

Intelligent Transport Systems and Services a solution to improve road safety



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European Transport Policy for road safety

Challenges

- More than 41.000 deaths on the roads (EU25-2005)
- 1.7 million injured persons (EU25-2005)
- Human error is involved in 93% of the accidents



Goal

- Halving the number of fatalities from 2001 level by 2010 (25.000 for EU-27)

EC Initiatives to support ITS development and deployment to improve road safety

- eSafety and Intelligent Car Initiative
- EasyWay
- EC ITS Action Plan

The Intelligent Car Initiative: From passive to integrated system approach

Intelligent Car Systems

new solutions contributing to solve societal challenges related to transport:

Reduce the number of fatalities and injuries on the roads by alerting the driver of dangers

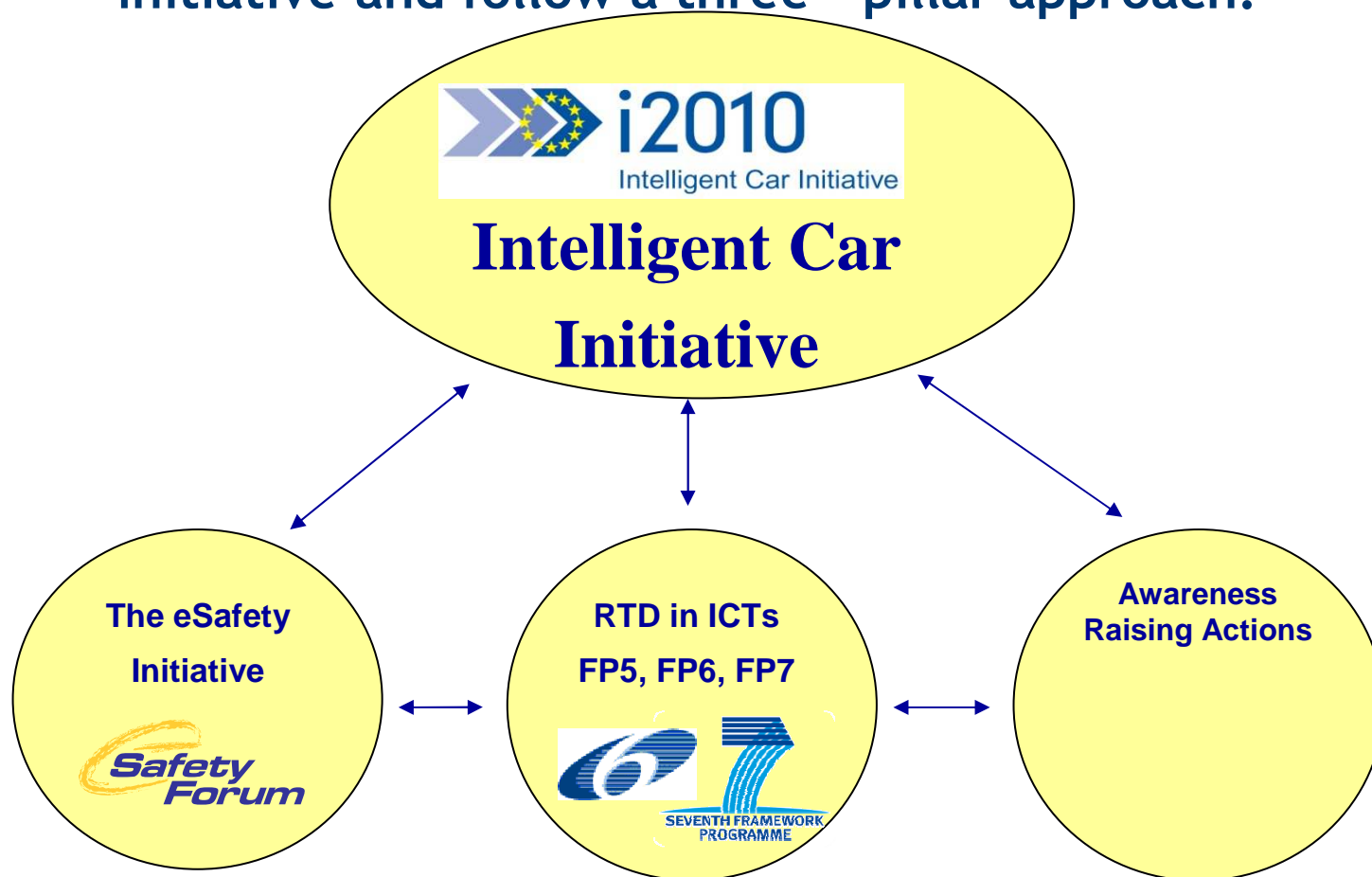
Increase overall performance of the transport systems by providing real time information

