Amitran project overview

April 2012

Co-financed by

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Facts & Figures

• **Budget: 2.6 M€**
  – Funding: 1.9 M€
  – Co-funded by the 7th Framework Programme (FP7-ICT-2011-7).

• **Duration: 30 months**
  – Dates: November 2011 – April 2014

• **Coordinator: TNO**
  – Contact: Gerdien Klunder (TNO), gerdien.klunder@tno.nl
  – Website: www.amitran.eu
Consortium

ERTICO
TNO
ECORYS
DLR
TEAMNET
PTV
TECNALIA

Amitran project overview
Objectives

- Amitran aims to:
  - Develop a CO$_2$ assessment methodology for ICT measures that includes multimodal passenger and freight transport and that takes into account the whole chain of effects from user behaviour to CO$_2$ production
  - Design open interfaces for models and simulation tools implementing the project’s methodology
  - Establish a generic scaling up methodology and a publicly available database with statistics to translate local effects to the European level
  - Validate the proposed methodology and its implementation by using data available from other projects and studies
  - Produce an online checklist and a handbook that can be used as a reference for future projects
Objectives

• Expected results
  – Earlier studies indicate possible CO₂ reductions up to 25% with certain ICT measures. Amitran will provide the methodology and tools to assess such reductions on European level in a systematic and realistic way.
  – The methodology will support developers, public authorities and investors in ICT solutions to make sound decisions based on reliable impact estimates, covering the complete transport chain.

Main result: a reference methodology to estimate well-to-wheel CO₂ emission reductions achieved by intelligent transport systems.
Assessment Framework

• Multiple pathways for ICT to help reducing CO\textsubscript{2} emissions in transport
Amitran project overview

Work Plan

**WP1** Project management

**WP7** Dissemination, liaison & exploitation

- **WP2** User needs and use cases
- **WP3** Analysis and structuring of ITS impacts
- **WP4** Assessment model framework and architecture
- **WP5** Open interface development
- **WP6** Impact assessment methodology validation

Validate requirements
Work Plan

• **Project Management (WP1) – TNO**
  – Coordinate and ensure an effective and timely management of the project.

• **User needs and use cases (WP2) – DLR**
  – Identify user needs and use cases based on the active participation by relevant stakeholders.

• **Analysis and structuring of ITS impacts (WP3) – DLR**
  – Categorise ITS applications according to their effect on CO₂ emissions and to the parameters through which their influence is exerted.

• **Assessment model framework and architecture (WP4) – TNO**
  – Define the methodology framework architecture and translate it into model requirements;
  – Develop a methodology for scaling up and build the necessary database.
Work Plan

• **Open interface development (WP5) – PTV**
  – Develop the methodological framework to assess CO\(_2\) emissions and the interface between existing models, and identify gaps to be filled;
  – Develop a methodology to scale up local results to the European level.

• **Impact assessment methodology validation (WP6) – TECNALIA**
  – Compare results from Amitran with results from selected research projects dealing with ITS;
  – Perform an impact assessment using the methodology developed in WP5 to demonstrate the effects of ITS on CO\(_2\) emissions, energy efficiency, driver behaviour and traffic flow.

• **Dissemination, liaison and exploitation (WP7) – ERTICO**
  – Produce a handbook as methodological reference for future projects assessing ITS benefits;
  – Produce guidelines for conducting cost-benefit and cost-effectiveness analysis of ITS deployment.
WP1. Project Management

• **Coordinated by TNO**

• **Objective:**
  – Coordinate and ensure an effective and timely management of the project

• **Tasks:**
  – Provide overall coordination of the project
  – Manage financial aspects
  – Monitor and report on work progress
  – Liaise with scientific officer of the European Commission
WP2. User Needs & Use Cases

• Coordinated by DLR

• Objective:
  – Identify user needs and use cases based on the active participation by relevant stakeholders

