

The TEAM project

TEAM turns static into elastic mobility by joining drivers, travellers and infrastructure operators together into one collaborative network.

The vision is to use mobile devices such as smartphones to significantly **improve transportation safety and efficiency**, implementing environmental aspects.

This **includes all road users** – including passengers and pedestrians. In this way, drivers, travellers and infrastructure are meant to act as a team, adapting to each other and to the situation, creating optimised mobility conditions.

The success of the project will be demonstrated and validated via **innovative applications for end-users**.

The **project duration is four years**. It has started in November 2013.



TEAM consortium

Automotive

BMW Group
Research and Technology



VOLVO

Information & communication technology



DELPHI



NEC



NXP

RE:Lab



here

Infrastructure

RAMBOLL

infotrip

e-trikala



SWARCO TRAFFIC SYSTEMS GMBH



SWARCO MIZAR S.p.A.

Research



Project management & communications



Traveller & Driver applications

Collaborative adaptive cruise control (C-ACC)

Challenge: Improve existing Adaptive Cruise Control (ACC) systems that adjust a car's speed to maintain a safe following distance

Solution: Combination of sensor and traffic data information are exchanged between vehicles and infrastructure

Collaborative eco-friendly parking (EFP)

Challenge: Exploding parking demand and no access to real time information about parking availability

Solution: Involvement of motion detectors and sensors to identify parking space in a simple press-a-button-way

Collaborative driving and merging (CDM)

Challenge: More safety in situations where vehicles interact: lane change or lane merging, emergency braking, speed limit adaptation etc.

Solution: Tools that inform drivers about potential risks

Green, safe and collaborative driving serious game and community building (SG-CB)

Challenge: A serious game to support better driving through connecting collaborative TEAM applications and third parties

Solution: A gamified environment to exchange simple feedback between all participants about their current level of performance

Collaborative eco-friendly navigation (CONAV)

Challenge: Solve traffic jams while respecting individual citizens' mobility and community needs

Solution: Balance traffic load and relax traffic hotspots by calculating aligned, personalised routing



Infrastructure applications

Collaborative pro-active urban/inter-urban monitoring and ad-hoc control (CMC)

Challenge: Coordination of traffic control to reduce fuel consumption and emission levels

Solution: Instruments to build a comprehensive picture of the traffic situation

Collaborative co-modal route planning (COPLAN)

Challenge: Rapid interaction with the map database and display of complex data at Traffic Management Centres (TMCs)

Solution: Tools for visualisation, monitoring and traffic interaction

Co-modal coaching with support from virtual/avatar users (CCA)

Challenge: Reliable and exact information about true travel costs, travel times, trip alternatives and CO2 emissions

Solution: Virtual travels with an avatar

Collaborative smart intersection for intelligent priorities (CSI)

Challenge: Traffic flow optimisation

Solution: Priority for certain vehicles (i.e. buses), synchronisation of traffic lights and speed recommendations

Collaborative public transport optimisation (CPTO)

Challenge: Efficient public transport network, with reduced emissions and minimal operating costs.

Solution: Optimal bus routes and timetables computation

Collaborative dynamic corridors (DC)

Challenge: Bus lanes are needed only during peak traffic periods

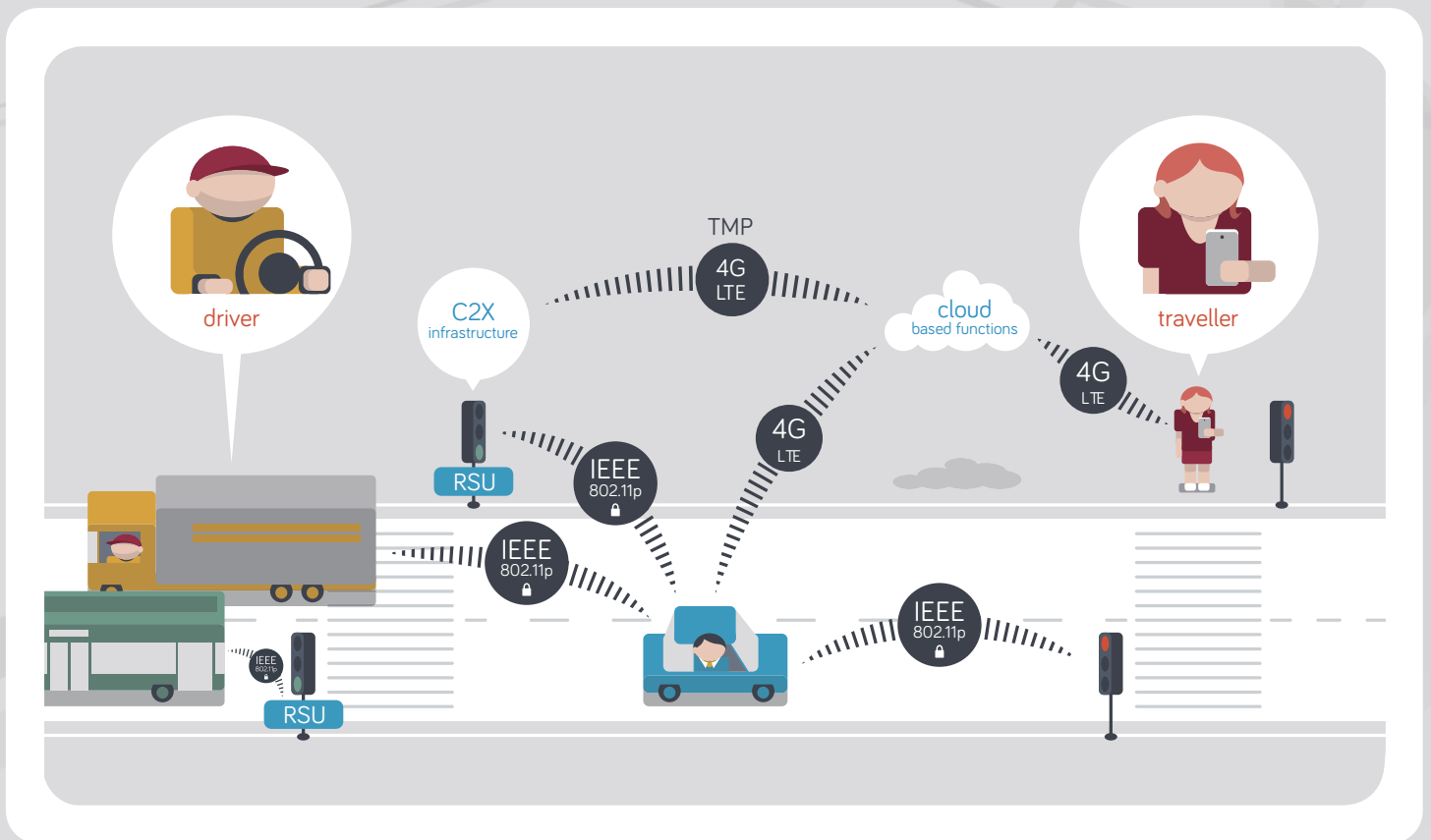
Solution: Corridors which are established in a dynamic way





