

ASF

COFIROUTE 

 ESCOTA

FP7 European project eCoMove

16th-18th of
November 2010

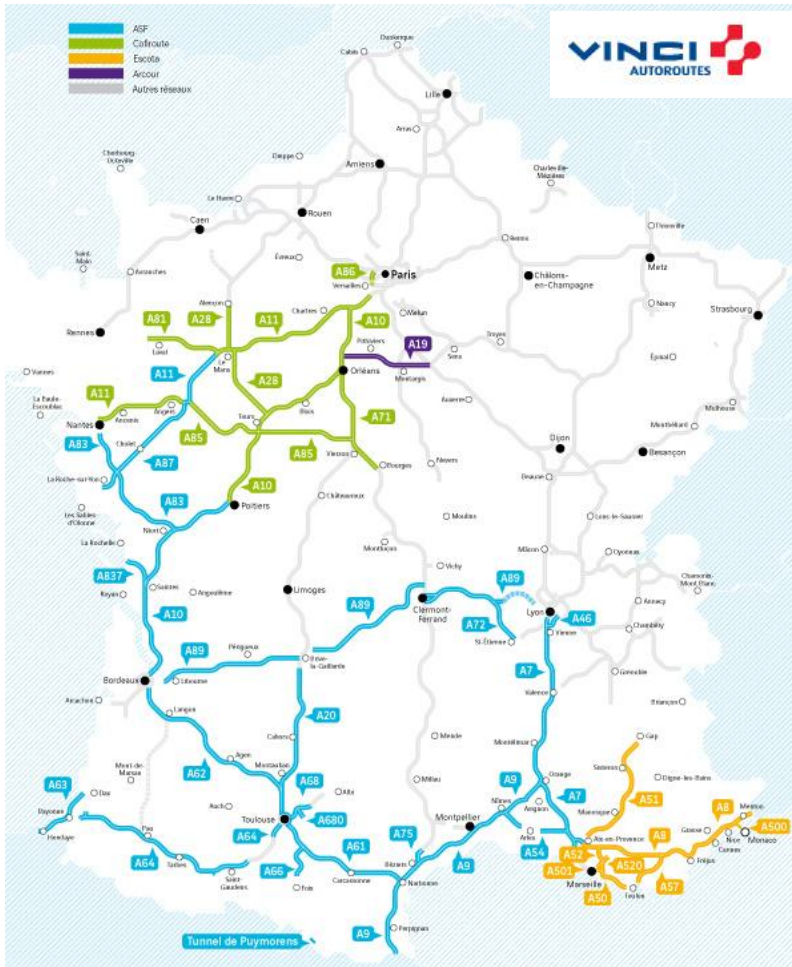


EasyWay Annual Forum
2010 – Lisbon

EasyWay 

VINCI 
AUTOROUTES

ASF, COFIROUTE, ESCOTA: FRENCH MOTORWAYS NETWORKS OF VINCI AUTOROUTES



VINCI Autoroutes:
The first motorway operator in Europe
4 300 km of motorway network

4 motorway networks:
ASF, Cofiroute, Escota & Arcour
Over 50% of the french toll motorway network

VINCI Autoroutes at a glance:

7 873
Permanent employees

281
rest areas

4 299 km
Motorway network in operation

171
services areas

85 km
Motorway network in projet
or in construction

+ 2 millions
customers per day

CONTEXT



Climate change

- A major issue and a rising global consciousness
- Ambitious European and national objectives to reduce greenhouse gas emissions

Transport infrastructure

- A factor of competitiveness
- Network renovation or improvement used by governments as a support for economic growth
- But an image of carbon dependency associated with road transport

