

PROJECT

COVEL

Cooperative Vehicle Localization for Safe and Sustainable Mobility

Funding: European (7th RTD Framework Programme)

Duration: Jan 2010 - Dec 2011

Status: Complete

Total project cost: €3,455,321

EU contribution: €2,118,525



Call for proposal: FP7-GALILEO-2008-GSA-1

[CORDIS RCN : 206626](#)

Background & policy context:

The steadily increasing traffic density in Europe is causing enormous negative effects such as accidents or CO2 emissions. Especially in urban areas, traffic jams and other disturbances are daily phenomena. As the capacity of traffic infrastructure can only slowly be further increased, much more efficient traffic management is necessary to mitigate the negative impacts of road traffic.

Objectives:

The aim of the COVEL project is to develop and commercialize the Lane Navigation Assistant (LNA) – an in-vehicle device which will enable lane-level navigation and lane-level traffic management especially in urban areas. The LNA will use satellite positioning as its primary source, whereas these data will be augmented by correction information coming from the EGNOS system. The EGNOS data will be obtained from EDAS and broadcasted to the vehicles using standard Car2Car- / Car2-Infrastructure-communications. Furthermore, the satellite positioning will be enhanced by innovative algorithms for cooperative localization and map matching. The resulting lane-level vehicle positioning will bring navigation and traffic management to a new level of detail and effectiveness.

Methodology:

In order to achieve those challenging goals, COVEL will gather partners with outstanding expertise and a wide experience in the field of satellite navigation, communications, and traffic management. The consortium covers the complete value chain and is supported by a traffic management authority and a university.

COVEL has a clear intention to commercialize the project outcome and, thus, to provide an innovative end-user product which is based on EGNOS/EDAS. Furthermore, the project will conduct an active dissemination strategy with website and conference contributions and a special focus on live demonstrations. Finally, COVEL will directly contribute to standardization with a special focus on integrating EGNOS data into automotive communications.

Parent Programmes:

[FP7-TRANSPORT - Transport \(Including Aeronautics\) - Horizontal activities for implementation of the transport programme \(TPT\)](#)

Institute type: Public institution

Institute name: The European Commission

Funding type: Public (EU)

Lead Organisation:

Centro Ricerche Fiat - Societa Consortile Per Azioni

Address:

Strada Torino, 50
10043 ORBASSANO (TO)
Italy

Organisation Website:

<http://www.crf.it>

EU Contribution: €520,501

Partner Organisations:**Magneti Marelli Sistemi Elettronici S.p.a.****Address:**

VIALE ALDO BORLETTI 61/63
20011 CORBETTA
Italy

EU Contribution: €128,988

Centre D'etudes Techniques De L'equipement Du Sud Ouest**Address:**

Rue Pierre Ramond BP 10
33166 Saint Médard en Jalles
France

Organisation Website:

<http://www.cete-sud-ouest.developpement-durable.gouv.fr>

EU Contribution: €326,890

Technische Universitaet Chemnitz**Address:**

STRASSE DER NATIONEN 62
09111 CHEMNITZ
Germany

Organisation Website:

<http://www.tu-chemnitz.de>

EU Contribution: €483,900

Hitachi Air Conditioning Europe Sas**Address:**

Rue Grange Dame Rose
78140 Velizy Villacoublay
France

Organisation Website:

<http://www.hitachi.eu>

EU Contribution: €401,920

Here Global B.v.**Address:**

De Run
5503 Veldhoven
Netherlands

EU Contribution: €256,326

Technologies:

Advanced driver assistance systems
EGNOS-GNSS based measuring system for vehicles

Development phase: Research/Invention

STRIA Roadmaps:

Cooperative, connected and automated transport, Network and traffic management systems

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Digitalisation

Geo-spatial type: Urban