Report on the Targeted workshop 1 on “ITS and Reliability in Passenger Transport”

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SIXTH FRAMEWORK PROGRAMME

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Summary

The ERA-NET TRANSPORT (ENT) research programme is a joint effort of 11 European countries to promote efficient trans-national research cooperation in the field of Transport. Until now, transport research and networks have been seen from a national perspective.

In 2004, ENT identified potential areas for trans-national co-operation based on the actual research programmes within the participating countries.

The ERA-NET TRANSPORT work plan foresees that Targeted Workshops, bringing together European programs managers, will be organised on each of these potential areas for cooperation.

The first targeted workshop (TWS1) took place in Paris on November 29-30th, 2004, on the theme: *"ITS and Reliability in Passenger Transport"*.

TWS1 was organized by ENT Work package 3 (WP3), which is composed of the French Ministry of transport, public works, tourism and the sea and ISTED

Three sub-topics were identified before TWS1:

1. Incident management
2. Network management
3. passenger information

Prior to TWS1, all ENT countries were asked to provide WP3 with information on their national ongoing research programs related with TWS1 theme classified according the three above-mentioned sub-topics; and a national contact person on this theme.

Results of this information gathering were disseminated to participants during TWS1 workshop and are available in chapter three of this report.

46 Participants from the 11 ENT partner countries took part in TWS1

The following 7 topics for cooperation were selected:

1. ECall "Plus" / Service platform
2. Traffic data interface library
3. Real-time data collection: overview of sensor research
4. Business models for data collection and use (data ownership, role of public sector…): focus on real time data + multimodal issues
5. Trans-national architecture for multimodal information
6. Incident management in public transport (e.g. for elderly and impaired people)
7. Real-time data handling: modeling and short-term forecasting

For 4 of these themes a leader was identified and ENT partners confirmed their interest for cooperation.

Hereafter, a chart summarizing the TWS1 participants' expressions of interest for the selected themes and the leaders of these themes for cooperation:

ERA Net Transport - Themes selected during TWS1 in Paris on "ITS and Reliability in Passenger Transport" and expressions of interest received to date from ENT partners

Selected themes	Leader (*)	AT	BE	DE	DK	FI	FR	NL	NO	PL	SW	UK
ECall "Plus" / Service platform	Fi (Seppo Oörni)			X		X		X			X	
Traffic data interface library	Fi (Seppo Oörni)			X		X	X	X				
Real-time data collection: overview of sensor research	AT (Heimo Krof)	X	X			X	X	X	X	X	X	
Business models for data collection and use (data ownership, role of public sector…): focus on real time data + multimodal issues	NL (Paul Potters)	X		X	X	X	X	X	X	X		X
Trans-national architecture for multimodal information	FR (Rolland Cotte)			X		X	X		X		X	
Incident management in public transport (e.g. for elderly and impaired people)	No leader				X			X				
Real-time data handling: modeling and short-term forecasting	No leader	X	X		X	X		X	X		X	X

