



MAPS&ADAS

ADAS Horizon – How digital maps can contribute to road safety

Vincent Blervaque
Head of Deployment Department
ERTICO – ITS Europe



Role of Maps for ADAS



Benefit from the large success of navigation to extend use of digital maps for **safer, smarter and cleaner** road transport

| Map-based ADAS <i>Primary sensor</i> | Map-supported ADAS <i>Secondary sensor</i> |
|--|---|
| Speed Limit Assistance (e.g. Speed Alert) | Advanced front-lighting system |
| Curve Warning | Adaptive cruise control |
| Predictive Powertrain Control / Fuel saving | Lane keeping assistance |
| Intersection Assistance | Lane Change Assistance |
| Enhanced Navigation | Stop & Go |
| Accident “Hotspot” Warning | Collision avoidance |
| Dynamic Pass Prediction | |



Motivation from Industry



- First map-supported series application on the market
 - Map-supported ACC, Gearbox control, Suspension control
 - Use of navigation digital maps
- Ensure provision and update of safety related content to be integrated into digital maps
 - More accurate geometry (e.g. curves)
 - New geometry (e.g. slopes)
 - New road attributes (e.g. lane information)
- Standardisation of the ADAS Interface
 - Avoid multiple specific OEM/Supplier/ADAS interface
 - Reduction of implementation cost
 - Accelerate market introduction

