OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

2679

INTERNATIONAL CENTRE FOR SCIENCE AND HIGH TECHNOLOGY

Area Science Park, Building L2, Padriciano 99, 34012 Trieste, Italy
Phone: +39-040-9228-111   Fax: +39-040-9228-122
http://www.ics.trieste.it/

Ministero degli Affari Esteri

CEI
CENTRAL EUROPEAN INITIATIVE

Final Report

ICS Workshop on

"Intelligent Transportation Systems: from Physical to Virtual Transport Networks"

Università Cattolica del Sacro Cuore, Piacenza (Italy)
Sala Consiglio
Via Emilia Parmense, 84

10-11 December 2001

ORGANIZED IN COLLABORATION WITH:

CRATOS

WORLD INSTITUTE for the DIGITAL ECONOMY
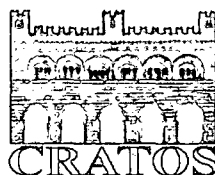
Acknowledgements

We have to thank a lot of friends and organizations who helped us set up this Workshop and supported the initiative. Among them we like to mention:

➢ the President of the Province of Piacenza, mr. Dario Squeri
➢ the Director of the Università Cattolica del Sacro Cuore, at Piacenza, dott. Libero Ranelli
➢ the President of the Association of Electronic Industries (ANIE-CONFINDUSTRIA) : ing. Tani
➢ the President of the Piacenza Chamber of Commerce, dott. Gatti
➢ ITS Europe and its President
➢ ERTICO
➢ AISCAT
➢ The secretariat of the Master of MiNE Program and the engineers of CRATOS who helped with the videoconference

About the hosts :

The missions and activities of WIDE and CRATOS can be summarized below.

WIDE
http://www.digiconomy.org

The World Institute for the Digital Economy (WIDE) is an international no-profit association whose mission is to stimulate the development of the emerging Internet Economy, by promoting research projects as well as educational and training activities in the economic and cultural fields, to facilitate the advent of the New Economy in all countries of the world. The Association performs or supports activities such as:

- establishment of academic and professional post graduate courses on managing organizations in the context of the new economy
- establishment of interest groups to study digital economy issues and problems scientifically
- collection and selection of academic and managerial documentation, to be made available online to WIDE members
- organization of events, conferences, debates, seminars, and studies intended to reach and spread the Association's institutional objectives
- creation of groups and associations that, even for individual sectors, will foster the international debate on digital economy themes, to promote the development of the Information Society by the elimination of the cultural, social, and economic barriers that at the present time are hampering its growth
- co-ordination of its own activities with those of the worlds of industry, services, and content producers, so as to contribute to new employment opportunities and new business models

Research Projects

Web Portfolio Study

The first edition of the Web Portfolio Study was a research and industry project on the evolution of corporate information networks and the emergence of internet-based electronic commerce, in co-operation with UC Berkeley, Stanford University, National University of Singapore and other major research institutes in Europe. The project's explicit purpose is to understand how corporate information networks are evolving via the embrace of internet standards and technologies, and the development of business-business electronic commerce applications over the resulting infrastructure.

eBusiness Project

The eBusiness Project is a new research and industry project recently launched by the World Institute for the Digital Economy in order to examine how particular sectors in Europe are being transformed by Web based initiatives. The overall research effort is aimed to promote a world-wide knowledge exchange on "How the eBusiness Revolution Will Redefine Industry Boundaries and Will Remake the Marketplace" The eBusiness Project will produce three sets of results:
- industry studies examining the transformations of different sectors triggered by the new information technologies,
- taxonomies of the strategies of firms that lie behind the industry changes,
- analysis of distinct national and sectoral patterns of eBusiness technologies usage.
-

eBusiness Lab

The eBusiness Lab is the experimental environment of the eBusiness Project. The main goal of the eBusiness Lab is to provide European multinationals and other user organisations (corporate sponsors of the eBusiness Project) with e-nsights, both on emerging business models and disruptive technologies scouted from the "hot spots" of the Internet world. The eBusiness Lab will be a permanent collaborative environment for participating companies (corporate users, industry partners and technology providers) and research collaborators to exchange knowledge and lessons learned about their eBusiness initiatives, as well as a pre-competitive and neutral "field" to experiment on emerging technologies applied to existing or new business models, across different sectors. The eBusiness Lab research effort will produce documentation examining the emergence of new applications for innovative technologies in the eBusiness domain, with particular focus on Knowledge Management, Supply Chain Management and CRM; The World Institute for the Digital Economy (WIDE) is establishing a network of local/regional research partners and WIDE representatives that can more efficiently and effectively scout emerging players and potential tomorrow's leading technologies for the eBusiness Lab.

Board of Directors

WIDE is governed by the Board of Directors, which is directly responsible for all the Association's activities. The main tasks of the Board are: to elect the President; to organise and manage the activities that are to be

undertaken to pursue the objectives of WIDE, according to the provisions of these Bylaws; to co-ordinate and periodically control the activities of the project managers for the initiatives implemented or sponsored by WIDE; to prepare the budget for the Association and for each project; to elect the Secretary and the Treasurer. The Board has all the ordinary and extraordinary powers, except those that the Institute's Bylaws assign to the Assembly.

❑
Stephen S. Cohen

Founding Member, Head of U.S. Relationships
Professor of Planning and Co-Director, Berkeley Roundtable on the International Economy (BRIE), University of California at Berkeley.

❑
Domenico Ferrari

Co-founder,Chief Scientist
Professor of Computer Science and Director, Center for Research on the Applications of Telematics to Organisations and Society, Università Cattolica at Piacenza; Professor Emeritus of Computer Science, University of California at Berkeley.

❑
Andrea Mills

Co-founder,Executive Director
Professor of Emergent Organizations Management and Ass. Director, Strategic Development, Master of Management in the Network Economy (MiNE), Università Cattolica; and CEO BraveBrains.com

❑
David J. Snowden

Founding Member, Head of Europe and Middle East Asia Relationships
Director, Institute for Knowledge Management, IBM EMEA, London.

