Organisation of the day

- 09:00 Coffee and open exhibition
- 09:30 Plenary session on FeedMAP concept
- 11:00 Open exhibition and demonstrations
- 14:00 Plenary session on FeedMAP results
- 15:00 Open Exhibition and demonstrations
- 16:00 Workshop ends
Plenary Session on FeedMAP concept

Welcome
  by A. Fuganti, Director CRF
Key notes from the EC
  by E. Holmberg, EC DG INFSO
Introduction on FeedMAP concept
  by M. Flament, ERTICO
Requirements and Specifications
  by F. Visintainer, CRF
Overview of the exhibition and demos
  by M. Landwehr, PTV
Plenary Session on FeedMAP results

Validation of Results
by B. Thomas, Navigon

Lessons learnt and future of FeedMAP
by H.U. Otto, Tele Atlas

Discussions
led by M. Flament, ERTICO
Key notes from the EC

Elina Holmberg,
European Commission
DG Information Society
FeedMAP Final workshop
9 October 2008

Elina Holmberg
European Commission
Directorate General Information Society and Media
ICT for Transport
Contents

- eSafety: Digital Maps for Road Safety
- EU research on Digital Maps
- The future: Next steps
The eSafety Initiative was launched in 2002 as a joint initiative of the European Commission, industry and other stakeholders.

It aims at accelerating the development, deployment and use of Intelligent Integrated Safety Systems that use Information and Communication Technologies in intelligent solutions, in order to increase road safety and reduce the number of accidents on Europe's roads.
The eSafety Forum

**Steering Committee**
Chairs:  
A. Vits – EC  
A. Van Zyl – ERTICO  
I. Hodac - ACEA

**Plenary Sessions**
**HL Meetings**

**eSafety Support**

**eCall**
Driving Group
Chairs:  
M. Nielsen – ERTICO  
W. Reinhardt – ACEA

**Real-Time Traffic and Travel Information WG**
Chair:  
Prof. G. Siegle – BOSCH

**Research and Technological Development WG**
Chair:  
Ulm Palmqvist – EUCAR

**Human Machine Interaction WG**
Chair:  
A. Stevens – TRL  
C. Gelau – BAST  
A. Pauzie – INRETS

**Accident Causation Analysis WG**
Chair:  
M. Hollingsworth – ACEA

**Implementati on Road Map WG**
Chair:  
H-J Mäurer – DEKRA  
Prof. R. Kulmala – VTT

**User Outreach WG**
Chair:  
J. Grill – AIT/FIA

**International Cooperation WG**
Chair:  
J. Baansgard – ERTICO

**Heavy-Duty Vehicles WG**
Chair:  
J. Trost – DaimlerChrysler

**Digital Maps WG**
Chair:  
A. Bastiaansen – TeleAtlas  
Y. Moissidis - Navteq

**Communications WG**
Chair:  
Uwe Daniel, Bosch
The objectives of the WG were:

• To define a business model for **public-private cooperation** to support the **creation, maintenance, quality assurance and distribution of safety attributes** that can be integrated into the digital map database.

• To define the requirements for a digital map database that contains road safety related attributes in addition to normal road map data.
Contents

• eSafety: Digital Maps for Road Safety

• EU research on Digital Maps

• The future: Next steps
A vision for the future: basic functions defined, but technology not available

Improving traffic systems efficiency: Traffic management: data – information - guidance

Deepening of the topics
Basic inputs to Standardisation (GDT, ATT Alert...)

Moving to Field trials

Moving to Cooperative Systems

Services and Safety Systems

IST 7th FP

IST 6th FP

IST 5th FP

TAP 4th FP

DRIVE 2

DRIVE 1

Prometheus (EUREKA)

Projects

**ActMAP 2002 – 2004, FP5 EC - DG INFSO**

**Objectives:**

- To develop a mechanism to deliver local up-to-date map components into in-vehicle applications (e.g. blocked road on the route)
- Start standardisation procedure for this mechanism

**Results:**

- Incremental map update format developed and demonstrated
- ISO standardisation proposal for map update exchange format and map updating mechanisms submitted 2005

http://www.ertico.com/actmap
**Projects**

**MAPS & ADAS 2004 – 2007, FP6 EC - DG INFSO**


**FeedMAP 2006 – 2008, FP6 EC - DG INFSO**

Objective: to build a cooperative map feedback and updating framework by using in-vehicle ADAS sensors to detect map anomalies.