1. General introduction

1.1 ERA-NET TRANSPORT work plan and the role of WP3

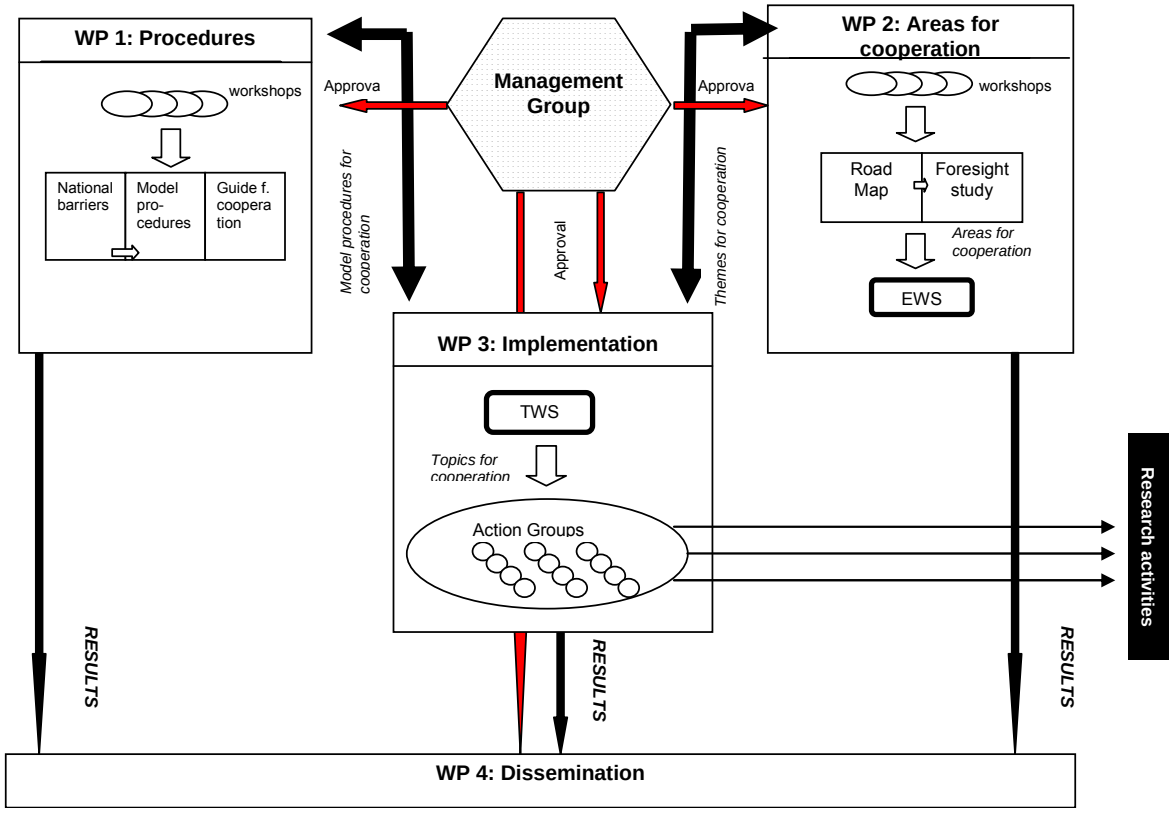
ERA-NET TRANSPORT aims at developing a European vision on transport research and developing cooperation between national transport research programmes for the short term and transnational cooperation in research programming for the mid and long term.

The objective of Work Package 3 in the ENT is the implementation of cooperation and coordination activities.

WP3 main results are:

- The Targeted Workshops
  - Definition of specified topics for cooperation
  - Inauguration of action groups (national program managers)
- Support action groups in setting up effective cooperation and coordination activities
- Test model procedures and guide for cooperation (WP1)

Hereafter, a chart summarizing the ENT work plan:



1.2 Follow-up activities

This report is a basis for the implementation of action groups on the themes for potential cooperation selected during TWS2.

For each theme one or two leaders have been identified and the corresponding state-of-the-art in each of the ENT partner countries has been asked for after TWS2 in order to start co-operating actions from October 2005.

The Management Group will statue on the action groups which should be implemented.

The selected action groups will then formally start the cooperation activities with the support of WP3.

A chairman will be selected for each action group to be responsible for the technical content of the activity.

The work plan will be decided in each case.

For each action group, a Memorandum of Understanding will be developed and signed by the participating countries in order to start the implementation of the trans-national research activity.

1.3 Structure of the report

In the next chapter, general information on TWS2 will be presented (agenda, list of participants…).

Chapter three summarizes the content, the discussions and the results of the TWS2 three sub-topics sessions which have been held during TWS2 first day (June 13th 2005, from 2pm to 6.15pm), on the themes:

- Cleaner vehicle cluster
- Alternative fuel and propulsion systems cluster
- Noise cluster

Chapter four summarizes the discussions of the TWS2 second day plenary session (June 14th from 9.30 am to 12.30 am), which has concluded TWS2, and the results and the conclusions of TWS2.

2. General information on the Targeted Workshop

2.1 The agenda

Day 1: November 29th, 2004. Place: La Grande Arche; North Pile (3rd level)

1	10.00	Registration of participants
2	10.15	Welcoming address
3	10.30	Presentation of participants
4	10.45	Presentation of ERA-NET Transport
5	11.00	Presentation of TW1 workshop
	11.30	Coffee break
7	12.00	Presentation of national related research programs in ENT Countries
8	12.45	*Lunch*
	14.00	ITS Clustering Meeting – Brussels - November 8-9 2004 – DG INFSO
9	14.30	Parallel sessions (3 sub-topics) - Sub-topic 1: Incident management (room #8.72) - Sub-topic 2: Network management (room #5.75) - Sub-topic 3: Passenger information (main room)
10	18.15	End of Day 1

Day 2 – November 30th, 2004 – Place: La Grande Arche; North Pile (3rd level)

11	9.00	Synthesis of the three parallel sessions of Day 1
12	9.45	Discussion
13	10.15	*Coffee break*
14	10.30	Selection of TW1 proposals for joint calls and/or clusters
15	11.30	Selection of participants and leaders for the various selected items
16	12.00	Actions to be implemented, next steps and milestones
17	12.30	Any other business
18	13.00	Conclusion - End of meeting

