



## Life of the Network

According to the needs expressed by the participants, we set up an electronic forum, a document manager, a detailed profile and contact list manager, a mailing list management system, and a tool to organize events.

The electronic forum and the document manager allow HUMANIST partners to find easily relevant information. This way they know where to find the latest versions of the deliverables or the results of meeting sessions. They can also share working documents and share ideas.

The detailed profiles collect the competences of the partners and the contact list manager allows early stage researchers, for example, to browse the list of the members until they find the one that shares their topics of interest. Finally, the mailing list management system proposes a search engine through the contact list. In 4 clicks, a user can send an email to the whole network of excellence or only to the partners that are interested in one specific topic. This system greatly facilitates the traditional email communication.

The tool to organise events allows partners to keep a history of the previous events and to improve the preparation of the forthcoming events. Indeed, alerts will be sent to remind users not to forget interesting meetings. ■

## Scientific Events

### *International Workshop on «Modelling Driver Behaviour in Automotive Environments»*

#### CONFERENCE AT ISPRA: 23 - 25 MAY 2005

The study of all technological systems in terms of design, safety assessment or training purposes requires that significant attention is dedicated to human perspective.

This demands that appropriate models of Human Machine Interaction and associated taxonomies for classifying human behaviour are available for theoretical and practical application.

In the automotive environment, the paradigm of the joint human machine system is called "Driver-Vehicle-Environment" (DVE) model.

Several studies have pointed out the uniqueness of this domain, which can refer to minimum standardisation and normalisation of behaviours, contexts and technology.

The objective of this Workshop was to present and give a general overview of various factors that contribute to modelling human behaviour in a DVE interaction process.

In practice, rarely all these aspects have to be considered all together by a designer or safety analyst. However, they contribute to creating the overall picture of the DVE systems and show the scope and dimension of the many different interactions process that may take place and demand modelling consideration. Designers and analysts of automotive systems must be aware of these aspects and should be able to select and apply the most pertinent and necessary ones for the goal and scope of the study being carried out.

The workshop has been held on 25 - 26 - 27 May 2005 at the Joint Research Centre in Ispra, Lake Maggiore, Italy. The event was sponsored and supported by Joint Research Centre.

A very important feedback on core topics and future orientation of research clearly emerged. In these terms, models are top list issues to be further analysed, as emerged out of the questionnaire assessment. One core problem is that there is an abundance of models but is necessary to explore the relationship between them.

In conclusion, the outcomes of the workshop demonstrated that there are many open points in terms of integration of driver models coming from different disciplines and that these should be taken into account in terms of future researches, especially market driven.

The Proceedings contain revised papers of the lecturers as well as the poster presenters; they have been published by the European Commission in July 2005 and are available under request to the Publication Office of the European Commission or to the HUMANIST Consortium.



Listening at the ISPRA conference, May 2005.

Source: INRETS

#### The references of the proceedings are:

- ▶ Title: PROCEEDINGS OF THE INTERNATIONAL WORKSHOP ON MODELLING DRIVER BEHAVIOUR IN AUTOMOTIVE ENVIRONMENTS
- ▶ Editors: Luigi Macchi, Cristina Re, Pietro Carlo Cacciabue  
EUR 21677 EN, 2005  
ISBN 92-894-9628-2
- ▶ Publisher: Luxembourg: Office for Official Publication of the European Communities  
© European Communities, 2005

Extended papers provided only by the lecturers in a monograph will be published in Autumn 2006 by Springer in the Book: "MODELLING DRIVER BEHAVIOUR IN AUTOMOTIVE ENVIRONMENTS", edited by P.C. Cacciabue. ■



### Presentation of TFE Workshop

#### WORKSHOP AT SANTORINI: 13 JUNE 2005

One of the main objectives of the HUMANIST Task Force E is to exchange through the network, the knowledge and experience of projects which have applied or developed methodologies for the evaluation of IVIS both in terms of safety and usability.

Previously TFE developed a matrix to summarise the main aspects of applicability of various available methods for assessing specific aspects safety and usability. Having identified methods with different advantages and disadvantages, the next step of Task Force E was to consider how these methods could be integrated into appropriate methodologies.

