Current activities towards deployment of cooperative mobility services

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ERTICO - Who we are

» A platform for Partnership

» Advancing R&D and supporting the market introduction of ITS

» Fully Partner-driven, with organisations covering various sectors:
  › Industry
  › Infrastructure & telecom operators
  › Public authorities
  › Users
  › Others (research institutes, associations)
ERTICO - Vision (1)

Our vision: “Intelligent Mobility”

- Towards fully informed people
- Towards zero delays
- Towards zero accidents
- With reduced impact on the environment
  - where services are affordable and seamless
  - privacy is respected and
  - security is provided

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10 February 2010
What is Cooperative Mobility?
Cooperative Mobility
Networked road transport
Some European Activities on Cooperative Mobility
Cooperative Mobility Landscape (EU)

- EasyWay Cooperative Systems
- eSafety Working Group “Intelligent Infrastructure”
- Car2Car-Communication Consortium
- EU Field Operational Test
- SIM-TD
- SPITS
- FREILOT
- eCoMove
- CVIS
- COOPERS
- SAFESPOT
- GEO-NET
- CarTalk 2000 NoW...

2004 2006 2008 2010 2012 2014...

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Cooperative Mobility Landscape (EU)

Develop, validate, finalise, publish, service

Co-operation

CEN
ETSI (MoU with ERTICO)

Develop, agree, validate

Pre-deployment work
Field Operational Tests
Pilot projects
R&D

2004 2006 2008 2010 2012 2014...

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CVIS
Cooperative Vehicle-Infrastructure Systems & Services

CALM seamless communication mgt. for 3G, 5.9GHz, IR, GPS, Wi-Fi, DSRC...
CVIS Services
SAFESPOT
Cooperative Mobility for Road Safety

» SAFESPOT applications are based on V2V and V2I communication to:
  ➢ prevent road accidents developing a safety margin assistant to detect in advance potentially dangerous situations and extend, in space and time, drivers’ awareness of the surroundings

» SAFESPOT developed the core technologies to enable the exchange of geo-referenced safety messages and to update in real time navigation maps with relevant attributes for a safe and efficient driving

Pilot sites:
Italy, Sweden, the Netherlands, Germany, France and Spain
FREILOT
Urban Freight Energy Efficiency Pilot

» City authorities provide a certain level of priority to goods vehicles at intersections
  \[\text{Result} = \text{trucks stop less} + \text{improved overall traffic flow}\]

» Only goods vehicles equipped with acceleration/adaptive speed limiters and eco-driving support are eligible
  \[\text{Result} = \text{equipped trucks are more fuel efficient}\]

» In addition, the pilot cities will offer a service for efficient management of delivery spaces to these vehicles,
  \[\text{Result} = \text{avoid double parking and/or driving around the block}\]
FREILOT
Urban Freight Energy Efficiency Pilot

» Objectives:

➢ Show quantifiable benefits of the piloted services - the goal is: 25% of reduction of fuel consumption

➢ Ensure sustainable implementation

➢ Expand the implementation

Pilot sites:
Bilbao, Helmond, Lyon, Krakow
eCoMove Solutions

Wasted energy due to:
- Inefficient acceleration/deceleration
- Inefficient gear & engine speed
- Poor anticipation
- Congestion
- Poorly synchronised signals
- Choice of inefficient route
- Lack of know-how, motivation

ecoSmartDriving
ecoFreight & Logistics
ecoTrafficManagement + Control

Residual wasted energy

eCoMove savings target = 20% of total energy use

Energy consumption of “perfect eco-driver”

Energy consumption of “perfect eco-driver”

Situation today

The future

Hermann Meyer, ERTICO - ITS Europe

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Cooperative Mobility Showcase
Amsterdam, 23-26 March 2010

- Central TMC demonstrations at RAI
- Guided demo tours between RAI - Schiphol
- Safety demonstration track near Schiphol

www.cooperativemobilityshowcase.eu
Cooperative Mobility
Steps towards deployment

2006-2010

R&D
FP6, FP7

V2I communications

V2V communications

application proof-of-concept

first standards
core technology

2009-2011

early pilot projects

technology consolidation

first services for pre-deployment

assess effectiveness & business case

application standards

2011-2014

large scale FOTs

prototype technology

bundle of candidate first-day services

assess impacts, user acceptance, costs & benefits

first wave of products
Challenges for Deployment of Cooperative Mobility
Challenge to develop...

» Standards
» Organisational frameworks
» Liability framework
» Data protection framework
» Secure systems
» Demand for services
» Common deployment roadmap
...with(in)...

- Industry competition
- Many sectors
- 27 Member States
- Fragmented responsibilities in the Member States
- Several standardisation bodies
- Highly sensitive general public/customer
...to achieve this?
Thank you for your attention!
Let us continue to cooperate!