Cooperative Intersection Safety

Fact Sheet

Project Information

**INTERSAFE-2**

Grant agreement ID: 223951

**Status**

Closed project

**Funded under**

FP7-ICT

**Overall budget**

€ 6 502 283

**EU contribution**

€ 3 857 986

**Coordinated by**

SICK AG

Germany

Project description

ICT for Cooperative Systems

Today, most so called 'black spots' have been eliminated from the road networks. However, intersections can still be regarded as black spots. Depending on the region and country, from 30 to 60% of all injury accidents and up to one third of the fatalities are intersection related. This is due mainly to the fact that accident scenarios at intersections are among the most complex ones, since different categories of road user interact in these limited areas with crossing trajectories.

The INTERSAFE-2 project aims to develop and demonstrate a Cooperative Intersection Safety System (CISS) that is able to significantly reduce injury and fatal accidents at intersections.

The novel CISS combines warning and intervention functions demonstrated on three vehicles: two passenger cars and one heavy goods vehicle. Furthermore, a simulator
is used for additional RandD. These functions are based on novel cooperative scenario interpretation and risk assessment algorithms. The cooperative sensor data fusion is based on:

- state-of-the-art and advanced onboard sensors for object recognition and relative localisation (intersection reconstruction),
- a standard navigation map and information supplied over a communication link from
- other road users via V2V if the other vehicle is so equipped
- infrastructure sensors and traffic lights via V2I if the infrastructure is so equipped to observe the complex intersection environment.

As a result, the deployment of the INTERSAFE-2 system could provide a positive safety impact of 80% with respect to intersection related accidents with injuries and fatalities. Thus a total safety benefit of up to 40% of all injury accidents and up to 20% of all fatalities in Europe is possible.

The utilization of V2X communication for CISS at a small number of equipped intersections would boost the overall market penetration of communication in vehicles, since the benefit for those who buy first could be experienced at every equipped intersection.

**Field of science**

/social sciences/economics and business/business and management/commerce

**Programme(s)**

**Topic(s)**

**Call for proposal**

FP7-ICT-2007-2

**Funding Scheme**

CP - Collaborative project (generic)

**Coordinator**

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<th>SICK AG</th>
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<td>Address</td>
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Participants (12)

VOLKSWAGEN AG

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Activity type
Private for-profit entities
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