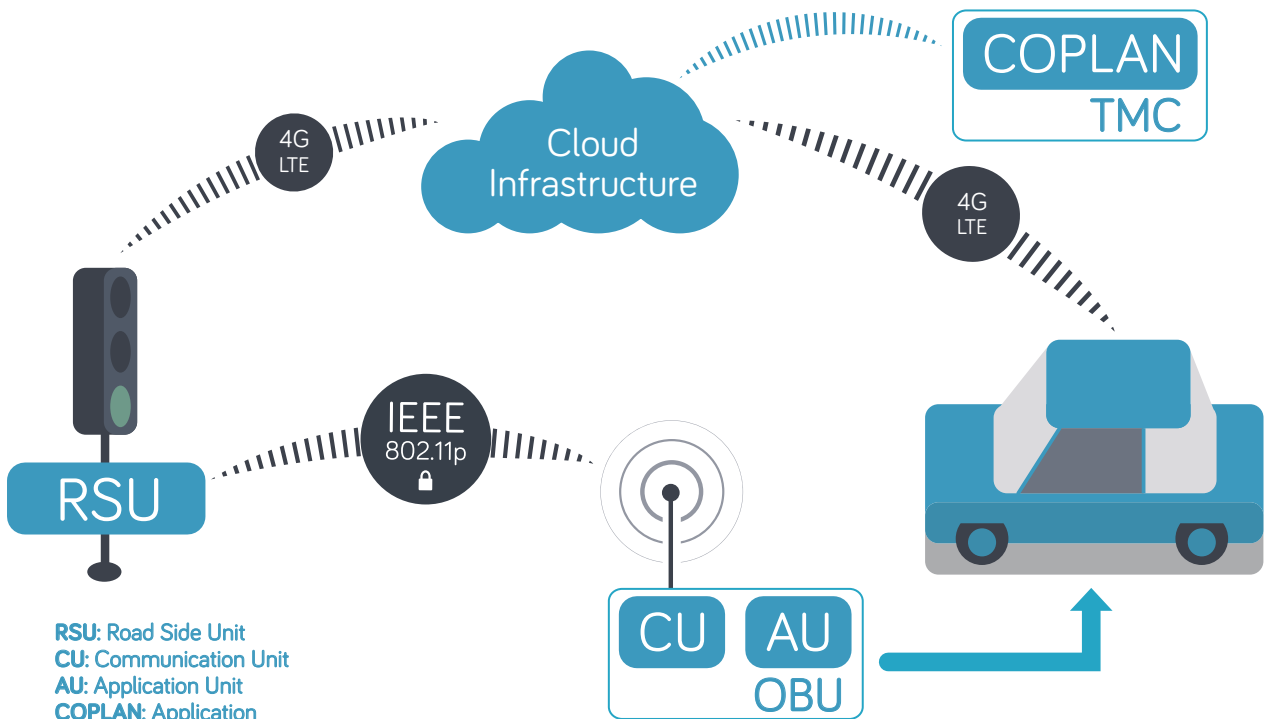
Infrastructure

For increased traffic
safety and efficiency





COPLAN infrastructure



RSU: Road Side Unit
CU: Communication Unit
AU: Application Unit
COPLAN: Application
OBU: On Board Unit
TMC: Traffic Management Centre