, businesses and end-users;
- » **Thematic group 3** – “Impact Assessment Methods” – creating an overview of methods and evaluations of impact assessment methods for ITS;
- » **Thematic group 4** – “Energy Efficiency Roadmap” – developing a road map on the introduction of ITS technologies having a positive effect on energy efficiency in road transport.

 iCars Network



Intelligent Cars
Thematic Network

The project period of iCars Network was from 1 July 2008 till 30 June 2010.

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Funded by the European Commission

Results



» TG1 – Pre-commercial Public Procurement

Pre-commercial procurement of innovation refers to the procurement of technological innovation up to and including a first pre-commercial volume batch of products and / or services validated via field tests. Pre-commercial procurement of innovation involves direct public R&D investment in the first three phases (pre-commercial part) of a typical R&D project life cycle.

The definition of roadmaps for the pre-commercial procurement within iCars has been carried out to illustrate the challenges and practical questions that any procurer should address when applying PCP in the ITS sector.

Three roadmaps developed in the framework of this thematic group:

- Roadmap for the pre-commercial procurement of integrated ticketing;
- Roadmap for the pre-commercial procurement of solutions to address impaired driving;
- Roadmap for the pre-commercial procurement of a pan-European information and booking system for truck parking.



» TG2 – Information and Awareness

The main task of the thematic group was to identify information and awareness raising best practices performed by different stakeholders and to compile a shared knowledge of the effectiveness of various information and awareness activities in the ITS domain.

The first step was to compile an inventory of methods gathered from various stakeholders. Subsequently, a study and a summary description of the materials were drafted. As a last

step, recommendations towards public authorities, business-to-business stakeholders and end-users were formulated.

Among the most important recommendations are:

- increasing and implementing tax reductions and other financial incentives,
- enhancing deployment of public transport information systems,
- raising public and sales personnel awareness about availability of ITS including large-scale campaigns,
- ensuring an efficient cooperation between all stakeholders and consistency in providing information on current and future ITS.



» TG3 – Impact Assessment Methods

The catalogue on impact assessment methods is directed to anyone who is responsible for the impact assessment of the Intelligent Vehicle Systems (IVS) or uses results of the assessment of IVS, such as decision makers, developers and researchers. This catalogue is a first of its kind.

It provides a collection of methods systematically described and validated according to their main purposes and applicability. The document serves as a basis for further discussion, development and use of methods, and furthermore, contributes towards more reliable and valid use of methods.

The final catalogue includes description of 14 methods representing six impact areas; six methods to study behavioural effects were included, two for safety, two for environment, one for efficiency, one for mobility and two for socio-economic impact assessment. The life-cycle of an application is covered with the impact assessment methods. The report also provides indications of efficient use of methods, e.g. transferability of results and efficient method combinations.

At present, the safety impact assessment methods dominate the catalogue. The global goal to reduce CO₂ emissions

calls for new applications and impact assessment methods for the environmental impacts. In addition, mobility impact assessment was identified as a new area to be developed in future.



» TG4 – Energy Efficiency

The following areas are considered in the final roadmap:

Eco-Driving/Eco-Driving support: Saving potential of about 20% for 2020 car fleet, based on 2010 figures and about 10% with ITS solutions and driver feedback systems and corrective actions for busses and trucks. The advanced driving assistance systems (ADAS) will only contribute to energy-efficiency by 0.0064% reduction in fuel consumption, as they are designed to improve safety and not energy-efficiency.

Electrically chargeable vehicles: Introduction improves the drive train efficiency from 30% for ordinary drive trains to 70%. Expected market share in 2020-25 is from 5-15%, but additional ITS/ICT solutions related to electrical vehicles are marginal.

Public Transport: Public transport services can benefit between 3-10% in overall fuel consumption when implementing a general Fleet Management System (FMS) supported by ITS.

Traffic Management: With a widespread deployment of ITS cooperative systems (CS), traffic management in medium-large cities can save 15% of local total consumptions.

Access Management: Current Access Control schemes acting on limited urban flows have savings of less than 1%. Access control based on CS and integrated in Control Centers with appropriate EU27 legislation on urban road charging can raise savings to significant levels.

Full reports of the four thematic groups
can be downloaded from www.icarsnetwork.eu.