Contribute to a more efficient use of fuels by better vehicle and traffic management



eSafety and the Intelligent Car initiative

The i2010 Intelligent Car Initiative builds on the work of the eSafety initiative and follow a three - pillar approach:



(1) The eSafety Initiative and the

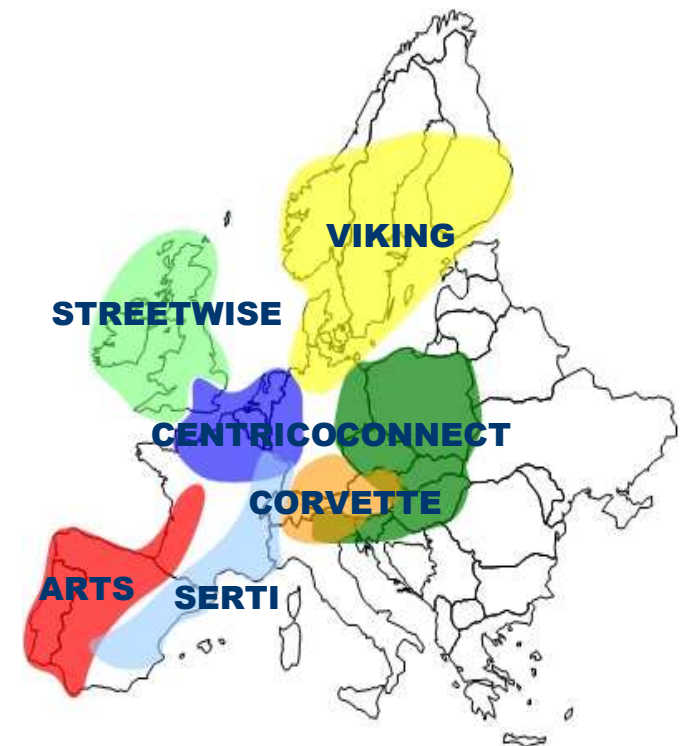


(2) RTD in Information and Communications Technologies

(3) Awareness raising Actions

The EASYWAY project

- ... to foster pan-European harmonized deployment of ITS on the TERN & its interfaces with other transport modes...
- by enhancing concertation and synchronized actions
- in the area of Traffic Management, Traveller Information Services, Freight & Logistics
- financially supported by the EC under the Multi Annual Programme
- > 21 Member States participating



EC ITS Action Plan

- Published on 16 December 2008 (DG TREN, INFSO, RTD, ENTR, ENVIR) and approved with amendments by European Parliament on 22 April 2009
- Main priorities
 1. Optimised use of road data and traffic data (including circulation plans)
 2. European Road Traffic Management
 3. Road Safety and Security
 - Promotion of deployment of advanced driver assistance systems and safety and security related ITS systems
 - Support the Implementation Platform for the harmonised introduction of pan-European eCall
 - Development of a regulatory framework on a safe on-board Human-Machine-Interface and the integration of nomadic devices
 - Development of appropriate measures including best practice guidelines concerning the impact of ITS applications and services on the safety and comfort of vulnerable users
 - Development of appropriate measures including best practice guidelines on secure parking places for trucks and commercial vehicles
 4. Integration of vehicle into the ITS system
 5. Data security, protection of individual's data and liability
 6. European ITS concertation and coordination