The main objective of this meeting was to report on this first exchange of knowledge concerning the integration of individual methods into a more holistic approach to assessing safety and usability. The workshop was held in Santorini, Greece on 13th June 2005.

The morning session was comprised of five presentations concerning different aspects and methods of safety and usability.

The afternoon session started with the sixth and final presentation, which formed a transition to a more in-depth discussion about integrated methods and proceeding in Task Force E. The morning session was also open to ESRs (early stage researchers). The objective of this workshop was to provide introductions to the subjects in an interesting way as well as exploring more in-depth material.

The workshop identified that there is a research gap in how to combine methods into an integrated methodology. Therefore a suitable framework from the ISPRA workshop was identified following the workshop. ■

### The Madeira Joint Workshop

#### 13-14 SEPTEMBER 2005, MADEIRA, PORTUGAL.

A lot of research is taking place on the use of intelligent transport systems, which has already provided facts for the implementation or further development of some systems. However, there are several questions that have to be answered including which systems are more important, what is their impact on the user, the environment and the society, what are their side-effects, what are the specific user needs for each system etc.

Some of those questions were tackled during the presentations that were made for the joint workshop of Task Forces A, B and D in September 2005 in Madeira, on "User group specific impacts of IVIS and ADAS: Recent research on expectations, opinions, facts and developments».

The presentations covered the topics of the impact of the use of ITS on road safety from a variety of aspects involving special user needs, new perspectives on research and establishment of safety benefits.

The papers that were presented were mainly research made by HUMANIST partners, either within the framework of the project or related to other projects. Additionally, there were also synergies with other projects. Two papers were received from the AIDE project and one paper from VSCR,

Loughborough University from the SAFETYNET project.

Overall, the workshop was proven to be quite successful as a wide range of innovative subjects and new results were presented and the impact of ITS on road safety was discussed from various perspectives. Thus, the decision to organise a joint workshop between the three Task Forces (A, B and D) turned out to be beneficial as a lot of questions were raised about specific driver groups (e.g. drivers with disabilities), their specific needs and the effects of ADAS and IVIS on the safety of different groups (e.g. young drivers).

Other important issues were the role of in-vehicle telematics in real accidents as well as cultural differences between different countries in both driver needs, use of the systems as well as potential effects of the systems (e.g. eCall) in different environments and infrastructure.

The workshop provided answers to several questions and concerns that are raised involving the impact of the use of ITS and also indicated the directions of future research. Results are documented in the HUMANIST Deliverables B.3 and D.4. ■



Source: ERT

The Madeira joint workshop, September 2005.



Source: ERT

Listening to the presentations at the Madeira workshop.

## Scientific Events

### Workshop in Madrid about Simulators

24 - 26 APRIL 2006, CONFERENCE ON EUROPEAN GUIDELINES FOR THE APPLICATION OF NEW TECHNOLOGIES FOR DRIVER TRAINING AND EDUCATION. THE EVENT HAS BEEN HOSTED BY MADRID POLYTECHNIC UNIVERSITY.



Source: UPM

Simulated urban traffic environment for a bus drivers training simulator developed at UPM

HUMANIST TFG has worked since the creation of the NoE to assess the state of the art in the application of driver simulators to driver training, and to identify what additional R&D effort is needed to achieve the potential effectiveness in using simulators to improve the driver training process.

A variety of driving simulators is available nowadays covering a wide range of specifications. It is thus possible to implement different driver training applications. Nevertheless, there is a lack of common technical specifications that define the minimum conditions that a simulator should have to be suitable for use in the different levels of driver training applications.

During the Conference, researchers shared their experience with experts from the EU, European national administrations, driving simulator developers and constructors, driver training centres, and transport companies.

The different issues that need to be taken into account in the preparation of Guidelines for the application of the new technologies to driver education has

been discussed in the following sessions:

- 1: State of the art on driver training methodologies and curricula
- 2: Recent advances and development needs in driver simulators technology
- 3: E-learning applications to driver training
- 4: Novice drivers training
- 5: Professional drivers training
- 6: Older and disabled people training
- 7: Validation of simulators and training methodologies
- 8: Functional and methodological requirements
- 9: Development of a European driver training and education tool: feasibility/outline

All those interested in the various aspects of driver training have been encouraged to attend the Conference.

