



**PROJECT ON REGIONAL COOPERATION  
IN TRANSPORT RESEARCH AND TRAINING**

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**Abstract:**

The paper presents the FP6 project “Regional railway transport research and training centre foundation (RRTC)” coordinated by the University of Transport Applied Sciences (VTU) in Sofia, Bulgaria in partnership with the Faculty of Mechanical Engineering (MFK) in Kraljevo with the University of Kragujevac, Serbia. The first results of the project, which is aimed at developing cooperation of rail research and training in the region, have shown that it gives an opportunity for the Balkan research institutions and universities to unite into a network and thus join the European Research Area as important part of the integration processes in Europe.

**1. Project objectives and resources**

The RRTC project is developed in Trend Transport 2, the instrument is SSA (Specific Support Actions). Its duration is 2 years beginning from 1 September 2005. The core team consists of five people from the VTU (the project coordinator Assoc. Prof. Dobrinka Atmadzhova, PhD; Anna Dzhaleva-Chonkova, PhD; Margarita Georgieva, MSc; Assoc. Prof. Borialisv Bentchev; PhD Assoc. Prof. Nencho Nenov, PhD) and three from the MFK (Full Prof. Ranko Rakanovic, PhD, Prof. Dragan Petrovic, PhD and Assoc. Prof. Zlatan Soskic, PhD).

The project main aim is to establish an international organization ( Regional Centre) intended to contribute to developing sustainable railway transport in the Balkan countries. The Centre shall focus the efforts of researchers and university teachers on the implementation of the EU standards and requirements to the railway and other modes of transport. Although called regional, it will be open for membership of all relevant institution from all European countries.

The activities of the Centre are expected to increase the scientific potential in the region by creating joint working and expert groups and encouraging the development of new projects with transport companies, industrial enterprises, SSEs. The Centre

program will be announced during the 16<sup>th</sup> International Scientific Conference Transport 2006 in Sofia.

The foundation of an international organization is a task that requires considerable experience and a lot of organizational work and enthusiasm. From that point of view, the choice to base it at the University of Transport Applied Sciences (VTU) in Sofia is an optimal decision. This is an institution of higher education being unique in its nature in the Balkans. Founded 84 years ago, it has proved to be a reliable institution that has trained thousands of engineers and specialists for the needs of transport and especially of railways. For the past few years the university has much changed in compliance with the reform of the higher education in Bulgaria and the process of its harmonization with the EU standards. The results are evident, as the university has been placed at top positions in the national rating of the Bulgarian universities.

The teaching staff at the university consists of highly qualified teachers most of whom are also prominent scientists in the field of railways and transport as a whole. The university itself organizes international conferences, which are considered an attractive event by the researchers from many European countries, including the Balkan ones. The VTU is in collaboration with a considerable number of similar institutions and has participated in a number of national and international projects within different European programs. It also keeps close contacts with railway, transport and manufacturing companies, for the needs of which it organizes different courses for lifelong learning.

Another important precondition for the successful activities of the Regional centre is the availability of modern school equipment. The VTU campus involves all facilities that make possible to organize international events of different purpose.

Regardless of the fact that the Centre will be based in Sofia, it will be run as a joint structure with the partners from the Faculty of Mechanical Engineering in Kraljevo. The MFK is also a prestigious educational institution that for 35 years has been training engineers, including specialists in railway vehicles. It has a considerable experience in research, both in theory and in developing applications for industry.

## **2. Main outcomes of the RRTC project**

The main activities accomplished under the project were intended to expand the contacts and collaboration of the researchers and university teachers in the Balkans as a precondition for the Centre establishment. During the first year of the project the core team members renewed the connections with the Faculty of traffic and transport engineering in Belgrade, Serbia and the Technical Faculty in Bitola, Macedonia and established contacts with the Aristotle University in Thessaloniki, Greece and the University Politehnica in Bucharest, Romania. It was for the first time when the Proceedings of the conference in Sofia included two papers by Greek scientists. The University Politehnica already joined another project coordinated by the VTU with the MFK as a partner and accepted the proposal of signing officially Agreement of Collaboration. The project team also supported the membership of the VTU in the Transport Section of the European Academy of Architecture, based in Pardubice, Czech Republic.