ITS applications to improve road safety

■ Vehicle Safety

- Active safety
- Preventive safety
- Cooperative safety

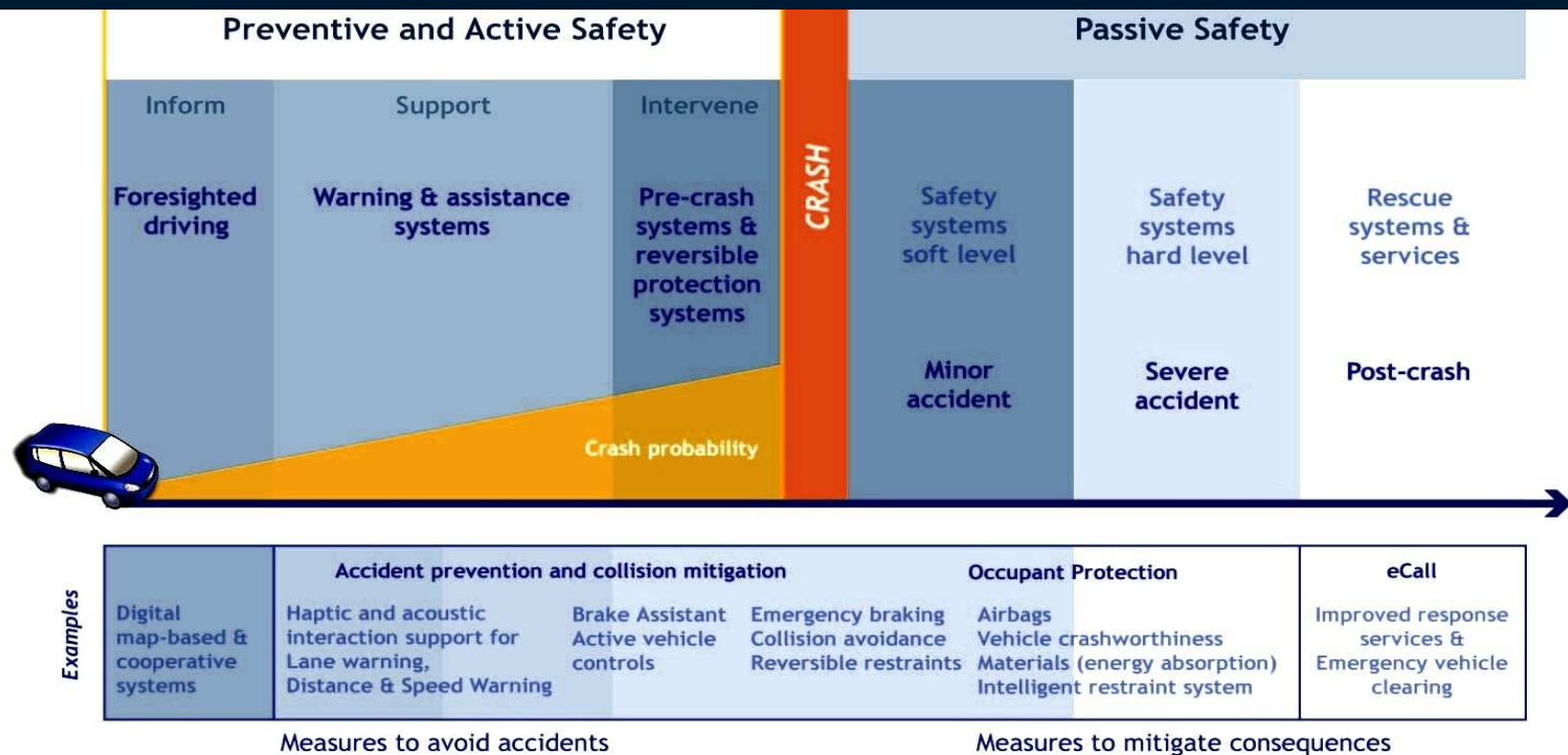
■ Infrastructure safety

- Traffic management
- Traffic information