The detailed programme is available at the Humanist web site [www.noehumanist.org](http://www.noehumanist.org) and the outcomes of the meeting will be released soon at the same place. ■

Writers: JM. Meira, JM. Pardillo (UPM)

## Training Activities

### Training Events for Professionals

SUMMER SCHOOL 4 - 6 JULY 2005.

In the summer school "Intelligent Transport Systems: Design and Safety", seven lecturers from European research centres shared their knowledge on safety and animated discussions on this important topic, as the development of the new technologies of information and communication will, in the coming years, transform deeply the uses and the practices in transport.

The current developments, in the field of road telematics and driver assistance systems, may constitute a real opportunity of help for mobility and road safety. They raise nevertheless, numerous questions about their effectiveness, possible positive and negative modifications of behaviour or attitudes and about their acceptability by drivers.

We organised the summerschool in Saint-Lary in the French Pyrenees, July 3-6. Both lectures were given and practical exercises were held in which participants worked in small groups on finding solutions for given problems and cases. The three days treated three related themes:

- ▶ Safety and ITS: in which an introduction was given on the wide range of ITS systems, their different functions and their impact on safety, taking into account different driver groups.
- ▶ Human Centred Design: in which the development and evaluation of ITS systems was treated.
- ▶ Perspectives on road safety: in which safety was addressed in a larger perspective, also for the future.

Lecturers were: Guy Boy, EURISCO International, France; Joseph Krems, Chemnitz University of Technology, Germany; Stella Nikolaou, CERTH/HIT, Greece; Annie Pauzié, INRETS, France; Ralf Rissler, Factum, Austria; Ioanna Spyropoulou, NTUA, Greece; and Ellen Wilschut, IFADO, Germany.

The 17 participants, ranging from PhD students to professional experts, were all of the opinion that the workshop had been very interesting for them. Next to the content of the lectures they appreciated very much the lively discussions and interactions. And also the ambiance of the mountains and the French food. ■

Writer: Y. Barnard (Eurisco)



## Training Events for Professionals

IN 2006, HUMANIST ORGANISED TWO TRAINING EVENTS FOR PROFESSIONALS IN THE ROAD TRANSPORT AREA:

► **A one-day tutorial on Safety of Transport Systems, 24 February 2006 in Braunschweig, Germany**

This tutorial was organised in collaboration with the AAET conference ([www.gzvb.de](http://www.gzvb.de)) which takes place 21-23 February. The HUMANIST tutorial has been shaped to generate interactive debate with experts from different fields of transport and mainly automotive and aeronautics. This tutorial gave the great opportunity to participants to be trained on Safety of Transport Systems, to have fruitful discussions on that topic with a diversity of point of views. The tutorial consists of two parts:

1. Safety in design of intelligent transport systems. Lectures are given to transfer knowledge from experts in transport research on the following questions: What are the functions of ITS, and their consequences on safety? How can we design systems so that safety is taken into account? How can we evaluate systems on safety aspects?
2. Safety in transport. In this part we focus the discussion on safety in the wider context of transport and the future of transport systems.

► **A two-days seminar on Intelligent Transport Systems: Design and Safety, 9-10 May 2006 in Prague, Czech Republic**

This intensive and interactive learning event consists of lectures from experts in research in transport systems. Two main themes are addressed:

1. Safety and ITS, with lectures on ITS functions and their potential consequences on safety, Safety according to ITS functions and to drivers, and Automation, safety and human-centred design of safety-critical systems
2. Human Centred Evaluation and Design of ITS with lectures on Measurement methods and techniques for evaluating ITS, Standards for ITS and their contribution to safety, Design guidelines for human machine interaction for in-vehicle systems, Public impact of ITS, and European initiatives for improving road safety.