2.2 List of participants

ERA-NET TRANSPORT FIRST TARGETED WORKSHOP ON "ITS and RELIABILITY IN PASSENGER TRANSPORT"				
LIST OF PARTICIPANTS (November 29-30 2004) Paris (FRANCE)				
	PARTICIPANTS	**ORGANIZATION**	**COUNTRY**	**EMAIL**
1	Andreas BLUST	Federal Ministry for Transport, Innovation and Technology (BMVIT)	Austria	andreas.blust@bmvit.gv.at
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12	Juhani VEHVILÄINEN	Jussa Consulting	Finland	juhani.vehvilainen@kolumbus.fi

ERA-NET TRANSPORT FIRST TARGETED WORKSHOP ON "ITS and RELIABILITY IN PASSENGER TRANSPORT"

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25	Paul POTTERS	Connekt - ITS - Netherlands	Netherlands	potters@connekt.nl

ERA-NET TRANSPORT FIRST TARGETED WORKSHOP ON "ITS and RELIABILITY IN PASSENGER TRANSPORT"

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3. Information gathering on ongoing research programs

In the following all ongoing national research programmes in the participating countries related to the theme “ITS and reliability in passenger transport” is listed

3.1 Austria: National ongoing research programs

3.1.1 Sub-topic 1: Incident management

R&D Programme I2 - Intelligent Infrastructure

40% of all projects of the 1st and 2nd call for tender deal with safety aspects covering all modes of transport for the 3rd call; for tender (2005) it is planned to add security aspects (at the beginning reliability and robustness)

Responsible: Ministry of Transport, Innovation and Technology

Contact Person for this program: Andreas BLUST (andreas.blust@bmvit.gv.at)

3.1.2 Sub-topic 2: Network management

R&D Programme I2 - Intelligent Infrastructure

Example: Roncalli - market place for telematic data (there is a facility to converting to a testbed)

Responsible: Ministry of Transport, Innovation and Technology

Contact Person: Andreas BLUST (andreas.blust@bmvit.gv.at)

3.1.3 Sub-topic 3: Passenger information

R&D Programme I2 - Intelligent Infrastructure

About 25% of all projects of the 1st and 2nd call for tender deal with travel information aspects covering all modes of transport.

Example: Vienna Spirit - intermodal real time information between public transport and private transport

Responsible: Ministry of Transport, Innovation and Technology

Contact person: Andreas BLUST (andreas.blust@bmvit.gv.at)

3.2 Denmark: National ongoing research programs

3.2.1 Sub-topic 1: Incident management

Passenger regularity

A joint project with Centre for Traffic and Transport (CTT), The Technical University of Denmark and DSB (The Danish railroad operator) regarding passenger regularity. A coupling of sustained schedule and a Route Choice Model for passengers. Results are used to evaluate timetables.

Responsible: Prof. Otto Anker Nielsen – CTT, The Technical University of Denmark

E-Mail: oan@ctt.dtu.dk

Optimization of timetables with regards to frequency, robustness, and overall passenger transfer times

A Ph.D. project

Responsible: Alex Landex – CTT, The Technical University of Denmark

E-Mail: al@ctt.dtu.dk

Timeframe: Ends 2007

Floating Car Data for Traffic Monitoring

In the project is developed a complete prototype system that uses Floating Car Data (FCD) for both automatic and manual detection of queues in traffic. The system is developed under EU's Tempo program. The systems consists of small hardware units placed in mobile traffic report units (we use taxis) and backstage databases that collect all data send from the report units. The communication between the taxis and the databases is based on a very compact wireless communication protocol. A one month field test using ten taxis shows that the system is operational and that communication costs are very low (33 euro per taxi per year).
Responsible: Harry Lahrmann, Traffic Research Group, Aalborg University
E-mail:lahrmann@plan.aau.dk

Traffic Safe Young Car Drivers
Experiments with Intelligent Speed Adaptation.
The purpose of the project is to examine whether equipment for Intelligent Speed Adaptation installed in young drivers' cars, in combination with discounts on insurance fees, can motivate young road users to reduce speed and thus possibly save lives.
The project is designed to conduct research into the field of financial motivational factors in traffic behaviour and also into the field of GPS-based digital speed maps.
The project consists of several parts:
1. The development of a second generation of equipment and software to be installed in the young drivers' cars.
2. The development of digital speed maps and a web application for local authorities to update the position of signs.
3. A two year test period involving 300 young car drivers as participants in our project.