- Incident & Hazard Detection
- eCall

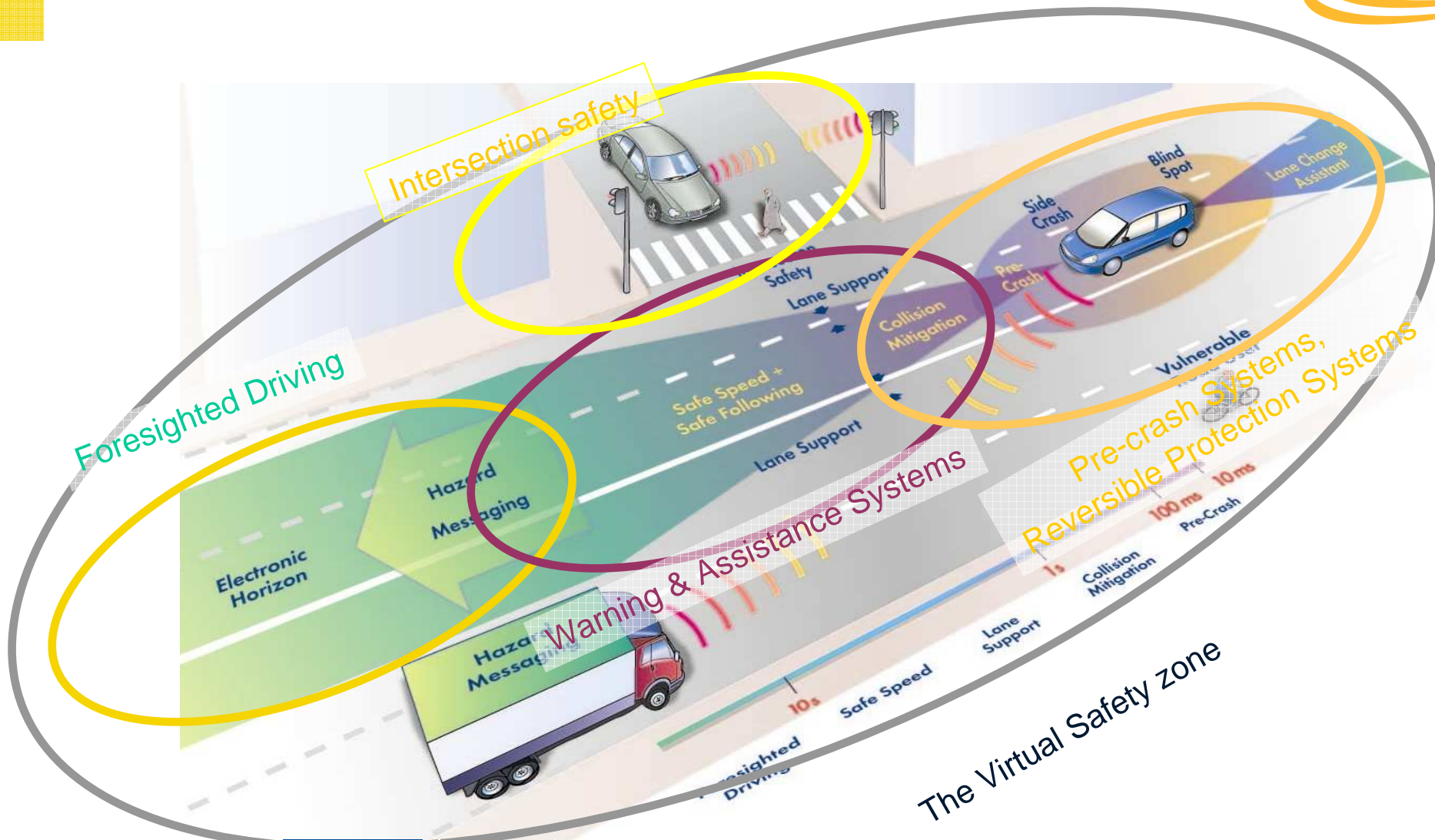
Time To Collision Concept



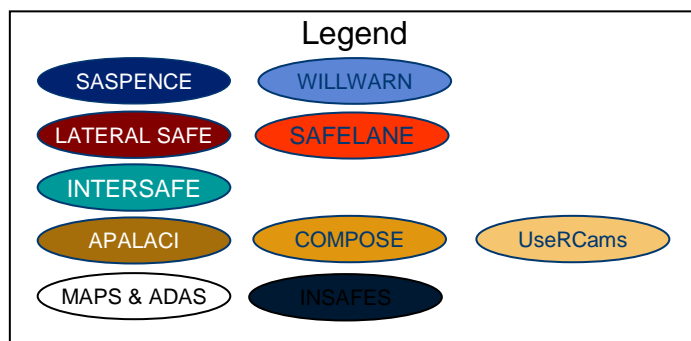
Harmonised progression of interventions and integration of preventive, active and passive safety



