

*ETNITE, EC-supported project, European ITS,
training and education,
information and knowledge sharing*

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ETNITE: BUILDING A EUROPEAN NETWORK ON ITS TRAINING AND EDUCATION

ETNITE, EC-supported project, aims to improve the quality and amount of ITS training and education in Europe. ETNITE endeavors to create an educational network formed of various organizations dealing with Intelligent Transport Systems sharing together their knowledge and experience and providing first-rate expert ITS courses both for ITS professionals and students.

ETNITE: BUDOWA EUROPEJSKIEJ SIECI W SZKOLENIU I EDUKACJI

ETNITE, jako program wspierany przez EC ma na celu poprawę jakości i ilości szkolenia i edukacji ITS w Europie. ETNITE stara się stworzyć sieć edukacyjną składającą się z różnych organizacji zajmujących się Inteligentnymi Systemami Transportu, dzielących się wiedzą i doświadczeniami oraz prowadzącą szkolenia ITS przez pierwszej klasy ekspertów zarówno dla profesjonalistów, jak i dla studentów.

1. INTRODUCTION

Intelligent Transport Systems, Transport Telematics, Transport Control and Management Systems, etc.. All these terms have similar and simple meaning – systems aiming to improve and better the means of transportation, to make the transportation quicker, safer, more effective and comfortable. To achieve this, huge knowledge is necessary – not only theoretical findings and scientific results, but also practical and implementation experiences.

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It may be said, that there are excellent experts who have this knowledge, experience and ability in Europe, the problem is lack of these skilful experts. To relieve this lack of experts is the main goal of the **Etnite project** –European Transnational Network for ITS Training and Education.

1.1. SITUATION IN ITS EDUCATION IN EUROPE

The massive extent of traffic is inseparably linked with the development of human society. More and more countries are faced with the necessity of inducing the ITS systems. Since the birth of telematics in the 1980s many new information and communication technologies have been introduced that help the development of ITS systems. A lot of efforts have been put forth and many transport systems have been presented. Nowadays there are many existing ITS technologies to solve a lot of the transportation problems, but the remaining problem is the implementation of such systems. That is why the support of European Commission is moving toward the ITS implementation projects.

The main cause of the difficulty with implementation of projects is the lack of enough trained and expert people able to implement the ITS systems. Nowadays there are no possibilities of complex ITS education in Europe, as it was shown in the surveys carried out by the Rosetta Project (an Information Society Technologies (IST) Support Measure which drew together the results and findings of the 4th and 5th Framework transport telematics and IST projects in order to support their effective application in Europe).

The Rosetta surveys have revealed that:

- public is not informed of the ITS potentialities and the opportunities that intelligent transport systems offer
- ITS education offered at universities is spread over many faculties and study branches, there is no possibility of complex ITS education
- coordination among the ITS educational resources in Europe does not exist
- less than 12% of professionals working in the ITS sector have obtained formal ITS education

2. ETNITE PROJECT

2.1. AIM OF THE PROJECT

There is large experience and knowledge, which is not being used for farther education in Europe. Many research outcomes pass without notice and personal knowledges are forgotten due to missing knowledge sharing network.

ETNITE project aims to find a way how to keep, exchange, share and make benefit of knowledge and experiences shattered in various workplaces throughout Europe and create a self-sustaining and stable organization, certified and acknowledged in Europe, offering

comprehensive ITS education - ITS EduNet, that has been founded in May 2004 in the ITSinEurope Congress.

Model of possible relationship within the ITS Edu Net is represented in figure 1.

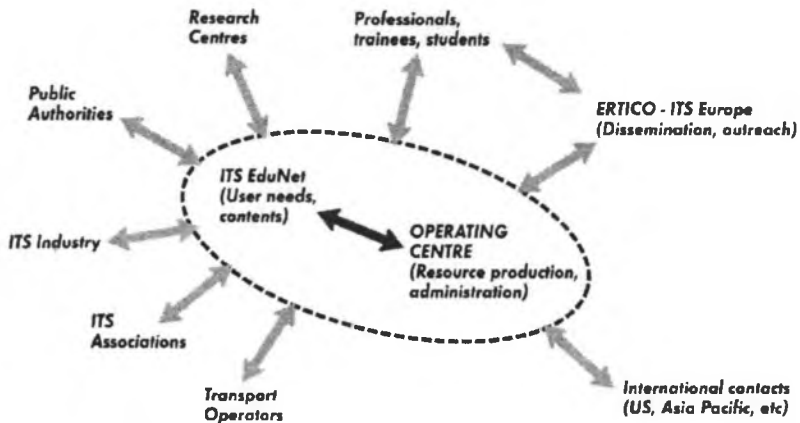


Fig.1. Relationships model

Basic part of the network is operating centre responsible for administration of the network, the resource production, supervision of the network operation and observance of rules. There are many different subjects participating in the network activities, there are research centres and universities supplying the network with theoretical pieces of knowledge and ITS Industry and Associations with practical experiences. All these subjects share knowledge and experience under the network operation rules and provide it to the subjects needing information from ITS sector such as public authorities, students and general public in the form of various training and education programmes. The network is in touch with similar organizations outside Europe (in the USA, Japan, Pacific, etc.) and is sharing its experiences with them.

Creation of such information sharing network will have significant positive impact of the ITS development in Europe.

