



# ITS for safer roads and vehicles

UNECE Conference Road Safety, 27-29 April 2011, Belgrade



*Vincent Blervaque, ERTICO - ITS Europe*



# INTRODUCTION TO ERTICO - ITS EUROPE

# Facts & figures

- ✓ Founded in 1991
- ✓ Around 100 Partners
- ✓ Around 400 i-Mobility Network members
- ✓ 30 projects across 4 continents
- ✓ Hosting/managing deployment platforms TISA, ADASIS and Cooperative Mobility Alliance
- ✓ Hosting Network of 25 National ITS associations
- ✓ Organising the ITS World and European Congresses
- ✓ Team of 35 professionals in Brussels



# Partners - Public Authorities

- » **Austria:** Federal Ministry for Transport, Innovation & Technology
- » **Belgium:** Vlaamse Overheid - Department Mobility & Public Works
- » **Czech Republic:** Ministry of Industry and Trade/Ministry of Transport
- » **Denmark:** North Denmark Region & Danish Road Directorate
- » **Finland:** Finnish Transport Agency
- » **France:** Ministry of Ecology, Sustainable Development and Spatial Planning, French Institute of Science and Technology, Development and Networks
- » **Germany:** Federal Ministry for Transport, Building & Urban Development, German Aerospace Center, Westdeutscher Rundfunk
- » **Hungary:** Ministry of Transport, Telecommunication and Energy
- » **Ireland:** Department of Transport
- » **Italy:** Ministry of Transport
- » **Luxembourg :** Administration des Ponts et Chaussées
- » **Norway:** NPRA - Norwegian Public Roads Administration
- » **Poland:** Directorate for National Roads & Motorways
- » **Portugal:** IMTT Institute for Mobility and Land Transport, EP - Portuguese National Road Authority
- » **Saudi Arabia:** Ministry of Transport
- » **Slovak Republic:** Ministry of Transport, Construction and Regional development
- » **Slovenia:** Ministry of Transport
- » **Spain:** Basque Government - Department of Transport and Public Works & Dirección General de Tráfico & Directorate - General of Road Transport, Ministry of Internal Development
- » **Sweden:** Swedish Transport Administration
- » **Switzerland:** Directorate General of Swiss Customs, Swiss Federal Roads Office
- » **The Netherlands:** Ministry of Transport, Public Works & Water Management
- » **United Kingdom:** DfT Department for Transport

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# Partners

## Industry

- Allianz AG
- AVL List
- BMW Group
- Cobra Automotive Technologies SpA
- Cinterion Wireless Modules GmbH
- Continental Automotive GmbH
- Denso Europe BV
- Efkon AG
- Ericsson AB
- Fiat Group
- Honda Motor Europe
- IBM
- Kapsch TrafficCom AG
- Logica
- MetaSystem SpA
- Mitsubishi Electric Automotive Europe
- Mizar Automazione - Swarco Group
- Navteq
- NEC Europe Ltd
- Nissan Motor Manufacturing (UK) Ltd - Belgian Branch
- NXP Semiconductors
- Panasonic Automotive Systems Europe GmbH
- Peek Traffic BV
- PluService srl
- PTV Planung Transport und Verkehr AG
- Q-Free ASA
- Renault
- Robert Bosch GmbH
- Satellic Traffic Management (member of T-Systems)
- Siemens AG
- TeamJet
- Technolution BV
- TomTom
- Thetis SpA
- Toyota Motor Europe
- Vialis
- Volvo Car Corporation
- Volvo Technology Corp. (representing Volvo Group)
- WirelessCar (representing Volvo Info. Technology)
- Ygomi Europe Kft

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## Infrastructure Operators

- ASFA - Association Professionnelle Autoroutes et ouvrages routiers
- Egis
- Orange
- Telecom Italia SpA
- Vodafone

## Users

- ADAC e.V. - Allgemeiner Deutscher Automobil-Club
- ANWB - Royal Dutch Touring Club
- RACC - Reial Automòbil Club de Catalunya

