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GREETINGS FROM THE DIRECTOR

Transportation is by definition an economic development accelerator factor and a civil communication and interaction factor as well. For a long period of time in Greece the scientific and research “coverage” of transport field was an issue of Universities’ activities. Fortunately, in 2000 the situation changed and the establishment of the Center of Research and Technology and thus the Hellenic’s Institute of Transport was a signal of positive change in this scientific field while being the first public, scientific and research greek organization dedicated in Transport issues.

During the first period of HIT’s operation, from 2001 to now, it has been a factor of change concerning the situation of research activities in Greece in the Transportation Issues.

The year 2003 was a very important year from many aspects. Firstly, the most important evolution, concerning Greece, was European Enlargement, which created a new balance in Greece’s neighborhood. Secondly, a stable readjustment of public policy in the area of Transport is being lately noticed, while the aim is to harmonize with the Common

Research Area of EU together with the overcoming of bureaucratic and administrative obstacles. Thirdly, the formulation of the ERA, which promotes the implementation of integrated research partnership programs, common research goals and excellence networks.

Thus, these positive processes make me be confident that 2003 success is not occasional but permanent and will constitute HIT’s future.

From this position, I would like to thank HIT’s research and administrative personnel together with HIT’s externals experts, whose contribution leads to Institute’s rapid development and its recognition as a well known center of excellence at Pan European level. I would also like to thank the central administration and the administrative personnel of CERTH for the constant support and the excellent cooperation, at any level.

Prof. G.A. Giannopoulos



1 PREFACE

Research in the field of Transport, as in many other scientific fields in Greece is in need of capable research organizations that will be able to play a key role in research activities using the needed research infrastructures. The establishment and the operation of the Hellenic Institute of Transport, is a sign that research activities in the field of Transport enters a new era of development and maturity that is being characterized by:

- ✚ The establishment of research infrastructure at national level
- ✚ The financial subsidy of research programs by national organizations - mainly General Secretariat for Research and Technology and ministries as the Ministry of Transport and the Ministry of Environment, Public Works and Planning
- ✚ The structure improvement of Greek research organizations from the aspect of project realization and monitoring

✚ The substantial participation of Greek research organizations in the field of Transport at European Level and mainly due to the establishment of the European Research Area by the 6th Framework Program

In 2003, HIT's main areas of interest were:

- ✚ Planning of Transport Systems and prediction methods of future transport needs.
- ✚ Impact evaluation of the use of Transport Systems, especially in the field of security, environment and energy consumption.
- ✚ Financial assessment of transportation projects.
- ✚ Implementation of Intelligent Transport Systems.

During this year of HIT's operation, structural and infrastructure enforcement occurred as 17 people composed the human force while clean vehicles and single wall simulator were acquired.

Additionally, HIT's activity sectors continued the realization of projects with starting date within the previous years while a lot new projects were activated the year 2003.



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HIT's participation in international organizations is another very important issue while in the year 2003, March, HIT's Director Mr G. Giannopoulos, was elected as a president of ECTRI.

As a conclusion we must say that during the three first years of HIT's operation, the activity results are very optimistic from the aspect of scientific activity and financial results.



2 HELLENIC INSTITUTE OF TRANSPORT

2.1 LEGAL ID/HEADQUARTERS

The Hellenic Institute of Transport (HIT) is an Organization devoted to the promotion and execution of Transport research in Greece. It was established in March 2000, by Presidential Decree 77/2000 as part of the National Centre for Research and Technology Hellas (CERTH). It is a “private status” legal entity under the supervision of the General Secretariat for Research and Technology of the Ministry of Industry. It is based in Thessaloniki, Greece. HIT is located in Thessaloniki Technology Park – Charilaou - Thermi Avenue



PICTURE 2-1: H.I.T premises



2.2 MISSION STATEMENT

HIT's fundamental mission is to provide a centre of excellence in the field of Transport with highly specialized research services offered to government and other public and private organizations and bodies, and to provide support on the conduct of Transport research in Greece. It is also devoted to providing support to Ministries and other government bodies for the formulation of Transport policy. The scope of services covers all areas of Transport and in particular the organization, operation, planning and development of infrastructure, standardization, economic analysis, management, vehicle technology and impact assessment of land, maritime, air, and multimodal transport services. HIT co-operates and interacts with similar organizations and Institutes in the EU and other countries, and represents Greece in relevant international fora.

The specific areas of HIT's priority activities, can be described as follows:

- Scientific and research support for transport policy formulation to Ministries and other Organizations involved in Transport Policy and Control in Greece.

- Specialized research in the field of Transport.
- Organization and operation of a documentation centre in the field of Transport.
- Development and maintenance of databases covering important areas of Transport Operation in Greece.
- Transport research evaluation and appraisal.
- Support of standardization work in the field of Transport and issuance of handbooks, rules and guidelines concerning the operation of the Transport system.
- Representation of Greece, in Transport Research and other relevant scientific fora abroad
- Investigation of user requirements and adaptation of transport research results to industry.
- Technology transfer and dissemination of research results to the transport industry and the transport users.
- Organization of training and professional education Seminars and Programmes.



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- ✚ Contribution to quality control in the field of Transport.
- ✚ Publication and dissemination activities (including Conferences and regular publications).
- ✚ Promotion of bilateral as well as multilateral co-operation between Greece and other countries in the field of Transport, with emphasis on the countries of South East Europe.
- ✚ Facilitate exchange of personnel, especially young scientists, between relevant organizations and companies.



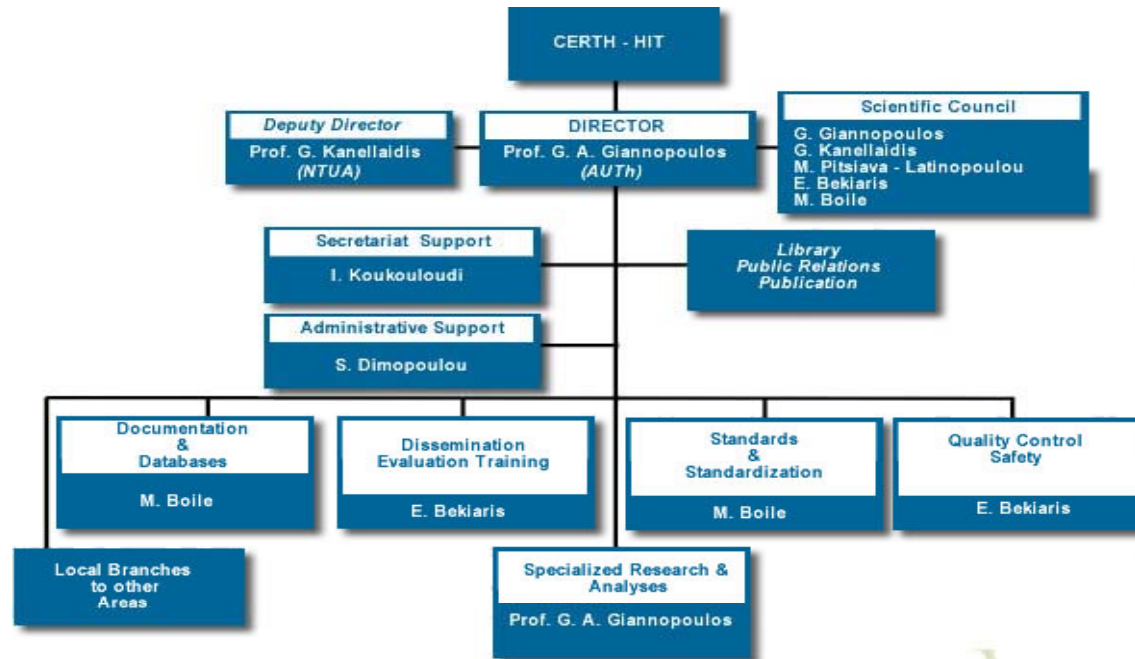
PICTURE 2-2: CERTH Headquarters



3.1 ORGANIZATIONAL CHART

3 ORGANIZATIONAL ID

HIT's Organizational Chart for 2003 can be seen in PICTURE 3-1: HIT:



PICTURE 3-1: HIT Organizational Chart



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HIT's Director, substituted by a deputy Director, manages the Institute in consultation with a five member Scientific Council of the Institute (SCI), which is consisted by senior members of the Institute's personnel. The ultimate deciding body is the Board of Directors of CERTH.

More specifically, the Director of the Institute is responsible for the composition of the strategic development plan of the Institute, for the human resources issues such as, the employment of new personnel or personnel discipline issues, the composition of the annual budget, the annual financial report and the annual review and the presentation of these statements to the Board of Directors. He is elected according to a certain procedure of public position proclamation and nomination judgement, which is done by an independent committee composed by five experts. His nomination is under Minister's of Development jurisdiction and the post is held five years. This procedure was done for the first time in 2003 and as HIT's Director was elected Mr G. Giannopoulos.

In 2003, HIT' s SCI was consisted of: Prof. G. Giannopoulos, Prof. G Kanelaidis, Prof. M. Pitsiava - Latinopoulou, Dr. E. Bekiaris and Dr. M. Boile.

5 Operational Sectors formulate HIT's organizational structure and for 2003 they were the following:




-  Documentation and Databases
-  Dissemination of research results, evaluation, and training
-  Standards and standardization activities
-  Quality control and safety promotion
-  Specialized research and analyses

The notion of an "Operational Sector" is that of a work unit dedicated to a specific field and equipped and staffed appropriately for this purpose. The size of an Operational Sector depends on the number of projects it has at any given point in time.



3.2 HUMAN RESOURCES 2003

HIT employs permanent personnel (Researchers of A, B, C, and D category), and personnel under research contracts of specific or unspecified time duration. In 2003 the personnel consisted of:

-  Elected research personnel of A, B, C, and D category
-  Administrative and scientific personnel under a private contract of specified time
-  External experts and counsellors under research contracts

The personnel worked in regular everyday basis for H.I.T, in 2003, was:

3.2.1 PROF. G. GIANNOPOULOS, CIVIL ENGINEER - TRANSPORT PLANNER, DIRECTOR

Prof. Giorgos Giannopoulos for the last 25 years has been involved in a number of activities in the field of Transport in Greece and the EU, and has been widely known as an expert on a number of Transport fields (especially Public Transport, Freight Transport and and Intermodality)

but in particular Telematics (ITS) applications in the field of Transport, and Transport policy issues especially European policies.

3.2.2 PROF. G. KANELLAIDIS, CIVIL ENGINEER - TRANSPORT PLANNER, DEPUTY DIRECTOR

Prof. Giorgos Kanellaidis has more than 30 years of professional experience specializing in the area of Transportation Planning and Engineering by providing consultancy services to greek organizations (Ministry of Environment, Town Planning and Public Works, PATHE Motorway, "Egnatia Odos") and international organizations as well (European Commission, ARRB Transport Research, Danish Road Institute, etc.).

3.2.3 DR E. BEKIARIS, MECHANICAL ENGINEER, H.I.T. PRINCIPAL RESEARCHER B

Dr. Evaggelos Bekiaris holds a degree and Phd of Mechanical Engineering Department of the National Technical University of Athens. His field of expertise ranges from Road Safety to specialized telematics applications for private vehicles, public transportation, even



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ships. He has also profound experience in technology for the integration of people with special needs, with emphasis on accessible transportation systems. Up to now, he has been Project Coordinator in 9 big research projects and has participated in 50 research projects funded by the EU.

3.2.4 DR. M. BOILE, CIVIL ENGINEER - TRANSPORT PLANNER, H.I.T. PRINCIPAL RESEARCHER B'

Dr Maria Boile received her diploma in Civil Engineering with specialization in Transportation Engineering from National Technical University of Athens, Greece in 1990, M.S. degree in Civil and Environmental Engineering from Rutgers University in 1992, and Ph.D. in Transportation Engineering from New Jersey Institute of Technology in 1995. During 10 years of research and teaching Dr. Boile has addressed key methodological issues related to passenger and freight transportation modelling and conducted research in the areas of geographic information system technologies in transportation, mass transit, transport economics, and the use of new technologies in transportation.

3.2.5 DR. F. STERGIPOULOS, ELECTRICAL ENGINEER, RESEARCHER D'

Dr. Fotis Stergiopoulos obtained his degree with honors in Electrical Engineering in 1995 and his PhD in Electrical and Electronic Engineering from the University of Birmingham, UK in 1999 working on power electronics applications for electric drives and power transmission. During 1998-1999 he worked as an R&D engineer at the Asea Brown Boveri (ABB) center in Sweden, in the area of power electronics. As a result of his work, he contributed in one patent and 3 other invention disclosures at ABB.

