



CVIS

Cooperative Vehicle-Infrastructure Systems

CVIS aims to design, develop and test new technologies needed to allow vehicles to communicate with each other and with the nearby roadside infrastructure.

The project's ambition is to begin a revolution in mobility for travellers and goods, completely re-engineering how drivers, their vehicles, the goods they carry and the transport infrastructure interact. In this way, CVIS will increase road safety and efficiency and reduce the environmental impact of road transport.

More Information:

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Concretely, CVIS will develop:

- A standardised networking terminal enabling vehicle-to-vehicle and vehicle-to-infrastructure communication
- Techniques for enhancing vehicle positioning and improving local dynamic maps, using Galileo and the latest methods for location referencing
- New systems for cooperative traffic and network monitoring for use both in vehicle and roadside equipment, to detect incidents instantly and anywhere
- A range of innovative cooperative applications for driver assistance, traffic management, mobility services and commercial and freight transport.
- A toolkit addressing key non-technical challenges to deployment.

Helping vehicles and Infrastructure cooperate

With CVIS, drivers can influence the traffic control system directly, and get individual guidance along the quickest route to their destination. Speed limit and other road sign information, weather alerts, warnings of approaching emergency vehicles, and other urgent messages will be sent wirelessly to the vehicle and displayed to the driver. Emergency personnel will reach accidents faster, while traffic will be diverted away from an incident area. With CVIS technology, hazardous goods shipments can be tracked at all times and have priority along a pre-selected safe route.

All this is only feasible if there is full interoperability in the communication between different makes of vehicle and between vehicles and different types of roadside systems.

CVIS will build on the latest global communication standards to develop a world "first": a standardised networking terminal capable of connecting continuously and seamlessly using a wide range of communication media, including mobile cellular and wireless local area networks, short-range microwave (DSRC) or infra-red.

To validate the project's results, CVIS technologies and applications will be trialled at one or more test sites in seven European countries: France, Germany, Italy, Netherlands/Belgium, Sweden and the UK.

To ensure no major issues prevent widespread take-up or cooperative systems in the future, the CVIS project is also creating a toolkit to address key deployment enablers such as user acceptance, data privacy and security, system openness and interoperability, risk and liability, public policy needs, cost/benefit and business models, and roll-out plans for implementation.

Project Acronym:	CVIS
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Start Date:	01/02/2006
Duration:	48 months
End Date:	31/01/2010
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EC project funding:	21.905.795 €

Participants:

The project consortium includes 61 partners: 5T s.c.r.l, AVVC, Alcatel Alenia Space, ATC, ASF, BAE Systems, BMW, Robert Bosch, Imperial College London/Centre for Transport Studies, CNRS/Heudiasyc-Université de Technologie de Compiègne, Communauté Urbaine de Lyon, Cork Institute of Technology, DaimlerChrysler, Department for Transport, DLR, Dutch Ministry of Transport, Public Works and Water Management, EFKON, FEHRL, CRF, Gatespace Telematics, Highways Agency, HSVV, HTW, University of Applied Sciences Saarbrücken, Infoblu, INRIA, Intempora, Istituto Superiore Mario Boella, Kapsch TrafficCom, Laboratoire Central des Ponts et Chaussées, Lacroix Trafic, LogicaCMG, Mapflow, mm-lab, Ministerie van de Vlaamse Gemeenschap, Mizar Automazione, Mizar Mediaservice, NAVTEQ, Peek Traffic, POLIS, Provincie Noord-Brabant, PTV, Q-Free, RACC, RAMSYS, Renault, Siemens, SINTEF, Swedish Road Administration, Technolution, Telcordia Technologies, Tele Atlas, Telecom Italia, Thetis, Thomas Miller, TNO, Transport for London, TRIALOG, Vialis, Vodafone, Volvo Technology Corporation.

The project is coordinated by ERTICO and is led by a Steering Committee comprising: Swedish Road Administration (Chair), Volvo (Vice-Chair), ERTICO (Secretary), BMW, EFKON, Infoblu, LogicaCMG, Mizar Mediaservice, Peek Traffic, PTV, Q-Free, RACC, Siemens, Telecom Italia, TNO, Transport for London, Vialis.