SpeedAlert

For Everybody’s Safety and Mobility

Trafik- och Transport GIS

16 February 2006, Borlänge

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Chairman SpeedAlert Steering Group
In-vehicle speed limit information and warning systems can contribute to improve safety and mobility (in accordance with EC White Paper on European Transport Policy for 2010)

- The driver shall remain in control of the vehicle at all times, and is responsible for driving at a safe speed during the prevailing conditions
- System shall provide advisory speed limit information and assistance
- The fitting and use of any such system shall be voluntary

- May 2004-June 2005, partially funded by EC DG TREN

- Participants: **Co-ordinator** (ERTICO), **Industry** (NAVTEQ, TELEATLAS, PTV, BLAUPUNKT, BOSCH, EFKON, SIEMENS AG) and **Public Authorities** (France LIVIC/SETRA/CERTU - Germany BAnSt - the Netherlands AVV/KLPD - Sweden SRA - UK DfT)

- Consultation Group: 110 members representatives European stakeholders from EC, car industry, public authorities, research institutes, users…
Technical Building Blocks
Functional Architecture
Overview actor responsibility

**Data Collection, Generation & Update**
As owner of speed limit data, public authorities are responsible for its procurement and continuous update.

**Data Processing**
Integration of speed limit data from different sources involving map makers (static speed limit and incremental updates), traffic control centres (variable speed limit), and service providers (variable speed limit and incremental updates).

**Communication Infrastructure**
Communication channels for the provision of variable speed limits and update of static speed limits operated by service providers (broadcast/cellular) and road operators (short-range communication).

**In-vehicle Applications**
Applications developed by system suppliers and vehicle makers making use of speed limit information. In-vehicle speed limit information is beneficial for multi-use purposes including enhanced navigation and ADAS applications.
SpeedAlert Project Results

- Classification of speed limit categories (e.g. generic, static, variable, temporary) relevant to speed alert applications
- End-user system and service requirements
- Functional architecture and associated technical building blocks addressing the complete data chain from roadside speed limit information to in-vehicle applications
- Roadmap for deployment taking into account user needs, technical feasibility and available solutions
- List of recommendations to support successful implementation of speed alert applications
- Consolidation of broad consensus through:
  - Consultation Group and its dedicated workshops
  - Cooperation meeting with vehicle manufacturers
  - Liaison with relevant EC RTD-activities
Main recommendations

1. Ensure the **speed limit data collection, access and update** by means of appropriate cooperation between public authorities, map providers and service providers

2. Analyse the **Human Machine Interface** and evaluate how to interact with the driver (audio / visual / haptic interface) and other on-board applications

3. Develop and implement a **harmonised infrastructure-vehicle communication** that will enable a large range of safety and mobility related applications

4. Develop a **cost benefit analysis and business case** relevant to speed alert applications in order to validate the deployment roadmap and get commitment and support from all stakeholders
SpeedAlert deployment roadmap

- **Phase 1 – Autonomous system for static speed limits** 2006
  - Speed Limit attribute: limited coverage of road network with motorways and national roads initiated by map providers
  - First speed alert applications on the market in 2005 thanks to initiatives from public and private sectors.

- **Phase 2 – Enhanced autonomous system for static speed limits** 2009
  - Extension of speed limit data coverage including the majority of road categories accordingly to national road safety issues
  - Significant improvement of the speed limit data update process by means of incremental map update.

- **Phase 3 – Cooperative system for variable speed limits** 2015
  - Provision of variable and temporary speed limits by means of a harmonised infrastructure vehicle communication developed in the frame of cooperative systems.
  - Speed alert applications as a standard option in all new vehicles
Potential for a Growing Market

(Swedish example) (9 million inhab.)

<table>
<thead>
<tr>
<th>Level of action</th>
<th>Organisations</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport quality discussions initiated</td>
<td>350</td>
<td>800 000</td>
</tr>
<tr>
<td>Action plans established</td>
<td>180</td>
<td>400 000</td>
</tr>
<tr>
<td>Traffic-safety program/policy including speed</td>
<td>104</td>
<td>131 000</td>
</tr>
<tr>
<td>Have taken speed related actions</td>
<td>61</td>
<td></td>
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<tr>
<td>Started SpeedAlert implementation</td>
<td>10-15</td>
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>30% of transports are contracted
Chose the easy way

Traffic Safety-impact

Compulsory
Complex

Warning

Informative
Simple

Low acceptance
High Cost
Unsolved questions
Next Steps

Objectives of SpeedAlert Forum

- To be the reference activity with all stakeholders to support and promote European-wide implementation of in-vehicle speed alert applications
- Coordinate research on next speed alert generations
- Benefit from the success of SpeedAlert Committee and SpeedAlert EC Project to consolidate consensus and increase momentum
- Monitor progress on SpeedAlert recommendations and policy work at European level
- Support deployment of speed alert applications

1st Workshop on 31 January 2006 in Brussels at ERTICO
On-going Activities

- **eSafety Digital Maps Working Group**
  - Public private cooperation to enable provision of safety attributes

- **ADASIS Forum**
  - MAPS&ADAS User Forum
  - Industry driven activity to support market introduction of map supported ADAS applications
  - Commercial Vehicle Task Force

- **MAPS&ADAS and P.A. Consultation Platform**
  - Standardised interface between ADAS applications and map data
  - List of attributes for map-based ADAS applications
  - Data sourcing and qualification