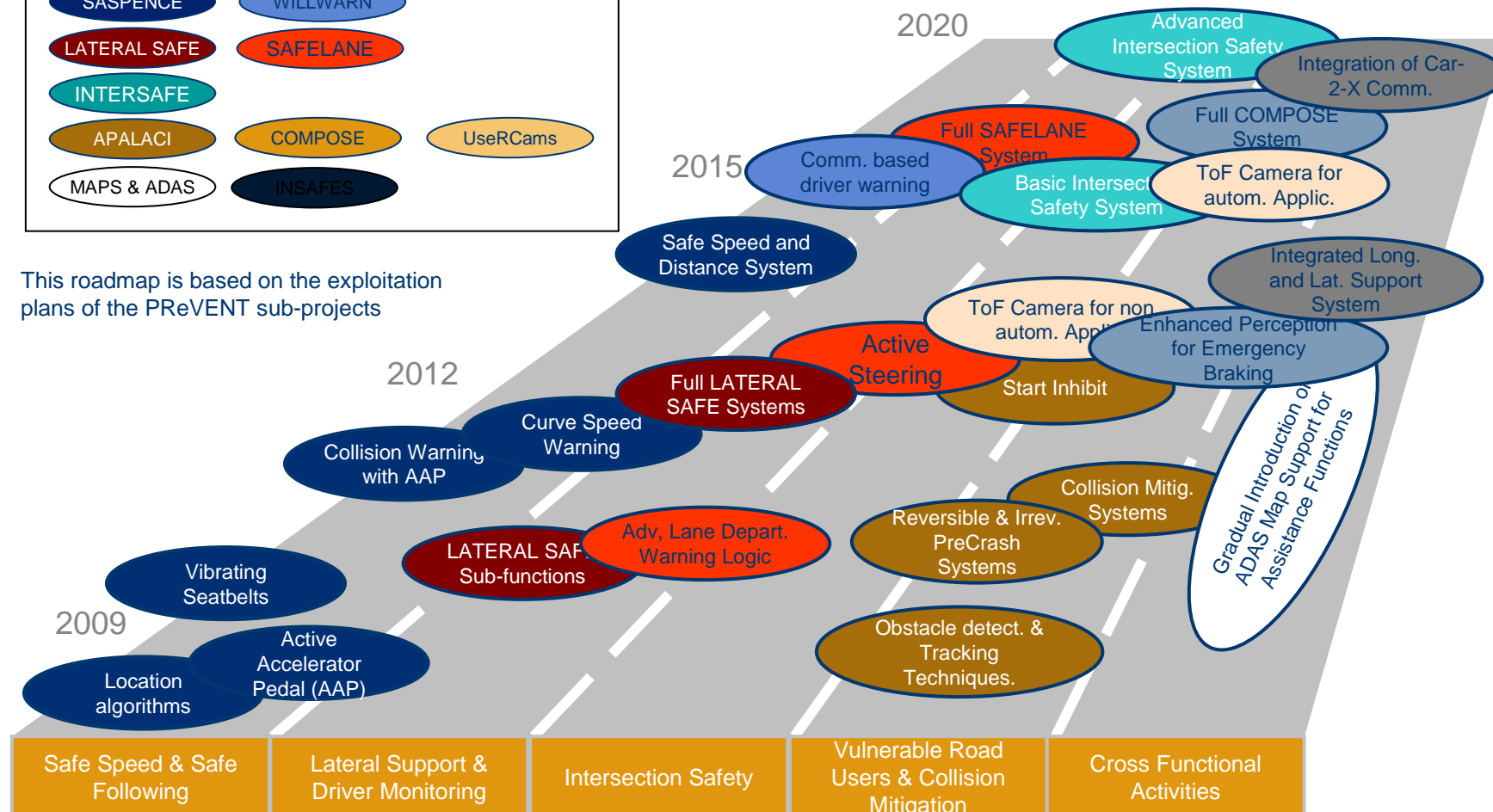
The „virtual safety belt“ concept



ADAS Deployment Roadmap



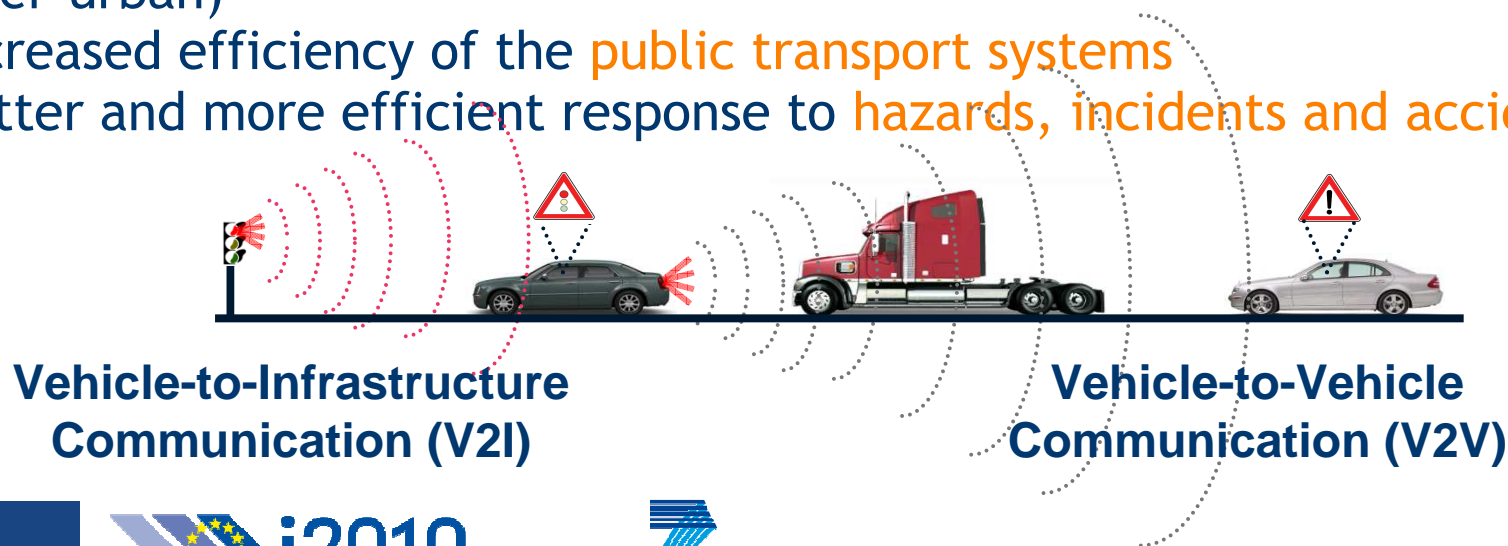
This roadmap is based on the exploitation plans of the PReVENT sub-projects