3.2.6 DR. Y. TYRINOPOULOS, TRANSPORT PLANNER RESEARCHER D'

Dr. Yannis Tyrinopoulos graduated from the Department of Mathematics of the University of Ioannina in 1992. In 2002, he obtained his Ph.D. at the Aristotle University of Thessaloniki, Greece with thesis "Telematics Applications in Public Transport: Development of an Integrated Management Information Model for the Planning and Management of Information Systems in Public Transport" and he is



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specialized in the application of IT solutions at the cutting edge of technology to the wider transport and logistics sectors.

3.2.7 M. MORFOULAKI, CIVIL ENGINEER - TRANSPORT PLANNER

Mrs Maria Morfoulaki has graduated from the Polytechnic School of ATh, Department of Civil Engineer, in 1995. In 1996 she undertook her Thesis in the Laboratory of Traffic Engineering of the above Department. She is specialized in traffic forecasts using transport models and network simulation but she is also interested in fields of Public Transport Systems, Road Safety and Freight Transports.

3.2.8 A. TSIOUTRAS, CIVIL ENGINEER

Mr Athanasios Tsioutras has graduated from the Polytechnic School of ATh, Department of Civil Engineer, in 1996. In 1999 he got a M.Sc. Degree in Environmental issues and since 2001 he is working out his Thesis in the field of Advanced Driving Assistance Systems (ADAS). He is being specialized in transport models and network simulation in

the field of Advanced Driver Assistance Systems (ADAS) concerning transport and environmental conditions.

3.2.9 M. PANOY, ELECTRONICS ENGINEER & COMPUTER ENGINEER

Ms Mary Panou is an Electronics Engineer (honours degree) of the University of Liverpool, UK, since 1997, with MSc on Advanced Control (in 1998) from the University of Manchester Institute of Science and Technology, UK (UMIST) and a Phd student at the Aristotle University of Thessaloniki in the Transport Engineering department. Her main fields of expertise are Telematics Applications for Transport, Transportation of E&D, Environmental Control Systems, Development of Training Tools and Training Programs especially for PSN.

3.2.10M. GEMOU, MECHANICAL ENGINEER

Ms Maria Gemou, a co operator at HIT since 2003, is a Mechanical Engineer from the University of Patras. Her main fields of expertise include VR Applications for Transport, CAD modelling, Transport Economics, Development of training tools and training programs



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especially for PSN, Safety Analyses of critical situations within the Transports field.

3.2.11A. MOUSADAKOU, MATHEMATICIAN

Ms Andriani Mousadakou is a Mathematician (honours degree) of the University of Wales, Swansea, UK, since 2001, with MSc in Computer Modeling and Finite Element Methods in Engineering Mechanics (in 2002) from the University of Wales, Swansea, UK. Her main fields of expertise are: Application methods in Reservoir simulation, Development of training tools and training programs especially for PSN, development of Multimedia programs, and development of Database.

3.2.12F. MIKIKI, CIVIL ENGINEER-TRANSPORT PLANNER

Ms Foteini Mikiki has graduated in 2001 from the Civil Engineering Department of the Polytechnic School of Aristotle University of Thessaloniki (AUTH). She also acquired under scholarship in Paris a

master's degree in transportation ('DEA Transport') with honours, from the Ecole Nationale des Ponts et Chaussees and the Universite Paris XII. Her scientific interests are orientated in issues concerning passenger transport, transport policy and environment while she is envisaging a PhD thesis in AUTH..

3.2.13 ST. NIKOLAOU, SOFTWARE PROGRAMMER

Ms Stella Nikolaou is a software programmer and she is involved in the research team of the Hellenic Institute of Transport dealing with driver behaviour monitoring and human factors impact on road safety. She has been involved in various national and European research projects, whereas her main research focus includes the monitoring of the driver behaviour for the enhancement of road safety through the use of Advanced Driver Assistance Systems (ADAS), studies of human sleep for safety enhancement in industrial applications and the reduction of accidents attributed to operator's lack of alertness and the development of high-end user interfaces for several industrial applications.



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3.2.14 St. DIMOPOULOU, ADMINISTRATIVE RESPONSIBLE

Mrs Stavroula Dimopoulou graduated in 1993 from the Faculty of Law of the Democretus' University of Thrace. She worked in Mr T. Zerva's office, Lawyer in Thessaloniki, for seven months (January-July 1993) as assistant Lawyer and secretarial support. During the period of October 1993 until April 1995 she worked as a trainee lawyer in Mr N. Kaisari's office, Lawyer in Thessaloniki. Since January 2001 she has been working in H.I.T. as administrative personnel at the Projects Administration Department.

3.2.154. V. PAPADIMITROPOULOU, BUSINESS ADMINISTRATION, ADMINISTRATIVE SUPPORT

Mrs Valia Papadimitropoulou graduated from Aristotle University of Thessaloniki, Faculty of Law and Economics, Division of Business Administration. She has acquired the Diploma in Marketing from South Bank University, London U.K., and holds an M.B.A. Postgraduate Degree from the University of Sheffield. She worked as a teacher of English from 1989 to 1995 and as a financial executive and

Supply Manager for "S Glass" Papadimitropoulos SA, Imports & Trade of Container Glass from 1995 to 2002. Since 2003 she has been working for HIT at the Projects Administration Department.

3.2.16 I.KOUKOULOUDI, EXECUTIVE SECRETARY

Mrs Ioanna Koukouloudi has been working as an executive secretary of the Hellenic Institute of Transport since 2001. She holds a diploma of infant nursing from Pasteur technical school and a certificate from the Organisation of Office and Secretarial Support. She speaks English and German and she is software and database literate. Mrs. Koukouloudi worked in posts of secretarial support and P/C operation in the company of telecommunications Lucent Technologies Ltd, Netherlands during 1998-1999. From 1999 to 2000 she worked for Environment - Technologies Company.

3.2.17 A. KOSTOULI, ADMINISTRATIVE SECRETARY

Ms Anastasia Kostouli is an Executive Secretary of the Hellenic Institute of Transport. She obtained the Certificate of Proficiency in



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English Language (1998) and has authorized teaching ability. Anastasia Kostouli attended a "Teacher Training Course" in the British Council of Thessaloniki - educational course in Teaching Methods of English Language - and took "CEELT"(Cambridge Examinations for English Language Teachers) Certificate (2000). Ms Kostouli graduated from the Company of Management and Informatics (E.D.I.P) and obtained the Certificate Specialization of Informatics. She has made her practice on Informatics in the technical company "*ATHONIKI TECHNIKI*" and has dealt with private teaching of English. She has worked as a secretary in "*AKMON*" Business Consultants and as a Telephone Operator in the advertising company "*EXODUS*". She worked in the technical company "*EGNATIA ODOS A.E.*"- Document Control Unit (October 2000-April 2002)- as well as in the consortium "*ELTER-GETEM*" for a construction of "Egnatia Odos A.E." as a member of the Finance Department (April 2002-November 2002).



4 LABORATORIES & FACILITIES 2003



PICTURE 4-1: Virtual representation 1 of CERTH's future premises

4.1 PREMISES

HIT is temporarily located in Thessaloniki Technology Park – 6th Km Charilaou - Themi Road. The current housing is considered to be temporary and the necessary procedures (through the Centre for Research and Technology Hellas) for the construction of new modern

buildings in an area of 20 acres that has been purchased next to the premises of the Technological Park, are under way. The new buildings will contain 1500 square meters of office space and 1500 square meters of underground laboratories. The acquisition of 6.000 square meters of open space is foreseen in the future for the development of laboratories for traffic simulation and quality control of materials used in construction of transport infrastructure.



PICTURE 4-2: Virtual representation 2 of CERTH 's future premises



4.1.1 CLEAN VEHICLES

HIT's research equipment concerning clean technology was acquired in 2002 during the realization of the Research Project IMMACULATE and it is used in research projects that investigate the results of the use of clean vehicles.



PICTURE 4-3: The two electrically assisted bicycles of H.I.T.

4.1.1.1 ELLECTRICALLY ASSISTED BICYCLES

Electrically assisted bicycles are used to limit the amount of effort the cyclist has to provide. The bicycle's weight is approximately 38.5 Kg and can hold a maximum load of 80Kg. Its maximum speed is 20Km/h and the maximum distance with electric traction is about 35 and 50Km.



PICTURE 4-4:The battery is removable and can be recharged using a common household socket



4.1.1.2 *ELECTRIC SCOOTERS*

The EVT Electric Scooter combines high technology and environmental protection, easy operation, smooth running, quick battery exchange, no clutch setback and negligible transmission of noise. More specifically, it consists of a direct driving hub motor for higher efficiency and lower power consumption, digital intelligent controller systems such as Overheat Protection, Overcurrent Protection and Power/Economic dual driving modes, removable charger and LED display energy status,.



PICTURE 4-6:Electric scooter during recharging. The electric motor can be seen on the left hand side of the picture.



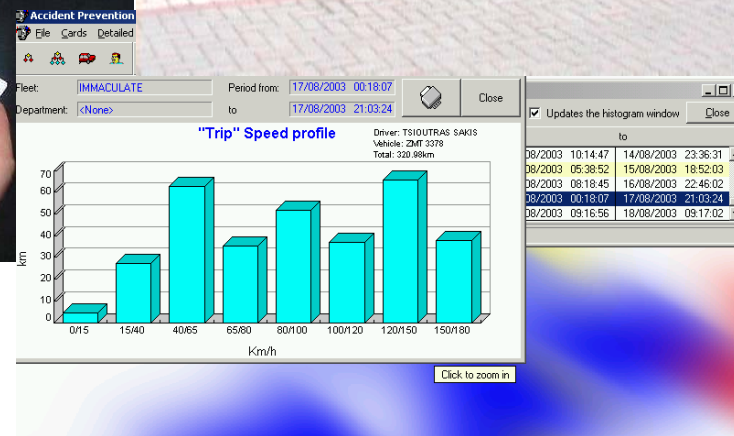
PICTURE 4-5:One of the two electric scooters of HIT



4.1.1.3 TOYOTA PRIUS HYBRID VEHICLE

HIT acquired a hybrid vehicle Toyota Prius which will be used – together with the two wheelers – for measurements and field studies within research projects in the area of clean vehicle technologies, and in pilot driver training.

Toyota Prius is a vivid example of the benefits of hybrid vehicles, providing significant fuel economy with reduced emissions. The Prius used in the projects turns out to be as practical as a conventional car. In fact, the vehicle never needs to plug in for recharging. Toyota Prius has features such as regenerative braking, which means that the motor recovers energy from the brakes when the vehicle slows down or stops and uses it to recharge the battery.

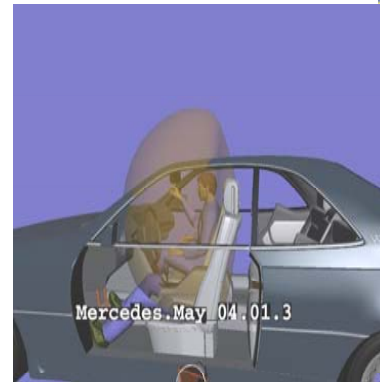


PICTURE 4-7: Up right: HIT's Hybrid Vehicle, Up left: Black Box, Below: Results from Black Box



4.1.2 SINGLE WALL VIRTUAL ENVIRONMENT - POWER WALL

Virtual Reality is a relatively new technology. It began as an extension to 3D graphics and soon was established as a new revolutionary technological area. The purpose of virtual reality is to create to the user the illusion that he/she is in a different environment, either existing or completely imaginary. Therefore, the user experiences through his senses a virtual reality that, up to the extent allowed by the underlying technologies used, allow him to have experiences similar to real life. In 2003, CERTH/HIT procured a CAVE virtual reality system, capable of reviewing of 3D models, and of ergonomic analysis (through the Virtual Anthropos package and its subsystems).



The CERTH/HIT Virtual Reality (VR) system is a single wall cave system and is used for the realization of structural, ergonomical and other safety and assessment analyses, which require the simulation of a series of various procedures performed by the Hellenic Institute of Transport.

For the implementation of the above research scopes, the VR system has adapted a number of software tools, which give the potential for the visualization and manipulation of 2D and 3D CAD files in immersive environment, which includes cuts, disassemblies, measurements, rotations, lightning, etc. in real time. This

application framework may prove to be useful for engineers during the phase of design and revision and moreover for the products marketing and exploitation by means of their demonstration.