Board of Advisors

Through its Board of Advisors, the World Institute for the Digital Economy (WIDE) gets the insights of and inputs from experienced members of the business and academic communities. The Board helps shape the future growth of the Institute, by promoting research projects and Internet related initiatives.

❑
Peter F. Cowhey

Special Advisor to the Board on Telecomunication Policies and Regulations
Professor of Political Science and Director, Institute on Global Conflict and Cooperation, University of California at San Diego.

❑
Hal R. Varian

Special Advisor to the Board on Information Economy
Class of 1944 Professor and Dean, School of Information Management and Systems, Professor of Business, and Professor of Economics, University of California at Berkeley.

THE MiNE Program

http://www.mine.com/

The Master of MiNE Program is the result of collaboration between the Center for Research on the Applications Telematics to Organisations and society (CRATOS) of the College of Economics, Università Cattolica del Sacro Cuore at Piacenza, Italy, and the School of Information Management and Systems (SIMS) of the University of California at Berkeley, USA

Most of the **courses** offered by the Master of MiNE Program fall into one of the following four areas:

- Information and Communications Technology (ICT)
- Emergent Organizations Management (EOM)
- The Network Economy (TNE)
- Cyberlaw, Policies and Regulations (CPR),

as well as into one of the following three levels: Basic, Core, and Advanced. Every year, a number of courses are offered in each area at each level.

Some of the instructors are also members of the MiNE Program Administration; they are regularly present on campus and ensure the continuity of the Program's philosophies, programs and policies.

Most of the **MiNE Program faculty members** are visiting instructors, experts of international reputation who usually come to the campus only to teach their course, but at other times are in touch with the Program Administration and students via e-mail.

The Director of the MiNE Program is *Prof. Domenico Ferrari*

MiNE faculty members are explorers and discoverers, seeking new ideas and insight at the frontiers of knowledge. Internationally recognised leaders in the study of economic, business and technological forces shaping the networked global markets today, they perform important interdisciplinary research with colleagues at the University of California, Stanford University, Yale University and other top universities in the US and Europe.

Research at MiNE is run through relationships with centres and institutes set up around various disciplines and multidisciplinary areas of study on emergent organisational issues such as:knowledge management , supply chain management , customer relationship management , employees relationship management , technology management

There are a number of **research groups and centres** related to the MiNE Program and in some cases directed by MiNE faculty members:

- Berkeley Center for Law And Technology
- Berkeley Roundtable on the International Economy
- Center for Research on the Application of Telematics to Organizations and Society (CRATOS)
- Fisher Center for Strategic Use of Information Technology, UC Berkeley
- Institute on Global Conflict and Co-operation, University of California
- Stanford Computer Industry Project (SCIP) at Stanford University
- World Institute for the Digital Economy (WIDE)

There are several **research projects** in which MiNE faculty take an active part among with the following:

Intelligent Homes Lab, E-Conomy Project , E-Learning - Knowledge Xchange , Web Portfolio Study, The Supply Chain Management Initiative

CRATOS - Center for Research on the Applications of Telematics to the Organizations and Society
http://cratos.pc.unicatt.it

CRATOS research activities are directed towards the invention and the study of new applications of information and communication technologies to industry, commerce and, more generally, to all of society.

Telematics is the discipline that deals with the systems deriving from the combined use of information and communication technology. It came about with the first networks for the transmission of electronic data between computers, and developed above all with the introduction of packet switching and of digitalization; while the former led to the Internet, the first global telematic network, the latter extended the benefits of the combination of communication and computing to information of all types, including audio, video, and fixed images.

The progress of telematics has always been fueled more by technology than by applications. Only in recent times have we woken up to the real use that telematics can be put to in the manufacturing, commerce and service industries, as well as to the profound influence that its widespread introduction into daily life will have on society in general. A small, but growing, group of researchers have therefore begun to shift their attention from the problems of technology to applications, ranging from engineering to the socio-economic impact of telematics.

CRATOS is one of the fruits of this current tendency: the nucleus from which it was born is made up of experts in telematic technologies (above all of multimedia communication and computing), interested in the applications of such technologies, and who bring with them technical know-how which is rare in the environments in which CRATOS operates.

Amongst the research topics that CRATOS considers part of its "jurisdiction" are Internet and similar network applications (intranet and extranet, for example): electronic commerce, advertising, multimedia conferencing, communications (telephone, videophone), telework, information retrieval (above all on the World Wide Web, but also from various databases), video-on-demand, customer assistance, virtual business, and so on. There are also very similar topics concerning future broadband telematic networks "with integrated services", designed specifically for multimedia traffic. One of the "meta-application" problems still to be faced concerns the choice of services that these networks will have to offer in order to facilitate the creation and use of new applications. Finally, we should mention multimedia applications (with different "meta-questions" regarding, for example, the structuring methods of such applications, or the use of multimedia techniques to facilitate access to telematic systems by reluctant or untrained persons).

The Final Programme

The participants were received on Sunday and in order to have better relationship a common dinner was organized together whit a visit to the Museum of Collegio Alberoni where relevant scientific instrumentation and documentation are collected till from 17th century.

The final program was :

PROGRAMME
MONDAY, 10TH DECEMBER

8:30   *Bus transfer from hotel to Conference Room*

               Registration

9:00 - 9:30   **Welcome to participants**

               ➤ Dario Squeri, President, Province of Piacenza
               ➤ Francesco Pizzio, ICS General Manager (video conference with ICS in Trieste)
               ➤ Domenico Ferrari, Director Master of MiNE, Professor Emeritus at Berkeley
               ➤ Gian Franco Piacentini, ICS Telecommunications Technologies Programme, CEO Advisory Board Master of Mine

State of the Art Review

9:30 – 9:45   **Global View of Traffic Development in Europe**

               ➤ M. Olivier Waldner, European Community, Brussels, Belgium (G.F. Piacentini)

9.45- 10.30   **ITS and Strategies in Road Transport Evolution**

               ➤ Vito Mauro, Polytechnic of Turin, Italy

10.30 – 11.15 **ICT Technologies in ITS**

               ➤ Michele Morganti, Siemens , Italy

11.15 – 11.45 *Coffee Break*

11.45 – 12.30 **Interoperable Data Exchange System**

               ➤ Jan Tierolf, Rijkswaterstaat, the Netherlands

12.30 – 13.00 **Transport Infrastructures And Services: Existing Situation and Needs**