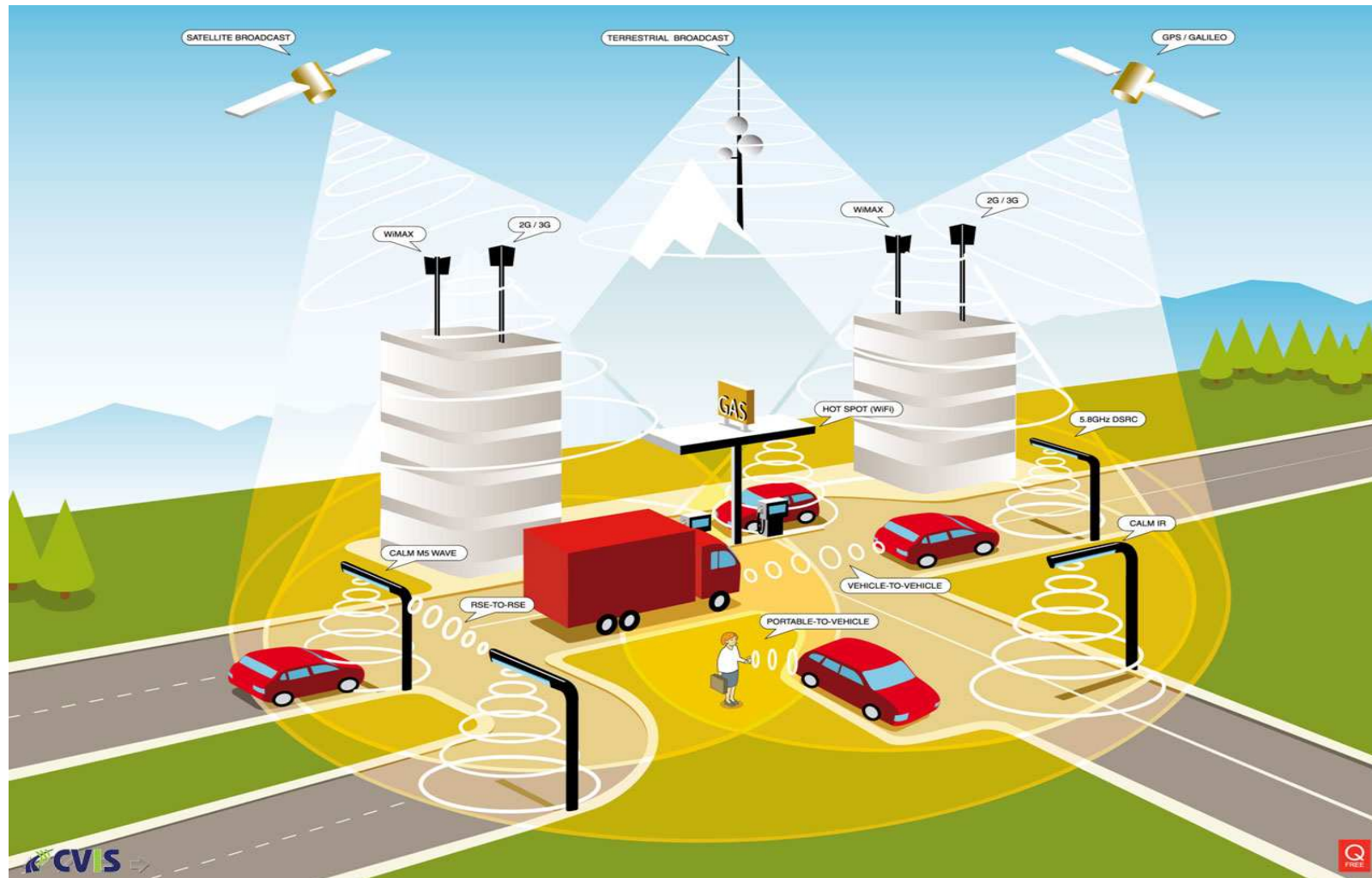
Co-operative Systems

The Potential

- The potential benefits include:
 - increased road network **capacity**
 - reduced **congestion** and **pollution**
 - shorter and more predictable journey times
 - improved traffic **safety** for all road users
 - lower vehicle **operating costs**
 - more efficient **logistics**
 - improved management and control of the **road network** (both urban and inter-urban)
 - increased efficiency of the **public transport systems**
 - better and more efficient response to **hazards, incidents and accidents**



Cooperative Systems Communication Infrastructure



Cooperative Systems Safety Applications



Vehicle based

Lateral Collision Prevention
Longitudinal Collision Prevention
Road Departure Prevention
Vulnerable Users Protection