Responsible: Harry Lahrmann, Traffic Research Group, Aalborg University
E-mail: lahrmann@plan.aau.dk

3.2.2 Sub-topic 2: Network management

Passenger estimation using roads and counting-trains
Responsible: Otto Anker Nielsen – CTT The Technical University of Denmark
E-Mail: oan@ctt.dtu.dk
Timeframe: 2004/2005

Multiple small projects
Concerning data analysis, traffic forecasting, and modelling in the Copenhagen area.
Responsible: Otto Anker Nielsen – CTT, The Technical University of Denmark
e-mail: oan@ctt.dtu.dk
Timeframe: Unknown

Fleet size in public transport
Project determining necessary fleet size for demand responsive public transportation.
Responsible: René Munk Jørgensen – CTT The Technical University of Denmark
e-mail: rmj@ctt.dtu.dk

AKTA
Project concerning dynamic pricing in the Copenhagen area.
Responsible: Otto Anker Nielsen - CTT The Technical University of Denmark
e-mail: oan@ctt.dtu.dk
Timeframe: 2004
Website: www.ctt.dtu.dk

STF - Space, Time, Flow
The research programme is focuses on the consequences for the build environment (cities, buildings) and human activity that society is changing for an industry to a knowledge based and network society. And how a better quality of life can be created through the build environment ?
The five key questions of the research project are::

1. Where are the humans in the knowledge/network society's cities and buildings, and what do they do?
2. How does human beings experience to travel in both the build up and virtual space?
3. To what extent are functions moved for the build up space to the virtual space?
4. How is the connection between the virtual and the buildup space?
5. What consequences will the answers on the above stated questions have on the design, the appearance and the use of the cities, the build up environment and the tasks carried out in the year 2006

The survey design is based on daily registration of both the physical and the virtual activities of the test persons monitored on GPS PDA and WEB.
Responsible: Henrik Harder Hovgesen, Traffic Research Group, Aalborg University
Email: hhh@plan.aau.dk

3.3 Netherlands: National ongoing research programs

3.3.1 Sub-topic 1: Incident management
The Dutch ministry of Transport has an organisation and a handbook for incident management applied to its motorways and major roads. The handbook describes types of measures, including organisational issues. We would be willing to share this knowledge and experience with other countries.

3.3.2 Sub-topic 2: Network management
GGB: a handbook and a process description for finding solutions for traffic problems in co-operation. It gives a process description and tools for all levels, ranging from policy making, through deciding on infrastructure implementation to implementing and executing traffic management measures.

It has been enormously successful in making different authorities and private parties (e.g. public transport) co-operating to find, finance and implement common solutions rather than tending to their separate businesses since two years.

The Dutch ministry of Transport, Public Works and Water management would be interested in participating in pilots with the GGB method in other countries, or in cross-border situations.

The Dutch ministry of Transport, Public Works and Water management may be interested in a common pilot with graphic information panels.

The Dutch ministry of Transport, Public Works and Water management is active in all other areas mentioned and would be interested to see if there are any developments where a common approach might be cost-efficient or help international harmonisation in important areas.

3.3.3 Sub-topic 3: Passenger information

Again, the Dutch ministry of Transport, Public Works and Water management is active in the areas mentioned under this header and would be interested where a common approach might create benefits. Apart from that the Dutch ministry of Transport, Public Works and Water management are willing to share the knowledge we have in these areas.

3.4 Finland: National ongoing research

3.4.1 All three sub-topics

AINO Programme on Real-Time Transport Information 2004-2007

The research and development programme activities on ITS (Intelligent Transport Systems) of the Ministry of Transport and Communications in Finland continues in 2004-2007 in the form of the R&D programme on real time transport information AINO.

The goal of AINO is to develop the collection, management and utilisation of real time information in transport and thereby to create prerequisites for concrete ITS services, which will improve the safety, efficiency and sustainability of the transport systems as well as increase the well-being of citizens and the competitiveness of Finnish companies.

First call for proposals ended 27th August 2004. As the result of the first call 25 projects from 57 were launched. Number of projects according sub-programme, see below. To achieve efficient focusing, networking and organization, the programme consists of five sub programmes:

- Public transport information (10 projects)
- Goods transport information (3 projects)
- Transport network status information (4 projects)
- Driver support (2 project)
- Service framework (6 projects)

Website: http://www.aino.info/indexe.html

HEILI, Passenger Information Programme 2001-2004

The objective of HEILI was to develop multimodal passenger information and information services in both private and public transport. Special attention was paid to the development of the information and data transfer systems required by the services. In the HEILI programme there were 40 projects, most of which were concrete development projects. The total number of individual projects came to about 50.