               ➤ Brief presentations by the representatives of **Hungary**

               ➤ Brief presentations by the representatives of **Czech Republic**

13.00 – 14.30 *Lunch*

Interoperability on a Global Scale and Creating Business

14.30 – 15.15 **The Contribution of new Technologies to Mass Transit**

               ➤ André Ampelas (Alan Chesnoy), RATP, Paris, France

15.15 – 16.00 **Vehicle Navigation : lesson learned from the Berlin experiment**

               ▪ Heinz Sodeikat, ERTICO past President, Siemens , Germany

16.00 – 16.30 *Coffee Break*

16.30 – 16.45 **The role of industries in ITS implementation**

               ➤ Elio Varricchione, Confindustria/ANIE ASSOAUTOMAZIONE, Milano, Italy

16.45 - 17:30 **Creating Services and Business in Highway activities**

               ➤ Carlo Lepore (Maurizio Rotondo), CEO Autostrada Brescia-Padova, Verona, Italy

17:30   *Return to Hotel*

Creating Business and Projects for East & Central Europe

8.45 – 9.00	_Bus transfer from hotel to Conference Room_
9.00 – 9.40	**ICT's for Intelligent Transport Systems**

➤ Antonio Colavito, TIM, Italy

9.40 – 10.20	**Interoperability in Electronic Fee Collection**

➤ Sergio Battiboia (Paolo Giorgi), Autostrade S.p.A., Italy

10.20 – 11.00	**Vehicles and Intelligent Mobility**

➤ Gianfranco Burzio , Centro Ricerche FIAT, Torino

11.00 – 11.15	**Transport Infrastructures and Services: Existing Situation and Needs**

➤ Brief presentations by the representatives of **Romania**

11.15 – 11.45	_Coffee Break_
11.45 – 12.15	**Transport Infrastructures and Services: Existing Situation and Needs**

➤ Brief presentations by the representatives of **Poland**

➤ Brief presentations by the representatives of **Slovakia**

12.15 – 12.50	**Interoperability issues in road and road networks management**

➤ Maurizio Rotondo, AISCAT, Rome, Italy

12.50 – 13.30	_Lunch_
13:30 - 13:45	_Closing Session_
14:00 – 14:30	**CEI: project financing opportunities** (Representative from CEI)
14:30 - 15:00	**The value of ITS infrastructures, which Project for East Europe?**

➤ Gian Franco Piacentini, ICS Telecommunication Technologies Programme

➤ Gilberto Tognoni, North Italy Communication, Mantova, Italy

➤ Maurizio Rotondo, AISCAT, Rome, Italy

15:00 - 16:30	**Discussion on further actions: a road map for the activities**

➤ _Chairmen:_

➤ Gian Franco Piacentini, ICS Telecommunication Technologies Programme

➤ _Group Members:_ Representatives from Hungary, Czech Republic, Slovak Republic, Romania, Poland.

16:30	_Closing Session_

The Opening Session

In the opening session, four short speeches were given.

Mr. Dario Squeri, President, Province of Piacenza, gave his welcome to all the participants. He stressed the role of Piacenza in the field of transportation and logistics pointing out that the area has a crucial position from the transportation point of view being the center of four possible directions served by highways : North (Milano and Brescia-Verona-Brenner), East (Venice-Trieste), West (Genoa-Nice-Spain, Turin-Switzerland-France) and South (Bologna, Roma, Florence).
The role of the town as far as logistic is concerned also fundamental, as demonstrated by the number of Companies dealing directly with logistic issues (both transportation companies and distributing companies).
He stressed also the fact that, for this reason, Piacenza and its province helped the growth of two university centers dealing with intelligent transportation: CRATOS, one of the organizers of the Workshop, and the Polytechnic Institute in Transportation Engineering (the only one in Italy).
He also expressed the wish that similar Workshops will be held in Piacenza again in the future.

Ing. Francesco Pizzio shortly presented the UNIDO-ICS mission and main activities, pointing out that ICS is focussed on transfer of technologies and related activities (fund raising, business plan preparation and evaluation etc ..). He also indicated that Intelligent Transport Systems is the only technology that can rapidly help in increasing mobility and reducing pollution, and for these two reasons ICS started, inside the Earth, Environmental and Marine Sciences and Technologies Area, a study group dealing with G.I.S. (Geographic Information Systems), which is fundamental also for ITS.

Prof. Domenico Ferrari, Director Master of MiNE, Professor Emeritus at Berkeley, presented the activities of CRATOS and MiNE, and briefly sketched the relationships between transportation and the development of a country economy. He also commented on the evolution of the Digital Economy and on the fact that, especially as a consequence of E-commerce and E-procurement, urban traffic is expected to increase and only with telematic solutions the negative effects of this trend can be reduced.

The Scientific Sessions

In the scientific sessions (one and a half day) the state of the art was presented by experts coming from different areas and different countries (France, Germany, Nederland, Italy) on

> ➢ Urban traffic,
> ➢ Management of the traffic trough telematics,
> ➢ ITS solutions in Europe,
> ➢ ICT support to transportation
> ➢ Car technologies evolution
> ➢ New business development in the transportation organization
> ➢ Highways evolution
> ➢ Industrial activities and products in the ITS areas

Presentations by the representatives of each participant country i.e. Hungary, Czech Republic, Poland, Romania, and Slovakia, were also given, to highlight the situation of their country and list its principal needs.

The Closing Session

Prof. Piacentini chaired the closing session with the help of Mr. Tognoni and Mr. Rotondo (AISCAT and ERTICO) and the collaboration of all the participants.
Two short presentations were given at the beginning as a stimulus for the discussion, one by CEI presenting its role in the activities of financing projects dealing with transportation in East Europe, the other by prof. Piacentini suggesting possible topics for common projects : "Management and Monitoring of Multimodal Transportation of Dangerous Materials ", "Management of the Effects of E-commerce on Urban Traffic Mobility", "Management of Emergency Calls".