By means of the use of human models and their multiple parameterisations there is also the potential for Human Factor and Risk Analyses before the final

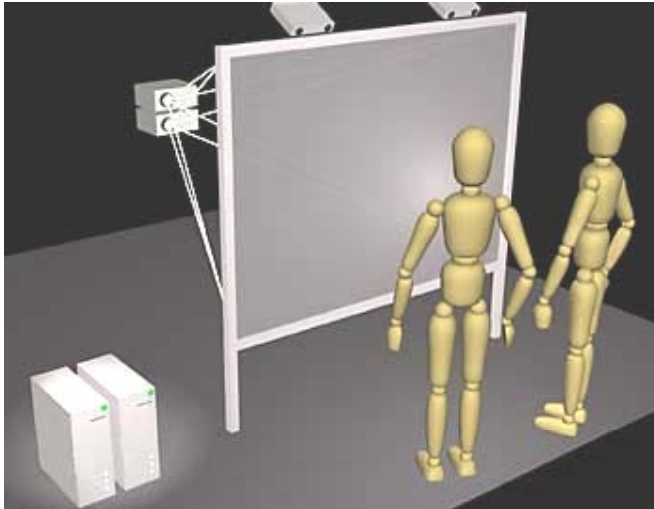
physical product is to be produced and commercially exploited. It is a cost-effective and flexible tool aiming at the qualitative product advancement.



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There are a lot of software tools that could be adapted in the HIT VR system aiming at the implementation of more complex and sophisticated analyses, whereas the potentials for the system advancement to a three, four, five or six walls system (VR cave) is considered as a foreseen and feasible perspective within near future.



PICTURE 4-9: Representation of HIT's VR System



PICTURE 4-8: HIT's VR System



5 SCIENTIFIC RESULTS AND FINANCIAL REPORT 2003

BRIEF PRESENTATION OF HIT'S PROJECTS 2003	
ACTIVE PROJECTS	28
PROJECTS WITH STARTING DATE IN 2003	10
PROJECTS WITH STARTING DATE IN 2001-2002	18
PROJECT PROPOSALS 2003	41
APPROVED PROPOSALS 2003	16
PROJECTS WITH EXPIRATION DATE IN 2004	11

TABLE5-1: Brief Presentation of HIT's Projects 2003

HIT's scientific activities in 2003 are presented in the table 5-1. There, we can observe that the on going projects of the year 2003, where 28 in number. The starting date for 10 projects was in year 2003, while the rest 18 projects have a starting date in the period 2001-2002. At the same time, in 2003, 41 proposals were submitted of which the 16 were finally approved (Hy Ways, PREMIA, PReVENT, SENSATION, IN-SAFETY, AIDE, RIPCORD, HUMANIST, IMAGINE-IT, BOB, INTUITION, EURREX, TRANSFORUM, Supply Chain Survey, INTELLECT, ASK-IT). Moreover, the expiration date for 11 projects, (AWAKE, GIFTS, ΑΡΙΣΤΕΙΑ, CONSENSUS, SPORT4ALL, SATRE 3, IMMACULATE, ΠΙΡΑΞΕ, CITY PORTS, ΟΑΣΑ, ΑΓΟΝΕΣ ΓΡΑΜΜΕΣ ΑΙΓΑΙΟΥ) are of 2004. Therefore, HIT's on going projects for 2004 are estimated to be at least 32, without taking under consideration the project submissions and approvals of that year.



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PROJECT PROPOSALS 2003						
A/A	ACRONYM	CONTRACTING AUTHORITY	DATE OF SUBMISSION	FULL TITLE OF PROPOSAL	ROLE	PERCENTAGE OF FINANCING
1	HyWays	6TH FP-IP SSA	11/03/03	The Development and detailed Evaluation of a Harmonized European Hydrogen Energy Roadmap'	PARTNER	50%
2	PREMIA	6th FP-SSA	12/03/03	Effectiveness of R&D, demonstration and incentive programmes to facilitate and secure market introduction of alternative motor fuels	PARTNER	50%
3	HYLANDS	6TH FP-NoE	17/03/03	Hydrogen Production in remote communities or islands in view of its end-use	SUBCONTRACTOR	50%
4	PReVENT	6th FP	24/03/03	Preventive and Active Safety Applications contribute to the road safety goals on European roads	PARTNER	50%
65	SENSATION	6th FP-IST	02/04/03	Advanced sensor development for attention, stress, vigilance & sleep/wakefulness monitoring	COORDINATOR	50%
6	IN-SAFETY	6th FP-SUSTDEV	02/04/03	Infrastructure and SAFETY	PARTNER	50%
7	ISAAC	6th FP (EUCAR)	04/04/03	Information System and Accident Analysis for Road Care in Europe	PARTNER	50%
8	AIDE	6th FP (EUCAR)	24/03/03	Adaptive Integrated Driver-vehicle Interface	PARTNER	50%
9	RIPCORD	6th FP SUSTDEV	07/04/03		PARTNER	50%



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PROJECT PROPOSALS 2003						
A/A	ACRONYM	CONTRACTING AUTHORITY	DATE OF SUBMISSION	FULL TITLE OF PROPOSAL	ROLE	PERCENTAGE OF FINANCING
10	PETER PAN	6th FP IST	02/04/03	Providing an Extended Wireless Testbed for Research Communities on a PAN-European Scale	PARTNER	50%
11	UHPED	6th FP SUSTDEV	09/04/03	Ultra High Performance Electric Drives	PARTNER	50%
12	HUMANIST	6th FP IST	11/04/03	HUMAN centred design for Information Society Technologies	PARTNER	50%
13	<u>IM@GINE IT</u>	6th FP IST	17/04/03	Intelligent Mobility Agents, Advanced Positioning and Mapping Technologies, INTEgrated Interoperable MultiModal location based services	COORDINATOR	50%
14	VIRTHUALIS	NMP Rearch Area: NMP	29/09/03	Virtual Reality and Human Factors Application for Improving Safety	PARTNER	53%
15	OpenDoor	6th FP SSA	13/03/03	Open Source as a Tool for participation of SMEs in GMES	PARTNER	100%
16	VIRTHUS	6TH FP STREP	10/04/03	Virtual Reality and Human Factors for Safety	PARTNER	50%
17	TRIM	6TH FP SUSTDEV	15/04/03	Towards harmonised reporting system by Integrating Maritime applications and technologies	PARTNER	
18	BOB	DG TREN	08/05/03	BOB CAMPAIGN IN GREECE	PARTNER	50%



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PROJECT PROPOSALS 2003						
A/A	ACRONYM	CONTRACTING AUTHORITY	DATE OF SUBMISSION	FULL TITLE OF PROPOSAL	ROLE	PERCENTAGE OF FINANCING
19	ASSIST	EUROPEAID	07/05/03	Asia-Europe Liaison Activities for IT&C Intermodal Freight Transport with Emphasis on Port Management & Organization	COORDINATOR	80%
20	Road Safety Quest	DG TREN	26/05/03	Road Safety Quest: An Online Educational Game on Road Safety	PARTNER	50%
21	SunFlower	DG TREN	30/05/03	A Comparative study of the development of road safety in Sweden, UK, the Netherlands, Greece, Portugal, Spain, Czech Republic, Hungary, Slovenia	PARTNER	50%
22	FRAMEM	6th FP NOE	03/06/03	Framework for Life-Cycle Equipment Maintenance and Reliability Assessment	PARTNER	50%
23	TRIGER	Energy and Transport	06/06/03	Transport Research Information and dissemination conference for Greece and Eastern-european Region	PARTNER	50%
24	Eformat	Call EOI. FP6.	12/06/03	Modelling and Optimising the Multi-Media Format Production and Delivery Value Chain	PARTNER	
25	VIA REGIA/C-III	INTERREC IIIB CADSES	11/06/03	Spatial Development for a new/old European region in Corridor III	PARTNER	100%
26	work C-SSA	6th FP	23/06/03	Work IT Counter for SMEs Special Actions	PARTNER	100%



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PROJECT PROPOSALS 2003						
A/A	ACRONYM	CONTRACTING AUTHORITY	DATE OF SUBMISSION	FULL TITLE OF PROPOSAL	ROLE	PERCENTAGE OF FINANCING
27	INTUITION	FP6-2002-IST-NMP-	22/07/03	Network of excellence on Virtual reality and Virtual Environment Application for Future Workspace	PARTNER	50%
28	TESTNET	6th FP	01/08/03	Integration of Testing Methodologies	PARTNER	50%
29	ITS-NET	6th FP	20/08/03		PARTNER	50%
30	EURREX	6th FP NOE	05/08/03	European Rail Research network of Excellence	PARTNER	50%
31	TRANSFORUM	6th FP POLICIES	29/09/03	Scientific forum on transport forecast validation and policy assessment	PARTNER	100%
32	Supply Chain Survey	PREDIT(French National Funded)	10/12/03	Analysis of the Yogurt Supply Chain in Greece	PARTNER	100%
33	INTELLECT	ΓΓΕΤ	05/09/03	Εφυές σύστημα σχεδίασης ταξιδιού, πληροφόρησης ταξιδιώτη και κρατήσεων θέσεων σε συνδυασμένα μέσα μαζικής μεταφοράς	PARTNER	50%
34	ACIMUT	6th FP	02/09/03	Advanced User-Centric, Intelligent, On the Move, Urban, Location Based Services	PARTNER	50%
35	ORIENT	EC/ ASIA PRO ECO	12/09/03	Monitoring and awareness building of environmental impact of Asian maritime transport	COORDINATOR	60%



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PROJECT PROPOSALS 2003						
A/A	ACRONYM	CONTRACTING AUTHORITY	DATE OF SUBMISSION	FULL TITLE OF PROPOSAL	ROLE	PERCENTAGE OF FINANCING
36	RELIEF	6th FP	12/09/03	Risk and Environmental Mobile Application for Institutional European Rescue - Force	PARTNER	50%
37	CLEAN MECH	Leonardo da Vinci	26/09/03	Pan European vocational understanding and life-long training scheme for car mechanics in relation to new advancements in clean vehicle technologies	PARTNER	75%
38	ASK-IT	FP6-2003-IST-2 DG INFSO	05/10/03	Ambient Intelligence System of Agents For Knowledge - Based and Integrated Services for Mobility Impaired Users	PARTNER	52,17%
39	EFFECTIVE	FP6 DG TREN	26/11/03	European Flexible Framework for EFC for all Traffic environments and Vehicle types	COORDINATOR	58%
40	KNOW-HOW	6th FP	28/11/03	Integrating Knowledge and life-long training to promote health and QoL in the work environment	PARTNER	70%

TABLE5-2:Proposals submitted in 2003



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ON GOING PROJECTS2003

A/A	ACRONYM	FINANCIAL INITIATIVE & PROGRAM	FULL TITLE OF PROJECT	RESPONSIBLE FOR HIT	TOTAL BUDGET IN EURO	DURATION	ROLE
1.	AWAKE	IST-2002-28062	System for effective Assessment of driver vigilance and Warning According to traffic risk Estimation	E. Bekiaris	579.941	01/09/01 31/08/04	COORDINATOR
2.	GIFTS	IST-2002-29364	Global Intermodal Freight Transport system	G. Giannopoulos	392.462	01/09/01 31/08/04	PARTNER
3.	IMAGE	IST-2000-30047	IMAGE: Intelligent Mobility Agent for complex Geographic Environment	E. Bekiaris	454.324	1/11/2001 31/10/2003	COORDINATOR
4.	AGILE	QLK6-CT2002-00118	Aged People Integration, mobility, Safety and Quality of Life Enhancement Through Driving	E. Bekiaris	432.538	01/04/02 31/03/05	COORDINATOR
5.	APIΣTEIA- NOVEL	GRST	Centre of Excellence on Driver Behavior Issues	E. Bekiaris	400.000	01/05/02 30/04/04	COORDINATOR



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<i>ON GOING PROJECTS2003</i>							
<i>A/A</i>	<i>ACRONYM</i>	<i>FINANCIAL INITIATIVE & PROGRAM</i>	<i>FULL TITLE OF PROJECT</i>	<i>RESPONSIBLE FOR HIT</i>	<i>TOTAL BUDGET IN EURO</i>	<i>DURATION</i>	<i>ROLE</i>
6.	UPTUN	G1RD-CT-2002-00766	Low-cost durable innovative Upgrading methods for fire safety in existing tunnels	P.Papaioannou	237.006	01/09/02 31/08/06	PARTNER
7.	CONSENSUS	IST-2001-37092	Promoting CONSENSUS in Assessing Driving Ability of PSN Through Common Methodologies and Normative Tools	E. Bekiaris	115.000	01/09/02 31/08/04	PARTNER
8.	RURAL-WINS	IST-2001-39107	Roadmap for ICT Solutions for Rural Areas and Maritime Regions	E. Bekiaris	4.338	01/07/02 30/06/03	PARTNER
9.	SPORT4ALL	C27980	Provision of telematic services to the disabled for the diffusion of information on athletics events	E. Bekiaris	393.000	01/09/02 31/03/04	PARTNER
10.	SARTRE 3	SUBV-B2702B-E3	Social Attitude to Road Traffic Risk in Europe, phase 3	E. Bekiaris	70.500	01/10/02 31/05/04	PARTNER