## Others

- ACEA - Association des Constructeurs Européens d'Automobiles
- CERTH - Centre for Research and Technology Hellas
- CTAG - Automotive Technological Centre of Galicia (Spain)
- Dekra e.V. - Deutscher Kraftfahrzeug Überwachungsverein
- FIA - Fédération Internationale de l'Automobile
- ICCS - Institute of Communication and Computer Systems
- ICOOR - Interuniversity Consortium for Optimization and Operation research
- innovITS
- Institute for Transport Studies, University of Leeds
- IRU - International Road Transport Union
- ISMB - Istituto Superiore Mario Boella
- Sintef
- Tecnalía
- THO Mobility
- VDA - German Association of the Automobile Industry
- VTT - Technical Research Centre of Finland

# Our vision

## “Intelligent Mobility”

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



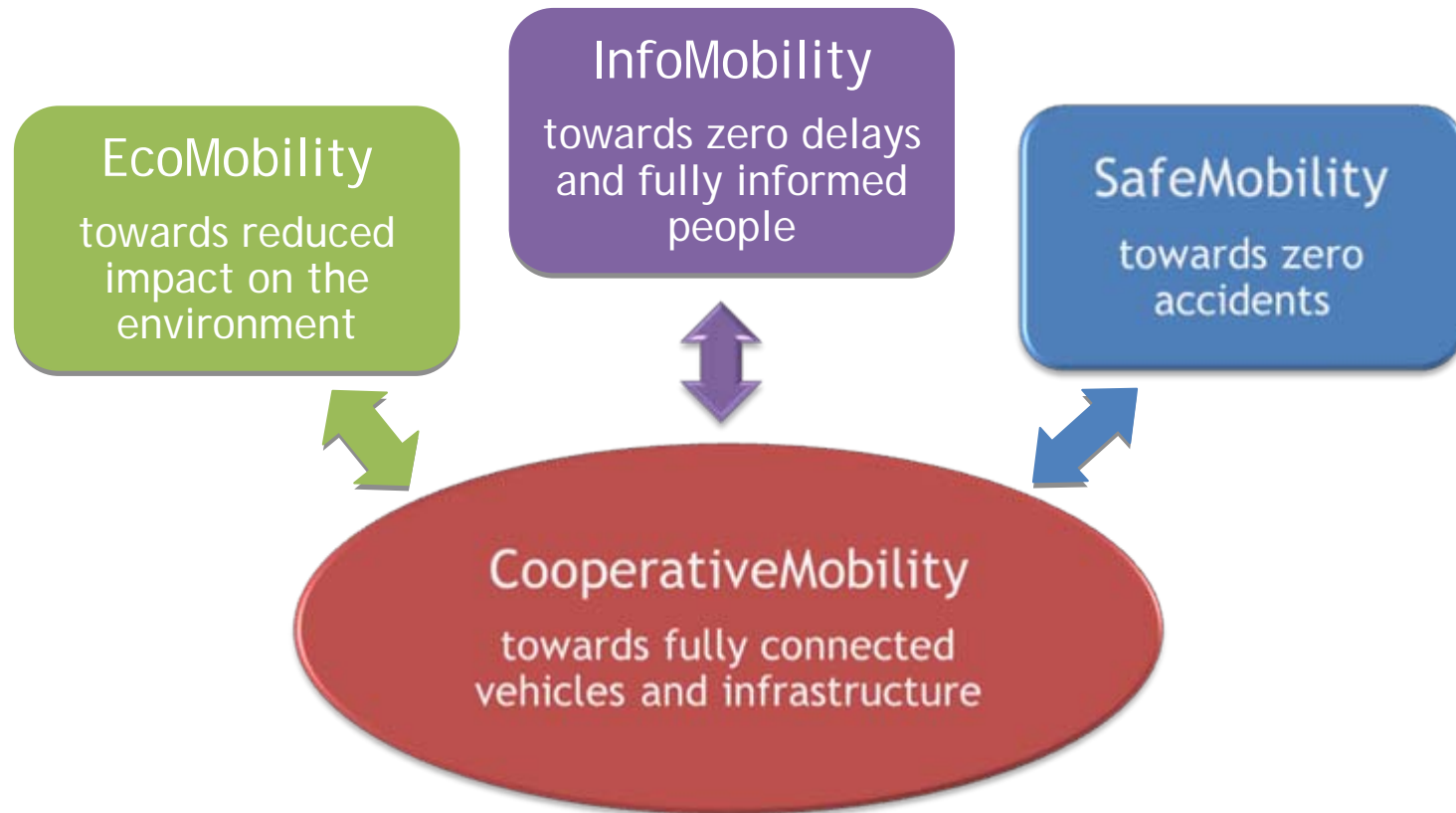
# Our mission

The ERTICO Partnership will bring *Intelligence into Mobility* for all travellers and businesses by:

- » Promoting and deploying ITS
- » Enabling interoperable and seamless ITS services across Europe
- » Being the reference for ITS
- » Cooperating with all stakeholders
- » Promoting all modes of transport



# Our goals





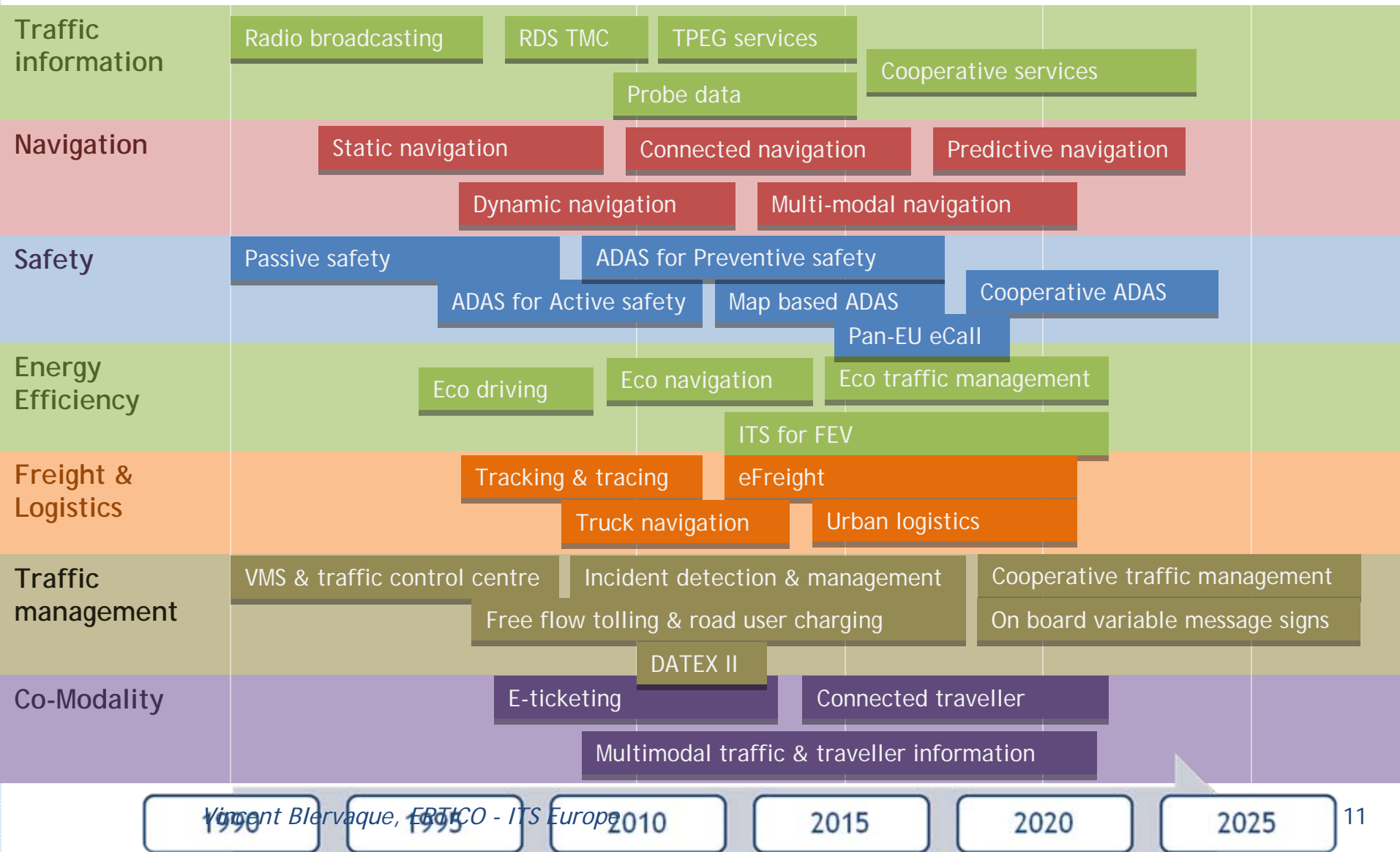
# ERTICO actions





# ITS FOR SAFER ROADS AND VEHICLES

# ITS Applications Roadmap



# SafeMobility...

...towards zero accidents



## Integrated road safety

provide all road users with relevant safety support from vehicle & infrastructure