The outputs of the Etnite project are about to:

- increase the number of ITS professionals by providing large scale of ITS courses
- organize the exchange of knowledge and research outcomes and their transfer into resources for further education
- enlarge the knowledge of ITS among the public authorities
- to speed up the development and implementation of ITS projects by ensuring the possibility of experience sharing

2.2. MEMBERS

In the Etnite project participate subjects from entire Europe with different approach and experience with transport systems. The project has 13 core members - 8 universities, 2 ITS associations, 1 association of car manufacturers, 1 research association and 1 national ministry.

The members are:

Istituto Superiore Mario Boella (project leader), Fachhochschule Technikum Wien, European Automobile Manufacturers Association (ACEA), ERTICO – ITS Europe, Czech Technical University in Prague - Faculty of Transportation Sciences, Lehrstuhl für Verkehrstechnik - Technische Universität München, County of North Jutland – ITS North Denmark, Technical University of Crete, Ecole Nationale des Ponts et Chaussées, Ministero delle Infrastrutture e dei Trasporti – Direzione Generale per la programmazione, University of Ljubljana - Faculty of Civil and Geodetic Engineering - Traffic Technical Institute and University of Southampton - Transportation Research Group.

The project has associated members as well, nowadays they are:

Austrian Federal Ministry of Transport, Innovation and Technology, Via Donau, Czech Ministry of Transport, Junge Forum of the Deutsche Verkehrswissenschaftliche Gesellschaft e.V., Comune di Milano, Azienda Mobilità e Trasporti SpA, Istituto Tecnico Industriale Statale J C Maxwell and Slovenian Ministry of Transport.

2.3. DURATION AND FUNDING

The project has started in October 2004 and it is scheduled for 30 months, till April 2007. It is funded through the EC Directorate General Education and Culture's Leonardo Da Vinci Programme.

3. ETNITE ACTIVITIES

3.1. HOW DOES THE ETNITE PROJECT WORK?

The work on Etnite project is divided into seven work packages. Each of the work packages has its own tasks connected to the tasks of other work packages, the outcomes are presented on project meetings.

The work packages are as follows:

WP 1 – Project Management

WP 2 – Network establishment and organization

WP 3 – Needs and scenario (state of the art, trends, market survey...)

WP 4 – Innovative methods and practices for ITS teaching and learning

WP 5 – Dissemination and outreach

WP 6 - Exploitation Planning

WP 7 - Assessment and Validation

3.2. MAIN OBJECTIVES OF THE PROJECT

The Etnite project is facing these main objectives:

- The basic one, is to establish the network and the organization, to define the operational rules, the obligations and rights of members, and all other rules and standards to ensure the network functioning. To define a common “knowledge data base” and the rules for information sharing and distribution and the rules how to share the network costs and revenues.

- To find centres of excellence ITS knowledge in Europe and define their type of competence, their possibilities of cooperation, etc.

- To define the best way for sharing and exchanging expertise and experiences between project members.

- To find out and define knowledge needs and gaps for training and education of ITS in Europe. It is important to differentiate various needs for various subjects, different demands in each European country and to be able to provide various types of ITS education programmes.

- To identify the tools required for ITS training and education (possibly e-Learning, d-Learning, usage of simulators, panels assessment, interactive courses based on the support of a back-office multimedia centre,...).

- To indicate how to optimize curricula and introduce comprehensive ITS study branches and how to implement an accreditation unified system for Europe-wide ITS education.

- To understand the existing experiences in USA and elsewhere in the world (Japan, Asia Pacific region, ...), establish exchanges, sharing experiences if possible.

- To study how to optimize the training/education in ITS not only for students but also for employees, decision makers, public administrations

- To implement an outreach strategy in order to raise awareness of ITS among general public, administration, students, etc.

3.3. PRESENT ACTIVITIES

As the project is in its first period, the main emphasis is laid on the recognition of the present situation, creation of web portal, establishing cooperation with other subjects, definition of rules for network operation, etc.

To know the present situation, there are two main domains, which the project has to identify:

– ITS training and education possibilities in Europe

- possible clients of the ITS EduNet network – the ITS companies, vehicle and component manufacturers, logistic companies, region authorities, municipal authorities, telecommunication companies, universities, etc.

To find out and distinguish these two important groups of subjects, two questionnaires have been created within Etnite work packages.

First one is designated for the universities and other subjects capable of providing ITS training with the intention to find out all courses and study programmes related to the ITS problems.

The other one is designated for the potential customers both from commercial sector and from the universities. The purpose of the questionnaire is to define the existing situation and find out:

- potential clients in all European countries
- area of potential market
- potential clients needs and requirements

The questionnaire inquires what domains of ITS potential clients are interested in (Information, navigation and guidance, Traffic and infrastructure management, Safe driving assistance, Electronic transport ticketing, payment and booking or Fleet and freight management), what is their relationship to the ITS problems, how much they are interested in some education programmes, how many people are practising ITS, what are the preferred ways of education (books, courses (short or long-term), presentations, e-learning, d-learning, etc).

4. CONCLUSION

The Etnite project has chosen an ambitious goal: to create all-Europe ITS education and training network connecting the expert ITS workplaces sharing together their knowledge and experiences for further education. Subsequently by means of this network to increase general ITS knowledge, increase the number of ITS professionals and the number of public administration familiar with ITS systems and thus facilitate and speed up and implementation of ITS systems.

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NOTICE

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