



COVER

Semantic driven cooperative vehicle infrastructure systems for advanced eSafety applications

COVER will foster the creation of the *next generation intelligent cooperative systems* that will make road transport more efficient and effective, safer and more environmentally friendly.



More Information:

www.ist-cover.org

Contact us:

Name: Petri Ellmén
Organisation: Tieliikelaitos
Telephone: +972-3-5684988
E-mail: petri.ellmen@tieliikelaitos.fi

Description of the work

COVER will develop cost-effective and interoperable semantic-driven cooperative systems, increasing road transport efficiency as well as supporting the implementation of advanced eSafety applications. In **COVER** system semantic technologies, intelligent agents, in-car and infrastructure sensor data, multi-channel communication technologies and context-aware and multimodal (voice/graphics) interfaces will be integrated.

The role of contexts will be central in **COVER** application. By exploiting the benefits of an ontology-based approach which allows context knowledge to be shared among different entities and reasoning about contexts, **COVER** will provide the needed abstraction from sensor data, to detect dangerous situations and trigger proper eSafety actions based for example on curvature radius or automatic road sign recognition.

The project's main focus will be on cooperation between the infrastructure and vehicles in order to support the driver and the vehicle to perform certain traffic related actions and increase infrastructure efficiency. In particular, the project will be engaged in the development of applications such as *intelligent speed adaptation*, including static, temporary and dynamic speed limits and *cooperative early information* that are shared in real time among vehicles and infrastructures.

The COVER Consortium gathers expertise from Road Infrastructure Operators, Research Laboratories, Ontology Research Centres, Telecommunication Operators, Multimodal Interaction Player as well as System integrators. This partnership will allow COVER to adequately define and implement cooperative systems by accessing the necessary expertise concerning road information services, automotive research, semantic technologies, multimodal context-aware interface and telecommunication services.

COVER will demonstrate different use cases of its vehicle – infrastructure cooperation platform through the organisation of two project field trials. These trials will be carried out in one Finnish corridor over E18 mainly devoted to professional (truck) drivers, and one motorway segment (Turin-Florence) in Italy, addressing non-professional drivers.

Project Acronym:	COVER
Project Reference:	IST-2004-027060
Contract Type:	Specific Targeted Research Project (STReP)
Start Date:	01/03/2006
Duration:	36 months
End Date:	28/02/2009
Project Cost:	4.137.330 €
EC project funding:	2.244.000 €

Participants:

The project is coordinated by Tieliikelaitos and consists of 10 partners: FINRE, MITRON, TURKU, SISU, CRF, INFOBLU, LOQUENDO, NETXCALIBUR, E4B and RIBES.