## Safe urban mobility

improve safety into the design of urban mobility services

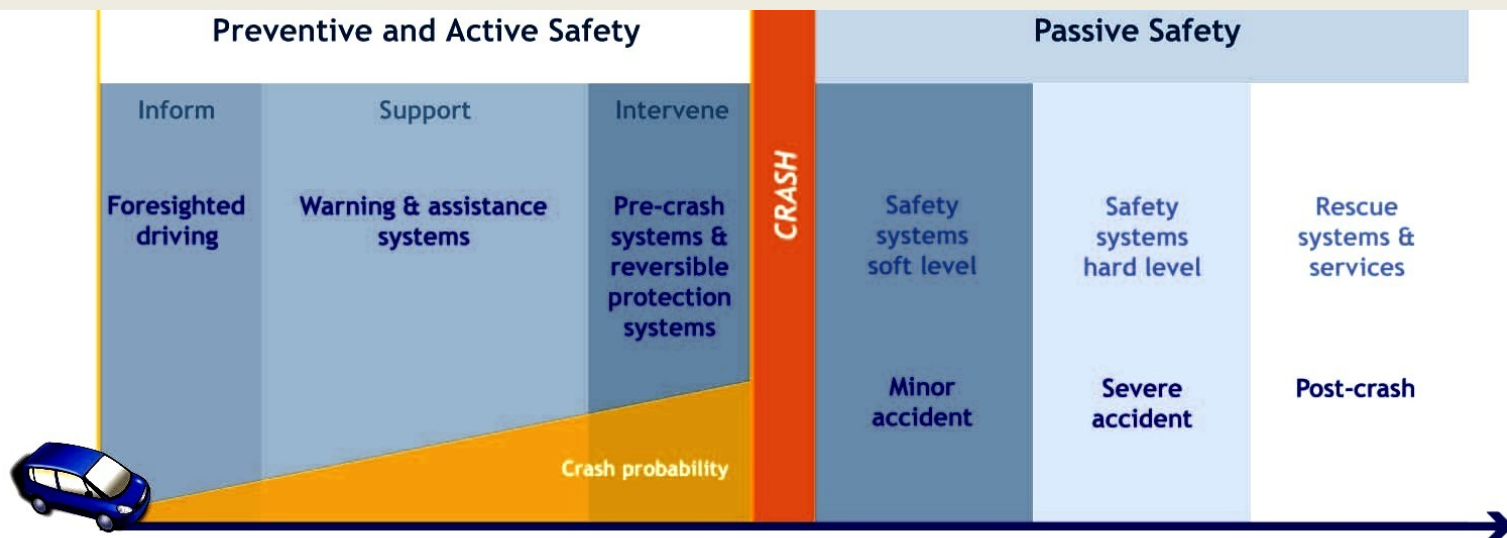


## Road user behaviour

enable safety innovation through better understanding of road user behaviour

# Time To Collision Concept

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



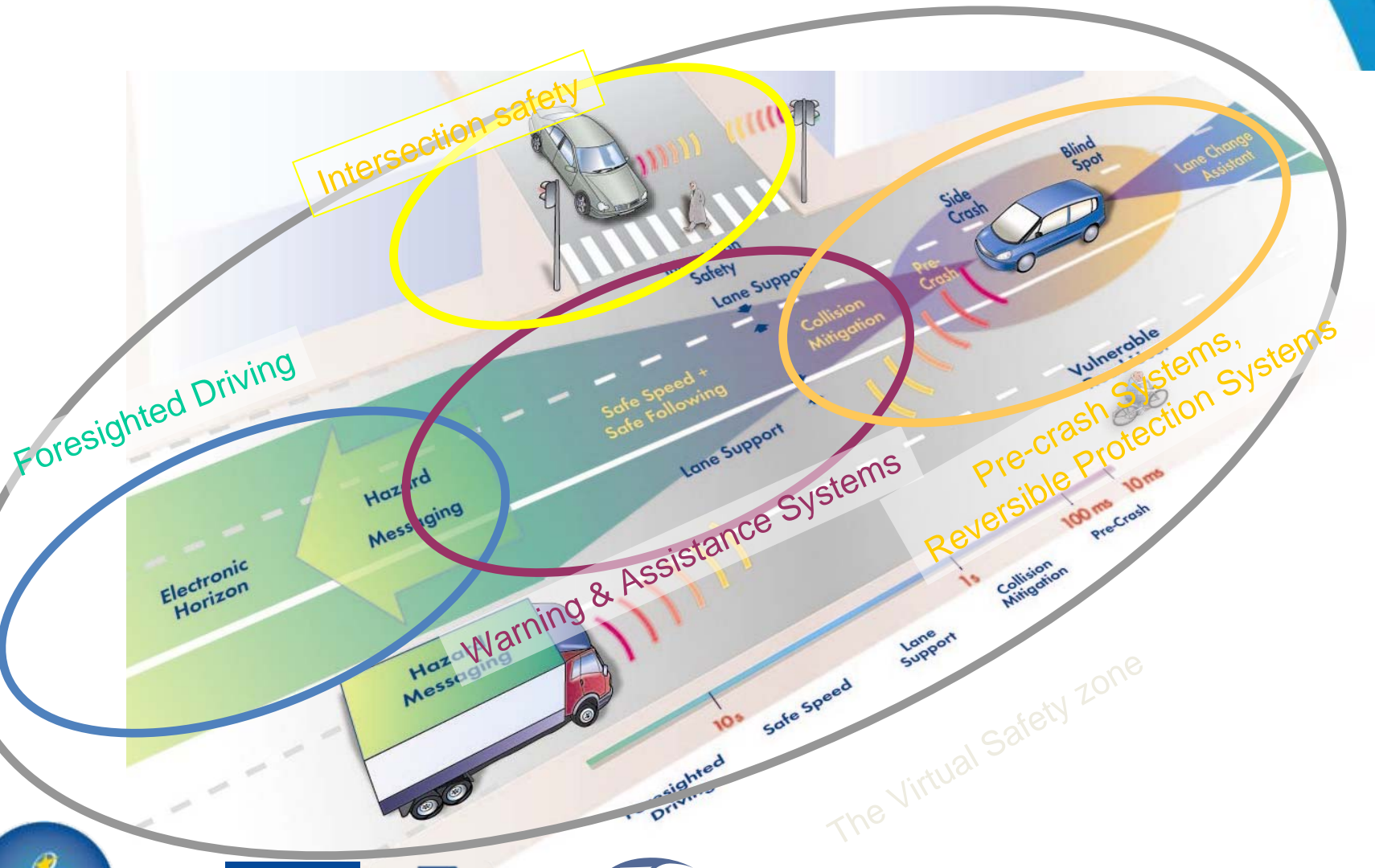
<b>Examples</b>	<b>Accident prevention and collision mitigation</b>			<b>Occupant Protection</b>		<b>eCall</b>
	Digital map-based & cooperative systems	Haptic and acoustic interaction support for Lane warning, Distance & Speed Warning	Brake Assistant Active vehicle controls	Emergency braking Collision avoidance Reversible restraints	Airbags Vehicle crashworthiness Materials (energy absorption) Intelligent restraint system	Improved response services & Emergency vehicle clearing