According to the HEILI Programme vision, in 2006, anybody is able to get needed travel information from one source. Before the journey, passenger is able to choose

suitable modes of travel, route and time. During the journey, passenger is able to travel comfortable and reliable as well as to change traveling plans according to the circumstances. The vision is realized, when common information services are implemented in co-operation with different parties.
HEILI aimed to promote co-operation in the realisation of passenger transport information services and public transport incident management between 2001 and 2004. The programme aimed to ensure that the necessary parts of the passenger information service chain were realized. It was also hoped that the programme would promote the birth of new service providers and the creation of innovative services. The programme also tried to steer the division of tasks and responsibilities to avoid redundancy and to ensure the
sharing of experiences and information between actors. Other objectives included promoting co-operation and ensuring the interoperability of the systems.
Website: http://www.heili.info/indexen.html

3.4.2 AINO sub-programs per TWS1 sub-topics

1) Incident Management

AINO sub-programme Network Status Information

Objective related to incident management: Cost-effective monitoring of incidents and solutions for incident management especially in urban areas.
Intended change: drivers do not encounter unpleasant surprises on their route.

AINO sub-programme Driver Support

Objective: Monitoring of driver and vehicle status, behaviour and hazardous conditions and supporting the driver via feedback or control actions.
Intended change: Finnish support services reduce the risk of road, rail and maritime fatalities to a considerable extent by 2010.

2) Network Management

AINO sub-programme Network Status Information

Objective related to network management: Cost-effective monitoring of network status (incidents, congestion, road weather, travel times) and solutions for urban traffic including pedestrians.
Intended change: road management emphasis towards user needs oriented network operation to fulfill strategic network performance objectives.

3) Passenger Information

AINO sub-programme Public Transport Information

Objective: Increased public transport attractiveness by real-time information, route planning and value-added services provided in vehicles and at stops and terminals.
Intended change: passengers have control over travel and enjoy using public transport; operators have efficient operation with minimum fleet.

3.5 France: National ongoing research programs

3.5.1 All sub-topics

Predit: Research and innovation programme for land transport

The Predit is the national research and development programme for land transport which deals with topics ranging from mobility, environment, safety, and freight, both from a policy and a technology side.
Contact Person: Sylvie Niessen, sylvie.niessen@equipement.gouv.fr
Web Site :www.predit.prd.fr

Deufrako: The French German Cooperation

DeuFraKo is the framework for French-German cooperation in transport research. Set up in 1978 to deal with rail issues, it has recently expanded to cover other topics. Its main objective is to bring together the "Predit" and "Mobilität und Verkehr" national programmes.
Contact Person: Sylvie Niessen, sylvie.niessen@equipement.gouv.fr
Web site : www.deufrako.org

3.5.2 Sub-topic 1: Incident management

Arcos: Research action for safe driving.

This large scale national project aims at improving road safety through a global approach for vehicle-infrastructure-driver cooperation, including systems to *warn incoming vehicles of accidents.* This issue was also covered in a Deufrako project called IVHW (inter-vehicle hazard warning), which also considered needs for warning of road work, lane closures, etc.
Contact :Armel de la Bourdonnaye, armel.de-la-bourdonnaye@equipement.gouv.fr
Website: www.arcos2004.com
Time frame: 2001-2004

Management of large events

Projects have been initiated to make organizational recommendations on mobility management for large events (sports, culture...), including an ongoing study of the world athletics championship in Paris 2003.
Contact person: Françoise Potier, francoise.potier@inrets.fr
Time frame: 2003-2005

3.5.3 Sub-topic 2: Network management

CORRECT : Corridor for Rail Equilibrium and Cooperation in Transport

This Deufrako project aims at improving quality of service through a transnational freight information system on the Woippy-Mannheim corridor. This information system will solve some interoperability problems and enable real-time supervision and management of the rail corridor.
Contact person: Michel Julien, michel.julien@equipement.gouv.fr
Time frame: 2004-2005

IRAMES : Intelligent ramp metering systems

This Deufrako project providing recommendations for the implementation of ramp metering systems, based on a cross-border analysis. Developments are foreseen in a follow-up project.
Contact person: Jean-Michel Serrier, jean-michel.serrier@equipement.gouv.fr
Time frame: 2002-2004

SARI : Automated monitoring of road infrastructure for travelers and network managers

This large scale national project aims at providing an information base to inform both travelers and network managers of the current status of roads (traffic, meteorological conditions, etc...).