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ON GOING PROJECTS2003							
A/A	ACRONYM	FINANCIAL INITIATIVE & PROGRAM	FULL TITLE OF PROJECT	RESPONSIBLE FOR HIT	TOTAL BUDGET IN EURO	DURATION	ROLE
11.	IMMACULATE	LIFE02 ENV/GR/000359	Improvement of urban environment quality of air and noise levels.	E. Bekiaris	586.000	01/09/02 31/08/04	COORDINATOR
12.		SUBSIDY BY THE MINISTRY IF AEGEAN	Configuration of the technical and operational specifications for acquiring state of the art vessels and execution of transport service of the small islands in the Aegean Sea (unprofitable network)	G. Giannopoulos	275.000	27/11/2002 30/4/2004	COORDINATOR
13.	INFORMED	EL/02/B/F/PP-114010	Integrated system for an advanced and life-long training methodology of dangerous goods drivers and trainers	E. Bekiaris	188.961	30/12/02 29/12/05	COORDINATOR
14.	IDEA	B/02/B/F/PP-110.350	An Innovative vocational training scheme for assessing the Driving ability of Elderly and disAbled	E. Bekiaris	68.589,59	15/12/2002 14/12/2005	PARTNER



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ON GOING PROJECTS2003							
A/A	ACRONYM	FINANCIAL INITIATIVE & PROGRAM	FULL TITLE OF PROJECT	RESPONSIBLE FOR HIT	TOTAL BUDGET IN EURO	DURATION	ROLE
15.	BOB Campaign	2002-2003	BOB Campaign in Greece-Not tonight I am Driving	E. Bekiaris	326.000	1/10/2002 31/12/2003	SUBCONTRACTOR
16.	ISLANDS	Service	Integrated System for Long distance psychiatric Assistance and Non-conventional Distributed health Services	E. Bekiaris	20.000	1/1/2003 31/12/2005	SUBCONTRACTOR
17.	IMONODE	INTERREG	Integration of cargo transport Modes and Nodes in the CADSES area	G. Giannopoulos	1.200.000	1/12/2002 1/6/2005	LEAD PARTNER
18.	ΑΔΗΡΙΤΟ	GSRT	Human Network for the Strong Promotion of Road Safety in Greece	E. Bekiaris	70.000	10/5/2003 10/5/2005	COORDINATOR
19.	ΟΣΕ - ΥΠΟΔΟΜΗΣ	Service	Management & Maintenance of the Integrated Infrastructure Quality System for OSE for the years 2003-2005	G. Giannopoulos	190.000	21/4/2003 20/12/2006	COORDINATOR



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ON GOING PROJECTS2003							
A/A	ACRONYM	FINANCIAL INITIATIVE & PROGRAM	FULL TITLE OF PROJECT	RESPONSIBLE FOR HIT	TOTAL BUDGET IN EURO	DURATION	ROLE
20.	ΟΣΕ- ΥΠΗΡΕΣΙΕΣ	Service	Management and Maintenance of the three years duration integrated control system of the passenger transport of OSE	G. Giannopoulos	199.000	April 2003 April 2006	COORDINATOR
21.	ΠΡΑΞΕ	GSRT	Laboratory Signing Materials Photometric & Visibility Control	M. Boile	29.000	June 2003 May 2004	COORDINATOR
22.	GILDANET. INTERREG IIIB CADSES	2A031	GILDANET INTERREG IIIB CADSES	G. Giannopoulos	808.700	1/12/2002 30/6/2005	PARTNER
23.	PREVENT	EL/03/B/F/PP- 148205 (LEONARDO)	Develop a training programme to improve work zone safety	G. Giannopoulos	90.500	1/10/2003 30/9/2005	COORDINATOR
24.	CITY PORTS, INTERREG IIIB CADSES	INTERREG IIIB	Pilot project network for goods distribution logistics in city systems	G. Giannopoulos	401.334	1/7/2001 31/12/2004	PARTNER
25.	ΟΑΣΑ	Service	Integrated System for the Quality Assessment of the OASA Passenger Services	G. Giannopoulos	162.750	9/6/2003 29/2/2004	COORDINATOR



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<i>ON GOING PROJECTS 2003</i>							
<i>A/A</i>	<i>ACRONYM</i>	<i>FINANCIAL INITIATIVE & PROGRAM</i>	<i>FULL TITLE OF PROJECT</i>	<i>RESPONSIBLE FOR HIT</i>	<i>TOTAL BUDGET IN EURO</i>	<i>DURATION</i>	<i>ROLE</i>
26.	CREDIT	110311-CP-1-2003-1-GR-GRUNDTVIG	Valuing Knowledge and competencies acquired through experience and their accreditation for elderly workers	E. Bekiaris	51115	1/10/2003 1/10/2005	COORDINATOR
27.	INTELLECT	GSRT	INTELLECT	G. Giannopoulos	34.840	1/11/2003 30/4/2006	PARTNER
28.	ΟΣΕ- ΥΠΗΡΕΣΙΕΣ	Service	Socio-economic Evaluation of the Western Railway of Greece	G. Giannopoulos	97.500	9/05/2003 9/07/2003	COORDINATOR

TABLE5-3: On going Projects 2003



5.1 FINANCIAL RESULTS 2003

<i>FINANCIAL RESULTS 2003</i>	
<i>INCOME RESOURCES</i>	<i>2003</i>
Projects	28
Total Budget of EU funded research projects	507.826
Total Budget of GSRT funded research projects	763.478
Total Budget of national research projects	150.000
Income from Services	164.200
Annual Turnover	1.585.504

TABLE 5-4: Financial Results 2003

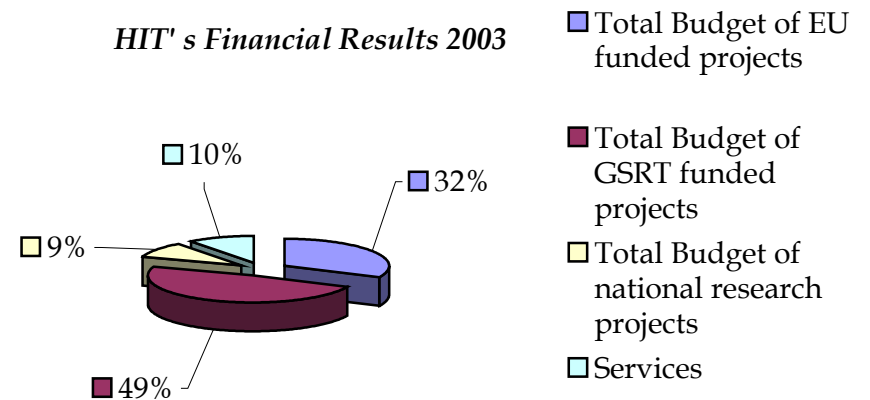


FIGURE 5-1: HIT's Income resources 2003

In table 5-4, we can observe that HIT' s main income resource are the General Secretariat of Technology and Research funded research project's, which represent the 49% of the total Institute's income. On the other side, the European Union funded research projects represents the 32% of the total budget. According to the percentage proportion, in 2003 there was a percentage increase of income from services (2002:3%) and national



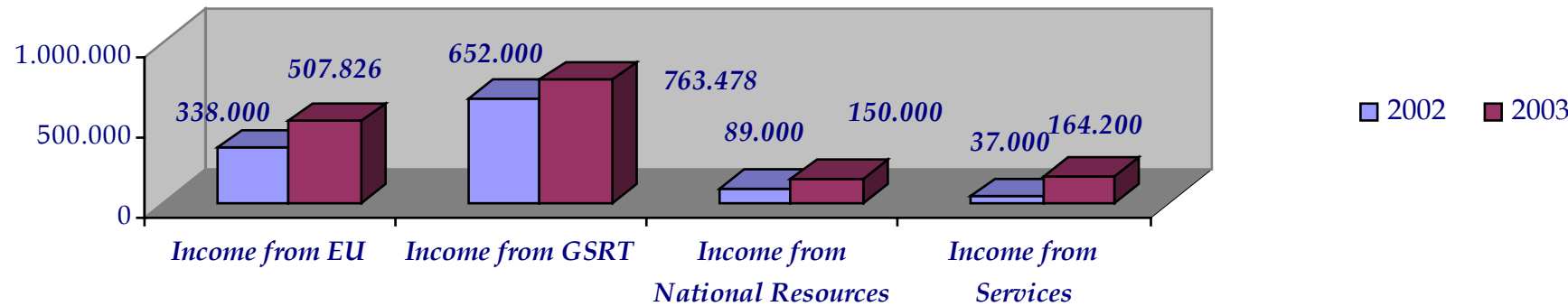
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research projects (2002:8%). A decrease of GSTR participation in HIT's total income can be noticed, in the year of 2003, from 59% in 2002, to 49%. That means that in the first 3 years of HIT's operation, an improvement of Institute's financial viability is being noticed, considering that it acquires more and more bigger self-sufficiency of resources emanating from the exercise of its activity.

This fact is confirmed by the increase of the income gained from services from 37.000 in 2002 to 164.200 in 2003. This optimistic picture is enhanced by the fact that the Annual Turnover of 2003 was increased by 42.07%, compared to 2002, where the Annual Turnover was 1.116.000€.

FINACIAL RESULTS COMPARISON 2002-2003





5.2 HIT'S PARTICIPATION IN POSTGRADUATE COURSE "PLANNING, ORGANIZATION AND MANAGEMENT OF TRANSPORT SYSTEMS"

HIT's contribution in Education in the field of Planning, Organization and Management of Transport Systems is expressed through its participation to the Postgraduate Course named as "Planning, Organization and Management of Transport Systems", which is jointly organized by HIT and the Civil and Surveying Engineering Departments of Aristotle University of Thessaloniki. The educational scopes of the program are:

✚ Coverage of the country needs in high-level scientific personnel, which will contribute in the economic, social and technological development of Greece and the enhancement of competitiveness in the field of Transport.

✚ Preparation of the future administrative staff of the Third Degree of Education Institutions, the Research Centers, the Services and Organizations of the further Social Sector, the Technical Services of the Local Governance sector, the Public Transportation Institutions, the K.T.E.L., the Carrier Firms, the Technical Firms and the Planning Offices.

✚ Promotion of knowledge and development of research in the further field of Transport and the relevant scientific areas.

✚ Qualitative enhancement of the post- graduate studies in the field of Transport, so as to render them competitive to similar programs in other countries.

web-site: <http://hermes.civil.auth.gr/pgtransport>



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5. Brookhuis, K., de Waard, D., Kraaij, K., **Bekiaris, E.**, "How important is driver fatigue and what can we do about it", In:

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5.4 EXHIBITIONS

1. Faburel, G., **Mikiki, F.**, Pour une territorialisation des aéroports. Acceptabilité politique du principe pollueur-payeur. Le cas du bruit des avions à Roissy CDG, Rapport final du CRETEIL, pour la Mission Bruit du Ministère de l'Ecologie et du Développement Durable, 2003 avril, 140 p.

5.5 PUBLICATION IN CONFERENCES

1. **Stergiopoulos, F.**, Negkas, D., **Bekiaris, E.**, " Improvement of Urban Environment Quality of Air and Noise Levels by an Integrated, Cost-Effective and Multi-Level Application of Clean Vehicle Technologies", 4th International Exhibition and