It should be also mentioned that the project gave a new impetus to the relations between the partners. The MFK included Assoc. Prof. Dobrinka Atmadzhova, PhD in the commission for the defense of MSc diploma papers and appointed her to be a peer-reviewer of the book, published by the partners from Kraljevo (*Petrovic, D. & R. Rakanovic, Railway Vehicles: Exercises, MFK, Kraljevo, 2006, ISBN 86-82631-31-8*). The results of the on-line and on-site surveys on similar organizations and the Balkan railways problems were used to develop the RRTC constituent documents, the draft statute and program. Of all contacts, the meeting with Mr Thomas Meissner, vice-manager of FAV Berlin and representative of the EURNEX project, was the most important. It was negotiated that, because of the similarity in objectives, it is possible for the two project teams to collaborate in certain activities.

The preparatory work for the Centre foundation included the creation of human resources database and expert and working groups. It is where the cooperation with the EURNEX project is possible by exchanging data and information about the research and training activities. Thus the RRTC project will extend the EURNEX influence in the Balkans giving an opportunity for joining the region into the European Research Area.

The RRTC project supported not only the 15<sup>th</sup> International Conference *Transport 2005* in Sofia, but also the participation of the core team members and some other scientists in different forums to present the results of their research. It is worth saying that until the end of October 2006 the number of their publications is 20, of which 3 are on the project itself. The Bulgarian partners were very active at the scientific forums in Dresden, Zilina, Pardubice, Nis and London. Especially for the Rail Training and Simulation Seminar within the conference ITEC 2006 in London a leaflet was published to show the possibilities of the VTU in that area.

As a whole, the activities under the RRTC project increased the public interest to research and training possibilities of both the coordinator and partner. As a result, three people of the core team were invited as experts in national projects aimed to improve the rolling stock and traffic safety in Bulgaria. It were not only the national railway enterprises from the two countries that proposed cooperation, but also a number of foreign companies declared their intentions to collaborate with the RRTC in future (e.g. Alstom, WAGO, etc.).

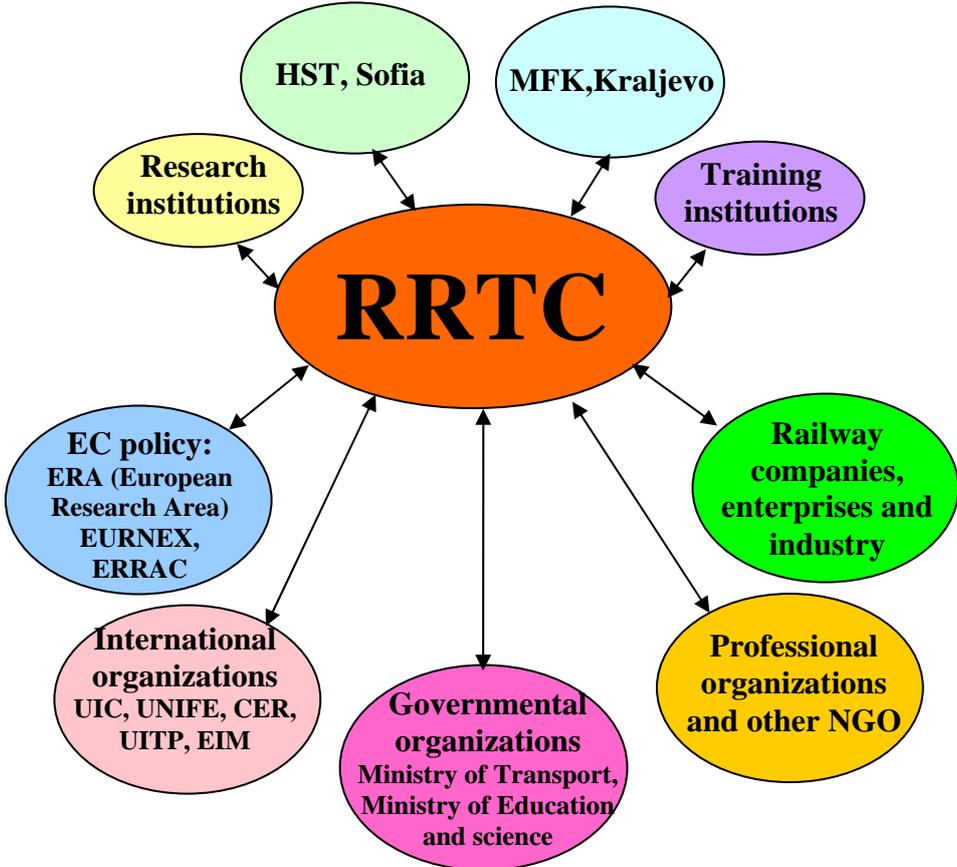
The RRTC project was the one of the 11 winners in the competition among 40 participants from 20 universities for a possibility to present their activities at the Scientific and Educational EXPO 2006 within the International Technical and Trade Fair in Plovdiv. It was presented successfully at the Railway Forum 2006 in Veliko Tarnovo and on the Information day organized by the Applied Research and Communications Fund, the Bulgarian partner in the FP6 TranSMEs project <http://www.arcfund.net/artShow.php?id=8034&bc=2&nt=1>.