Measures to avoid accidents

Measures to mitigate consequences



# The „virtual safety belt“ concept



# 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**

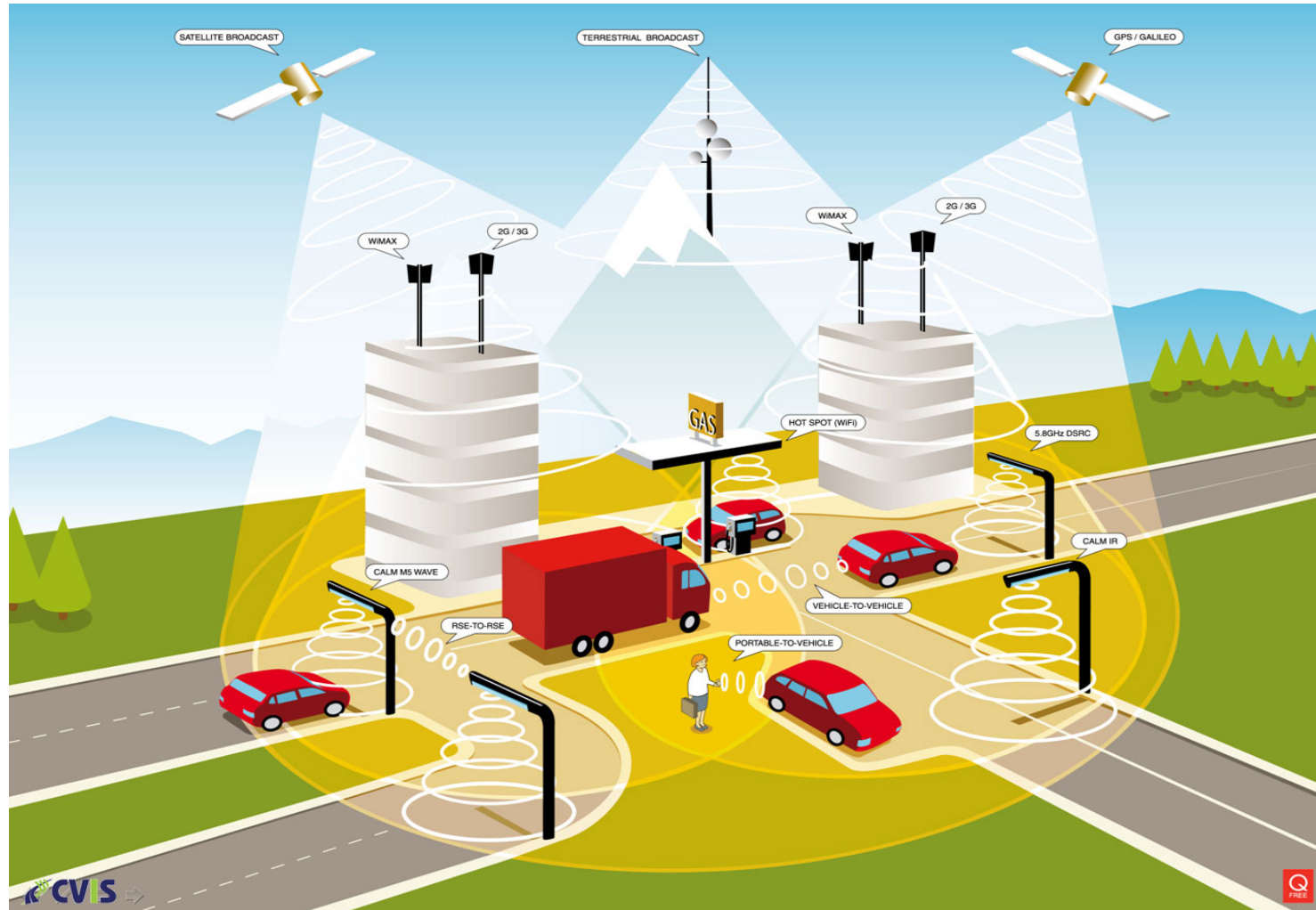


**Vehicle-to-Infrastructure  
Communication (V2I)**

**Vehicle-to-Vehicle  
Communication (V2V)**



# 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



# Summary

1. ITS has been contributing for many years to reduce number and severity of road accidents by offering mature solutions to make road infrastructure and vehicles safer
2. ITS is the main enabler to achieve integrated road safety by better linking road infrastructure, vehicles and users
3. Next generation of ITS solutions based on vehicle-to-vehicle and vehicle-to-infrastructure communications has the potential to increase even more road safety by reducing risk of accidents
4. A majority of ITS solutions deliver combined benefits for road safety, traffic efficiency and reduced impact on environment
5. ITS success comes from multi-sectoral partnership from public and private sectors sharing same goals





# ITS EUROPE CONGRESS

# 8<sup>th</sup> European Congress on ITS



ITS for sustainable  
transport of persons and  
goods in urban regions

Lyon, France,  
6-9 June 2011

[www.itsineurope.com](http://www.itsineurope.com)



