

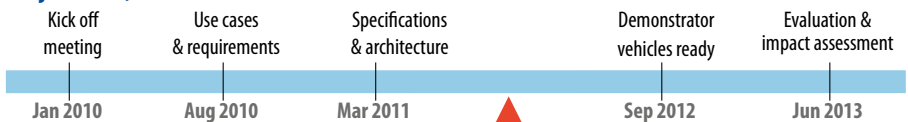
## Accident avoidance by active intervention for intelligent vehicles

### ■ Motivation and Objectives

The interactIVe project addresses the development and evaluation of next-generation safety systems for Intelligent Vehicles, based on active intervention. The project's vision is accident-free traffic realised by means of affordable safety systems for all vehicle classes in order to improve the safety of road transport. The key objectives are:

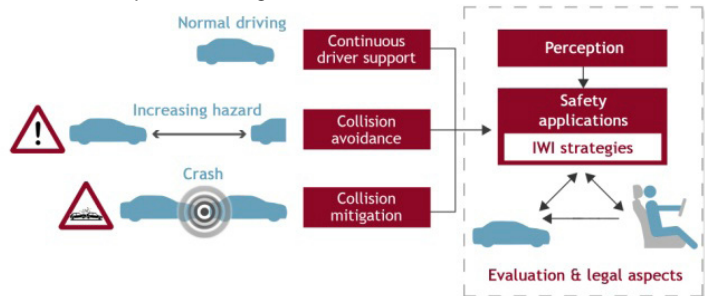
- Extend the range of possible scenarios and the usability of Advanced Driver Assistance Systems (ADAS) by multiple integrated safety functions and active interventions,
- Create an innovative model and platform for enhancing the perception of the driving situation,
- Improve decision strategies for active safety and driver-vehicle-interaction,
- Develop solutions for collision mitigation that improve the market uptake within lower-class vehicle segments and
- Further encourage the application of standard methodologies for the evaluation of ADAS.

### ■ Project Plan, Milestones and Deliverables



### ■ Technical Approach

- Derivation of specific target scenarios and use cases to be covered by interactIVe functions based on actual accident data.
- Definition of specifications and architectures to meet requirements, taking into account a common perception platform and a high level of integration of applications and sensors.
- Development and implementation of applications in seven demonstrator vehicles supported by innovative warning and intervention strategies.
- Evaluation and assessment of their benefit with focus on continuous support, collision avoidance, collision mitigation and user acceptance utilising innovative test tools.



### ■ Achievements

- Definition of requirements and modules of perception platform taking into account the needs of the applications. Definition of general architectural framework.
- Analysis of accident data and derivation of target scenarios.
- Definition of use cases by means of theatre techniques. Application of focus group discussions to consider user needs.
- Definition of requirements for safety-enhancing continuous support functions, integrated active intervention functions for collision avoidance, and cost effective emergency intervention for collision mitigation. Definition of a design-space for Human Machine Interface.
- Selection of tools and methods for the evaluation of active safety applications with focus on active intervention.

Budget	30 M€	Funding	17 M€
Duration	42 months	Start	January 2010
DG	INFSO	Contract n°	FP7/ICT 2009.6.1/246587
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Partners	29 partners, among them BMW, CRF, Daimler, Ford, VW, Volvo Cars, Volvo Technology		
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