CO2 EMISSIONS: ISSUES



- Changes in the vehicle industry will hopefully help radically reduce traffic emissions in the long term
- We consider, however, that a motorway operator should not wait to develop exemplary practices that address both:
 - The company's "ecological footprint"
 - The impact of infrastructure use
- ITS and Cooperative Systems can help produce a significant impact on emissions by:
 - Providing solutions for controlling traffic
 - Helping influence drivers' behaviour and awareness
 - Developing services adapted to greener vehicles and caring drivers

eCoMove AT A GLANCE



www.ecomove-project.eu

- Total budget: 22.5 M€
- EC funding: 13.7 M€ (DG-INFSO)
- Coordinator: ERTICO – ITS Europe
- Duration: 36 Months
- Starting date: 01/04/2010
- 10 Countries:
 - Austria, Belgium, France,
 - Germany, Italy, Norway,
 - Sweden, Spain,
 - the Netherlands,
 - United Kingdom

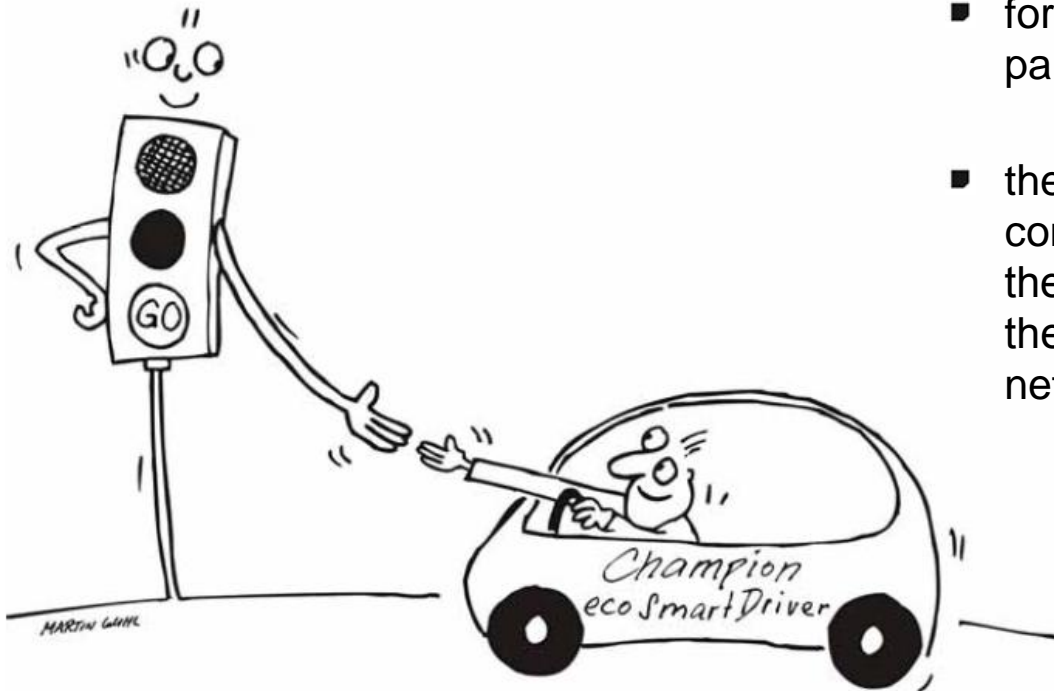
Consortium:

					Coordinator:	

eCoMove CONCEPT

Idea behind the eCoMove concept

- for a given trip by a particular driver in a particular vehicle,
- there is some least possible fuel consumption that could be achieved by the “perfect eco-driver” traveling through the “perfectly eco-managed” road network.