More than 70 people with various background participated to this event. ■

More information can be found on [www.noehumanist.org](http://www.noehumanist.org)



Source: CDV

Various designs of the interface according to the type of function

## Training for Early Stage Researchers

### DEFINITION OF TRAINING COURSES FOR EARLY STAGE RESEARCHERS

The training courses for early-stage researchers should in particular take into account interdisciplinary skills and topics that are not yet covered by the PhD students' university education. Their insufficient interdisciplinary orientation was indeed identified as one of the main gaps in their academic background.

The tandem-learning approach was identified as a mean to train interdisciplinary skills. In such a seminar, the engineers would teach basic engineering principles to the psychologists, while the psychologists would teach basic psychology principles to the engineers.

Only few PhD students reported an advanced knowledge about specific ITS issues. It is thus suggested to provide training according to the structure of the HUMANIST NoE, i.e. providing training with the different subjects of the Task Forces

as training content (driver needs, driver models, assessment methodologies etc.). The first training events for the young researchers have already taken into account these considerations and were, overall, successful: the first training activities were in conjunction with the TF-C workshop on driver behaviour models and the TF-E workshop on integrated assessment methodologies. Both events were well received by the majority of the PhD students, both in terms of the global assessment of the events and the impact of the training on their personal research activities. Future events should therefore also be linked to the regular activities of HUMANIST Task Forces.

The last training events for Early Stage Researchers was the tandem-learning seminar in Madrid on 26th April 2006. The main aim of the tandem-learning seminar

was the training of interdisciplinary skills. The scheme for this seminar has been drawn up by the TF5 partners. The PhD students have then prepared the teaching material for the actual tandem-learning seminar. It was proposed to assign one expert as supervising tutor to each training tandem.

The topic for the next ESR training workshop has not yet been defined. User needs are in general a central issue in human-centred design. Driver information needs are also interesting for half of the PhD student group. ■

## Dissemination Activities

### Stakeholders Forum Hanover

#### MINUTE AND PRESENTATION OF THE RESULTS THE STAKEHOLDERS FORUM, HELD ON 31<sup>ST</sup> MAY 2005.

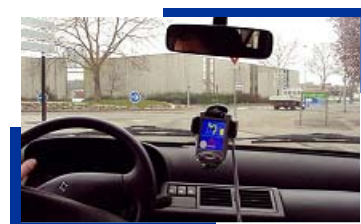
In the framework of transfer of knowledge and dissemination activities, a Stakeholders Forum has been organised in Hanover, the 31<sup>st</sup> of May 2005, the day before the ITS World Congress.

The objective was to set up debates and dedicated scientific exchanges with external stakeholders for personalised feedbacks to the NoE. The audience was coming from various backgrounds (industrials, companies related to wireless communication technology, public authorities, European Commission, representatives of European projects, research institutes and universities), 13 countries were represented. To create a fruitful context for these exchanges, a synthesis gathering the main research issues covered by the NoE had been sent in advance to participants, who were asked to react before the meeting. The audience was then prepared for the discussion, and this process allowed an interactive debate during the Forum.

After introductory presentations by Jean-Pierre Médevielle (INRETS/ERT) and by Emilio Davila-Gonzalez (EC, DG InfSo, HUMANIST project officer), several research issues have been

presented: Identification of the driver's needs in relation to ITS (VTT), Evaluation Methodologies (TRL), Impact Analysis (BAST), Evaluation of potential ITS benefits (NTUA), Education & Training of driver for ITS use (HIT).

The main conclusions of the Forum have been set up "on live" in order to be validated by the audience. These conclusions have been presented to the NoE Scientific Advisory Board during the Annual Meeting hold the 17<sup>th</sup> January 2006 in Bron, France. ■



31 May 2005, Hanover

Writer: A. Pauzié (INRETS)

### HUMANIST Partners in HCI Conference

#### THE 11TH INTERNATIONAL CONFERENCE ON HUMAN COMPUTER INTERACTION (HCI 2005) HAS BEEN HOLD IN LAS VEGAS, NEVADA, US, FROM JULY 22ND TO 27TH, ORGANISED CONJUNCTLY WITH SEVEN SYMPOSIUM AND ADDITIONAL CONFERENCES.

