

---

# **Working Group – ICT for Clean & Efficient Mobility**

**Working group revival meeting  
12 Dec 2007**



# Agenda

**10:30 Meeting start**

**Report purpose and outline**

**Scope (what is in, what is not)**

**Priority ITS/ICT/eSafety technologies and measures**

**Recommendations**

**Complementary material**

**application profiles**

**R&D results**

**evidence of environmental impacts of ITS**

**Workplan: tasks, responsibilities, timescale**

**16:30 Meeting close**



# Apologies

- Jean-Louis Graindorge, URBA 2000
- Carlos Busnadiago Gutierrez, GMV
- José María Martín Bobis, GMV
- Dick Kooman, ANWB
- Tore Knudsen, SINTEF
- Herman Heich, Heich Consult
- Willy Maes, DG TREN
- Siebe Turksma, Peek Traffic

# Draft report – purpose, outline

- **Identify potential for ITS / ICT to contribute to environmental benefits**
- **Begin to gather evidence of benefits & environmental impacts of ITS**
- **Formulate recommendations to promote development & take-up of ITS for clean & efficient mobility**

# Scope

## ■ what is in – technologies that:

- Increase fuel efficiency by making traffic flow more smoothly
- Help drivers find the most eco-friendly route & mode choice
- Give travellers information about different journey alternatives
- Collect real-time information about traffic and environment conditions, incidents
- Reduce congestion by improved traffic flow management and by responding quickly to any discontinuation
- Support drivers to acquire and adopt eco-driving techniques

## ■ what is not -

- ITS that does not affect the vehicle or road transport in general, or non-ITS applications, with the exception of eco-driving measures
- technologies for the clean and efficient vehicle, such as advanced powertrain engineering or alternative fuels

# Technologies – management (now)

- Coordinated dynamic urban traffic control
- Traffic signal synchronisation (“green wave”) and signal phase information
- Variable speed limits
- Parking availability and guidance by variable message sign
- Environmental zone access management
- Digital map for navigation
- Real-time traffic information and guidance (TMC)

# Technologies – management (new)

- Digital map databases enhanced with 3-D geometry, black spots, speed limit and safe speed information, traffic regulation & advisory signs, commercial vehicle restrictions
- Online map update service for map data changes, temporary roadworks, real-time info on incidents, congestion, speeds, road & environment conditions
- Enhanced navigation algorithm for dynamic route guidance, e.g. with historic data, least-fuel routing,
- Mobile data collection, e.g. probe vehicle or mobile phone data
- Area traffic management strategies optimised for environmental criteria
- Pre-trip and on-trip road traffic, transport and environment information (RTTI)
- Parking availability, booking and guidance
- Access management taking account of emission criteria
- Commercial vehicle management & logistics, e.g. minimise empty loads (“deadhead” journeys), groupage,
- Fuel-consumption related telematics services, e.g. remote diagnostics
- Cooperative tactical traffic control –vehicles to communicate with traffic signal control systems in order to optimise the speed and spacing of vehicle clusters, minimising overall fuel consumption and emissions.

# Technologies – driving

- Eco-journey support – on-line and mobile information services to the traveller with advice on environmental conditions and on multi-modal choices, provided before and during the journey;
- Enhanced navigation using adapted algorithm for dynamic route guidance, e.g. with historic data, least-fuel routing etc.
- Cooperative eco-driving – providing the driver with support, feedback and guidance on a more fuel-efficient driving behaviour (e.g. CO2 production or cost/saving in Euros)
- Online & real-time incentives – “bonus / save as you drive / green points”
- On-board and online coaching of “golden rules of eco-driving” for drivers

# TISA input: Traveller Information for minimised environmental impact

## Pre-journey

- **Eco-weighted mode selection and multi-modal routing**

## En route

- **Dynamic information for emissions charging zone entry warning / eco-rerouting based on environmental conditions / Eco-ADAS**
- **Congestion avoidance with 'smooth' rerouting for minimum CO<sub>2</sub>**
- **Public transport information – TPEG work item in TISA**
- **TISA Technical Committee & TPEG Application WG welcome input of eco-related TI use cases**

## Post journey

- **Personalised eco-driving tips or carbon credit balance**

# Input from GMV

- We are currently working in our MOVILOC platform to obtain data from the different on board sensors so the driver behaviour influence can be measured in order to evaluate its impact on fuel economy and predict fuel consumption, most energy efficient route between two points, etc...
- Also and in the scope of the OSIRIS project funded by the European Commission we are developing a floating car data platform in our current fleet management platforms that will gather meteorological and environmental data that can be used to measure pollution of different gases, spring environmental alarms and show pollution maps around a city using mobile platforms.

# Draft recommendations

## For the eSafety Forum

- Implementation Roadmaps WG should examine a possible roadmap for deployment of ITS measures for the environment
- RTD WG should recommend that “green ITS” activities be also included in the next round of R&D activities
- “Green ITS” measures based on information and other services for drivers should also be considered in the SOA WG and RTTI implementation activities
- Also include international cooperation aspects of these themes in the work of the International Cooperation Working Group.