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- Conference on Environmental Technology (HELECO 03), Jan. 30, 2003 - Feb. 2, 2003, Athens, Greece (IMMACULATE project).
2. **Stergiopoulos, F.**, "Improvement of Urban Environment Quality of Air and Noise Levels by a Cost-Effective and Multi-Level Application of new technology vehicles", 4th International Exhibition and Conference on Environmental Technology (HELECO 03), Jan. 30, 2003 - Feb. 2, 2003, Athens, Greece
 3. **Giannopoulos, G.A.**, "Towards a strategy for the Traffic problems of Thessaloniki " Proceedings of the Conference "Thessaloniki and the greater area - past-present-future", 28th February - 2nd March 2003, Thessaloniki- Etaireia Makedonikon Spoydon. Thessaloniki.
 4. **Bekiaris, E.**, Boverie, S., Amditis, A., Dangelmaier, M., Antonello C., Nikolaou S., Peters B., "AWAKE: An Integrated approach for fighting driver fatigue; from user needs and wishes to real-time driver warning", 5th International Conference on fatigue in transportation, March 9-14, 2003, Fremantle, Australia (AWAKE project).
 5. **Bekiaris, E.**, **Nikolaou, S.**, "Towards a reliable and user friendly system for effective assessment of driver vigilance and warning - the AWAKE concept", 5th International Conference on fatigue in transportation, March 9-14, 2003, Fremantle, Australia (AWAKE project).
 6. **Giannopoulos, G.**, «Towards a strategy for the Traffic problems of Thessaloniki», Speech Presentation in «Citizens Union - Thessaloniki 2008», 22 March 2003.
 7. **Giannopoulos, G.**, Pirgidis, Ch., «Possibilities and prospects for suburban railway development in Central Macedonia inferior infrastructure», "Suburban Railway scientific workshop in Thessaloniki, TEE K. of Macedonia, 16 April 2003, Thessaloniki.
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- initiative IAT (1), Human Computer Interaction Conference, June 2003, (Crete, Greece)
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 11. Amditis, A., Karaseitanidis, I., Boutsikaki, N., **Bekiaris, E.**, Wilson, J., "Evaluation Consolidation of Virtual Reality Tools and Applications within VIEW project", Human Computer Interaction: Cognitive, Social and Ergonomic Aspects, Vol 3 of the Proc. of the 10th International Conference on Human-Computer Interaction (HCI International 2003), June 22-27 2003, Crete, p. 1381-1385
 12. Amditis, A., Karaseitanidis, I., Gabrera, M., **Bekiaris, E.**, Machate, J., Naranjo, J.C., "Towards an Informatics System enabling Disabled people universal access to information and assistance services", Human Computer Interaction: Inclusive Design in the Information Society, Vol 4 of the Proc. of the 10th International Conference on Human-Computer Interaction (HCI International 2003), June 22-27 2003, Crete, p. 665-669
 13. Mager, R. Stoermer, R. Kuntze, M., Mueller-Spahn, F. Amditis, A., **Bekiaris, E.**, Bullinger, A. "Cognitive Ergonomics in the Development of Virtual Reality: A Neurophysiological approach", Human Computer Interaction: Theory and Practice, Vol 1 of the Proc. of the 10th International Conference on Human-Computer Interaction (HCI International 2003), June 22-27 2003, Crete, p. 1173-1182
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- Components and Instruments for Control Applications SICICA 2003, July 9-11, 2003, Aveiro, Portugal (AWAKE project).
17. **Bekiaris, E., Nikolaou, S.**, "Driver Hypovigilance Monitoring from a user's perspective", SICICA 2003, Preprints of the 6th IFAC International Symposium on Intelligent Components and Instruments for Control Applications, July 9-11, 2003, Universidade de Aveiro, Portugal, p. 133-138
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 19. **Bekiaris, E., Spanoudakis, N., Esters, D., Kauber, M.**, "Mobile/Wireless Systems for Infomobility Services, Based on Intelligent Agents Technology", Proc. Of the International Conference on Computer, Communication and Control Technologies (CCCT 2003), July 31, August 1-2, 2003, Orlando, Florida, USA, Vol. II, p. 147-152.
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 23. **Dr. Stergiopoulos, F.**, "A New Advanced and Life-Long Training Methodology for Dangerous Goods Drivers and Trainers of the Petrochemical Industry", 3rd International Conference on New Horizons in Industry and Education, 28-29 August, 2003, Santorini, Greece (INFORMED)
 24. **Bekiaris, E., Panou, M.**, "Towards training schemes for the government and the industry, to promote the mobility of the disabled", Proceedings of the 3rd International Conference on "New Horizons in Industry and Education", August 28-29,



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31. **Tyrinopoulos, Y.**, Shinakis, M., Georgiadis, K., "The Feasibility for the introduction of an Intelligent Freight Transport Monitoring System":. 10th World Congress on Intelligent Transport Systems, 16-20 November 2003, Madrid, Spain.
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37. **Dr. Bekiaris, E.,** " Clean Vehicles: The Research Project IMMACULATE & the Prospect of their Wide Introduction in Greece "Workshop on "Eco-mobility, New Technologies, New Ways", 29-30 November, 2002, Athens, Greece (IMMACULATE project).
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6 BRIEF DESCRIPTION OF HIT'S 2003 ON - GOING PROJECTS

HIT's on going projects for 2003 per Operational Sector are the following:

6.1 DOCUMENTATION & DATABASES SECTOR

The basic object of this Sector is to create and maintain databases with information on the whole spectrum of transport services (freight and passenger) and all modes of transport. The main users of these data are Government agencies and other bodies and individual or legal entities.

6.1.1 HIT's PORTAL

The objective of this project is the implementation of the basic infrastructure that targets to the creation of an integrated system – framework for the collection, elaboration, development and propagation of transportation data, with direct object the support of the research activity of Transportation in Greece, and the adaptation of new innovatory management methods of the Greek Transportation System.

The proposed system consists of data, methods, practices and interfaces and it will be addressed with the code name Portal. PORTAL consists of specialized Transportation applications with additional possibility of



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interface with systems of foreign countries that are able to supply data and services in a European level.

Within the project framework a main core for the data management and the applications (the *heart* of PORTAL) will be established, transportation data will be collected and stored, the main models and algorithms will be supplied or implemented and the necessary interfaces will be developed in a way that important research applications, demonstration and propagation of data/ information will be accomplished. In this framework the PORTAL of HIT will play important role in the procedure of documentation and exploitation of the national transportation data and more specific:

- ✚ Standardization of transportation data models and documentation of the interfaces of data and services with external bases and systems according to the under construction international standards and innovative technologies.
- ✚ Supply and specialization of GIS based transportation networks in urban and suburban areas.
- ✚ Supply and/ or implementation of innovative transportation models and algorithms (eg. simulation models of large scale transportation networks and dynamic algorithms of allocation/

equilibrium) as well as original applications that derive from the research contributing in its further development.

- ✚ Aggregation and storage of primary historic and dynamic data from external sources (eg from Public services) and unification of data in an integrated base.
- ✚ Supply and/ or implementation of real time data processing and representation software in the Internet.
- ✚ Compatization and storage of data that constitute a result of the main research in the field of transport.
- ✚ Development of a data index mechanism for transportation information.
- ✚ Creation of electronic library with research material.
- ✚ Use of Transportation tools for the creation of processed data in order to be exploited in research projects.
- ✚ Elaboration or/ and development of innovative systems based in cutting edge technologies (in order to create an “ incubator of innovation” which will be used for the pilot involvement in research projects and promotion of innovative applications and



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technologies in the institutions and companies which take action in transportation area.

✚ Implementation of a test bed of new technologies, innovative transportation models and algorithms as well as original application which derive from research. The platform will be able to use real data of PORTAL.

✚ Creation of an Internet portal for the dissemination of the data in the transportation research laboratories

✚ Implementation of a transportation observatory for specific indexes (of quality or efficiency) that can be used additionally and supportively in research

The main target is the support of every research activity, (main, applicative, demonstrative) in several ways: maintain and storage of research data, use of data for research scopes, creation of a computerized laboratory of development and trial of innovative transportation systems, development of an incubator of innovation in order to promote and adapt new technologies from Institutions - Users.

The PORTAL will have national range with potential expansion in European level through the interface with similar PORTALS of other

countries in the scope of the creation of a European level research network.



6.2 DISSEMINATION OF RESEARCH RESULTS, EVALUATION & TRAINING SECTOR

This Sector is concerned with the evaluation and dissemination of research results in the field of Transport in Greece and also with training activities. The scope of this sector is to disseminate research results and is in contact and collaboration with the relevant Greek and European bodies. In addition, this Sector organises training courses, focusing on the practical training of staff working in transport organisations. In the field of training, the Institute is planning the relevant courses, creating the relevant handbooks and organising and carrying out the seminars.

6.2.1 IDEA: AN INNOVATIVE VOCATIONAL TRAINING SCHEME FOR ASSESSING THE DRIVING ABILITY OF ELDERLY AND DISABLED -

IDEA aims at developing a flexible, continuing and standardised vocational training scheme for the personnel assessing the driving ability of elderly and disabled (E&D) people. This personnel may include medical doctors, physiotherapists, psychologists, engineers checking car adaptations, etc. Through this training scheme the personnel will be able to use common, ICT-based assessment tools, such as Internet databases, psychomotor test batteries, driving simulators and expert knowledge tools. For this reason, IDEA adopts a separate structure of diseases related to driving capacity by reorganizing the categories and codes of the ICD-9-CM. This new structure is intended to be the basis of the new training curriculum and tools. Within IDEA scope lies the development of a modular training curriculum (easily adaptable according to the assessment personnel expertise and educational background), innovative, ICT-based training tools (i.e. multimedia training software, particular PC and driving simulator scenarios for training and testing, etc.) and an open, lifelong learning scheme for its users.



6.2.2 BOB CAMPAIGN IN GREECE-(NOT TONIGHT I AM DRIVING)

After the first successful implementation of BOB Campaign in Greece the previous year, HIT is implementing the BOB campaign in Greece for the second time. The Campaign was designed by BIVV and successfully applied since 1995 in Belgium. The objective is to enhance public awareness of the problem of drunk driving and gain public acceptance in a series of measures to aver this phenomenon. The campaign is being realised in Greece according to the specifications of BOB-campaign implementation in European Union countries (developed by BIVV). HIT is cooperating with the Non-profit Association of Greek Driving Schools (POEEOA) in the wide dissemination of the material developed within the project to the trainees drivers all over Greece (see attached letter of intent in the Annex). The company TECHNIKES EKDOSEIS S.A. producing the special car magazine with the highest circulation in Greece ("4 wheels" magazine) acts as a sponsor to the project by including a full-page colour advertisement of the campaign in the "4 wheels" magazine for a period of two months. Meanwhile the Automobile and Touring Club of

Greece (ELPA) and the car rental company AVIS are promoting the campaign.

The proposed work will further extend the work performed by BIVV these specifications and will also:

- ✚ Adapt the proposed policies to the Greek reality, considering also the local habits and driving styles.
- ✚ Enhance the BOB concept, by adding modules for driving schools and basic school education.



PICTURE 6-1: BOB Campaign in Greece



6.2.3 PREVENT: PREVENTIVE AND ACTIVE SAFETY APPLICATIONS

The objective of the project PREVENT is to provide appropriate training to the main actors involved in work zone accidents: the workers and the drivers. To achieve this, PREVENT develops dedicated and life-long vocational training schemes for highway repair and maintenance worker training personnel, and driving instructors. The ultimate goal of PREVENT is to increase safety around work zones and reduce the number of work zone related accidents. PREVENT brings numerous benefits to the economy and society.

6.2.4 ADHRITO: A HUMAN NETWORK FOR THE POWERFUL PROMOTION OF ROAD SAFETY IN GREECE

This specific Human Network aims the growth of suitable communication channels and collaboration between academic institutions and enterprises of Public and Private Sector, with final aim

the training of the inquiring potential of the country on issues like defense, improvement and promotion of road safety in Greece.

The main activities of this network are focused on issues of education through the use of multimedia, as well as driving simulators and skid-cars. In order to be achieved, the introduction of new and modern methods of education for new drivers, already existing drivers, and other special categories of drivers, such as elderly or disabled people, becomes a necessity. These methods and training curricula have already been developed throughout transeuropean research and development programs. In the frame of its development, the new network is expected to be informed and keep up to international scientific and technological progress and participate in seminars and applicative practice.



6.2.5 INFORMED: INTEGRATED SYSTEM FOR AN ADVANCED AND LIFE-LONG TRAINING METHODOLOGY OF DANGEROUS GOODS DRIVERS AND TRAINERS

INFORMED is a Pilot project aiming exactly at the targets set by the European Commission with regard to road safety during the transport of dangerous goods, i.e. the development of a new training curriculum and innovative multimedia tools, to support the training of drivers and their instructors on transporting dangerous goods and handling them efficiently in case of an accident. The new curriculum is intended to extend to a wider training content, in order to meet the increased demands for safety in the field. It will thus include new elements such as ecological driving and anti-skid, defensive and other advanced driving techniques, focused on particular types of vehicles and cargos.

In this way INFORMED aims at achieving a significant improvement of the skills and competences of drivers involved in dangerous goods transportation, thus enhancing road safety. Initial vocational training of significantly improved quality and mostly a lifelong acquisition of

skills and competences wisely tailored to the dynamic needs of the dangerous goods haulage sector are the projects' two key components.



6.3 STANDARDS & STANDARDIZATION ACTIVITIES

This Sector develops, disseminates, and supports, standards, as well as guidelines, rules, and standard procedures in the field of Transport in Greece. This Sector supports and promotes in any possible way, the efforts to standardize transport services in Greece. With its experience in transport services, the Institute proposes the standardization of practices, materials and parts in the transport system. It cooperates with and conforms to the corresponding European transport standardization bodies. Furthermore, this Sector is responsible for the translation of foreign standards relevant to Greece into Greek language, and for the conformity to international transport regulations and standards accepted by Greece.