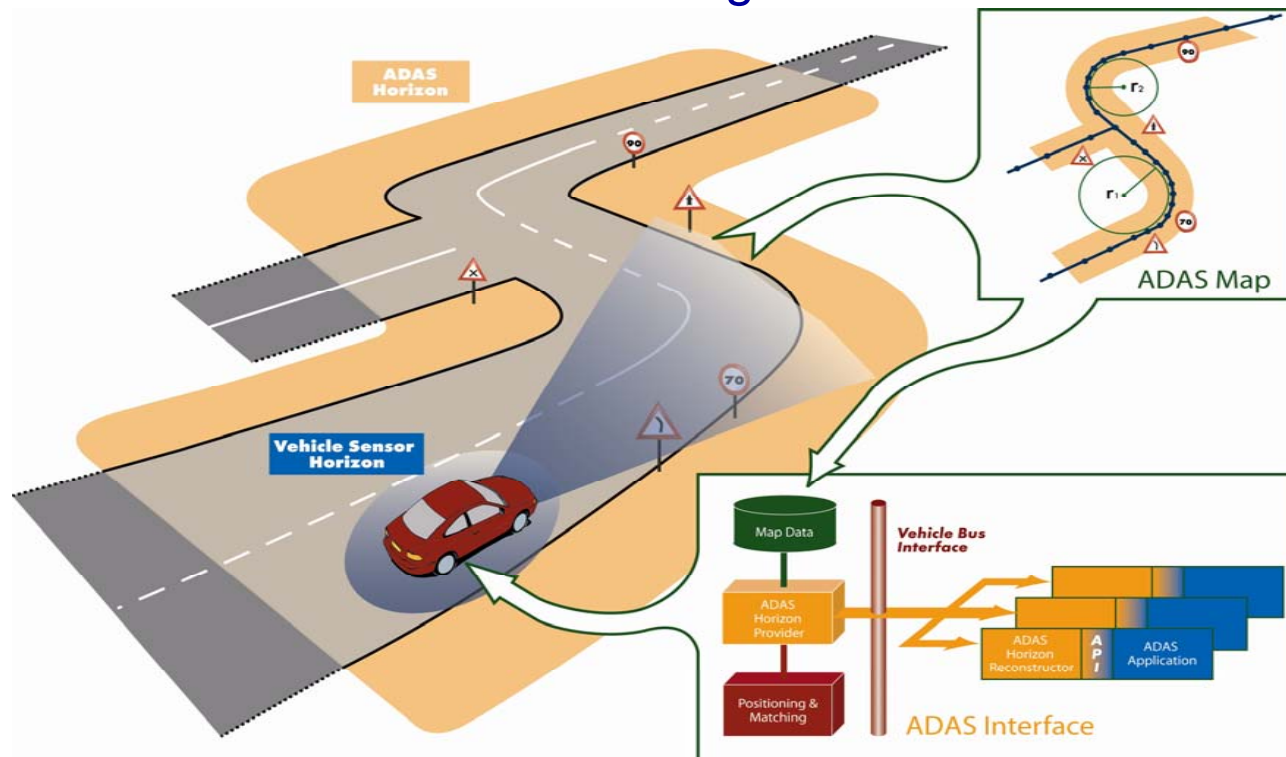


ADAS Horizon concept



“See” around corners !

Consider digital maps as a **predictive sensor** that extend driver horizon and in-vehicle sensors range



Relevant Initiatives in Europe



MAPS&ADAS project (part of **PREVENT IP**) co-funded by the European Commission DG INFSO (Feb. 2004 – Oct. 2007)



