Extended Driver Horizon

Digital maps have a large potential in road safety, they enhance or enable preventive and active safety applications by extending driver horizon. As predictive sensors called ADAS Horizon, digital maps are an additional source of information providing look-ahead capability for ADAS applications.

Motivation

The MAPS&ADAS subproject is driven by needs identified by the ADASIS Forum with regard to the use of digital maps as primary and/or secondary sensors for ADAS.
- The access to map data by applications other than navigation requires a standardised interface to avoid specific solutions dependent on OEMs and application suppliers.
- This will enable reduction of implementation costs and near future market introduction
- The production of ADAS maps require the procurement of ADAS attributes

Objectives

Within the PReVENT Integrated Project, the three-year MAPS&ADAS cross-functional subproject is developing, testing and validating appropriate methods in gathering, certifying and maintaining ADAS attributes to enable the provision of ADAS maps as well as a standardised interface between ADAS applications and ADAS map data sources for accessing map data regarding vehicle position. As a cross-functional subproject, MAPS&ADAS role is to support IP PReVENT vertical subprojects which intend to implement the ADAS Interface within their applications.

Main Results

MAPS&ADAS is contributing to the results at the IP PReVENT Level:
- ADAS Interface ready for implementation by IP PReVENT applications
- New methods for ADAS attributes acquisition, enabling cost-effective provision of accurate and up-to-date ADAS Maps, compliant to ADAS application requirements
- Provision of ADAS Maps for IP PReVENT application test sites (Lower Saxony, Torino, Valladolid and Gothenburg)
- Safety impact assessment of ADAS Maps
Applications

MAPS&ADAS is implementing applications in order to validate concepts developed in the subproject:

- Test container and visualisation module to test and validate the four ADAS Horizon Provider systems developed within MAPS&ADAS
- ACC (Active Cruise Control) to evaluate the ADAS Interface implementation within a commercial application
- Driver Warning System (HotSpot and Speed Limit Warnings) to assess the safety impact of ADAS Maps

Several IP PReVENT applications, SASPENCE, LATERAL SAFE, SAFELANE, WILLWARN and INSAFES, intend to implement the validated ADAS Interface and use ADAS Maps of IP PReVENT test sites produced within MAPS&ADAS.

Key Events & Milestones

MAPS&ADAS started in February 2004 and focuses on two main outputs at IP level:

- The ADAS Interface (November 2005)
- The ADAS Maps (January 2007)

Additionally, the project plans to contribute to a series of requirements, specifications, implementations, tests and validations over its 36-month duration.

Subproject Data

An IP PReVENT Phase 1 subproject: February 2004 - January 2007
Subproject budget: 5.575k euro

MAPS&ADAS Partners

Cooperation

A project in collaboration with
- ADASIS Forum www.ertico.com/adasisforum
- eSafety Forum Digital Maps Working Group www.escope.info
- MAPS&ADAS Public Authorities Consultation Platform.

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