The main objective of this event is to provide an international forum for dissemination and exchange of scientific information on theoretical, generic, and applied areas of HCI, covering usability issues, virtual reality,



universal access and cognitive ergonomics. Due to the synergy of diversified scientific areas, this multi-conference allowed exchanges between specialists from various backgrounds, inducing a melting pot of creativity and transfer of knowledge in ergonomics in relation to new technologies.

Several partners from HUMANIST attended, presented and chaired sessions belonging to the following conferences:

#### Universal Access in Human-Computer Interaction

- ▶ HCI for Collaborative Systems and Towards a Self-Explanatory Environment, E. Bekiaris & M. Panou HIT, H. Widloither & W. Bauer Fraunhofer
- ▶ HCI in Driver Training: From Novice to Elderly drivers, M. Panou & E. Bekiaris HIT
- ▶ An Adaptive HMI for Integrated ADAS/IVICS Presentation to the Driver – the AIDE Approach, A. Amditis & A. Bolovinou ICCS; E. Deregibus CR FIAT, J. Engström Volvo Technology; H. Kussmann Robert Bosch

#### Engineering Psychology, Health and Computer System Design

- ▶ Coordination, Authority Trading, and Control in the Context of Safety-Critical Systems, G. Boy Eurisco & G. Grote ETH
- ▶ A Cross-Fertilized Evaluation Method Based on Visual Patterns and Cognitive Functions Modeling, G. Boy & L. Stephane, Eurisco
- ▶ Risk of Collision and Behavior Adequacy Assessment for Managing Human-Machine Interaction, T. Bellet, A. Bonnard & H. Tattegrain-Veste, INRETS/LESCOT

#### Engineering Psychology and Cognitive Ergonomics

- ▶ In-Car Machine-Human Interaction: How to Couple Vehicle Technologies with User-Centered Design, P. Cacciabue EC JRC, R. Montanari UNIMORE, F. Tango CR FIAT
- ▶ Lane-change Assistance: Predicting Drivers Intentions by Eye-movement, J. Krems, M. Baumann & M. Henning CUT; M. Schweigert BMW
- ▶ Modelling Driver Behaviour on Basis of Emotions and Feelings: Predicting Effects of Intelligent Transport Systems, T. Vaa TOI
- ▶ Behavioural Adaptations and Modelling Drivers' Performance with Advanced Automation Systems, P. Cacciabue EC JRC, F. Saad, INRETS/GARIG

#### and Human-Computer Interaction

- ▶ The Need of Interactive Training Tools in ITS Use Training: Collaborative Work within HUMANIST Network of Excellence, S. Nikolaou, E. Gaitanidou & E. Bekiaris HIT
- ▶ Methodologies for Driver-centred Evaluation of Perceptive and Cognitive Requirements of In-vehicle Display, A. Pauzié INRETS/LESCOT. ■

Writer: A. Pauzié (INRETS)

Detailed information on <http://www.hci-international.org>



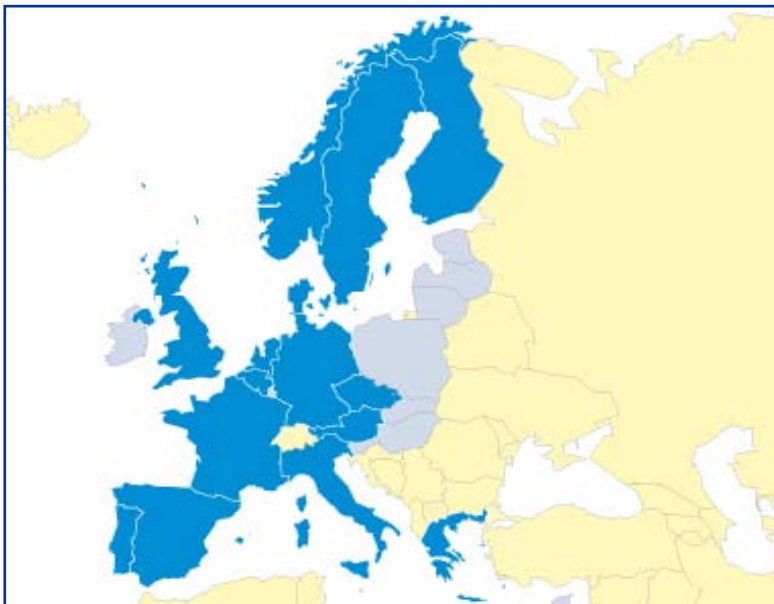
## Consortium Description

The HUMANIST Network of Excellence, which is sponsored and supported by ECTRI and FERSI networks, brings together 23 Partners, including EC-JRC, from 15 European countries.