ADASIS Forum set up in 2002 as a self-funded industry initiative



MAPS&ADAS Consortium



Coordinator



Vehicle Makers



DAIMLERCHRYSLER



VOLVO

System Suppliers



Map Providers



Tele Atlas

SME



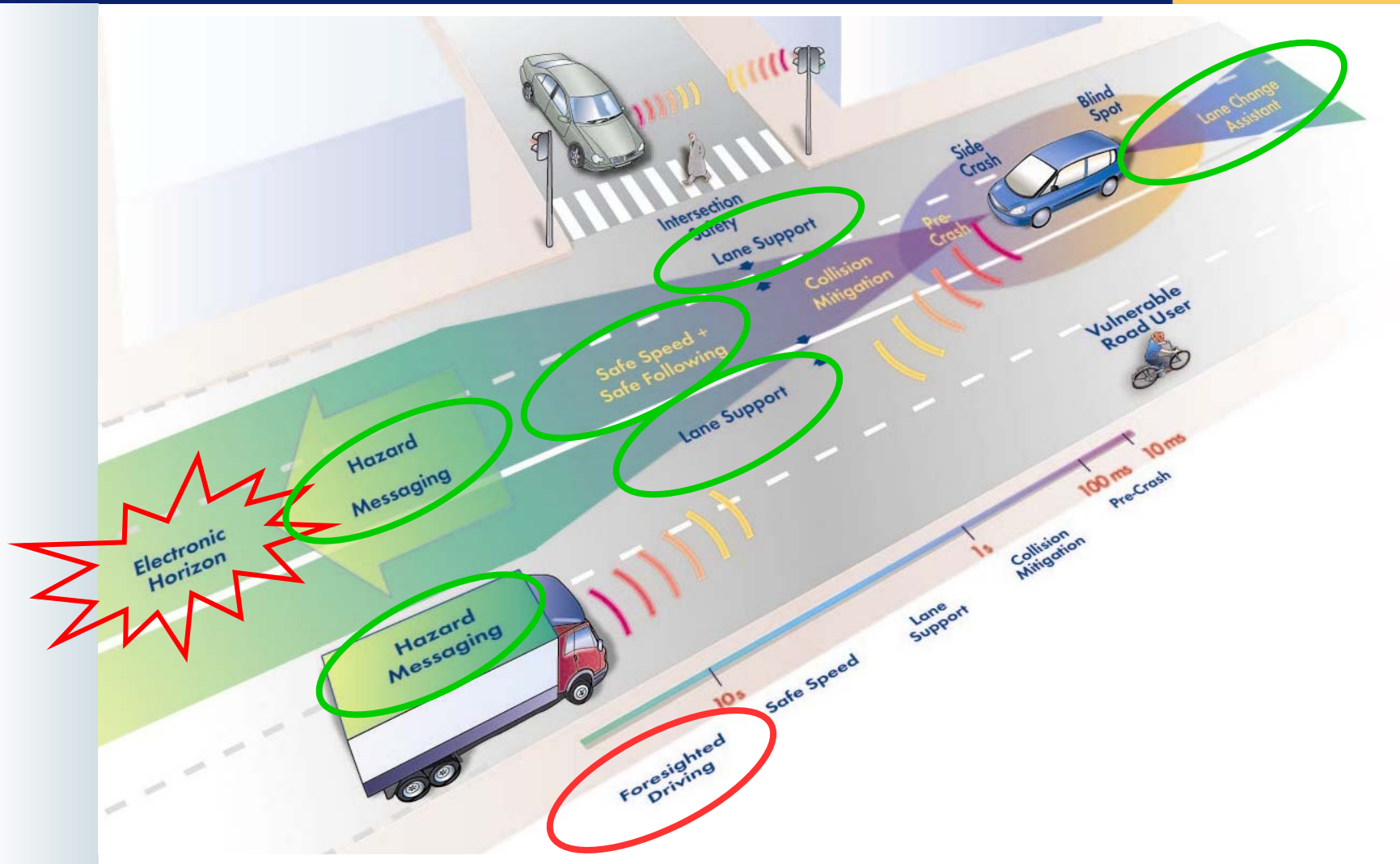
University



Public Authority



Role of Maps within IP PReVENT

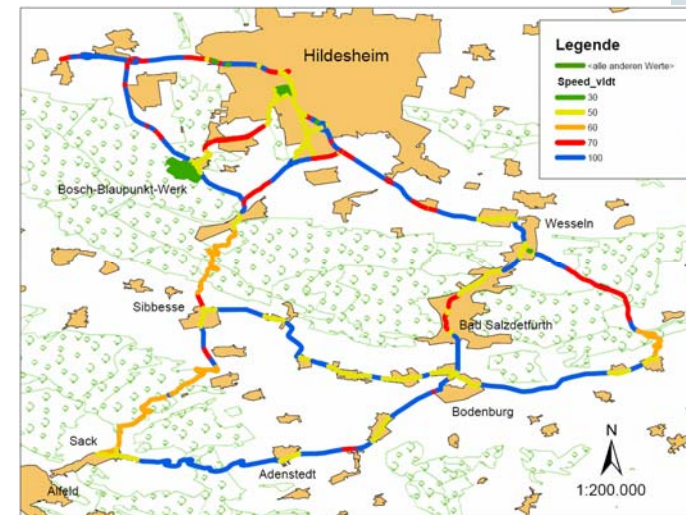


Main Achievements



■ ADAS Maps

- List of attributes to be integrated into maps
- Extension of GDF exchange format
- Data Sourcing
- Cooperation with Public Authorities
- Qualification and Business Model
- PReVENT Test site maps



■ ADAS Interface

- Interface Specifications ready for standardisation
- Four prototype ADAS Horizon Provider Systems
- Reference Implementation on the ADAS application side
- ADAS Interface implemented by IP PReVENT Vertical Subprojects



Conclusions



Digital Maps have large potential to enable / enhance ADAS applications for **safer, smarter and cleaner** road transport.

The **ADAS Horizon** concept offers a great opportunity to extend use of navigation system platform.

MAPS&ADAS and the ADASIS Forum are the European Reference activities on ADAS maps and ADAS Interface aiming to:

- *Promote **Standardised** ADAS Interface between map data sources and ADAS applications*
- *Support **production and update** of ADAS maps in compliance with ADAS application requirements*
- *Ensure **provision and maintenance** of safety attributes by means of **appropriate public/private cooperation***
- *Enable and accelerate **market introduction** of map based / map supported ADAS applications*





Thank you for your attention

More information, please visit web sites

http://www.prevent-ip.org/maps_adas

<http://www.ertico.com/adasisforum>



Contacts:

Vincent Blervaque
Europe

Head of Deployment Department

MAPS&ADAS Subproject Coordinator

ADASIS Forum Coordinator

v.blervaque@mail.ertico.com

ERTICO – ITS