Contact person: Marie-Claire de Franclieu, marie-claire.de-franclieu@equipement.gouv.fr

Time frame: 2005-2007

3.5.4 Sub-topic 3: Passenger information

Predim : Research and Experimentation Platform for the Development of Multimodal Information

Within Predit, the Predim platform supports the activities of all stakeholders (national and local authorities, vehicle manufacturers, information service operators, research laboratories...) dealing with multimodal transport information systems.

Contact Person: Roger Lambert, roger-r.lambert@equipement.gouv.fr

Web Site : www.predim.org

Examples of ongoing projects:

- **SARRASIN** on mobility management in rural areas through car-sharing
- **CONTENTS OPERATOR:** Technical and institutional solution for multimodal information service development. Neutral link between stakeholders and public authorities.
- **MobiVIP** on new ICT applications for an innovative mobility service based on small personal vehicles in urban centers (www-sop.inria.fr/mobivip/)
- **P@SS-ITS** on implementing a real-time information system for tramways
- **SIERRA** on a methodology for evaluating the impacts of multimodal information on traveler behavior
- **ACTIF** on recommendations and support tools for setting up interoperable transport information systems (www.its-actif.org) – note: benchmarking studies are planned for 2005.

3.6 Germany: National ongoing research programs

3.6.1 Sub-topic 1: Incident management

Mobi@bb project

Developing guidelines for quality in road traffic management
Including improvements for traffic management strategies, traffic guidance, and incident management
Evaluation of the interaction between individual and public transport

Responsible: Senat Stadt Berlin, Department for Telematics, Traffic Management and Traffic Research

Project will be started soon / No website now

3.6.2 Sub-topic 2: Network management

ORINOKO

Development of economical priced traffic data collection and modelling
Testing of different data collection systems as a singular and in connection to other systems (contact loops, video detection, taxi floating car data

Responsible: City of Nuernberg, Traffic Planning Department,

Website: www.nuernbergverkehr.de (is not the official website of project but contains further information)
Project will be started soon

DinMotion
Development of a regional traffic management strategy, including the authority of the state, bundesländer, rural district and the town council.
Development of a common pool of traffic data as a model of public private partnership
Modelling traffic data, traffic forecast, light management
Responsible: City of Duesseldorf, Traffic Management Department
Project will be started soon / No website now

Traffic.online
Using mobile phones to collect traffic data for different applications
Responsible: Technical University of Braunschweig, Institute for Traffic and Urban Architecture
Project will be started soon / No website now

3.6.3 Sub-topic 3: Passenger information

Stadtinfoköln
Developing an advanced parking information and communication system with parking garages and surface parking, parking guidance and parking reservation, electronic parking ticket with communication to the parking ticket automat.
Development of an information system for individual and public traffic with overall travel time forecast.
Real-time overall travel time determination
Responsible: City of Cologne, Department of Streets and Traffic Technologies
Website: www.mobiball.de and www.stadtinfokoeln.de

Mobinet
Increase the attractiveness of the public transport
Optimization of the traffic flow on the main traffic center lines in the urban region.
Common navigation and parking information system
Innovative concepts for a mobile community, examine teleworking, teleshopping and traffic education for school children
Responsible: SSP Consult
Website: www.mobiball.de and www.mobinet.de

INVENT FAS (in-car assistance)
Developing advanced sensors for a better detection of the vehicle peripherals, detecting other vehicles, persons, traffic lights, traffic signs, road conditions….
Building new concepts of man-machine-interaction
Traffic jam assistance, stop-and-go-manager
Intersection manager
Website: www.invent-online.de

3.7 Norway: National ongoing research programs

3.7.1 Sub-topic 1: Incident management

Interactive driving and traffic simulator (preventive tool)
Responsible: SINTEF Roads and Transport,
Contact person : Jørgen Rødseth, SINTEF (jorgen.rodseth@.sintef.no)

3.7.2 Sub-topic 2: Network management

IRute: Optimal transport planning in a complex environment
Responsible : Landbruksdistribusjon AS,
Project manager: Inge Rosvold (inge.rosvold@felleskjopet.no)

DoIT
Methods and software for transport planning taking into account dynamic traffic information. (Vehicle routing problem, VRP).
Responsible: The Norwegian Public Roads Administration.
Project manager: Atle Riise, SINTEF (atle.riise@sintef.no)

PROGRESS
Road user charging in urban areas.
Website: http://www.progress-project.org
Contact person: Eirik Skjetne, SINTEF (eirik.skjetne@sintef.no)

SPOT/PAK
Adaptive priority of public transport in urban traffic control systems.
Contact person: Eirik Skjetne, SINTEF (eirik.skjetne@sintef.no)

