Collaborative Driving as TEAMs

IT for Automotive – BITKOM Trendkongress
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Motivation

Vehicles and infrastructure can communicate already...
Motivation

Smart phones and cloud services will be connected, too.
Motivation

Next: Collaboration integrates and balances all stakeholder needs.
Vision

Achieving always optimal mobility conditions.

Targeting

• **Users:** Encouraging collaborative behaviour of travellers and drivers.
• **Infrastructure:** Making infrastructures adapt pro-actively and in real-time based on user needs.
• **Communication technologies**: Combining automotive communication systems with cloud technologies.
Approach

Four paradigms define the research concept.

(1) Elastic mobility
means a shift from a reactive traffic management to an permanent adaptive and collaborative traffic management.

(2) Window of interaction
refers to the real time needs of human decision making process between 5 seconds and 5 minutes.

(3) Participation
considers the needs and behaviours of road users in the technical systems of intelligent transport solutions.

(4) Collaboration
extends the cooperative concept of vehicle-2-x systems by integrating the user into a highly interactive and participatory network.
# Innovations

## Building the elastic mobility management system.

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<tr>
<th>Communication</th>
<th>Converged communication channels</th>
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<tr>
<td>Infrastructure</td>
<td>Distributed sensing and “best effort” balancing of needs according to local policies</td>
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<td>Data</td>
<td>Consolidated sensor input available in real-time</td>
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<td>Applications</td>
<td>Novel collaborative applications interconnected through automotive cloud</td>
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<td>Traveller/driver</td>
<td>Active participation and collaboration</td>
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Infrastructure stakeholders’ involvement

Including major municipalities from the beginning.

**Germany** – Berlin
Co-modality test in the large scale public transport system and urban traffic management applications

**Italy** – Turin and Trento province
Verification of the TEAM service continuity for the travellers and drivers community

**Sweden** – Gothenburg
Trials of interurban applications and vehicle to vehicle communication

**Greece** – Athens and Trikala
Test and demonstration of all FLEX applications

**Finland** – Tampere and Helsinki
Integration of DIALOGUE applications into real world infrastructure data
Consortium

Automotive

ICT

Infra-structure

Research

Other

Project presentation
### Team facts

**Duration:** 48 months  
November 2012 – October 2016

**Total budget:** 17.1 m€

**EU funding:** 11.1 m€

**Coordinator:** Fraunhofer FOKUS, Dr. Ilja Radusch

**Consortium:** 27 partners  
7 support partners

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