The final discussion was very active and positive: the delegates of the countries agreed to start a common project dealing with the "creation of a digital map" based on a common standard and possibly to be used by all those

entities or communities that will have the need for digital maps (Electrical Utilities, WLL and UMTS Operators and, of course, Transport Operators).
It was decided to ask ICS to start developing a first proposal for a feasibility study to submit to CEI - Central Europe Initiative, for a possible funding.

Evaluation Questionnaire Results

The evaluation forms fulfilled by the participants at the end of the workshop are shown, statistically processed, in the Annex-1 where four graphs are included dealing respectively with :

- Meeting deployment
- Future activities and Project evaluation
- WKS organization : Duration and Evaluation
- the Training facilities and Hotels

From analysis of those graphs it comes out that the largest part of the participants evaluations concerning the speakers performance, the program and the organization of the workshop are ranging in the highest score intervals, with the percentage of "excellent" and "very good" appraisals covering from 90% to 100% of the total answers.
Also the participants considered the training facilities and hotels more than adequate.
The answers to all the questions of the forms have been carefully studied, including the written comments, which cannot be statistically processed. The overall results are confirming the perception of the WKS success, which emerges from the diagrams.

Final List of Attendees

List, addresses and telephone and e-mail data of the participants are:

Partecipant	Affiliation	Country	e-mail	Phone Number
Gabor ALBERT	Institute for Transport Sciences	Hungary	albert@kti.hu	36 13715801
Antal PALFAY	State Motorway Company	Hungary	palfay.antal@autopalya.hu	36 309660925
Laszo HARMATH	AKA	Hungary	lharmath@aka.hu	36 70335511
Tibor ILLES	State Motorway Company	Hungary	itibor@westel900.net	36 14328312
Dorin DUMITRESCU	ITS-Romania	Romania	ddumitrescu@totalnet.ro	40 14117039
Florin DASCALU	ITS-Romania	Romania	admin.and@logicnet.ro	40 12126201
Cornelia ALBOIU	Romania	Romania	cornelia.alboiu@pc.unicatt.it	
Tibor SCHLOSSER	ITS Slovakia Association	Slovakia	schlosser@dopravoprojekt.sk	42 1250234557
Peter HRONSKY	Advisor Minister State Deputy	Slovakia	peter.hronsky@telecom.gov.sk	42 1259494480
Miroslav SVITEK	Association for Transport Telematics	Czech Rep.	SVITEK@fd.cvut.cz	42 0620376081
Jerzy KLENIEWSKI	Ministry of Infrastructure	Poland	jkleniewski@hotmail.com	48 226282731
Michele MORGANTI	Siemens	Italy	michele.morganti@icn.siemens.it	39 0227335353
Gilberto TOGNONI	Autostrada BS-PD	Italy	gilberto.tognoni@infracomspa.it	39 3484924370
Maurizio ROTONDO	AISCAT	Italy	aiscat@mclink.it	39 064827163
Gianfranco BURZIO	Fiat Research Center	Italy	gianfranco.burzio@crf.it	39 0119083'66
Gian Franco PIACENTINI	ICS,	Italy	gfpiacentini@infracom.org	39 0523599174
Vito MAURO	Polytechnic of Turin	Italy	vito.mauro@miz.it	39 348726002
Heinz SODEIKAT	I&S ITS Telematica, Siemens	Germany	heinz.sodeikat@atd.mchh.siemens.de	49 897220
Jan TIEROLF	Rijkswaterstaat, Telematics & Transport	The Netherlands	J.W.Tierolf@AVV.RWS.minvenw.nl	31 012825879
Alain CHESNOY	RATP	France	alain.chesnoy@ratp.fr	
Elio VARRICCHIONE	ANIE Assoautomazione	Italy	Elio.varricchione@anie.it	39 023264252
Domenico FERRARI	Master of MiNE/WIDE	Italy	domenico.ferrari@pc.unicatt.it	39 0523599306
Stefania CARNEVALI	Master of MiNE/WIDE	Italy	stefania.carnevali@pc.unicatt.it	
Gianni ZANREI	CRATOS/WIDE	Italy	gianni.zanrei@pc.unicatt.it	
Francesco PIZZIO	ICS	Italy		
Dario SQUERI	Province of Piacenza	Italy		
Emilio GATTI	Chambre of Commerce of Piacenza	Italy		

Some journalist (La Repubblica, Il Sole 24 Ore, La Libertà) and cameramen of the local TV Stationwere also present at the meeting.

Abstracts and Curriculum Vitae of speakers

Abstracts, Curriculum Vitae of speakers and all lecturers can be find in the printed book, that contain also the video of the Workshop in CD Mpeg format.

Press Releases

Three articles published on the press (in Italian) are given in Annex-2

Objectives

Even if ITS did attracted a lot of initiatives (i.e.: Conference on ITS "01 Prague", 31 May -1 June 2001), the majority of these event have developed only national strategic plans while most of the countries in Central East Europe need to develop coordinated projects which include the cross transfer of data as cars and people move from a country to another. Most of the new announced transport infrastructure building projects focussing on safety, traffic management, intermodality have not yet been finalised as cross national initiatives and at the moment there are only a few projects taking full advantage of the applications of Telematics in transport.

Transport Telematics can be applied to road, rail, air and sea transport to improve safety through the provision of on-line information to drivers in their vehicles and by equipping the vehicle with computerized systems which assist the driver (e.g. following and lane keeping). It also improves the efficiency of transport by use of electronic systems for traffic control and traffic regulations enforcement. Electronic motorway tolling and congestion charging are also transport Telematics options. The management of vehicle fleets - both freight and public transport - can also be improved by providing online information and two-way communication between the manager and the driver.

Transport Telematics will have beneficial effects on the environment by reducing air and noise pollution on highways and will favor the creation of traffic free zones in the cities.