3.7.3 Sub-topic 3: Passenger information

IBIS
Integrated payment and information system for passenger traffic
Responsible: The Norwegian Public Roads Administration.
Project manager: Eirik Skjetne, SINTEF (eirik.skjetne@sintef.no)
Related WebPages (http://www.sintef.no/eway/showArticle.asp?oid=30784)

DynamIT
Value adding services utilizing dynamic traffic information.
Responsible: The Norwegian Public Roads Administration.
Project manager: Per J. Lillestøl, SINTEF (per.lillestol@sintef.no)

MOVE
Access to location based multimedia tourist information and digital services
Responsible: Telenor R & D.
Project manager: Sigmund Akselsen, (sigmund.akselsen@telenor.com)
Website (http://www.moveweb.no/, in Norwegian),

AKTA
Demand based information system for all types of passengers, including universal design requirements.
Responsible: Trondheim City Authorities.
Contact person: Eirik Skjetne, SINTEF (eirik.skjetne@sintef.no)

MULTIRIT
(Initiative not yet financed):
Multimodal passenger information system based on the Arktrans framework. Optimal route planning for different types of transport taking care of dynamic information. New functionalities at electronic maps.
Responsible: ITS Norway, web page: http://www.itsnorway.no/
Contact person: Marit Kjøsnes Natvig, SINTEF, (Marit.K.Natvig@sintef.no)

SIS
Real Time Public Transport Passenger Information.
Responsible: City of Oslo, Akershus County Council and the Public Roads Administration.
Contact person: Magne Bentzen, Oslo Public Transport Information Services (mb@trafikanten.no)

3.8 Poland: ITS; short story of telematics in transport system in Poland

The issue of telematics in Polish transport occurred in the middle of nineties. It was the first time when the meaning range and telematics field of use in transport was defined. Telematics was defined as the field of knowledge and field of technical activity which join information technology with the telecommunication (Intelligent Transport System is the use of telematics for the transport system). ITS describes the strategy (the development of the management centers connected with transport, passengers flow and goods flow.

But also joining the vehicles (rail vehicles, cars, etc.) into the management network, mobile network monitoring system and satellite navigation system and the equipment of the vehicle, shipment with the particular sensor.

ITS is the intelligent telematics transport system, so the system of the road management, vehicle, driver and transport management system, with the support of telecommunication, information technology of the real time which enables the establishment of the people, vehicle and goods flow in the different environmental conditions of the inland roads, waterways and air route.

Local authority and public administration are interested in the telematics.

ITS research in Poland
Knowledge about the creation of ITS and the didactics connected with it is still at the beginning of the road in Poland. In the Research Centre of the Road and Bridges in Warsaw there is Management and Telematics Team.
Szczecin University of Technology is planning the activities, which are connected with the economic side of management in ITS.
Technical and Scientific Rail Centre in Warsaw and Silesian University of Technology in Katowice are involved in the telematics in railway management by means of the new generation mean development used to the development of ERTMS System (European Rail Train Management System).
The most important here is the support of railway steering, based on the interface development “human-machine” for the needs of train driver. What is very important here is the normalization of the information exchange protocols between vehicle and the steering centre taking into consideration the existing national system?

The problem connected with railway steering is discussed in different Departments of Transport : Silesian University of Technology, Warsaw University of Technology, Radomsk University of Technology.
The problems connected with road traffic are studied by the Department of Transportation System at Cracow University of Technology.
Faculty of Mechanical Engineering and Robotics in Cracow deals with telematics which is connected with industrial transport.
The most important part of Intelligent Transport System is the integration of Information Technology and risk analysis in (delivery chain and logistics network), with which the University of Economics in Katowice and also Institute of Logistic and Warehousing in Poznań deal.
Szczecin Maritime University deals with problems connected with satellite navigation and programming of ship route.
All problems connected with Intelligent Transport Systems together with problems of standardization on telematics in transport are coordinated in Poland by Polish Telematics Association in Warsaw.

Transport Telematics Group, functioning in the Transport Committee of the Polish Academy of Science, works in framework of the Transport Traffic Steering Section.

Very important initiative was the international conference "Transport Systems Telematics", organized in 2001-2004 by the Unit of Automatics in the Department of Railway Engineering at the Silesian University of Technology. There were a lot of theorist and practice participants from all branches of transport connected with Intelligent Transport Systems.

3.9 Sweden: National ongoing research programs

3.9.1 Sub-topic 1: Incident Management

Infrastructure and efficient transport systems
More efficient road and traffic management and road user information,
Responsible: VINNOVA

DA12
More efficient road traffic management and road user information
Responsible: Swedish National Road Administration; Swedish Road Administration (SRA)

DA10
Improved accessibility to road and traffic information
Responsible: SRA

IVSS
Responsible: SRA.

