PROMET

PROMET - PROject for the Management of European Traffic
An overview of the PROMET institutions

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Organisations responsible for carrying out the project. More information about the project can be found at [www.project-promet.eu](http://www.project-promet.eu) or at the following e-mail address info@project-promet.eu
Introduction

PROMET – PROject for the Management of European Traffic on the cross-border link between Slovenia and Italy has the main goal to increase traffic safety and provide additional comfort to the drivers, by enhancing the interoperability and continuity of services in the cross-border stretches of the motorway.

The focus is on specific operational tasks, considering the necessary “tactical management” of a cross-border link and the coordination of TMS systems of two adjacent regions, belonging to an old and a new EU country (Italy and Slovenia). Specific developments to be implemented include advanced techniques for traffic monitoring, evaluation of travel times, coordinated plans for traffic management, the extension of TMC services and information services to the road users.

Background

The construction of the Trans-European transport network is a basic element for the development of the internal market in the EU and for the integration of the recently acquired Member States. As major contributors to this goal, the Public Administrations and the concerned stakeholders, e.g. the road operators and service providers, are implementing new strategies and applications, dealing with the new challenges resulting from a growing demand of vehicles and freight transport.

A fundamental issue for those strategies is the interconnection and interoperability of the national networks, for which vital components are Traffic Management Systems and User Information Services.

In this context, the PROMET project has been started in 2007, with the main goal to integrate the road management operations in the cross border link between Slovenia and Italy. The focus is on the ‘tactical management’ of the motorway stretch, including advanced techniques for traffic monitoring, evaluation of travel times, coordinated plans for Traffic Management and joint information services to the road travellers. The cross border link considered, from the east Italian border to the adjacent region in Slovenia, is part of the European Corridor V. An additional specific aspect of the project is the coordination of initiatives and technologies between an old and a new EU country.

To that purpose, different interested organisations are cooperating in the project: the Consortium includes therefore:
• the National Ministries of Transport in Slovenia and Italy;
• the road operators managing the concerned road stretches: Družba za avtoceste v Republiki Sloveniji d.d. - DARS and Autovie Venete - AV;
• companies active in Traffic Technologies and services: Traffic Design, Autostrade per l’Italia, MIZAR Automazione
• A research partner with experience in the evaluation of Intelligent Traffic Systems: Politecnico di Milano
In the Member States of the 25-extended Europe, there are increasing challenges associated with the growing use of the road network by a continuously growing demand of vehicles and freight traffic. To deal with the inevitable new challenges (higher traffic disruptions, critical safety conditions and increased environmental impact) in a sustainable way, the Public Administrations are facing the need to formulate new strategies and the concerned Road Managers to activate extended “tactics” and measures. A vital component of such strategies and actions are Traffic Management and User Information Services. During the last 2 decades the European Union has first supported the technological research underlying these services as part of the overall ITS (Intelligent Transport Systems) architectures, and then moved forward into a coordinated implementation through action plans at Euro Regional level (MIP and TEMPO programs) paying maximum care to the aspects of interoperability of systems where necessary, continuity and quality of services across the borders and in the different regions/member states, compatibility of equipments where relevant. This brought to the adoption and practical implementation of EU standards for the traffic data exchange and for the delivery of information to end users (e.g. multilingual coded DATEX standard, ALERT/TMC – Traffic Message Channel for coded traffic data broadcasting) and to the diffusion of best practices in the use of Variable Message Signs for Traffic Management and information to the users.

Now that this process is on the way, a new complexity is added by the need to integrate systems of countries often well advanced from a technological point of view but in most cases not “accorded” with the previous EU coordinated initiatives.
Extending the “integration” requires at least two different processes to be run in parallel:

- medium-long term initiatives where the strategies and political choices are made and the priorities are set for the new EU countries, with the main objectives of filling gaps in ITS infrastructures, dealing with long distance corridors continuity of services and, more in general, with the focus on challenges “common” to new-countries (e.g. CONNECT project).
- local and shorter term initiatives, with dominant operational activities, with the main objective of testing and starting sound “tactical measures” based on ITS on significative cross-border road links and/or strategic areas between an “old” and a “new” EU country, in which the effectiveness and the success of the systems integration can be measured and the results brought forward into larger ITS programs.

Both cross-border motorway operators in Slovenia (DARS) and Italy (Autovie Venete) have recently invested significantly to improve their Traffic Management services. Still, there is a scope to accord these developments making them really interoperable and compatible from the users’ point of view, thus reducing at maximum the discontinuity in Level Of Services and offering the best comfort to the increasing demand of cross-border travellers.

Main Objectives

PROMET – PROject for the Management of European Traffic has the main goal to increase traffic safety and provide additional comfort to the drivers, by enhancing the interoperability and continuity of services in the cross-border stretches of the motorway.

The focus is on specific operational tasks, considering the necessary “tactical management” of a cross-border link and the coordination of ITS systems of two adjacent regions, belonging to an old and a new EU country. Specific developments to be implemented include advanced techniques for traffic monitoring, evaluation of travel times, coordinated plans for traffic management, the extension of TMC services and information services to the road users.

More specifically, PROMET aims to:

- Reduce the traffic peaks and increase the usability of the cross-border road network by European drivers coming and going from Slovenia to Italy through the use of homogeneous and seamless International date exchange systems;
- Establish timely and operative cross-border “recovery” actions by the different authorities and motorway operators (Slovenia-Italy);
- Improve the road monitoring quality level, through the use of new sensor and communication technologies;
- Support the efficiency of the cross-border network by harmonised and timely information to the drivers;
- Guarantee the continuity of the road network in terms of infrastructures and service provision;
• Foster the interoperability of the systems through the use of European Standard (e.g. DATEX);
• Reinforce the traveller information service (TIS) network with new services (e.g. TMC service in Slovenia) and enrich the already existing services with international cross-border contents;
• Assess the overall effects of the PROMET applications and their impacts, particularly on road safety and users acceptance, as an input to other ITS initiatives with similar scope.