OBJECTIVES

> To identify the important, sustainable key technologies [Data exchanges and protocols, Wireless, Satellite, Mobile] and services (vehicle information, fleet management, parking information, transmodal data..ecc..) that will permit to implement a new transport network enabling Central East European countries to take advantage of the telematics solutions for the benefit of their transport infrastrucure efficiency;

> present technological solutions and products of both communication equipment manufacturers and automotive/automation efficiency producers and propose appropriate solutions (hardware, software and automation) to favor the increase of traffic efficiency and inter-country data exchange;

> review existing data communication network architectures and technologies for railroad and highways, identify the more suitable services to be implemented over the network.

EXPECTED OUTPUTS

> Production of a comprehensive document containing lecture notes, case studies and basic information on the technology and applications presented in the workshop sessions;

> Providing participants with a methodology for solving problems during the Workshop;

> Identify a possible inter-modal/inter-country Pilot Project to be implemented in the participating countries

Main Objectives of the workshop was to help East Europe countries to develop a common strategy for urban and peri-urban traffic making use of ICT technologies.

Recommendations and Follow-up

To the specific question concerning the possibility of extending in the future the activities developed during the WKS, 100% of the Delegates answered in a positive way and demonstrated also by other comments their full support of further cooperation programs between ICS and the Countries represented in the meeting.
Among the possible points of cooperation presented during the "brain storming" session, i.e. "Management and Monitoring of Multimodal Transportation of Dangerous Materials ", "Management of the Effects of E-commerce on Urban Traffic Mobility", "Management of Emergency Calls", the participants proposed a fourth one

♦ a **"Digital Map Initiative"** with the aim to :
  - Identify the common basic GIS architecture for all the countries
  - Enlarge the number of participating countries to the project
  - Define GIS SW and archiving packages
  - Define the first level of content (i.e. level of map definition, objects, etc..)
  - Populate the digital maps

The main goals of the initiative were identified as:

1. Prepare a project road map and milestones for the digital map creation in the 5 participating countries (and any country of the region that will declare interest)
2. Define a standard for the region (thus avoiding proliferation of different solutions)
3. Guarantee that every digital map created in the future will be useful for all applications (from Transportation to Energy, from Mobile Communication to Pollution control)
4. Create some "basic" digital map to be used for other applications different from transportation.

In the Closing Session of the Workshop it has been agreed to start with a feasibility study for this project and prepare a proposal for financial support. It has been requested that ICS prepares a proposal for the feasibility study and submit to CEI this proposal for financial support.
Mr. Jan Tierolf (from ITS Europe), Mr. Maurizio Rotondo (from AISCAT), Mr. Gilberto Tognoni (from NICON) as well as all the Countries delegates accepted to collaborate to the project's preparation,.
The deadline for the feasibility study presentation to CEI is February 2002

Lines of the action for the program are :

- Each Participant will give a status of digital mapping initiatives in its country
- Each Participant will propose the GIS SW and store solution (if any) preferred by his country
- Each Participant list the services that are expected to use digital maps, and the presumable time of such uses
- A first screening will be carried out by ICS
- A Final Project Report will be prepared both as integration of the proposals and using suggestion from ITS Europe or others EU authorities
- The Report will be sent to all the participants for approval
- The participants feedback will be considered and eventually included into the Report, as well as the cost for the study completion
- The final edition of the FPR Report will be sent to CEI for a feedback
- If accepted by CEI, the FPR will be used for request of funding

CONCLUSIONS

The WKS has achieved a large success, as is clearly demonstrated by the responses to the questionnaire and the willing to start a common project, since the knowledge transfer was largely matching the participants expectations, mainly through the proper choice of the arguments of the presentations and of the speakers (whose skill and competence impressed the participants).

