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.
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

www.collaborative-team.eu

This project is co-funded by the European Union
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
- **OBU**: On Board Unit
- **TMC**: Traffic Management Centre

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