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European Transport Projects – new
opportunities and challenges for enterprises



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CONNECT project as an inspiration for transport innovative activities for SMEs in Baltic-Balkan countries

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On the 3rd May, 2005 the European Commission decided on allocation of funds from the TEN-T (Trans-European Transport Network) budget at the amount of 15 million for projects of common interest. CONNECT is one of the approved projects and its goal is, based on trials and pilot approvals, to suggest a strategic plan for development and implementation of Intelligent Transport Systems and Services (ITS) within the Trans-European Road Network (TERN) in the following countries involved in the CONNECT project: the Czech Republic, Slovakia, eastern part of Germany (Berlin, Brandenburg, Saxony, Saxony-Anhalt), Austria (eastern regions), Slovenia, Hungary and Poland.

Thanks to several subjects in charge the Czech Republic has participated in the project and realizing a few projects it has contributed to enhance the level of provided services to the travelers in many ways. CONNECT project is focused on the following main points:

Main goals of CONNECT project:

- Integration of the new EU members in ongoing European initiatives
- Stimulation of the co-operation between the CONNECT partners and the existing projects of the TEMPO programme and related working groups (e.g. TMC Forum, DATEX2 Technical Committee)
- Fostering cross-border co-ordination of strategies, systems and services (e.g. Traffic Management Plans)
- Stimulation of investments in (national) ITS infrastructure
- Reducing the travel time of road users by providing them with accurate, timely and relevant information as well as by providing cross-border services (e.g. RDS-TMC, web-based services)
- Fostering urban/ interurban interfaces to ensure fluent traffic flows between the high level and the connecting road network
- Launching projects to foster the ‘interconnect ability’ of transport modes to achieve inter-/ multimodal door-to-door services
- Harmonisation of national system architectures to avoid new borders between the CONNECT member states as result of non-interoperable national telematics system



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In 2004 The Prague Public Transport Co. Ltd. (Prague Integrated Transport = PIT, Pražská integrovaná doprava -PID), which is responsible for operation of public transport in Prague, joined the CONNECT project. The aim of the project was to develop an information system with acoustic, reference (or direction) giving information system for the blind and other visually handicapped (or partially-sighted) people.

The main goal was to enhance quality of provided information and ensure availability of the information for the blind and visually handicapped while using the public transport. The programme followed the first attempts for development of information systems on the stops and already well-established standard of installations of receivers for the blind and visually handicapped in PIT vehicles and also development of information kiosks.

A pilot project has been realized in Prague and its neighbouring areas of interest operated by ROPID company (Regional Organiser of Prague Integrated Transport).

The project was planned in three phases, the first of which started in 2004 and the third one finished in 2009.

The performance team was formed by 3 subjects, one being the organiser of public transport and two other subjects represented by small or middle-sized companies.

ROPID – transport organiser

CHAPS – software development of MPVnet system (vehicle movement monitoring)

APEX – hardware equipment, the acoustic system for visually handicapped and provision of on-board units and information kiosks.

During three project phases the functional system for monitoring of approx. 250 vehicles of public transport was put into operation. Tables were installed to provide the travelers in major interchange junctions connected to railway transport of the monitored area with information about public transport enabling acoustic output activated by personal controller of a handicapped person. At initial stages of the project the main effort was put into development of on-board systems enabling data transfer through GPRS technology with acoustic output for visually handicapped. These activities were linked with developments and installations provided by APEX. Further phases included development of MPVNET software platform which was managed by CHAPS. This SW tool was created to evaluate data from monitored vehicles in real time. The whole development and subsequent installation of the system were consulted in cooperation with the Czech Blind United (Sjednocená organizace nevidomých a slabozrakých - SONS). Part of the systems was formed by information kiosks which were interconnected with web interface of the system providing real-time information. These kiosks



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were also equipped with a technology with sound and orientation beacon which enables a handicapped person to operate them through a special acoustic procedure and they inform him/her about the available traffic connection by means of electronic synthesis of speech.

Further development of MPVNET in the Internet environment ensures universal use and makes it available at almost any place where the Internet connection is provided. The system has been designed as opened, with optional integration of other systems from different transport organisers.

System for delay evaluation is connected to the National Time-table System (Celostátní systém o jízdních řádech - CIS JŘ) which enables further extension for any regular public transport. Currently, more than 250 vehicles have been equipped with the system in a particular area and further development regarding display tables in compliance with new technologies and their availability has been running. A great effort was put into interface accessibility of the whole system during its designing. Special emphasis was laid on information system for visually handicapped travelers which was designed and installed according to existing European standards and regulations. Thanks to the development of this equipment the APEX company was brought several new options of further handling of the issue and especially of developments of information transport systems within the business environment of Czech manufacturers and of arranging technical qualifications and standards comparable to the advanced European countries. So far there have been over 50 information large size tables and over 5000 information systems for visually handicapped installed in the Czech Republic. Members of APEX company have been also cooperating on standardization within the EU TC278 technical committee, work group 3 (WG 3), public transport, integration into European information systems which is member of MD Intespoj work group. APEX continues in cooperation with CHAPS company. CHAPS created MPVNET software platform which is considered one of the best functioning and most extensive information systems in the Czech Republic. Currently, it is also involved in a project together with Czech ministry of transport dealing with setting of minimum requirements for interoperability of information systems within the Czech Republic. It is member of MD Intespoj work group which strives for implementation of single data format based on SIRI European standard. At this time the MPVnet system represents a base for national information system which aims to harmonise all existing systems in the country. Achieving all these steps, CHAPS may become one of a few European companies which will provide standardized information system based on common grounds for future interoperability with other European countries. It is a question of the near future when Czech travelers will be provided with the national information system in real time where all regional public transport organisers will be connected.

Thanks to the European CONNECT project and well-done job of project implementers, the ROPID company can be prepared to face comprehensive and objective information on the regional transport, especially on updated traffic performances per day, week or month and it will be also possible to significantly improve processing of statistic data for planning and optimization of regional transport. All these facts contribute to dynamic technological development of transport information systems in the Czech Republic which will result in



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providing better services towards travelers using public transport. Realization of CONNECT project made the small or middle-sized companies such as APEX and CHAPS more competitive within the EU and the work which has been carried out implies promising future as for potential expansion to other European countries and all over the world.

Biographical information

Marek Scerba He is a transport researcher in the ITS department at CDV. HE works for CDV at least 4 years. He graduated on Faculty of sciences on University of Ostrava in 2005.

He is a coordinator for a national project which is focused on effective traffic flow management on highways and speedways using ITS. In present days he is working on a project of standardization of information systems in Public Transport. The aim of the project is based on connecting of information systems into one platform and provide nationwide data from Public Transport in Czech Republic.