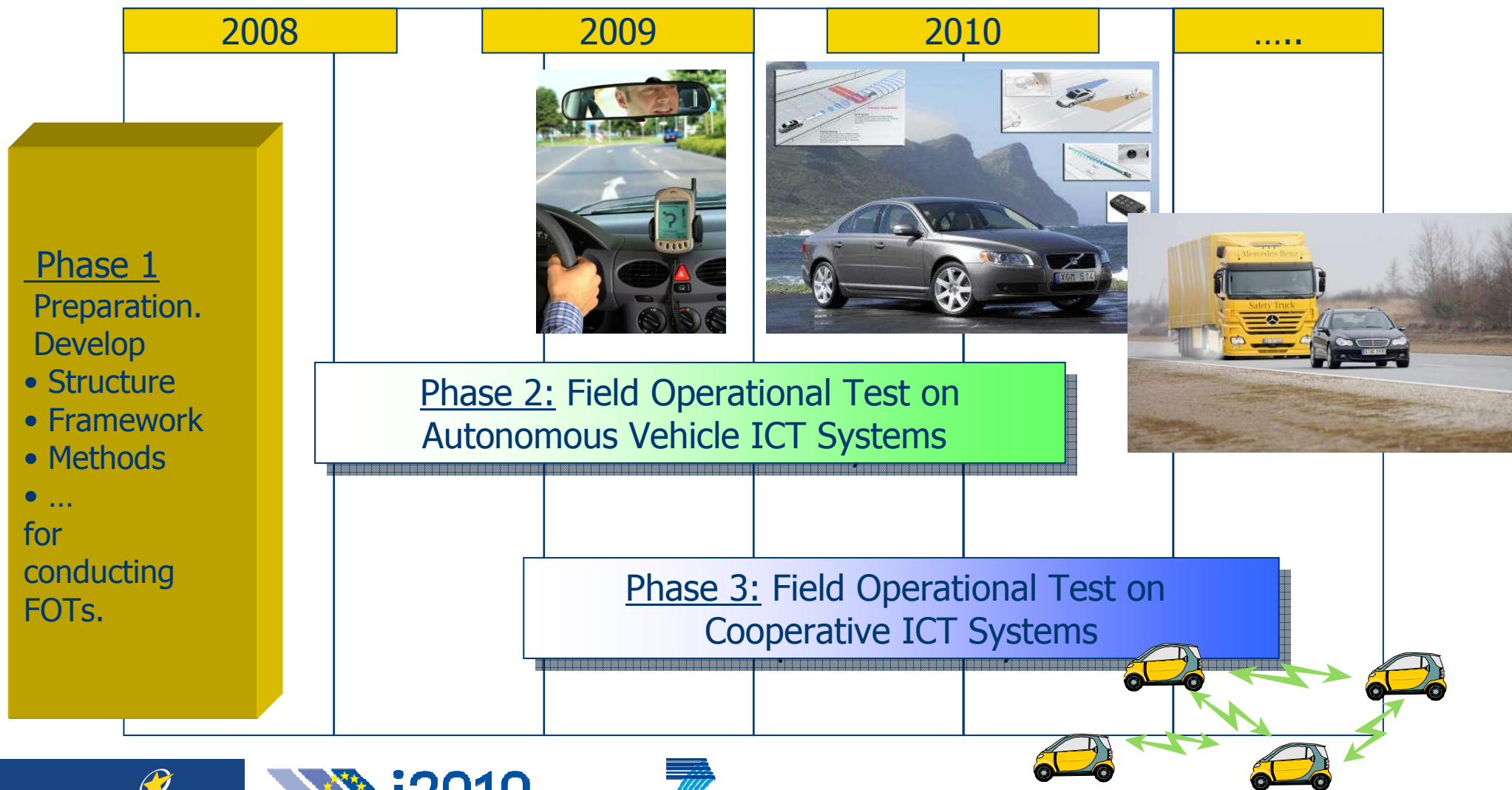
Infrastructure based

Speed Alert
Road Departure Prevention
Safety Margin for Assistance and Emergency Vehicles
Co-operative Intersection Collision Prevention System
Hazard and Incident Warning



Field Operational Tests (FOT)

Evaluation of ICT functions and their effects in real traffic



ERTICO - Partners



Partners

Public-private, multi-sector partnership with over 100 Partners from five sectors:

- Industry (OEMs & suppliers, system & software suppliers, map providers, insurance, traffic & transport management)
- Infrastructure Operators (telecom, toll operators, service providers)
- Public Authorities (relevant administrations from EU Member States & other countries)
- Users (automobile associations)
- Others (industry associations, research institutes, technology centres)