The interest of all of the Delegates for continuing the cooperation initiated during the WKS and for establishing a systematic exchange of information with ICS was also clearly stated by the request to manage the Project feasibility study for the "Digital Map Initiative" the Delegates asked also to have regular meetings, like that one held in Piacenza, and expressed the hope that ICS will organize future WKS on ITS improvements and evolution.
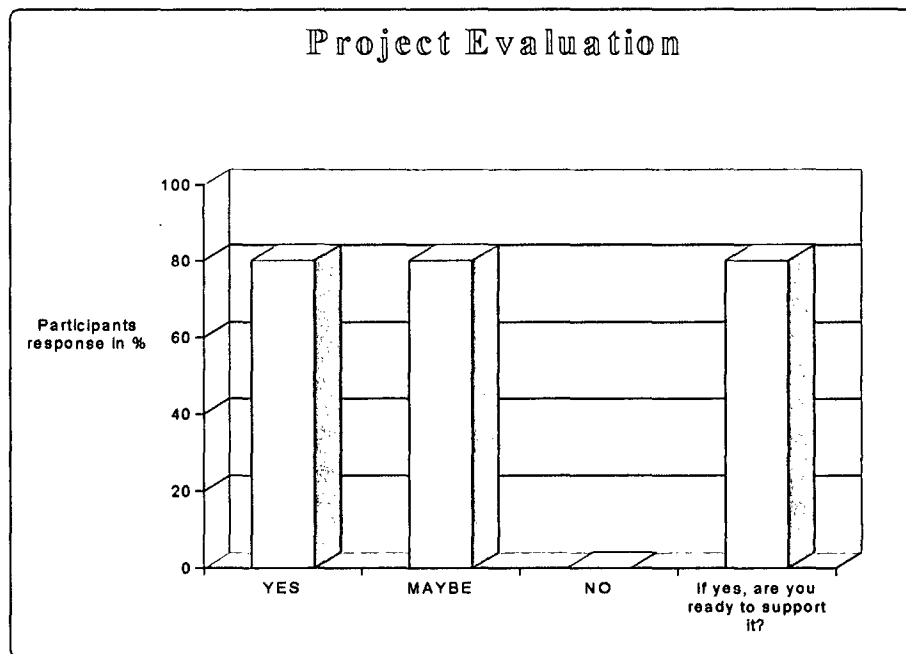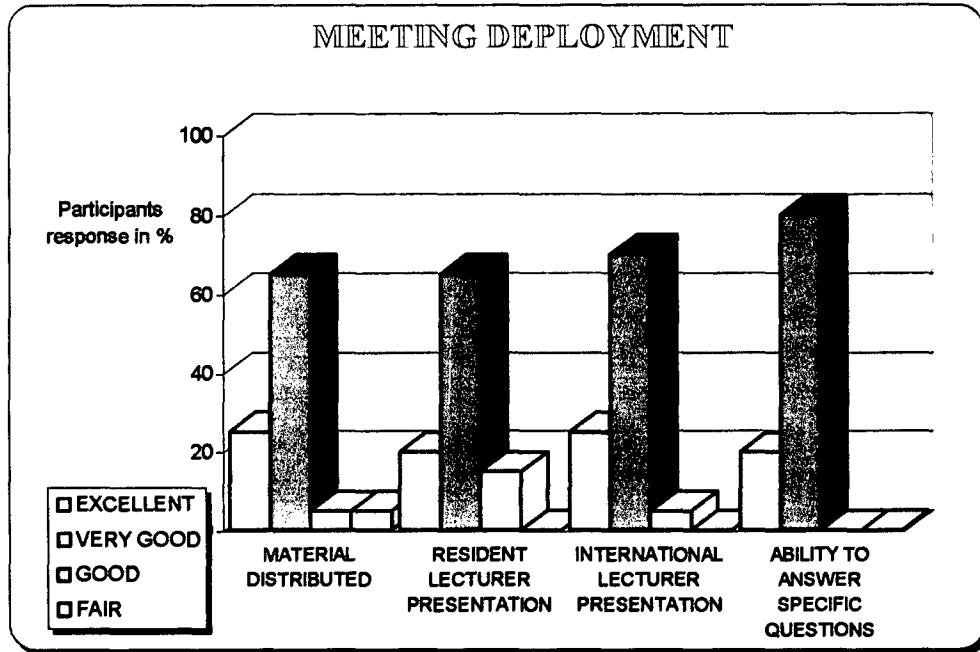We do recommend to help this countries to move toward a flexible management of their traffic using Telematics and, because the Project idea sounds very good, to support the project.
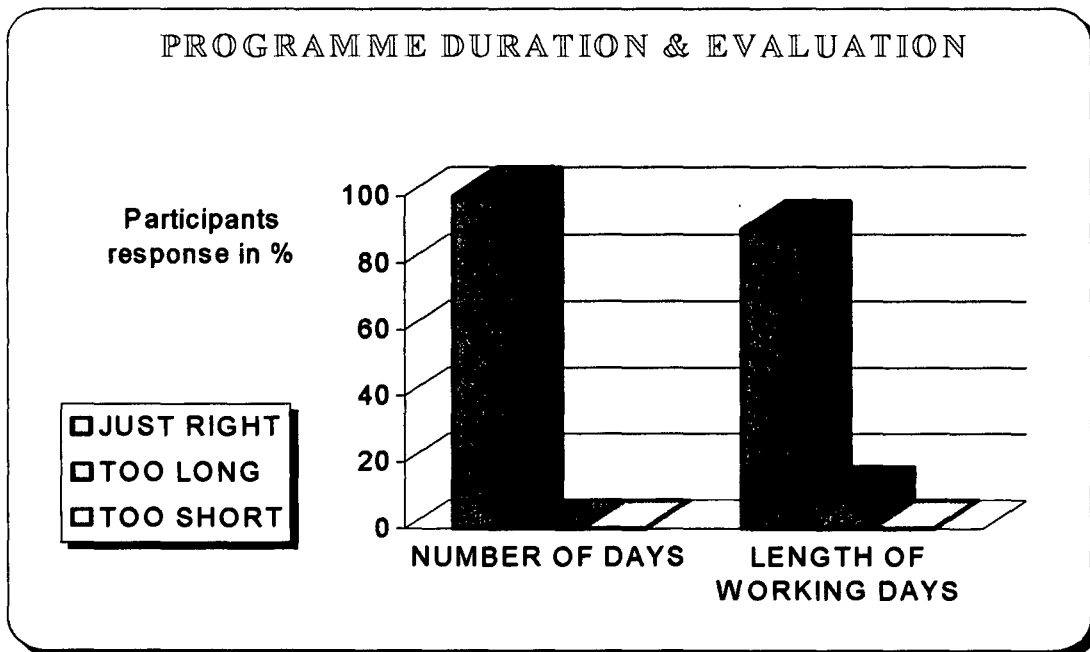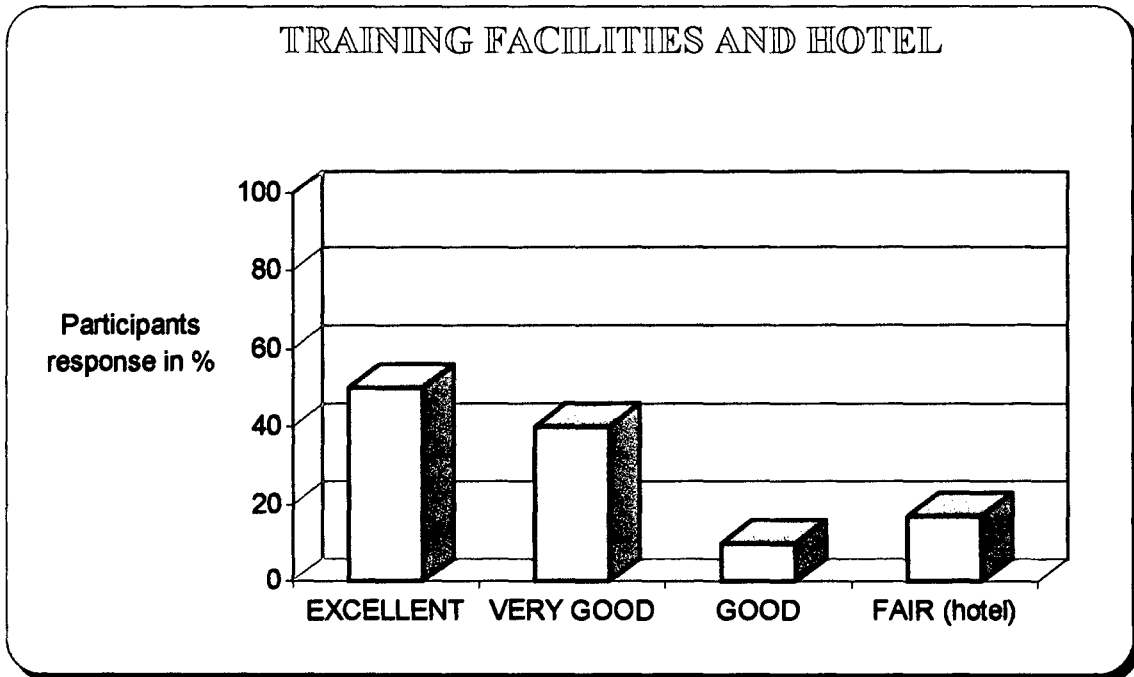
12

