

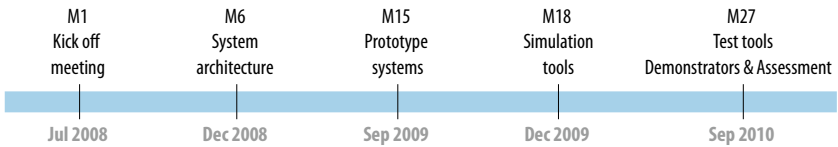
Preparation for driving implementation and evaluation of C2X communication technology

Motivation and Objectives

PRE-DRIVE C2X prepared a large scale field trial with vehicular communication technology. Based on the common European architecture for a vehicle to x communication system, defined by the task force on cooperative systems led by COMeSafety, PRE-DRIVE C2X developed a detailed specification for such a system and functionally verified prototypes robust enough to be used in field operational tests. All tools and methods necessary for functional verification and testing of cooperative systems in simulated environment and in real traffic scenarios have been developed.

Project Plan, Milestones and Deliverables

The figure conveniently summarises the results of PRE-DRIVE C2X paving the road towards a Europe-wide implementation of vehicle-to-x communication technology for a safe and sustainable mobility.

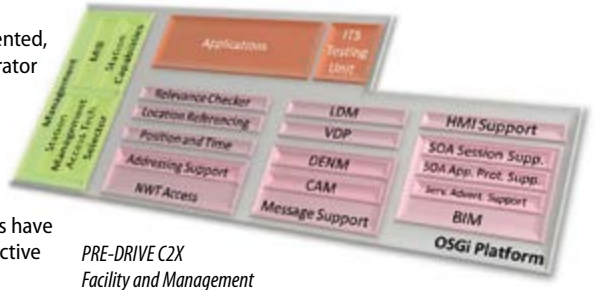


Technical Approach

- Development of a consistent system architecture for European cooperative driving systems
- Commonly agreed use cases for V2X communication systems
- Development of an integrated simulation tool set to assess all aspects of V2X
- Robust hardware and software components suitable for use in field operational tests.
- Verified methods and tools for field operational test and for simulations of V2X impacts.
- Start up of the design of a deployment roadmap for V2X applications.
- Demonstration, functional verification and impact assessment of the Common European Architecture for V2X

Achievements

- Consolidation of the harmonized European ITS communication architecture for cooperative systems: PRE-DRIVE C2X supported and leveraged the benefits of the architectural concepts and provided important measures to validate the architectural concept that is considered by ETSI TC ITS for standardisation.
- PRE-DRIVE C2X provided an integrated tool set that allowed a complete simulation and evaluation of the impacts of cooperative systems.
- PRE-DRIVE C2X specified and developed the components that are now available and are running in a number of demonstrator vehicles and road side units.
- PRE-DRIVE C2X provided a comprehensive testing infrastructure to support all aspects of system's verification and validation.
- Selected use cases have been implemented, tested and demonstrated on demonstrator vehicles and road side units. A public demonstration has been organised in September 2010.
- Start up of the design of a roadmap for future deployment of cooperative systems: three stakeholders' workshops have been successfully organised with the active participation of related stakeholders.



Organisational Information

Budget	8.43 M€	Funding	5.02 M€
Duration	27 months	Start	July 2008
DG	ICT	Contract No.	224019
Coordinator	Matthias Schulze, DAIMLER	Contact	matthias.m.schulze@daimler.com
Partners	24 partners among them AUDI, BMW, CR FIAT, DAIMLER, OPEL, VOLKSWAGEN, VOLVO Technology, Delphi, Hitachi, NEC, Renesas, SAP, PTV, ...		
Website	www.pre-drive-c2x.eu		