All partners belong to the European Union, in addition to one associated participants (Norway).

The HUMANIST consortium gathers researchers in Human factors, Ergonomics, Cognitive sciences, Engineering, Sociology working in the areas of road safety, systems design and evaluation, accident analysis and drivers training.

The total number of researchers involved in the HUMANIST initiative reaches 125 researchers and 40 PhD students. ■



### HUMANIST

Full title: **HUMAN** centred design for Information Society Technologies

Contract no.507420

FP6 priority

Information Society Technologies IST - eSafety for Road and Air Transport

Duration: 48 months

Start date: March 04

EC subvention: 5 360 000 €

Consortium: 23 Partners - 108 researchers - 27 PhD students

Co-ordinator: ERT

Management team: INRETS, ERT, CDV, HIT, JRC & UPM

## HUMANIST Members

	<b>ERT</b>
	<b>INRETS</b>
	<b>BASt</b>
	<b>BIW</b>
	<b>CDV</b>
	<b>CERTH/HIT</b>
	<b>CUT</b>
	<b>DTF</b>
	<b>EC-JRC</b>
	<b>Eurisco</b>
	<b>FACTUM</b>
	<b>ICCS</b>
	<b>IfADo</b>
	<b>NTUA</b>
	<b>SWOV</b>
	<b>TNO</b>
	<b>TOI</b>
	<b>TRL</b>
	<b>UniMoRe</b>
	<b>UPM</b>
	<b>UTL/FMH</b>
	<b>VTI</b>
	<b>VTT</b>



## Forthcoming Events

### Agenda of ITS Events

June - December 2006

GÖTEBORG

► 12-13 June 2006

The first European Road Transport Research Conference, Göteborg, Sweden.

For further information:

<http://www.traconference.com>

LONDON

► 8-12 October 2006

ITS - Special Sessions, London, United Kingdom.

The ITS World Congress is organised by ERTICO in co-operation with ITS United Kingdom, Department for Transport, Department of Trade and Industry and Transport for London.

It is part of the highly successful ongoing series of ITS World and European Congresses.

For further information:

<http://www.itsworldcongress.com/its>

HELSINKI

► 21-23 November 2006

IST 2006 - Strategies for Leadership, Helsinki, Finland.

The IST conference is the main networking event and showcase covering research and development in Information Society Technologies (IST). This year's edition of the most important European event in the field of Information Society Technologies will coincide with the launch of the EU's Seventh Framework Programme for Research and Development.

For further information:

[http://europa.eu.int/information\\_society/istevent](http://europa.eu.int/information_society/istevent)

### Incoming Network Events

June - December 2006

INTERNAL MEETINGS

- 14-15 December 2006, Soesterberg, The Netherlands  
Executive and Assembly Meeting,  
Task Forces meetings.

WORKSHOPS AND CONFERENCES

- 27-29 September 2006, Turku, Finland  
2nd Conference on Drivers' Needs.

► 8-12 October 2006, London, United Kingdom

ITS - Special Sessions: HUMANIST partners will participate to several special sessions and are especially co-organising a special session with ETNITE Network on "ITS Training and Education in Europe and worldwide".

For further information:

<http://www.itsworldcongress.com/its>

- 12-13 December 2006, Soesterberg, The Netherlands  
Workshops on IVIS effects and on Methodologies for the Assessment of ITS

TRAINING EVENTS

► 26 September 2006, Finland

Special courses for Early Stage Researchers, integrated in 2nd conference on Drivers' Needs.



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**Design and Layout:** F. Idir (ERT)

For any further information contact: [humanist@inrets.fr](mailto:humanist@inrets.fr)

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You can download all the issues on the website: [www.noehumanist.org](http://www.noehumanist.org)

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