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# Partners

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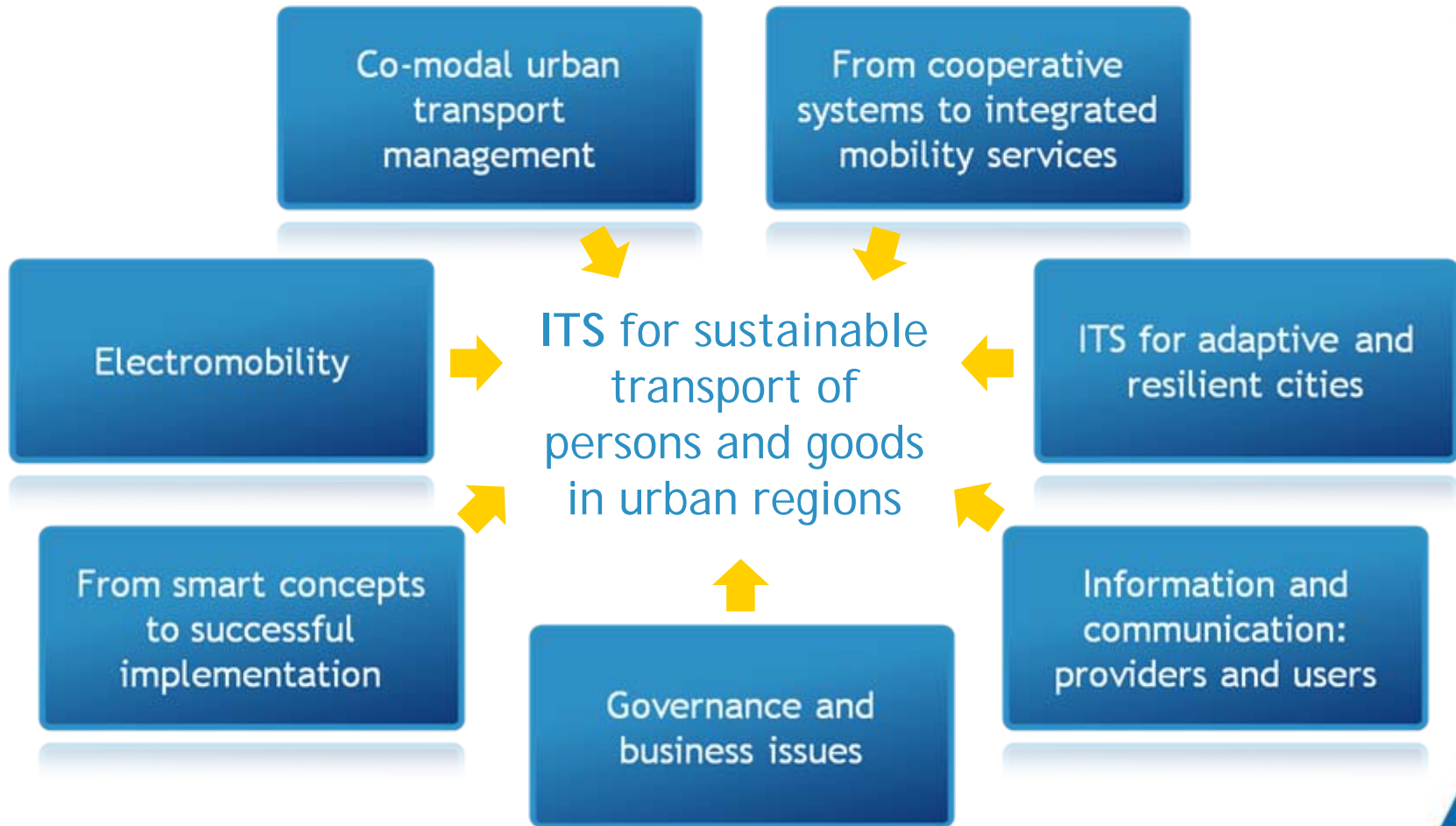
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# Themes & Topics



# A unique opportunity

- » to exchange information and network with 1500 stakeholders, decision and policy makers
- » to share best practices and lessons learned
- » to monitor progress and measure results in terms of implementation and deployment
- » to exhibit state of the art technologies and innovative products and services
- » to open business and partnership opportunities
- » to showcase the latest ITS solutions



***Be part of the ITS Community meeting in Lyon***

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# More information

## Registrations open 4<sup>th</sup> April 2011

*Do not miss the ITS week of 2011!*

[www.itsineurope.com](http://www.itsineurope.com) >>>



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Let us cooperate to bring Intelligence  
into Mobility!



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