ICS-UNIDO Workshop :
"Intelligent Transportation systems: from physical to virtual Transport networks"
Piacenza, December 10-11, 2001

FINAL EVALUATION

MEETING DEPLOYMENT

Participants response in %

| □ EXCELLENT | □ VERY GOOD | □ GOOD | □ FAIR |

MATERIAL DISTRIBUTED · RESIDENT LECTURER PRESENTATION · INTERNATIONAL LECTURER PRESENTATION · ABILITY TO ANSWER SPECIFIC QUESTIONS

Project Evaluation

Participants response in %

YES · MAYBE · NO · If yes, are you ready to support it?

ICS-UNIDO Workshop :
"Intelligent Transportation systems: from physical to virtual Transport networks"
Piacenza, December 10-11, 2001

TRAINING FACILITIES AND HOTEL

Participants
response in %

100

80

60

40

20

0

EXCELLENT   VERY GOOD   GOOD   FAIR (hotel)

PROGRAMME DURATION & EVALUATION

Participants
response in %

100

80

60

40

20

0

☐ JUST RIGHT
☐ TOO LONG
☐ TOO SHORT

NUMBER OF DAYS   LENGTH OF
                  WORKING DAYS

ANNEX 2

PRESS COVERAGE

CRONACA DI PIACENZA

Autostrade, Piacenza guida per l'Europa dell'Est

Esperti internazionali a confronto alla Cattolica per elaborare un progetto sul trasporto su gomma

I direttori delle società autostradali di tutta Europa si incontreranno all'Università Cattolica di Piacenza per elaborare un progetto di grande trasporto su gomma nell'Europa dell'Est. Il summit, rigorosamente a numero chiuso, si terrà i prossimi 10 ed 11 dicembre presso l'ateneo di San Lazzaro. Sarà Cratos (Center for Research on the Application of Telematics to Organisation and Society), guidato dal professor Domenico Ferrari, ad ospitare il convegno internazionale dell'Unido-Ics, cioè delle Nazioni Unite, dedicato all'affascinante tema dei trasporti intelligenti (l'applicazione della telematica al trasporto e alla logistica) ed ai Paesi dell'Est europeo.

Si tratta di un convegno rigorosamente ad inviti (una trentina di persone in tutto), che vedrà a Piacenza i rappresentanti di tutti i Paesi dell'Est, relatori di quei Paesi nonché di alcuni stati dell'Europa Occidentale. Il summit avrebbe dovuto svolgersi a Budapest ma a causa di problemi organizzativi gli ungheresi non erano pronti. Così grazie alla mediazione di Gian Franco Piacentini, consulente dell'Ics, l'Unido si è convinta a spostarlo in quella che si propone come

cupa dello sviluppo, nella fattispecie, del trasporto. L'Ics, con sede a Trieste, è l'ente dell'Unido con il compito di applicare le tecnologie dei Paesi sviluppati a quelli in via di sviluppo. Tre sono gli ambiti in cui spazia: energia, telecomunicazioni, chimica. La competenza dell'Ics va dai paesi del Nord Africa a quelli del centro Africa, all'Europa dell'Est al Sud America. A Piacenza si parlerà di autostrade e traffico urbano e si confronteranno le soluzioni adottate nell'Europa occidentale per fluidificare il flusso quotidiano del trasporto pubblico e privato su gomma sulle grandi arterie autostradali. Dal summit dovrà venire fuori un progetto, finanziato dalla Banca Europea, da applicare alle grandi vie di comunicazione su gomma dell'Europa orientale. I congressisti saranno in tutto quaranta: ven-

la capitale italiana della logistica e dei trasporti, cioè Piacenza. L'Emilia è stata scelta per la sua collocazione strategica nella Pianura Padana, per il suo nodo di reti autostradali che la rende il centro naturale della nuova Mitteleuropa.

Il professor Piacentini, ex vice direttore di Alcatel, nativo all'ombra del Gotico, è oggi l'advisor dell'Ics per quanto riguarda le telecomunicazioni.

L'Unido è l'organizzazione delle Nazioni Unite che si oc-

ti uditori e venti speaker. Nomi di spicco arriveranno all'Università Cattolica di San Lazzaro: fra gli altri Giuseppe Tommasi, del Ministero dei Trasporti italiano, Olivier Waldner della Comunità Europea, Vito Mauro del Politecnico di Torino, Gilberto Tognoni, dell'autostrada Serenissima, Tapio Valli di Sonera Corporation, Sergio Battiboia di Autostrade Spa. Apriri i lavori il saluto del presidente dell'Amministrazione Provinciale, Dario Squeri. Parteciperanno al convegno esperti di Finlandia, Olanda, Belgio, Germania, Gran Bretagna. Dei paesi dell'Est europei saranno presenti rappresentanti di Slovenia, Croazia, Ungheria, Repubblica Ceca, Repubblica di Slovacchia, Ucraina, Bulgaria, Romania, Bosnia-Herzegovina, Polonia, Macedonia, Yugoslavia.