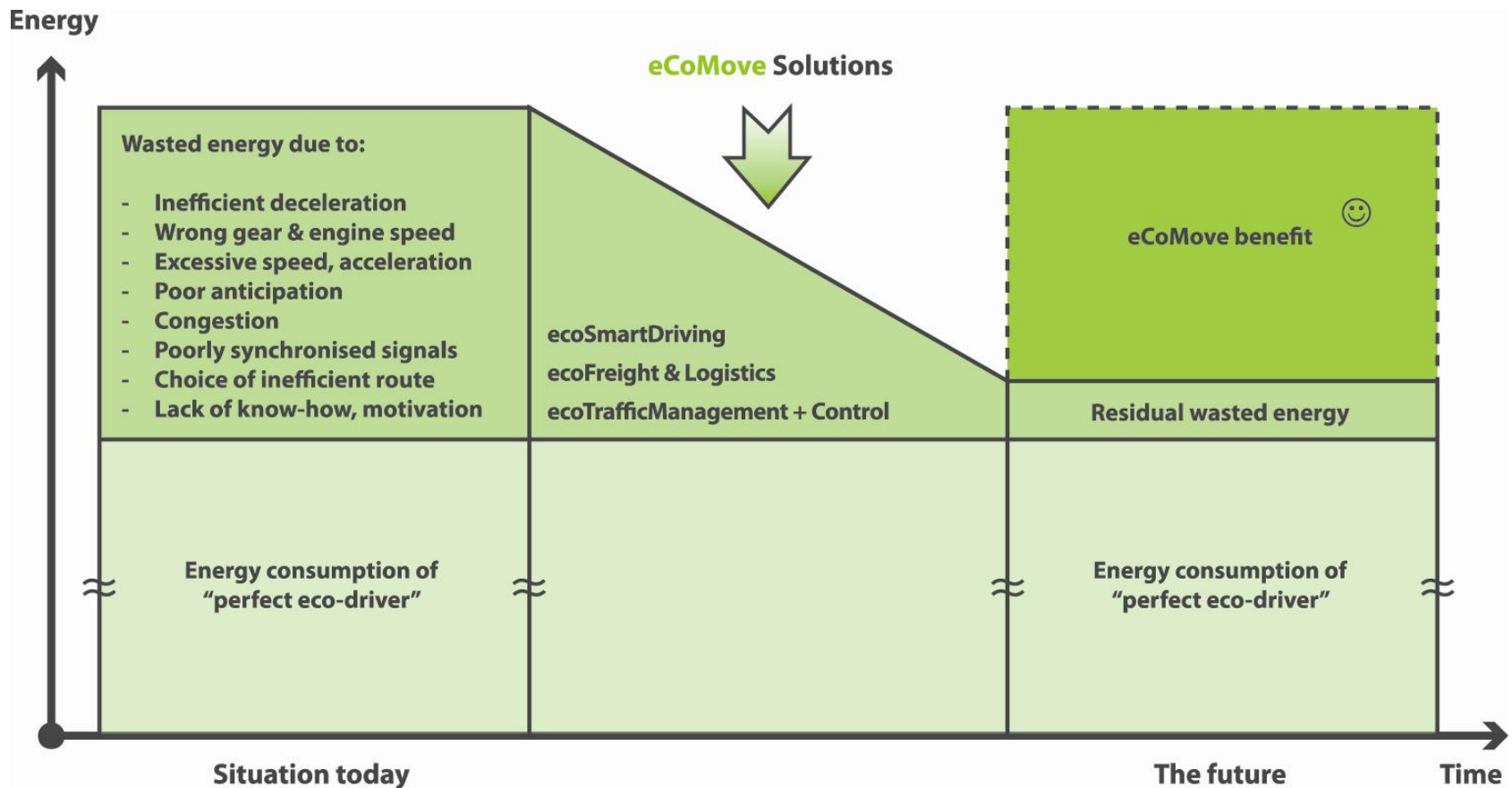
eCoMove OBJECTIVES

- To develop a combination of cooperative systems and tools using V2V and V2I communication to help:
 - drivers sustainably eliminate unnecessary fuel consumption
 - fleet managers manage their vehicles more economically and promote eco-driving through feedback & incentives
 - road operators balance traffic flows in the most energy efficient way.