• Tasks:
  – Identify users and stakeholders
  – Develop a questionnaire to be sent to users and stakeholders
  – Evaluate user needs requirements towards the modelling framework
  – Define specific ITS for the use cases that will be applied to the modelling framework
**WP3. Analysis & Structuring of ITS Impacts**

- **Coordinated by DLR**

- **Objective:**
  - Categorise ITS applications according to their effect on CO$_2$ emissions and according to the parameters through which their influence is exerted

- **Tasks:**
  - Analyse the considered ITS applications and their implications
  - Develop and validate an ITS typology which relates effects of each category to the modelling framework
WP4. Assessment Model Framework

• Coordinated by TNO

• Objective:
  – Define the methodological framework, system architecture and model requirements based on the results of WP2 and WP3

• Tasks:
  – Define the methodology framework
  – Design the framework architecture
  – Translate the architecture to model requirements
  – Develop a methodology and a database for scaling-up
WP5. Open Interface Development

- **Coordinated by PTV**
- **Objective:**
  - Develop the interfaces between existing models and identify any gaps to be filled
- **Tasks:**
  - Select the most suitable models based on specifications
  - Produce the software interfaces performing the specifications
  - Verify the new models and describe the open interfaces in the handbook
WP6. Assessment Methodology Validation

• **Coordinated by TECNALIA**

• **Objective:**
  – Perform an impact assessment using the methodology developed in WP5 to demonstrate the effects of ITS on CO$_2$ emissions, energy efficiency, driver behaviour and traffic flow

• **Tasks:**
  – Compare results from Amitran with results from selected research projects dealing with ITS
  – Define the methodology for the validation of the ITS systems and services, resulting in the validation plan
  – Define the scenarios for the evaluation of Amitran’s methodology, according to the validation plan
  – Evaluate and appraise the impact of Amitran’s methodology, providing validation project results
WP7. Dissemination, Liaison & Exploitation

- **Coordinated by ERTICO – ITS Europe**
- **Objective:**
  - Disseminate results to stakeholders, promote their exploitation, and liaise with other relevant projects and initiatives
- **Tasks:**
  - Produce a checklist and a handbook that will be used as a methodological reference for future projects assessing ITS benefits
  - Produce guidelines on how to conduct cost-benefit analysis of ITS deployment
  - Raise awareness about Amitran
  - Encourage exploitation of the results by different target groups
  - Engage relevant stakeholders to discuss project goals, tasks & results
  - Liaise with related European and international initiatives
Timeline and Milestones

- **WP1**: Project management
  - M1-M30: Nov’11 – Apr’14
- **WP2**: User needs & use cases
  - M1-M6: Nov’11 – Apr’12
- **WP3**: Analysis and structuring of ITS impacts
  - M4-M9: Feb’12 – Jul’12
  - M6-M26: Feb’13 – Sep’13
- **WP4**: Assessment model framework & architecture
  - M1-M30: Nov’11 – Apr’14
- **WP5**: Open interface development
  - M13-M23: Nov’12 – Sep’13
- **WP6**: Validation of impact assessment methodology
  - M4-M9: Feb’12 – Jul’12
  - M22-M30: Aug’13 – Apr’14
- **WP7**: Dissemination, liaison & exploitation
  - M1-M30: Nov’11 – Apr’14
## Timeline and Milestones

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<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>Jan. 2012</td>
<td>Workshop 1 on user requirements</td>
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<tr>
<td>July 2012</td>
<td>Validation plan</td>
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<td>Sept. 2012</td>
<td>Framework architecture</td>
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<td>Oct. 2012</td>
<td>Model requirements</td>
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<td>Oct. 2012</td>
<td>Scaling up database ready</td>
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<td>May 2013</td>
<td>Workshop 2 on methodology framework</td>
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<td>Oct. 2013</td>
<td>Open interfaces verified</td>
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<td>Mar. 2014</td>
<td>Workshop 3 / Final event</td>
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<td>Apr. 2014</td>
<td>Scaling up database public</td>
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<td>May 2014</td>
<td>Final project report</td>
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Project coordinator

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Thank you for your time!