These updates could be communicated to navigation applications using ActMAP mechanism, which would reduce the time needed to implement the changes in the road network in navigation systems.
**ROSATTE 2008-2010, FP7**

Objectives: aims to establish an efficient and quality-assured data supply chain of safety-related road attributes between public authorities and commercial map providers. It will produce an harmonised data exchange infrastructure.

[www.rosatte.eu](http://www.rosatte.eu)
• EU funded research: The evolution

• eSafety: Digital Maps for Road Safety

• The future: Next steps
Five proposed objectives address this challenge:

- **Objective ICT-2009.6.1:** ICT for Safety and Energy Efficiency in Mobility
  Call open November 2008

- **Objective ICT-2009.6.2:** ICT for mobility of the future
  Call open end of 2009
Mail Boxes:
INFSO-intelligent-car@ec.europa.eu
INFSO-eSafety@ec.europa.eu

ICT Work programme:
www.cordis.lu/fp7/ict

Strategic Research Agenda:
http://europa.eu.int/information_society/esafety/index_en.htm

eSafety on CORDIS website:
www.cordis.lu/ist/so/esafe

eSafetySupport website
www.eSafetySupport.org
Thank you
for your attention
Introduction on FeedMAP concept

M. Flament, ERTICO
From where are we coming and where are we going

- Strategic family of map-related projects funded by the EC
  - Improve digital content for ADAS and navigation applications.
Need to lower the time period between physical changes on the road and its distribution into vehicle map database
  => Create a map quality monitoring system
Need to improve data acquisition at all levels including on small roads as compared to what is done today
  => Add smart feedback functionalities to ActMAP

Smart, self learning maps through the ActMAP/FeedMAP framework
FeedMAP - Technical and commercial feasibility assessment of map data feedback loops applied to the ActMAP framework

FP6 STREP – EC DG INFSO

Duration: 30 months (March 2006 – September 2008)

Total budget / Funding: 3 618 k€ / 1 961 k€

Coordinated by ERTICO – ITS Europe

13 partners:
The FeedMAP concept

- Other content
- Creation
- Qualification
- Distribution
- Collection & Aggregation
- Comparison & Storage
- Navigation & ADAS Applications
- Driver / Sensors

Map centre & Public Authorities

ActMAP Service Centre

Map updates

Incremental Map updates

Map deviation alerts

Map deviation reports

Map data

FeedMAP Service Centre

Drive / Sensors

Slide 25
Deviation detection modes

- Autonomous Detection – no driver intervention is required
- Driver Assisted Detection – driver initiates map deviation report and contributes to content
- Joint Detection – drivers confirm or reject automatically detected map deviations
Detected deviations implemented in test sites

- Wrong or missing road geometry
- Inaccurate road altitude
- Inaccurate road slope
- Missing or outdated points of interest (Restaurant, Petrol Station, etc.)
- Missing or outdated traffic sign
- Gaps between road elements
- Real travel time differs from schedule
- The scenic attribute of roads does not match the real world subjective perception
- Lane information (number of lanes, lane width, allowed turns)
- Wrong information on traffic jams and road works
- Wrong or missing route guidance
- Incorrect map display
- Incorrect ADAS warning or action
- Real travel time differs from schedule
- The scenic attribute of roads does not match the real world subjective perception
- Missing or outdated point of interest (POI)
- Missing or outdated traffic sign – legal speed limit
- Incorrect map display
- Incorrect ADAS warning or action
Deliverables

Requirements
- D2.1 Preliminary Requirements
- D2.2 Final Requirements

Specifications
- D3.1 Preliminary Specification
- D3.2 ActMAP white paper
- D3.3 Revised Specification

Implementation
- D4.1 Test plan
- D4.2 Report on implementation

Testing
- D5 Test results

Technical and commercial Validation
- D6.1 Validation plan
- D6.2 Validation results
THANK YOU FOR YOUR ATTENTION!

For more information please visit and contact

www.ertico.com/feedmap/
FeedMAP_info@mail.ertico.com