PROJECT

Compass4D

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Funding: European
Duration: Jan 2013 - Dec 2015
Status: Complete

Background & policy context:

Cooperative Intelligent Transport Systems (C-ITS) is an ever-growing field within the transport sector. C-ITS allows vehicles to communicate with other vehicles and with the road infrastructure. C-ITS services also advise drivers how to act within specific situations, for example when there is a hazard on the road ahead, or if the traffic light is turning red or an emergency vehicle is going to violate it.

Objectives:

The European project Compass4D focuses on three services which will increase drivers' safety and comfort by reducing the number and severity of road accidents as well as avoiding queues and traffic jams. Compass4D will also have a positive impact on the local environment by reducing vehicles' CO2 emissions and fuel consumption. Compass 4D has the following objectives:

- Specification of a methodology for the evaluation of the Compass4D services: road hazard warning systems, red light violation warning and energy efficiency intersection service;

- Development of measurement and assessment tools for safety, efficiency, sustainability, maintenance, traffic management, and driver-specific metrics;

- Evaluation of services' contribution to improved journey time reliability, reduced accident rates, improved energy efficiency, support for reductions in carbon emissions, and user acceptance/experience.

Methodology:

The project will pilot 3 C-ITS systems in seven cities across Europe. The cities are Bordeaux (France), Copenhagen (Denmark), Helmond (The Netherlands), Newcastle (UK), Thessaloniki (Greece), Verona (Italy), Vigo (Spain). The 3 systems that will be tested are:

The Red Light Violation Warning (RLVW) service will send messages that will increase drivers' alertness at signalled intersections in order to reduce the number of collisions or the severity of collisions should they still happen. This service will also address exceptional situations such as alerting other vehicles that an emergency vehicle is approaching or violating a red light.

The Road Hazard Warning (RHW) service will reduce the number and the severity of road collisions by sending warning messages to drivers approaching a hazard (obstacles, road accident, etc). The messages sent will raise drivers' attention level and inform them about appropriate behaviour in specific situations such as queues after a blind spot.

The Energy Efficient Intersection (EEI) service will reduce energy consumption and vehicle emissions at signalled intersections. Selected vehicles (Heavy Goods Vehicles, Emergency Vehicles, Public Transport) will be granted a green light when approaching the intersection, thus avoiding stops and delays. This service will also provide information to other drivers to anticipate current and upcoming traffic light phases and adapt their speed accordingly (GLOSA).

Parent Programmes:
[CIP - Competitiveness and Innovation Framework Programme](#)

Institute type: Public institution

Institute name: The European Investment Fund

Funding type: Public (EU)

Organisation: ERTICO

Organisation Website: [Organisation website](#)

STRIA Roadmaps: Cooperative, connected and automated transport

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Digitalisation

Geo-spatial type: Other