

INFORMATION SOCIETY TECHNOLOGIES (IST)

PROGRAMME



Information Society
Technologies



AIDE
IST-1-507674-IP

Description of final demonstrators

Deliverable No.	D3.5.2		
SubProject No.	SP3	SubProject Title	Design and development of an Adaptive Integrated Driver-vehicle Interface
Workpackage No.	WP5	Workpackage Title	System Integration and Technical Verification
Activity No.	T3.5.1	Activity Title	System integration
Authors (per company, if more than one company provide it together)	Anders Agnvall, Gustav Markkula (VTEC), Maria Romera (SEAT), Natán Parra (SEAT), Stéphane Feron (PSA), Enrica Deregibus (CRF), Elena Bianco (CRF), Sergio Damiani (CRF)		
Status (D: draft, in progress, S: Submitted to EC, F: Final accepted by EC)	S		
File Name:	AIDE D3.5.2 v8.doc		
Project start date and duration	01 March 2004, 48 Months		

EXECUTIVE SUMMARY

This deliverable describes the three demonstrators built in the AIDE project. The purpose of the demonstrators is to:

1. Prove the technical feasibility of the AIDE system design.
2. Use the flexibility of the AIDE system to prove that different OEM/vehicle specific solutions can be obtained using the general AIDE system architecture.
3. Demonstrate the AIDE functionality.
4. Provide test vehicles for the AIDE system evaluation performed by AIDE SP2.

Three AIDE demonstrators and a test car have been built. The test car has only implemented a limited part of the AIDE system in order to study the technical feasibility of the system. The three demonstrators represent the following segments:

1. A luxury car (Fiat Croma).
2. A city car (SEAT Leon).
3. A commercial vehicle (Volvo FH12 truck).

The three demonstrators have implemented the entire AIDE system including I/O devices, Nomadic device gateway, Driver Vehicle Environment (DVE) modules and the Interaction and Communication Assistant (ICA) central HMI coordination module. Existing in-vehicle functions as well as some simulated or real additional functions have been integrated in the AIDE system solution. Examples of non-simulated new functions are safety functions such as Curve Overspeed Warning, Forward Collision Warning, Lane Keeping Support etc. Some of these have been developed within the PReVENT project.

This deliverable describes the demonstrators in terms of their functionality, the tuning of the AIDE system necessary to meet the requirements of the different demonstrators, and the conclusions drawn from the technical verification and feasibility study. Some minor further work on the ICA module is also reported in this deliverable.

The main conclusions from the work package can be summarized as follows:

- The AIDE system solution and logical architecture allows implementation of AIDE's envisioned HMI concepts of adaptivity and integration.
- The AIDE system solution and logical architecture can be implemented without unacceptable effects on timing/application responsiveness or bus loads.
- The general AIDE system solution and logical architecture can be flexibly tuned to allow a wide range of HMI designs, as is required in order to make it an acceptable solution to use for a wide range of different types and/or brands of vehicles.