Following the main objectives, the RRTC core team persistently encouraged the scientists and expert groups to develop new projects with partners from the EU and region. The first outcome was the project “*CONcepts for life long learning to further increase SafeTy on rail based trANsporT systems – CONSTANT*” funded by the Zentrum für Soziale Innovation, Austrian Science and Research Liaison Offices ASO) in Ljubljana and Sofia within the *Research Cooperation and Networking between Austria and South Eastern Europe* program. The project, which is already under

implementation, is coordinated by the VTU with the participation of representatives from University of Natural Resources and Applied Life Sciences (BOKU) in Vienna, Austria, the University Politehnica in Bucharest, Romania and MFK in Kraljevo, Serbia. Besides the coordinator Ms Margarita Georgieva, the core team includes three other members from the VTU: Dr Anna Dzhaleva-Chonkova, Ms Ilka Stefanova and Assoc. Prof. Dr Nencho Nenov. The CONSTANT project aims to develop concepts of lifelong learning intended for the rail-based transport staff in compliance with the EU directives and European acquis. The results will be used in developing a general model of lifelong learning for railway staff as a deliverable of the RRTC workprogramme for the next reportable period.

### 3. Tasks and Perspectives

The second-year activities under the RRTC project will be connected with the development of the Regional Centre as an organization that should perform the coordinating function for further cooperation in rail research and training in the region after the end of the project. The interaction will be done by implementing the Centre Program, which contains separate research and training sections developed on the basis of the examination and mapping of the railway problems in the Balkans and considering the priorities in the EU transport policy and ERRAC recommendations.



The task for enlarging the scope of the Center requires involving participants from the whole region that means to search for new contacts and to present the project to other

scientific and educational organizations in all Balkan countries. Besides the support to the 16<sup>th</sup> International Scientific Conference Transport 2006, the project team will organize seminars, workshops, meetings, etc. where the researchers and university teachers from the region can exchange experience and ideas on how to develop sustainable transport and provide labour force mobility.

To facilitate the inter-organizational and interpersonal contacts the core team will make available the databases of human resources and of expert and working groups. The Centre will provide the research results transfer and organize competitions for a paper of great scientific and practical effect, innovation method, PhD thesis. For disseminating the knowledge, it will support publishing activities, including electronic carriers and its website. The scientific achievements and other information about the possibilities of cooperation will be spread out through the project website, mass media, participation in national and international conferences, etc.

According to its program, the Centre will develop a strategy for lifelong learning and will organize pilot courses. It should also examine the needs of practice in order to initiate joint university programs and courses/modules and will support the inter-university exchange (short-time visits, lecturing by guest teachers, exchange of students groups, etc.).

The final aim of the RRTC project is to increase the level both of research and staff training in compliance with the Lisbon Strategy and the priorities of the transport policy in the Balkans.

## **Conclusion**

The Centre that will be announced open at the 16<sup>th</sup> International Scientific Conference Transport 2006, organized by the VTU on 9-10 November 2006, will continue the policy of encouraging the development of new joint projects faced to the current needs of the Balkan railways and transport systems. It will also enhance the cooperation with research and educational institutions in the EU member countries, thus integrating the scientists from the Balkan countries into the European research and educational area (EPA).

Although connected with the railway transport, the RRTC project impact lies beyond this sector. As both research and education are of great social significance, it could be assessed that the project is a contribution also to the process of the region reintegration and to the implementation of the EU policy in research and education.

For further information: [www.vtu.bg](http://www.vtu.bg) and [www.maskv.edu.yu](http://www.maskv.edu.yu).

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