Federico Frighi

o svincolo autostradale di Le Mose (foto Franzini)
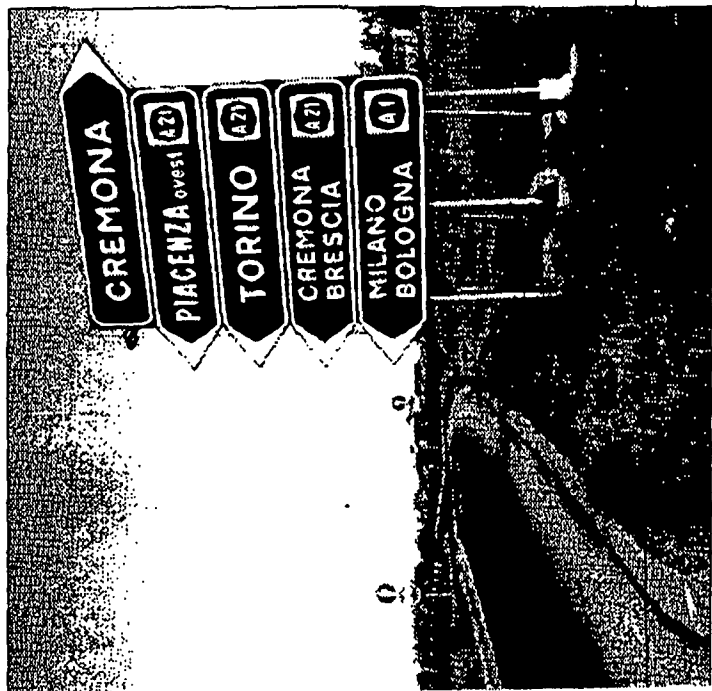
UNIVERSITÀ CATTOLICA - Ieri la prima parte del convegno sui trasporti organizzato dall'Ics-Unido

La tecnologia può ridurre il traffico

Strumenti permettono di rendere fluida la circolazione

In Italia ogni anno sono oltre 7mila le persone che perdono la vita in incidenti stradali. Una situazione che provoca danni enormi sia, principalmente, dal punto di vista affettivo, sia da quello economico.

Ma i problemi legati al traffico oggi si possono ridurre sfruttando le nuove tecnologie di cui già disponiamo. Soluzioni innovative che in alcuni Paesi d'Europa sono già state messe in pratica e che hanno permesso di ridurre il numero di incidenti del 34 per cento, diminuendo anche l'inquinamento di un buon 20 per cento. Insomma, abbiamo già a disposizione gli strumenti per rendere il traffico più fluido. Per ottenere risultati dunque è sufficiente investire in un campo che, a breve termine, potrebbe assicurare grossissimi vantaggi.

Della situazione attuale e delle prospettive future si è discusso nel corso del workshop "Intelligent Transportation Systems: from physical to virtual roads" organizzato dall'Ics-Unido (Centro Internazionale per la Scienza e l'Alta Tecnologia) in collaborazione con il Wide (World Institute for the Digital Economy) ini-

ziato nella giornata di ieri alla Cattolica. L'incontro proseguirà anche oggi e si concluderà nel tardo pomeriggio.

Fra gli aspetti più interessanti emersi dal workshop, un progetto presentato da un gruppo tedesco avviato quattro anni a Berlino.

In pratica, semplicemente prendendo come campione alcuni punti della città è possibile ottenere una fotografia del traffico locale ed i cambiamenti che si

registreranno nelle ore successive. Una possibilità che permette di intervenire in anticipo in caso di bisogno riducendo al minimo i disagi per gli automobilisti.

Le nuove tecnologie ci consentono di effettuare passi in avanti relativamente alla circolazione delle automobili private ma non solo. Se ben utilizzate infatti riescono anche a garantire una riduzione delle spese ed una migliore gestione delle cosiddette "flotte merci". Oggi infatti, sem-

pre stando a quanto è emerso nel corso dell'incontro, i camion che circolano per l'Europa viaggiano carichi solo al 70 per cento. È possibile dunque intervenire anche in questo campo, per diminuire il numero di mezzi pesanti sulle strade italiane e su quelle straniere.

Fondamentale per una migliore circolazione è senza dubbio l'informazione agli utenti della strada. Ed emblematico è stato il caso vissuto proprio ieri da tre

A DI PIACENZA ⑬

Una classica immagine di automobili in coda sull'autostrada

I lavori proseguiranno oggi. Il programma

relatori che si sono trovati imbottigliati nel caos creato dall'incidente avvenuto in mattinata sulla A1 senza alcun preavviso.

Il workshop prosegue anche nella giornata di oggi con questo programma: Creating Business and Projects for East & Central Europe: 9/9.40, Ict Technologies in Its (Michele Morganti, Siemens, Italia); 9.40/10.20, Vehicle Navigation: lesson learned from the Berlin experiment (Heinz Sodeikat, Ertico past president, Siemens, Germany); 10.20/11, Vehicles and Intelligent Mobility (Gianfranco Burzio, Centro Ricerche Fiat, Torino); 11/11.15, Transport Infrastructures and Services: Existing Situation and Needs Brief presentations by the representatives of Romania; 11.45/12.15, Transport Infra-

structures and Services: Existing Situation and Needs. Brief presentations by the representatives of Poland, Brief presentations by the representatives of Slovakia; 12.15/12.50, Interoperability issues in road and road networks management (Maurizio Rotondo, Aiscat, Roma).

Dopo la pausa per il pranzo, si riprende nel primo pomeriggio. Dalle 14 alle 14.30: Cei: project financing opportunities (Representative from Cei); 14.30-15, The value of Its infrastructures, which Project for East Europe? (Gian Franco Piacentini, Ics Telecommunication Technologies Programme, Gilberto Tognoni, North Italy Communication, Mantova, Maurizio Rotondo, Aiscat Roma); 15/16.30, Discussion on further actions: a road map for the activities.

Chairmen: Gian Franco Piacentini, Ics Telecommunication Technologies Programme Group Members: Representatives from Hungary, Czech Republic, Slovak Republic, Romania, Poland.

I lavori si concluderanno intorno alle 16.30. Al workshop prendono parte operatori provenienti da buona parte dei Paesi del nostro continente, compresa l'Europa Centrale e dell'Est.

Fra questi ultimi, Slovenia, Croazia, Repubblica Ceca, Slovacchia, Ucraina, Bulgaria, Romania, Bosnia, Macedonia, Polonia.

Presenti al meeting sono anche Aiscat, Confindustria, Ministero degli affari esteri, Iri, Autostrade, Ratp France, Comunità Europea ed Entico.

Matteo Marchetti