6.3.1 LABORATORY OF SIGNING MATERIALS PHOTOMETRIC AND VISIBILITY CONTROL

Laboratory's mission is to produce photometric and visibility laboratory services that allow the evaluation of the photometric and

colorimetric properties of signing and marking materials. Additionally, laboratory's main task consists of the measurement of retro reflective materials through the execution of specific controls for their certification and the study of the lighting conditions that optimises the visibility of these materials under particular circumstances (night driving, mist etc). Specifically, laboratory's services characteristics are:

- ✦ The elaboration of quality certificates for vertical signing marking materials.
- ✦ The elaboration and promotion of new advanced materials and construction methods for such devices.
- ✦ The damage control of already installed in signs.
- ✦ The pure scientific laboratory section can provide its services to the ones dealing with driver behaviour issues and road safety such as automobile industry, road construction companies etc.



6.4 QUALITY CONTROL AND SAFETY PROMOTION SECTOR

The scope of this sector regarding quality control is to assist organisation in controlling the quality of the services offered by the transport system or parts of it. This assistance includes providing scientific evidence for assessing the quality of the offered services (service quality, living up to the users' expectations, etc.) by the various transport modes or bodies, and also collecting and analysing the necessary data, and providing the official reports required. Apart from quality control, this Sector will be responsible for carrying out research on issues concerning transport safety in all sectors. More specifically, it will analyse the conditions and factors affecting transport safety in all modes of transport, the application of international regulations and decisions regarding transport safety, etc.

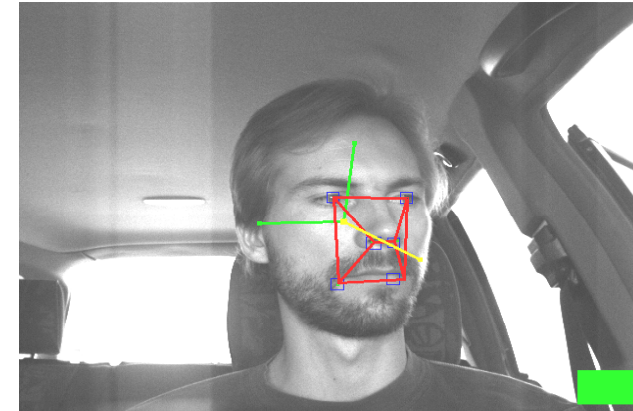


PICTURE 6-2: Lane switching monitoring system



6.4.1 AWAKE: SYSTEM FOR EFFECTIVE ASSESSMENT OF DRIVER VIGILANCE AND WARNING ACCORDING TO TRAFFIC RISK ESTIMATION

AWAKE is a European research project funded by the IST initiative of the 5th Framework programme, which focuses on driver hypovigilance issues, aiming to actively contribute in the enhancement of road safety in European and International level. AWAKE consists of several 'smart' systems, which monitor the driver, totally unobtrusively. For this reason, a variety of sensors are used (radar, cameras) inside and outside the vehicle. The driver monitoring system can detect in milliseconds possible driver's drowsiness. In addition, the AWAKE system is equipped with enhanced driver personalization, developing the normal driving profile of the driver, aiming the best possible diagnosis and handling of the current state in case of emergency. Within the framework of the project AWAKE, three prototypes have been developed, one for city-cars (Fiat Stilo), one for luxury-cars (Mercedes S-Class) and one for heavy vehicles (Mercedes Actros).



PICTURE 6-3: Driver's Monitoring System

6.4.2 AGILE AGED PEOPLE INTEGRATION, MOBILITY, SAFETY AND QUALITY OF LIFE ENHANCEMENT THROUGH DRIVING

AGILE aims to develop a new set of training, information, counseling and driving ability assessment and support tools for the elderly, evaluating their full range of physical, cognitive, behavioral and interactional abilities and not just checking a few sensory and motor functions (as is currently the case). More specifically, the project aims to



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develop the required knowledge to establish rational policies for delivering certification of fitness to drive, and to help as much as possible older age groups to continue driving safely as enhanced mobility leads to increased well-being for them.

It should be emphasised that the assessment methods targeted are not meant to present a new barrier for elderly drivers, but instead should simplify the assessment process for most of them and help the rest to find appropriate methods and aids to allow them remain safe drivers.

6.4.3 CONSENSUS: PROMOTING CONSENSUS IN ASSESSING DRIVING ABILITY OF PSN THROUGH COMMON METHODOLOGIES AND NORMATIVE TOOLS

CONSENSUS aims to develop a Network of Excellence to systematically exchange information on driving ability assessment of Disabled people, promote relevant technology transfer within EU and access to expertise and resources of highly specialised Centres to other less specialised country authorities, using state of the art Telematics

tools and procedures and experimenting new IT support tools (database and expert knowledge tool).

The objectives of the project are the agreement on a concise pan-European adapted PSN functional classification, with reference to driving ability, the agreement on a common set of PSN driving assessment criteria, assessment tools and procedures, the specification and use of a benchmarking database on used and proposed PSN driving assessment tools and methodologies, as well as an expert decision tool, to support evaluators and improve and standardise the quality of assessment, the identification of relevant gaps in existing assessment tools as key issues for future research, the establishment of a coherent group of experts and centres of excellence Europe-wide, that facilitate the state of the art in IST networking technologies to stay in close contact and be able to draw from each other's experience in the field and the proposal of a code of good practice on PSN driving ability assessment, recommendations to authorities and the industry and achievement of relevant users acceptance and public awareness enhancement.



6.4.4 SARTRE III: SOCIAL ATTITUDE TO ROAD TRAFFIC RISK IN EUROPE, PHASE 3

On the basis of a Pan-European survey on a representative sample of 1000 European drivers, an investigation of the actual car drivers' attitudes and reported behaviour will take place. Beyond this primary objective, the work will allow the identification of any changes occurring between the surveys carried out in 1991, 1996 and 2002 in the related countries (Greece participated only in 1996). Considering on the one hand the increasing level of mobility between EU and its various neighbours and the consequences for traffic safety, and on the other hand the imminent enlargement of the EU, it has been considered very important to compare driver's attitudes not only within the various EU countries but also within EU countries and their neighbours. The project comprises pan-european surveys of car drivers (task 1), which together with the related contextual analysis (task 2) will allow for the first analysis of survey principle results (task 3), followed by in-depth analyses of selected topics (task 4). Finally, emphasis should be given to the wide dissemination (task 5) of the project results in order to allow the useful exchange of experience among the various European countries

6.4.5 CREDIT: VALUING KNOWLEDGE AND COMPETENCIES ACQUIRED THROUGH EXPERIENCE AND THEIR ACCREDITATION FOR ELDERLY WORKERS

CREDIT aims to develop a system for creating and valuing non-formal and informal re-training schemes for elderly workers and the necessary indicators, tools and databases for their cost efficient and user-friendly implementation. All these will be realised through several activities, starting with a survey of the inter-generational learning and re-training needs of elderly workers, followed by the development of lifelong modular and easily personalized training schemes, of acquired knowledge and performance evaluation system, of multimedia training tools for the workers and their trainers and an on-line, interactive database for good practice guidance of elderly workers learning and concluded, by the application (efficient evaluation) of the developed systems and tools to three job fields and the issue of guidelines and accreditation recommendations for optimal elderly workers training.

Thus, the project deals with the promotion of the workability of aged workers, expecting to have as impacts the improvement of their quality of life and work, of their productivity and finally, socio-economic



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benefits from later retirement and better health of aged workers. CREDIT's target group encompasses all elderly workers (over 45), with emphasis on blue-collar industrial workers over 45, white collar workers over 50 and consultants and managers over 55.

The objectives of CREDIT are:

- ✚ Recognition of the needs for inter-generational learning, with emphasis on the re-training needs of elderly (45+) workers .
- ✚ Development of adequate non-formal and informal lifelong learning schemes for elderly workers that are adapted to their residual abilities and respect their personality
- ✚ Development of a system to objectively evaluate the acquired knowledge and competence of elderly workers from the above training schemes
- ✚ Development of qualitative and statistical indication, tools and an on-line, interactive database for good practice guidance in the area of elderly workers learning
- ✚ Application of the above systems and tools to three important business fields, namely training institution, civil aviation and engineering consultancy, following a balanced and Europe -wide approach (test beds in Finland, Germany, Greece).

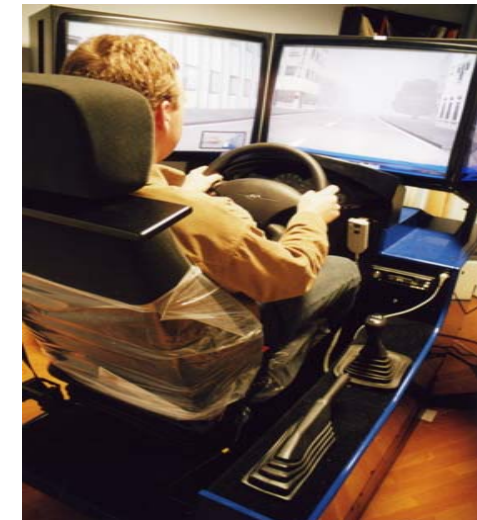
- ✚ Issue of guidelines on optimal performance of aged workers re-training and recommendations towards the establishment of an accreditation scheme for them.



6.4.6 NOVEL: CENTRE OF EXCELLENCE ON DRIVER BEHAVIOUR ISSUES IN THE CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS

NOVEL is developing a Centre of Excellence on driver behavior issues, which is a key element of road safety. In order to achieve this goal, the Centre is being equipped with a series of sophisticated research tools, such as:

- ✚ A Virtual Environment tool, for simulation of car systems and the surrounding environment



PICTURE 6-1: Driving Simulator



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✚ A Research Vehicle equipped with Advanced Driver Assistance Systems (ADAS), (radars, cameras, sensors etc).

✚ A Semi-Dynamic Driving Simulator for simulation of various driving conditions that would be difficult or even dangerous to be tested in real conditions (e.g. driving in a highway, city environment driving in rain, snow, ice, etc).

6.4.7 SPORTS4ALL: PROVISION OF TELEMATIC SERVICES TO THE DISABLED FOR THE DIFFUSION OF INFORMATION ON ATHLETICS EVENTS

Sport4All is a European project co-funded by the General Directory DGINFSO (Information Society) of the European Commission, under the framework of the eTen initiative. It's aim is the provision of services to people with disabilities in relation to sports events, providing to Sport4All service users wide distribution of sports information through the use of ICT technologies. The main project objectives are:

✚ The development of a holistic approach for the creation, collection, management and diffusion of information and telematics services targeted at the disabled and elderly population, in the context of athletic events.

✚ The utilization digital economy techniques for the diffusion and exploitation of services targeted at the disabled and elderly throughout Europe.

✚ The development of a web-based pool of information that will allow wide access on seamless and dynamic information regarding accessing and attending athletic events, in compliance with the special needs of the target population.

✚ The establishment of a distributed network, including travel agents, providers of accommodation services, local, regional and trans-European transportation agents, finance organizations and sport factors. This network will provide access to quality support services for a wide range of disabled users.

✚ The design of a complete e-guide on sport conduct and attendance, based on the universal design principles that will allow the customization of the information delivery and content in strong correlation to each user's needs.



6.5 SPECIALIZED RESEARCH AND ANALYSES

This Sector undertakes the execution of specialized research projects within the scope of the Institute's services. Special emphasis is given to new technologies applications in the field of Transport (e.g. Telematics, new materials for road construction, new management and control techniques, etc). The main criterion for selecting the research projects undertaken by this Sector is the existence of immediate and pressing need for specific results by the assigning bodies, lack of research in the specific scientific field, or high specialization on the relevant subjects.

6.5.1 GIFTS: GLOBAL INTERMODAL FREIGHT TRANSPORT SYSTEM

The main GIFTS aim is to design and develop for the pilot cases, a fully Integrated Operational Platform, the GIFTS Integrated operational Platform - GIP, for the use of systems that manage door-to-door freight

transport in an intermodal as well as unimodal sense. GIFTS aim is to provide the blueprint of a system that will be provided for an integrated service to freight transport operation that will be particularly accessible to the Small and Medium "players" in the field. It will provide applications for the operational (e.g. track, trace and monitor the door-to-door journey, aid in trip management, goods tracing and tracking, fleet management, etc), as well as all the e-commerce functions and insurance of a door-to-door freight transport chain, in the fullest sense (i.e. including order matching, e-document transfer, e-payment, etc). The GIP will also have its own administrative functions based on a CORBA platform for registration, secured access, customer profiling, etc. The use of GIP will be mode independent i.e. it should be applicable to both unimodal as well as multimodal transport applications.

GIFTS Integrated operational Platform, will be demonstrated during three pilots (road freight transportation, rail freight transportation and e-commerce), capable of handling registration, authentication, audit trails, security, billing etc, for the users of GIFTS, and which is independent of the mode used, i.e. applicable also to intermodal freight transport situations.



6.5.2 RURAL-WINS: ROADMAP FOR ICT SOLUTIONS FOR RURAL AREAS AND MARITIME REGIONS

This project aims to build a strategic RTD roadmap developing an Information and Communication Technologies vision which will ensure the economically and technically feasible deployment of information and communications solutions for rural areas (including also maritime regions and islands).