The concerned road network and the project area

PROMET considers the South-East part of Europe, ranging from the Italian region Friuli Venezia Giulia to the west of the Slovenian Country.

The ambition of the project is to cover a crucial cross-border motorway between Slovenia and Italy, assuring a fundamental link within the EU Corridor V. This part of the corridor is characterized by very high traffic flows, for both passengers and freights, and by seasonal traffic peaks during summer.
Overall description of the work and expected results

To facilitate the assessment of the project against the European priorities and criteria, the PROMET activities are linked to operational objectives, implemented into a number of workpackages. All these activities are also compared with the existing situation to facilitate the final assessment work and to get an objective measurement of the degree of success achieved at the end of the project.

The PROMET project is divided into six areas covering the following issues:

• Improve Cooperation in Traffic Monitoring,
• “Operational” Cooperation in Traffic Management,
• Safeguard Continuity of “tactical” Traffic Management,
• Accord levels of quality of travel information services,
• Assessment and evaluation of the results,
• Project Management.

By these developments, PROMET is expected to produce immediate tangible results to the community and in particular to the cross-border commuters coming and going from Slovenia to Italy (both for work and for holidays) due to:

• The reduced congestion time,
• The increased information on traffic events and foreseen travel times,
• The establishment of higher cooperation between the cross-border Traffic Management Centres and authorities to manage possible breakdown situations, due e.g. to weather conditions or traffic congestions (including the agreement on coordinated temporary re-routing strategies),
• The definition of system/service developments at local level between the two different countries with the aim to make them more compatible both from the technical and the user point of view.

The following Figure shows the PROMET results from the physical operation point of view. The current status in the two Countries (Slovenia and Italy) is drawn in white, while the areas where PROMET is expected to have a direct influence, are indicated by different colours. Examples of planned developments include the update of the two Traffic Control Centres in Palmanova and Kozina, the set up of an international data exchange connection, the implementation of traffic monitoring systems and the integration of microwave “transponders” as a basis for the detection of travel times.
These expected results and the project impacts will be evaluated by applying the standard methods which are presently under definition at European level. Some general principles to be considered during this evaluation process are the clear definition of the functions and systems to be assessed and the choice of key indicators representing the level of performance. The work aims to provide a valid support to decision makers for planning and implementing different ITS systems in similar scenarios, and for defining the communication architecture. The target users of this evaluation work are therefore especially the National Authorities and the European Community, as well as road operators willing to apply similar methods and interested in the specific technologies.

The evaluation will include an ex-ante analysis, in order to compare the achievements with the expected performances, while also creating a database with a large amount of data, to be applied to the subsequent ex-post evaluation.

In synthesis, the overall evaluation consists in a critical assessment of the main results in terms of the following impacts:

- Safety,
- Effectiveness,
- Environment,
- Acceptance by users,
- Integration,
- Accessibility.

A special effort is put into the analysis of the benefits for road safety, according to the objective to halve the number of casualties by 2010, as defined by the European Commission.

The approach follows the common methodology for Euro-regional projects evaluation (CONNECT, SERTI, CORVETTE, VIKING, CENTRICO, STREETWISE and ARTS) and the standard mode to represent the results developed by the Evaluation Expert Group within the TEMPO Programme.
Organisations involved

The PROMET Consortium is characterised by a significant work sharing between the Road operators, the technology providers and experts in the domain of ITS technologies. This is related to the multi-disciplinary aspects of the work, which requires complementary experiences and skills.

In the domain of network operation, two partners directly managing the cross-border link (DARS in Slovenia and Autovie Venete in Italy) are addressing the implementation of the necessary infrastructures and the integration of the PROMET systems and services into the existing organisations. These partners also contribute to the specification of the cross-border services and provide statistical data for the evaluation. A third road operator (Autostrade per l’Italia) is cooperating as a technology provider, especially for the development of the technique to monitor travel times. In addition Autostrade per l’Italia is supporting the project work by providing general guidelines and methodologies.

TRAFFIC DESIGN is involved in the project as a technology provider on the Slovenian side of the network. The company is focused exclusively on the development, design, production and supply of traffic systems. Traffic design will provide the technique for delivering travel time measures and will contribute to the international traffic data exchange by developing the pilot DATEX II – DATEX I interface and the pilot RDS-TMC service in Slovenia.

A third technology provider is MIZAR Automazione, on the basis of its experience in the design, development and implementation of Intelligent Transport Systems. The focus of the contribution from MIZAR is on the international traffic data exchange and the platforms delivering advanced services to road operators, and then to the road users.

The third area of importance for the project is the system evaluation. While all the partners are contributing to this task, the basic methods and procedures are steered by Politecnico di Milano, which has a broad experience at international level in the evaluation of ITS services, in the analysis of infomobility technologies and in the definition of Traffic Management plans.

The partners in the mentioned three areas of expertise are well prepared to cooperate in the project activities, with a particular relevance of joint specifications and joint evaluations. The integrated ambient for SW development, based on European standards, will facilitate a common work with shared and constantly updated exchange of information.
The picture below shows the two parts of the road network specifically addressed by PROMET.
The PROMET Area
More information about the project can be found at www.project-promet.eu