3.9.2 Sub-topic 2: Network management

The Internal Efficiency of the Railway Transport System
Responsible: Banverket

DA 12
More efficient road and traffic management and road user information
Responsible: SRA

DA8
A city for all,
Responsible: SRA

DA10
Improved accessibility to road and traffic information,
Responsible: SRA

DA13
Towards a long-term sustainable transport system
Responsible: SRA

IVSS
Responsible: SRA

3.9.3 Sub-topic 3: Passenger Information

Innovative vehicles, crafts and systems
Responsible: VINNOVA

Infrastructure and efficient transport systems
Responsible: VINNOVA

DA12
More efficient road and traffic management and road user information
Responsible: SRA

DA10
Improved accessibility to road and traffic information
Responsible: SRA

DA8
A city for all
Responsible: SRA

IVSS
Responsible: SRA

4. Results from the workshop

4.1 Content and results of the first day morning plenary session

All presentations made during the plenary session (first day morning) were distributed.

An electronic version of these presentations has been gathered and made available on the ENT website.

Many participants brought documents regarding their national research programs and projects (the list of these documents is available in the appendix).

The aims of the sub-sessions topics were explained to participants during this plenary session:

- Identify the technical topics for the activity:
  - Topics where trans-national cooperation provides added value
  - Topics with limited funding in each country
  - Topics with limited research environment in each country

- To get a first indication of the relevant way to organize the activity:
  - Merge ongoing activities
  - Identify a new project
  - Identify a new program

4.2 Results of the sub-topics sessions

During the three sub-topics parallel session which have been held on the following themes:

- Incident Management
- Network management
- Passenger Information

7 topics for cooperation have been selected, based on the work in sub-groups:

1. ECall “Plus” / Service platform
2. Traffic data interface library
3. Real-time data collection: overview of sensor research
4. Business models for data collection and use (data ownership, role of public sector…): focus on real time data + multimodal issues
5. Trans-national architecture for multimodal information
6. Incident management in public transport (e.g. for elderly and impaired people)
7. Real-time data handling: modeling and short-term forecasting

4.3 Results of the closing plenary session

During the closing plenary session, which has been held on TWS1 second day morning, TWS1’s participants expressed interest on the themes for cooperation identified during the sub-topics sessions.

Leaders volunteered on 4 of the 7 themes for cooperation selected during the sub-topics sessions.

The following chart summarizes the interests expressed during this plenary session:

Selected themes	Leader (*)	AT	BE	DE	DK	FI	FR	NL	NO	PL	UK	SW
ECall “Plus” / Service platform	**FI (Seppo Oörni)**			X		X		X				X
Traffic data interface library	**FI (Seppo Oörni)**			X		X	X	X				
Real-time data collection: overview of sensor research	**AT (Heimo Krof)**	X	X			X	X	X	X	X		X
Business models for data collection and use (data ownership, role of public sector…): focus on real time data + multimodal issues	**NL (Paul Potters)**	X		X	X	X	X	X	X	X	X	
Trans-national architecture for multimodal information	**FR (Rolland Cotte)**			X		X	X		X			X
Incident management in public transport (e.g. for elderly and impaired people)	**No leader**				X			X				
Real-time data handling: modeling and short-term forecasting	**No leader**	X	X		X	X		X	X		X	X

6. ANNEX

PowerPoint Presentations made during TWS1 on 'ITS and Reliability in Passenger Transport'

1. PowerPoint Presentation: the National R&D FundingProgramme for ITS in Austria
2. PowerPoint Presentation: Norway, presentation of the move project
3. PowerPoint presentation: Finland, presentation of AINO program, R&D Programme on Real-Time Transport Information 2004-2007
4. PowerPoint presentation: France, CERTU, Research and Experimentation Platform for the Development of Multimodal Information
5. PowerPoint presentation: German National Research Programmes in the Field of ‚ITS and Reliability of Passenger Transport'
6. PowerPoint presentation: Norway, presentation of the IBIS project
7. PowerPoint presentation- ERA-NET TRANSPORT Consortium WP3 Mathieu Goetzke, Presentation of the European background
8. PowerPoint presentation: Norway, presentation of multimodal cooperation
9. PowerPoint presentation: Norway, A brief overview of the Norwegian transport research
10. PowerPoint presentation: Presentation of the sub-topic session objective
11. PowerPoint presentation: Short story of telematics in transport system in Poland.
12. PowerPoint presentation: France CERTU, PREDIM : Research and Experimentation Platform for the Development of Multimodal Information