PROJECT

GNSSMETER

GNSS-based metering for vehicle applications and value added road services

Funding: European (7th RTD Framework Programme)
Duration: Jan 2010 - Jan 2012
Status: Complete
Total project cost: €633,225
EU contribution: €493,081

Call for proposal: FP7-GALILEO-2008-GSA-1
CORDIS RCN : 206628

Objectives:

The project develops a road pricing and pay per use insurance application system based on a vehicle on-board technology that can be integrated rapidly to an existing market product. At present, GPS is used as the primary positioning technology and is the key enabler of the present application. Within GNSSmeter, the existing system concept is extended by integrating EGNOS/EDAS integrity and augmentation data as well as Galileo measurements. The first Galileo signals will be processed and in the near future significantly increase the ability for metering calculation especially in urban canyons. Thus, the existing GPS-only receiver chipset will be replaced by an innovative miniaturised GPS/EGNOS/Galileo chipset supporting a tailored acquisition aiding functionality. Furthermore, PVT software which incorporates GPS, EGNOS and Galileo raw measurements, will handle and process several satellite signals and additionally will carry out several integrity checks to improve the necessary charging integrity which is required for liability critical services.

Methodology:

The PVT solution will incorporate augmentation data from EGNOS signal in space as well as EDAS and consider regional ERDS (EGNOS Regional Data System) data. The regional augmentation data has the advantage that it improves the standard EDAS data by the use of regional corrections to further improve the quality of the augmentation data. The metering calculation software will use the GNSS (GPS/EGNOS/Galileo) raw data forwarded by the PVT software for the already patent protected metering calculation which is further used for road pricing calculation. The calculated position, velocity, and time from the PVT software will be used to validate the extended metering calculation. Thus, the project proposes some significant advantages over the status quo that will be detailed in the remainder of this proposal. The scope of GNSSmeter addresses the topics vehicle applications with high public utility and vehicle value added services.

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:

Teleconsult Austria Gmbh
Address:
Schwarzbauerweg 3
8043 Graz
Austria
<table>
<thead>
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<th>EU Contribution: €174,881</th>
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**Partner Organisations:**

**Skymeter Limited**

**Address:**
St John Street 82
London
EC1M4JN
United Kingdom

**Organisation Website:**
http://www.skymetercorp.com

**EU Contribution:** €138,900

**Dke Aerospace Swiss Gmbh**

**Address:**
Technoparkstrasse 1
8005 Zuerich
Switzerland

**EU Contribution:** €74,400

**Centre De Tecnologia Aeroespacial**

**Address:**
Ed. Cubic – Av. Siglo XXI esq. Pso. de la Marina
08840 Viladecans (Barcelona)
Spain

**Organisation Website:**
http://www.ctae.org

**EU Contribution:** €104,900

**Technologies:**

- Satellite navigation
- EGNOS-GNSS data for insurance systems

**Development phase:** Research/Invention

**STRIA Roadmaps:** Network and traffic management systems

**Transport mode:** Road transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Digitalisation, Societal/Economic issues

**Geo-spatial type:** Other