ERTICO - vision



Vision

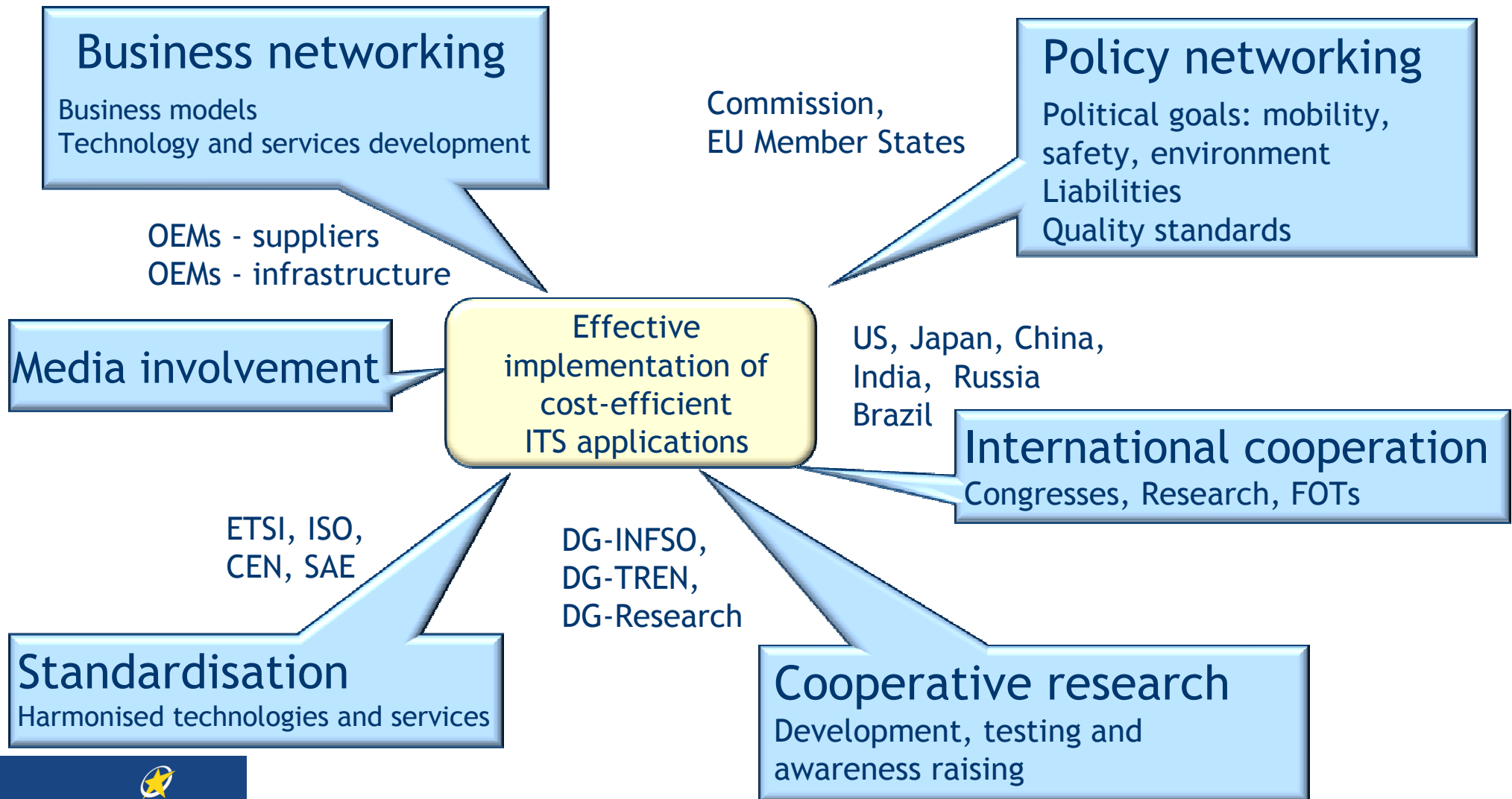


Promoting “Intelligent mobility”

- Towards zero accidents,
- Towards zero delays,
- With reduced impact on the environment,
- With fully informed people,

where services are affordable and seamless, privacy is respected and security is provided.

ERTICO tools to promote implementation of ITS



Key Activities for ITS

ERTICO & its Partners are working on the following ITS solutions:



- **Safety:**
 - eSafety Forum and Intelligent Car Initiative
 - Advanced Driver Assistance Systems
 - Map based advanced driver assistance systems
- **Efficiency & Environment**
 - Cooperative Systems
 - Traveller information
 - Urban mobility
 - ITS to improve energy efficiency, reduce fuel consumption and CO2 emissions
 - GNSS (Galileo, GPS) based applications
- **International Cooperation**
 - Traffic management demonstration
 - International road transport research

ITS World Congress Stockholm, 21-25 Sept. 09

ITS in Daily Life



16th ITS WORLD CONGRESS
STOCKHOLM 2009

For the first time - all modes of transport are included

- Multimodal/co-modal approach
- Collaboration between stakeholders from road, rail, shipping and aviation
- Creating long-term cooperation between industry and the public sector
- Focusing on benefits rather than the underlying technology
- Showing how ITS can
 - support the reduction of environmental effects
 - support equality in transport systems
- An experience-based demonstration area, technical and study visits, showing ITS applications and giving visitors a sense for both function and everyday benefits
- The connecting thought behind all activities at the Congress is *to see, hear and experience*



Thank you for your kind attention!

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