Target is to reduce by 20% fuel consumption and therefore CO₂ emission

eCoMove VISION

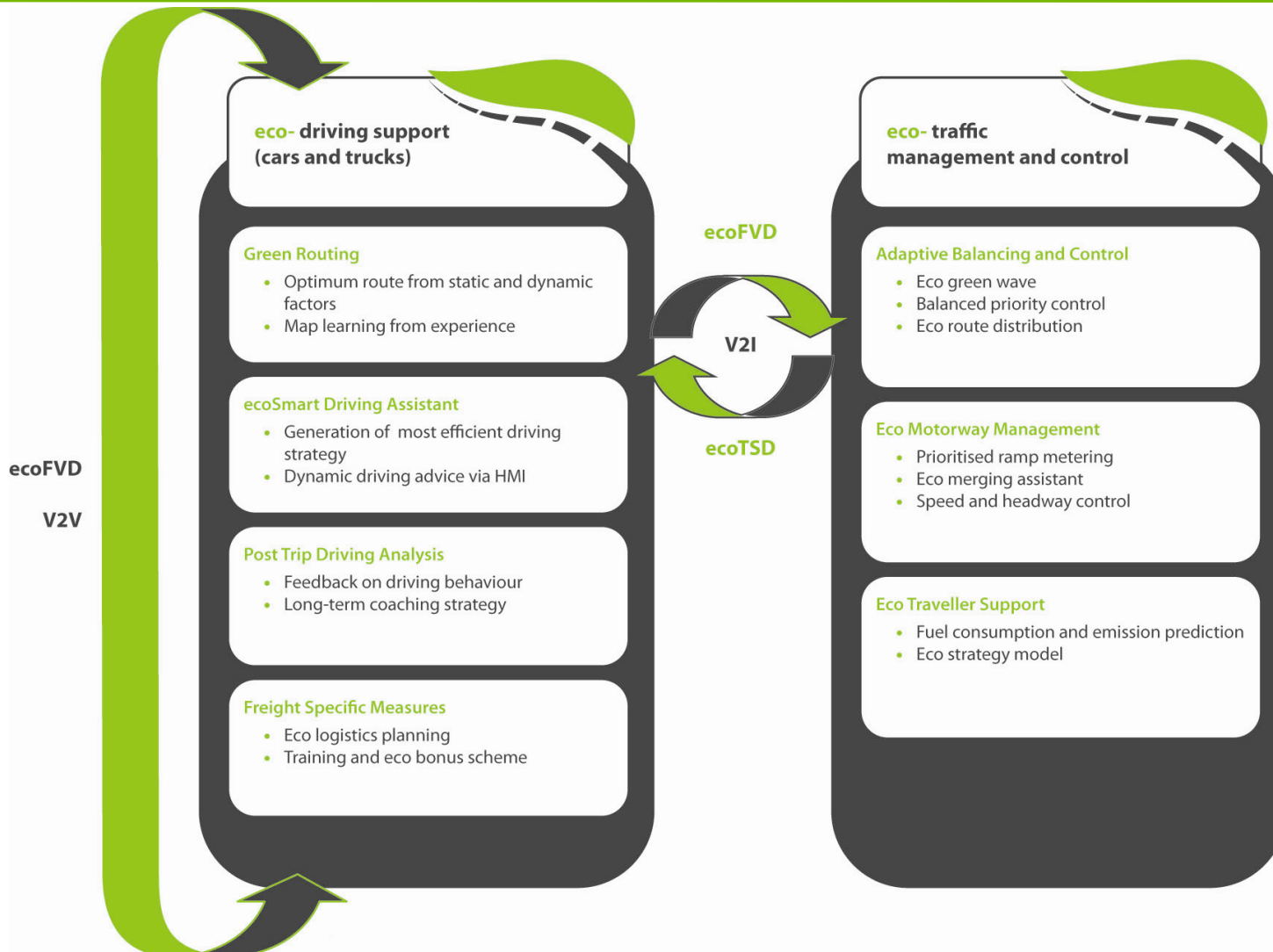
Minimising avoidable energy use in the transport of people and goods by road through the application of advanced ICT



RESEARCH QUESTIONS TO BE ANSWERED

- To what extent can eCoMove solutions decrease the fuel consumption and therefore also CO2 emissions of a vehicle/fleet/network with cooperative technologies?
- How can eCoMove sustainably change the behaviour of private and professional drivers into a more eco-friendly driving style?
- What impact have eCoMove solutions in a cooperative environment for the traffic system of a city/region/network (smoothing of speeds, congestion avoidance, changes in travel distances and travel times)?
- Our challenge as a project:
 - to have all sectors working towards integrated solutions and standards