The project analyzes: trends in technology development of equipment needed and foreseen; deployment of services, which integrate the equipment; and knowledge management development, which will allow the integration of the above for the globalised rural work and life environment.

The Thematic Network analyzed different solutions of joint public and private initiatives and business models to be constituted in the near future. RURAL WINS solution will lower the discriminatory gap nowadays existing between rural and urban areas as regards broadband accessibility and applications deployment. As a result a

broad constituency will have been formed around the proposed Information business models.

6.5.3 UPTUN: EFFECTIVE, SUSTAINABLE AND INNOVATIVE UPGRADING METHODS FOR FIRE SAFETY IN EXISTING TUNNELS

The UPTUN Project aims to present cost efficient methods for fire safety in existing tunnels. The study will provide information to enable cost efficient decisions on detection, inspection, monitoring or mitigating to be made by European tunnel administrations. Simple and usable rules will be provided for an initial assessment. Furthermore, specifications for a possible computer program will be presented in order to be used in more complex fatigue calculations and assessment.



6.5.4 IMMACULATE: IMPROVEMENT OF URBAN ENVIRONMENT QUALITY OF AIR AND NOISE LEVELS BY AN INTEGRATED, COST EFFECTIVE AND MULTI-LEVEL APPLICATION OF CLEAN VEHICLE TECHNOLOGIES

IMMACULATE aims to promote the improvement of urban environment quality of air and noise levels by an innovative combination of clean vehicle technology for different vehicle types (electric power-assisted bicycles, electric scooters, hybrid passengers cars and minibuses), with other recent advances in urban transportation schemes (such as application of transport information, management and telematic systems, smart cards technology, mobility management schemes).

IMMACULATE results in the demonstration of an innovative approach for the mitigation of air pollution and noise problems in the city of Thessaloniki - with a projection to other European cities - through the introduction of a system based on the combination of clean vehicles and advanced transport telematics and management technologies.

Furthermore, through its dissemination activities and pilot studies, IMMACULATE works towards formulation of an “eco-consciousness” in the citizens of an urban environment.



PICTURE 6-4: GPS antennas at the electrical shooter and Toyota Prius



6.5.5 IMONODE: EFFICIENT INTEGRATION OF CARGO TRANSPORT MODES & NODES IN CADSES AREA

The IMONODE project aims at studying the options and suggesting solutions and solid actions that will enhance the greater use of, and the accessibility to the transportation axes no V and X for freight transport with priority on rail. The emphasis is on rail because if no specific actions are taken it will continue to loose ground against road transport and this is contrary to the declared Transport policy of the EU. For the areas of CADSES countries that had a long tradition of rail supremacy over road, this is a crucial issue and a very urgent objective to pursue.

Secondary aims concern the optimisation and rationalisation of transport and handling systems for freight transport, reducing environmental impacts of road traffic, increasing the quality of cargo logistics services, reducing pollution, and saving energy along the two axes no V and X. The project proposals will be fully compatible with all relevant national and EU policies regarding structural funds policies, environment legislation, etc.

6.5.6 CITY PORTS

The general target of the CITY PORTS project is the re-organization and process reengineering of city logistics solutions in medium and small size urban systems. Secondly, another target is to make some nodes (urban systems) of EU infrastructure and information networks to work in coherent, efficient and sustainable way by integrating the main EU policies and priorities active at local level, namely the EU policies and measures for the sustainable spatial development, the improvement of social-economic cohesion, the reduction of greenhouse gas emissions the EU policies on transport.

Thus the CITY PORTS proposal is mainly addressed to establish an information network on city logistics solutions and to improve the transfer of management skills and know how in the field of urban freight transport and “city logistics” among the 21 participants through piloting actions.

The network and the methodology proposed are also strongly oriented to encourage the investments and improve durable results in several urban systems affected by the freight transport problems. At local level, the proposal deals with the preparation of public and/or private investments.



6.5.7 GILDANET: GLOBAL INTEGRATED TRANSPORT LOGISTICS DATA NETWORK

The prime aim of the GILDANET project focuses on the evolution, extension and consolidation of the GILDA/TRANSLOGNET systems, prototypes developed under the INTERREG IIC Programme as a widely accessible IT support solution for the information and document exchanges among authorities and operators of the intermodal transport. GILDANET will introduce an integrated and open information network between the partners of the transport chain and other relevant parties. Emphasis will be put on the real time electronic transactions, Tracking and Tracing of cargo and vehicle, information dissemination, Decision Support Systems, interfacing with the end users, interconnected/interoperable ICT systems at a transnational level and adoption of advanced communication protocols.




INTELLECT: SYSTEM FOR COMBINED PASSENGER TRANSPORT INTELLIGENT INTERMODAL TRAVEL PLANNING AND RESERVATION







The project INTELLECT proposes the development of platform which will be addressed mainly in the final user of traveler, but also in enterprises that are activated in the area of reservations and will be able to interlink databases of different means of transport (air - marine - ground), composing scenarios of travel with combined transport means, based on the profile of traveler and parameters as the cost, the time and the comfort. Such a system will offer also information to the traveler for his ways of passage between stations of re-embarkation (harbor - airport - railway station) and will undertake to fulfill the reservation of all tickets and of all means that intersect in the scenario that will be selected by the traveler.



6.5.8 ISLANDS: INTEGRATED SYSTEM FOR LONG DISTANCE PSYCHIATRIC ASSISTANCE AND NON-CONVENTIONAL DISTRIBUTED HEALTH SERVICES

The overall aim of the project is to develop services to provide modular, non-conventional, remote psychiatric and psychotherapeutic assistance for remote areas. By these means quality of life of the users, quality of mental health care and the economic strength of the region should improve and overweight the costs of implementation and service support. The project will reduce inequalities in mental health services and status among European regions. There will be intermediate objectives, like:


-  Gathering of epidemiological data concerning the mental disorders addressed.
-  Identification of the specific needs of patients, their informal carers and professionals in remote areas
-  Extension of the state of the art remote psychological counselling to a broader spectrum of users and disorders

-  Development of the remote services in diagnosing, counselling and even treatment of psychological disorders, establishment of the appropriate content and service provision media
-  Development of innovative computerised tools (i.e. assessment and training tools, relevant cases database, service application expert tool) with multimedia and multilingual user interfaces, to offer these services in an optimal way
-  Development of a modular, distributed telepsychiatry platform, which will allow transfer of critical parameters in a secure medical telecare network between patients, their family members and/or stationary centres, equipped with medical staff, enabling virtual telepresence, remote monitoring and teleconsultation with medical experts, irrespective of locations limitations
-  Evaluation of the feasibility, the effectiveness and costs-efficiency of the new services
-  Development of the recommendations and guidelines for public mental health services, when providing the new services
-  Enhancement of the information about mental health problems and how to solve them in remote European regions



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 Proposal of cost-effective policies to improve the mental disorders addressed and advice in using selective serotonin reuptake inhibitors or in applying exposure therapy



6.5.9 IMAGE: INTELLIGENT MOBILITY AGENT FOR COMPLEX GEOGRAPHIC ENVIRONMENTS.

IMAGE developed an information environment (the AGENT) that will be the enabling tool for delivering third party electronic services/data to end users in order to cover their overall mobility needs in a certain complex geographic environment. To achieve that IMAGE designs and develops an open and modular service platform, which will act as the central point transparently coordinating both end users data (user request) and service provider data (provider response).

The information environment consists of:

- ✚ An intelligent module that will “intelligently” manage, process and monitor end users’ requests and individual profiles/preferences for geo-referenced and time-dependent servicing.
- ✚ A data management module that will interface

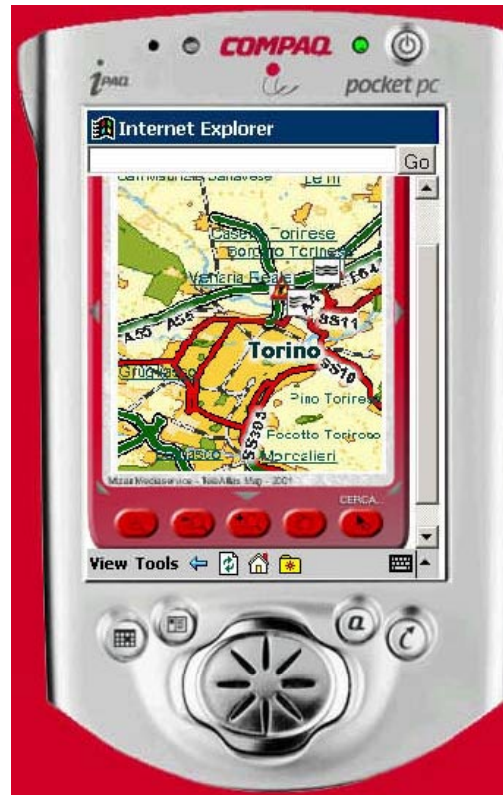
with external entities databases in order to deliver the required data.

- ✚ A GIS platform that will provide reference of both end users’ and service providers’ incoming data into geographic coordinates.

The identified as the integral IMAGE-responsibility services are the following:

- ✚ Localisation service, to acquire the position of the end user in the geographic environment.
- ✚ Navigation service, to guide the end user to the required activity (end product) so as to satisfy his/her need.
- ✚ E-commerce service, to delegate and link end user to external e-commerce services.

Through the involved sub-systems all the different stakeholders are part of the IMAGE Services Operational Network (ISON). ISON integrates end users with service providers in an operational network and makes them elements of the geographic environment regardless of their location (i.e. indoor or outdoor). ISON takes



PICTURE 6-2: Personal digital assistant



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advantage of the existing and new communication & information technologies (Internet, GSM, GPRS, UMTS, Mobile IP) to provide its users with an ubiquitous and adapted access to services and information. ISON will provide universal access through web-based development and IP-based communication networks. XML technology will be used so that contents are seamlessly published in a wide range of formats (for example WML, HTML) suitable for different kinds of terminals.

6.5.10 INTEGRATED SYSTEM FOR THE QUALITY ASSESSMENT OF THE OASA PASSENGER SERVICES

The research project involves the measurement of a series of quality/performance indicators, supporting OASA in the process of monitoring and improvement of the quality of the services provided to the passengers. This goal will be achieved through the implementation of the following three stages:

Stage 1: The quantification of the quality indicators commonly accepted and measurable by all three OASA affiliates (ETHEL S.A. (thermal busses), ILPAP S.A. (trolleybuses) and ISAP S.A. (Metro Line 1)).

Stage 2: The design and development of an Integrated System for the Monitoring and Assessment of the OASA Passenger Services Quality.

Stage 3: The support of OASA in the organization of the best procedures for the collection and archiving of the necessary data involved in the quantification of the indicators defined at the Integrated System and thus in the flexible “maintenance” of the quality control process in the future

6.5.11 MANAGEMENT AND MAINTENANCE OF THE THREE YEARS DURATION INTEGRATED CONTROL SYSTEM OF THE PASSENGER TRANSPORT OF OSE

The project aims are the management and maintenance of the system and computation of real indicators for the periods 2002-2003, 2003-2004, 2004-2005, the computation of theoretical estimation indicators for the years 2006 and 2010, and the modification of the software for the computation of the qualitative indicators for the railway routes.



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6.5.12 MANAGEMENT AND MAINTENANCE OF THE INTEGRATED INFRASTRUCTURE QUALITY SYSTEM OF OSE FOR THE YEARS 2003-2005

The project constitutes the continuation of a previous study concerning the quality system of O.S.E for the year 2001 and the main targets are the management and maintenance of the system and computation of the indicators for the years 2003, 2004, 2005 as well as the control of the system's tools, collection of the basic elements of the indicators for each year, input of data, computation of the actual estimation indicators for each year, and presentation - evaluation of the results.

6.5.13 SOCIO-ECONOMIC EVALUATION OF THE WESTERN RAILWAY OF GREECE

The Greek Railways Organization assigned this study to the Hellenic Institute of Transport - HIT of the National Center for Research and Technology (project responsible Prof G.A. Giannopoulos), and to Prof Dr K. Koliass of the National Technical University of Athens.



The Hellenic Institute of Transport was responsible for the overall study management and co-ordination as well as for all the traffic

forecasts, the operational cost analysis, and the cost-benefit analysis while Dr. Koliass and his team, was responsible for the estimation of the construction costs for all the infrastructures involved.



Since 1990 the Greek railways are examining the possibility of constructing the West railway Corridor(s) of Greece. This railway axis is considered of major importance for completing the Greek railway network and improving connectivity of the Western part of the country, which currently is served by only road transport. The completion of the Greek railway network to the west is expected to have a major impact on the increase of the market segment of the railways for domestic, international and transit transport of Greece.