# Draft recommendations

## For the European Commission

- ITS-measures (infrastructure based with impact on efficiency and environment) should be taken into account in policy initiatives such as the forthcoming ITS Roadmap and Action Plan, and the synergy with eSafety measures should be highlighted;
- Appraisal and development of such ITS-technologies and applications should be given higher priority in future R&D programmes such as the next FP7 calls for proposals and large-scale field operational tests (FOTs). In particular, work is urgently needed on the reliable quantification of potential environmental impact and benefits of eSafety technologies and applications;
- Specific measures with substantial impact should be examined such as optimum gearshift or speed indicators, the inclusion of eco-driving in driver training and testing activities, the use of fiscal and other incentives to encourage eco-friendly driver behaviour.

# Draft recommendations

## For industry

- Traffic management industry should develop products and promote standards for eco-traffic management systems;
- Automotive industry should explore synergies to develop approaches to promote more eco-friendly driving and driver behaviour as a complement to current efforts to improve fuel efficiency and reduce emissions through vehicle engineering;
- Both traffic management and automotive industries should collaborate with each other in developing cooperative vehicle-infrastructure systems for lower emissions and fuel consumption.

# Draft recommendations

## For operators and service providers

- Road operators (both public and private) should add environmental aspects to road management schemes & systems;
- Traffic and travel information providers should consider including broadcast messages and guidance to promote eco-driving;
- Consumer organisations such as automobile clubs should offer their members advice on the benefits of and support for eco-driving;
- Driver education and training organisations should increase their offer of courses in eco-driving.

# Draft recommendations

## For national, regional and local governments

- Public authorities should promote advances in eco-friendly technologies for mobility and more efficient driver behaviour through targeted measures such as fiscal or other incentives, as well as the adoption of “clean mobility” objectives within transport, energy and environment policy;
- Governments should include eco-driving within the scope of driver licensing and licence examination, and within the curriculum of required driver training;
- Transport aspects of energy efficiency should feature strongly in the work programme of EU Presidencies;
- National and local governments in Europe should cooperate and harmonise the approach to environment-friendly mobility, in order to ensure interoperability, lower costs and greater impact.

# Draft recommendations

## Other

- Standardisation bodies should identify the need for European and global standards for certain ITS-technologies, and promote a corresponding standardisation road-map and action plan;
- The impact of ITS on “Efficient and sustainable mobility” should be a major theme in future ITS events such as European and World Congresses;
- Lastly, the key stakeholder interests should establish a forum (“Mobility Forum”?) to link and focus the many activities in the domain of ICT for clean and efficient mobility, and set priorities for action.



## Intelligent Energy Europe



About the Programme

Home  
Projects  
Energy agencies  
Events  
Publications & videos  
Links  
Contact

How can you take part?

Call for proposals  
Evaluation of proposals  
Call for tenders  
Contract negotiation  
Implementing your project

### 2008 Call for Proposals

- Overview
- Call documents
- Info Days (link to the 'events' section)
- Frequently asked questions
- Partner search
- National contacts (link to the 'contacts' section)

[Print]



The **2008 call for proposals** is your next chance to apply for IEE funding. It will be published in **late February 2008**.

**February 2008.**

Some € **50 million** will be made available, supporting **up to 75%** of eligible project costs.

Any public or private organisation from the **EU, Iceland, Norway, Liechtenstein and Croatia** and apply.

Applying for IEE funding is a **highly competitive process**. Your project proposal must be of a **high professional quality** to have a chance of being selected for funding.



#### Visit the IEE Info Days

The **European Info Day 2008** will provide you with more details. It will take place in **Brussels on 31 January 08** as part of the EU Sustainable Energy Week. **Register now...**

There will also be a series of National Info Days, which will be announced on our **Info Days** website

#### What will be funded?

Capacity building; building and spreading of know-how, skills and methods; exchanges of experience; development of market and intelligence; policy input; awareness raising and information provision; and education and training.

**The IEE programme does not fund:** Hardware\* type investments and technical research & development projects for energy efficiency and renewables.

#### Which types of actions will be supported?

##### 1) European projects

- At least 3 partner organisations from 3 different eligible countries.
- Maximum funding period 3 years.
- Budget usually between € 0.5 - 2.5 million (mainly staff costs).  
[Examples...](#)

##### 2) Setting up of new local/regional energy agencies

- Only local/regional public authorities can apply
- 1 authority = 1 proposal
- Maximum funding period 3 1/2 years.  
[Examples...](#)

#### When will more details be available?

The 2008 call will be published in late February 2008, giving details about funding priorities, conditions to apply, evaluation criteria, and submission modalities for proposals.

In the meantime, feel free use our [partner search](#) services, subscribe to the IEE [News Alert Service](#), and read our [publications](#) and [Frequently Asked Questions](#).

For additional questions, please do not hesitate to contact the [National Contacts](#) in your country or the [EACI](#).

# Workplan

## ■ Tasks

- GB: to provide WG RTD strategic research Agenda document
- FS, Vialis, PTV, MB (telematics): input use cases to WG SOA
- see Word document

## ■ Timescale

- next meeting: 11 March, 7 May