COOPERATIVE DATA EXCHANGE AS ENABLER



ecoFVD: eco Floating Vehicle Data
 ecoTSD: eco Traffic Situation Data
 V2V: vehicle to vehicle
 V2I : vehicle to infrastructure

ASF, COFIROUTE, ESCOTA: ACTIVITIES IN THE PROJECT

Involved in 3 sub-projects

- Core technologies
- Application Infrastructure – ecoTraffic Management
- Validation and tests

The situation today

- motorway management systems may have notable benefits for energy efficiency
- however these are implemented for safety or traffic efficiency purposes

eco Motorway Management tomorrow

- to provide maneuvering-level support for entering and leaving the motorway and for smooth lane management,
- to provide the traffic manager with both detailed and aggregated energy use information in real time

USE CASES TO BE INVESTIGATED FROM THE MOTORWAYS OPERATIONS PERSPECTIVE

Smoothing traffic flow with innovative solutions

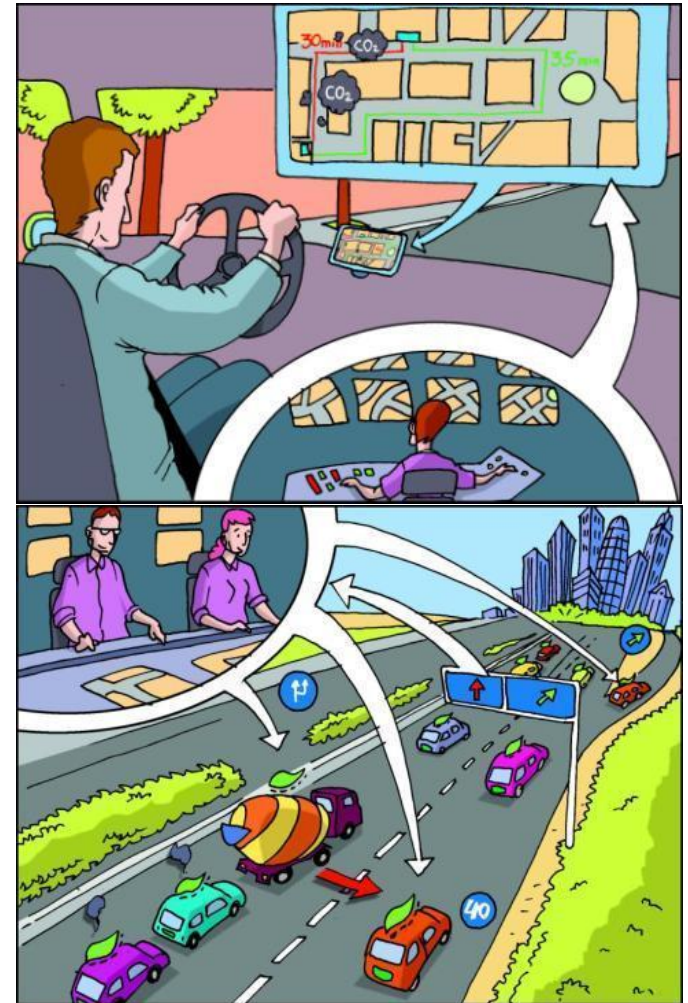
- Helping drivers to adapt their driving behaviour to the required speed and headway
- Dynamic speed limits adapted to real-time CO₂ and pollutants emissions levels measurements

Optimizing truck parking along motorway corridors

- Informing truck drivers about parking spaces availability

Suppressing stop-and-goes at toll plazas

- helping drivers using electronic toll tag to cross toll plazas in an energy efficient manner (non-stop tolling corridors / 30km/h corridors)



CONCLUSION



- The reduction of transport impacts is a collective issue for public policies
- Motorway operators have to face this challenge
- Applying eco-management to motorway operation can produce significant results
- ITS and Cooperative Systems are a support for greener services, responding to customers' and citizens' demands
- Changes in vehicle technologies and in drivers' relation to transport will be key elements for designing tomorrow's motorways operation

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Shortcut to the future.
Lisbon • November 16th-18th

**Thank you for your attention !
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