This specific extension of the railway transport infrastructure that is considered here, concerns the axes:

-  Igoumenitsa-Ioannina-Kalambaka-Kozani (Section 1), in the North West
-  Ioannina - Rio (section 2) in Western Greece



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✚ Patras - Kalamata (Section 3) in the South in Western Peloponnese

The extension (“project”) also includes the construction of an intermodal terminal at the port of Igoumenitsa and a Ra-Ra connection between Kryoneri and Rio for passing the Rio- Antirio sea stretch of 1.7 kms.

The specific transport infrastructure developments are considered in the context of the creation of an efficient intermodal transport “Gate” in South East Europe, which will facilitate the accessibility of the Central and North European Markets from East and far East countries.

The realization of such an EU intermodal “gate” in South East Europe is in full agreement and in line with the EU policy for transport development until 2010 and the importance of transferring traffic from the congested roads to rail (White Paper for Transport - 2001).

6.5.14 FEASIBILITY STUDY FOR THE ORGANIZATION OF SHIPPING LINKS FOR THE SMALL AEGEAN ISLANDS

The State, identifying the problem of the maritime connection of a number of small and isolated islands of the Aegean, between them, with their administrative centres and with the mainland, decided to assign to the Hellenic Institute of Transport (HIT) the in question study, in order to extend the above effort in the whole of the “unprofitable” network of the Aegean Sea, which is the responsibility of the Ministry of Merchantile Marine and the Ministry of Aegean, but also to draw up the detailed specifications issues which will constitute the basis for the declaration of the international contest for the vessels acquisition adjudication and their thereafter routing on certain “unprofitable” lines.

Special emphasis was given on certain lines of the study area that the new vessels will service. Initially, the classification of the 56 lines of the study area to “occasional” (17) and “permanent” (39) unprofitable lines was the result of applying the proper criteria on the above. Since the coverage of under study "new" service system of the "unprofitable" lines would be impossible, not only economically but also relatively to



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the existing legislation of EU, to be effective immediately for the whole system of the existing 56 unprofitable lines, there was a choice of those lines that are more likely to be included in the new system. The result of the investigation procedure for the satisfaction of each of the above-mentioned selection criteria for the lines that were studied for the routing of new vessels, led to the selection of 29 unprofitable lines that were studied at first for integration in the new system.

Thereafter, and having taken into consideration the desired service characteristics for these 29 lines and the determination of the number of vessels, the study focused on the organization issues of this service and its financing in order for the whole project to be viable and for the main goal of the offered service upgrade relatively to the existing system to be achieved of course.

The basic parameter of the various alternative "line systems" evaluation was to achieve the balance of the total operational cost and financing service of the new form with the total cost that corresponds today to the same (or somewhat the same) groups of "unprofitable lines". In simple terms, the new system mustn't be more expensive than the old one.

In the context of meeting the above-mentioned basic parameter, 3 alternative and 1 pilot scenarios were formulated and their economic-technical "balance" was examined as far as the number and identity of

lines that will be included in the system are concerned. The first one concerned the integration of all 27 lines that were selected at first. The second one concerned the integration of 20 out of the 27 lines, while the third one concerned the integration of only 9 out of the 27 lines. Part of the latter scenario (3 lines in total) was the one that considered for the pilot application of the whole system, and is the one that will be forwarded immediately for implementation.

The application of "new" operational "form" of the "unprofitable" lines of the Aegean described above and for the above-mentioned lines firstly, and then in the total of lines, is expected to bear a series of indirect social benefits as a result of the higher offered level of maritime service.



7 INTERNATIONAL RELATIONS & PARTNERSHIPS

7.1 ECTRI - EUROPEAN CONFERENCE OF TRANSPORT RESEARCH INSTITUTES


On September 17th and 18th 2001, on the initiative of INRETS, directors and representatives of 15 institutes from the European Union member states and associated countries decided to set up the European Conference of Transport Research Institutes (ECTRI).



ECTRI brings together 3.000 researchers and covers a wide range of research areas of common interest in the context of the European Research Area (ERA).

Today ECTRI is an international association covered by statutes and cooperation agreement.

The mission of ECTRI is:

-  To actively promote cooperation in the field of surface transport and participate in the creation of the European Research Area.



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✚ To provide a platform for the development of research networks

✚ To participate in the structuring of the European Research Area with networks of mobility and training, and research infrastructures

✚ To participate in the integration of the European Research Area by preparing networks of excellence.

✚ To stimulate and facilitate the participation of its members in European R&D projects in the field of transport.

In the long term ECTRI will develop a European Network of Excellence (NOE), in a broader sense than the NOEs of the 6th FRDP but in line with the concept developed by the European Commission, where integration and common activities are dynamic. ECTRI is already working towards setting up a European Certification Laboratory in the field of Advanced Driver-Vehicle Systems by utilizing the infrastructure of all its members.

HIT is founding member of ECTRI. In January 2003 the director of HIT, Prof. G. Giannopoulos, was elected President of ECTRI for a two-year term, 2003-2005.

For 2003, ECTRI's members were:

✚ CDV - Centrum Dopravního Výzkumu (Czech)

✚ AVV - Transport Research Center (Holland)

✚ DLR - Deutsches Zentrum für Luft und Raumfahrt (Germany)

✚ DTF - Danmarks TransportForskning (Denmark)

✚ FHG-IVI - Fraunhofer-Gesellschaft, Institut fuer Verkehrs und Infrastruktursysteme (Germany)

✚ H.I.T - Hellenic Institute of Transport (Greece)

✚ INRETS - Institut National de Recherche sur les Transports et leur Sécurité (France)

✚ KTI - Közlekedéstudományi Intézet Rt. (Hungary)

✚ POLITO - Politecnico di Torino, Department of Hydraulics, Transports & Civil Infrastructures (Italy)

✚ TNO - Netherlands Organisation for applied Scientific Research (Holland)

✚ TOI - Transportøkonomisk Institutt (Norway)

✚ TRL - Transport Research Laboratory Limited (Hv. Βασιλείο)

✚ UPM - Universidad Politecnica de Madrid (Ισπανία)



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- ✚ VTI - Statens Väg-och Transportforskningsinstitut (Sweden)
- ✚ VTT - Technical Research Centre of Finland (Finland)

For further details please visit the website of ECTRI:
<http://www.ectri.org>

7.2 SETREF - SOUTH EAST EUROPEAN TRANSPORT RESEARCH FORUM

The South East European Transport Research Forum is an international non-governmental non-profit association of organizations in South East European countries devoted to the promotion of transport research and education. Its scope covers all forms of transport activity, i.e. planning, evaluation, design, construction and operation of the



transport systems and all transport modes (road, rail, air, maritime, and inland waterways). SETREF was established in Thessaloniki, Greece, on April 1997. Its offices are in Thessaloniki within the building of HIT.

The principal objectives of SETREF are to:

- ✚ Advance co-operation in transport research and education
- ✚ Promote intermodal transport concepts in S.E. Europe
- ✚ Promote exchange of research personnel.
- ✚ Facilitate exchange of information and ideas
- ✚ Facilitate the harmonization of the basic research and education activities
- ✚ Provide support services for transport studies and policy formulation in the area of S.E. Europe, including formulation and maintenance of data banks for traffic and transport related data
- ✚ Provide specialized advisory services

Its focus area is S.E. Europe but its activities extend to all Eastern European and Black Sea Countries.

Further objectives of the Forum are, to:

- ✚ Facilitate co-operation in the use of existing research facilities
- ✚ Facilitate co-operation in assessing and/or executing research



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- ✚ Facilitate co-operation in the provision of specialized services
- ✚ Cooperate and interact with other similar European or International Organizations

To pursue its objectives SETREF is involved in a number of activities, which include:

- ✚ Organization of, or participation in, Conferences, Seminars, Workshops and other similar activities for know how and innovation dissemination in the field of Transport
- ✚ Co-operation with other Organisations and bodies with similar interests in the field of Transport
- ✚ Undertaking of paid co-operative research projects with joint participation of its members
- ✚ Participation in studies and research activities with other Organizations
- ✚ Creation and maintenance of transport related databases and other material that can be used as a basis by third parties for transport studies and research
- ✚ Provision of specialised technical expertise and/or consulting to Governments and other Organisations in the field of Transport

The Forum abstains from any political activity.

The Forum is composed of the founding member organisations and other member organisations elected to membership by the SETREF assembly following their application.

Eligible organisations are any public, semi-public or privately owned organisations or companies that are involved regularly in research or research related activities in the field of transport, or are interested in research, and are based in the countries of the S.E. Europe (i.e. within the area defined by Slovakia, Romania and the Black sea in the North, Turkey in the East, Cyprus and Greece in the South, and Italy and Austria in the West).

Currently SETREF has 32 member Organisations.

HIT had been a member of SETREF since March 2001. The Director of HIT Prof. G. Giannopoulos, has been President of SETREF since December 1997.

- ✚ Prof. G.A.Giannopoulos, President, Greece
- ✚ Prof. S.Vukanovic, Vice President, Institute for Transport and Traffic Engineering Transport and Traffic Engineering Faculty University of Belgrade, Former Yugoslavia
- ✚ Prof. Stoyanov, Secretary General, Technical University of Sofia, Bulgaria



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✚ Prof. B. Bezak, Treasurer, Technical University of Bratislava, Slovak Republic

✚ Prof. Knoflacher, Technical University of Vienna (TU) Institute for Transport Planning and Traffic Engineering, Austria

✚ Ass.Prof. Ch.Orosz,, Budapest University of Technology and Economic, Hungary

✚ Prof. Y. Candemir, Istanbul Technical University, Turkey

✚ Mr. Sorin Honc, INCERTRANS, Rumania

✚ Prof. M.Doubrovski, State Maritime University of Odessa, Ukraine

✚ Assoc.Prof. M. Mazzarino, University of Venice Italy

For further details please visit the website of SETREF:
<http://hermes.civil.auth.gr/setref>

7.3 ERTICO-EUROPEAN ROAD TRANSPORT TELEMATICS IMPLEMENTATION CO-ORDINATION ORGANIZATION

ERTICO is a Europe-wide, not-for-profit, public/private partnership for the implementation of Intelligent Transport Systems and Services (ITS). Set up in 1991 at the initiative of the European Commission as well as key members of European ITS industry and national governments, ERTICO is open to any European organisation or international organisation operating substantially in Europe. ERTICO's mission is to promote and support the implementation of ITS in Europe, ensuring sustainable mobility, travel satisfaction and high economic returns. By joining ERTICO, organisations can work more effectively together and achieve vital synergies across sectors and across national boundaries to create a dynamic and successful European ITS market.





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ERTICO is a co-operative company under Belgian law (Société Co-opérative à Responsabilité Limitée) with equal shareholding Partners. Its activities are financed by annual fees from its Partners and by project funding from others, including the European Commission. ERTICO works closely with the EU to promote and actively support the introduction of ITS. Close contacts with European institutions allow us to monitor and influence political and strategic developments at the European and the global levels.

CERTH is the first Greek organization that joined ERTICO, in 2003.

7.4 FERSI - FORUM OF EUROPEAN ROAD SAFETY RESEARCH INSTITUTES

European countries have a national road safety research programme, usually led by the national Ministry of Transport. In most countries, there is a single organisation, which provides the primary focus for the execution and implementation of this programme. The Forum of European Road Safety Research Institutes (FERSI) was created in 1991

to bring together these national research organisations to provide a common focus for road safety research at the European level.

In order to promote its aims and objectives, FERSI and its members:





- ✚ Initiate and carry out research projects in direct support of EU policy work (eg SARTRE) and Framework projects (eg DUMAS, SAFESTAR, GADGET)
- ✚ Provide advice on road safety research matters to national governments and European institutions
- ✚ Promote and support relevant Conferences, Seminars and Workshops
- ✚ Encourage the exchange of researchers between European road safety institutes
- ✚ Establish and maintain strong links with national and international clients for road safety research
- ✚ Establish and maintain close liaison with other worldwide bodies with a responsibility for road safety research and implementation

FERSI's members are the following:



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-  Beratungsstelle für Unfallverhütung (Germany)
-  Transport Research Laboratory (TRL) (United Kingdom)
-  IBSR / BIVV (Belgium)
-  IBDIM (Poland)
-  SWOV Institute for Road Safety Research (Germany)
-  Bundesanstalt für Straßenwesen (Germany)
-  T Ø I (Norway)
-  LNEC (France)
-  VTI (Sweden)
-  Kuratorium für Verkehrssicherheit (Germany)
-  INRETS-DGA-Centre de Lyon-Bron (France)
-  KTI Institut for Transport Sc. (Hungary)
-  Centrum Dopravního Výzkumu (Czech Republic)
-  Danmarks Transport Forskning (Denmark)
-  VTT Communities and Infrastr. (Finland)