

EDITORIAL

Alain Le Coroller, Publication Manager
Infrastructure for Europe's New Frontier

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South-East Europe

Conclusions of the 4th International Road Federation (IRF) Congress

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Summarizing all activities and accompanying events of the 4th IRF Road Congress for South-East Europe, leading IRF representatives (J.Munro-Lafon, A. Pearce and W. Westerhuis) evaluated the results of the Congress as very successful and encouraging in view of further cooperation between the international and European institutions on one hand and the countries of South-East Europe on the other hand, as well as for cooperation within the region.

SEE Core Network

The Regional Infrastructure Steering Group (ISG) for South-East Europe

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The Infrastructure Steering Group (ISG) was set up in September 2001 with the objective of facilitating the development of regional infrastructure in South-East Europe (SEE). The Group consists of experts from the European Commission, World Bank, European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Council of Europe Development Bank and the Office of the Special Coordinator of the Stability Pact. Its work is part of an overall effort to integrate the SEE countries amongst themselves and to the EU through developing infrastructure within a regional approach. Since its inception, the Commission has been asked to chair the group, and I have been performing this duty since last October.

Michel Peretti



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Bas Carsija, Sarajevo

Developments in the SEE Core Transport Infrastructure Network

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Graeme Preston, clarified the purpose, guidelines and organizational structure for the implementation of the Memorandum of Understanding (MoU) on the development of the Core European Traffic Network in SEE. The Republic of Croatia as one of the MoU signatories cooperates in the process of its implementation, both within the High Level Group for Transport (in Brussels) and within occasional *ad hoc* meetings of the ministers of transport and within the SEE Transport Observatory (SEETO) secretariat.

Graeme Preston

Transport analysis in SEE

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Erling Hvid is the official expert of the European Commission and the REBIS Study coordinator, which was carried out in the period 2001-2003, comprising a part of the region (excluding Slovenia, Bulgaria and Greece) requiring expert, organizational and financial support from the EU.

This extremely important study proposed the SEE Core Transport Network, which was afterwards confirmed by the European Commission and included into the MoU. Croatian traffic experts have presented the view that the SEE Core Transport Network was generally well defined; however, there are some incorrectnesses in the Croatian segment, which we believe will be adequately modified by the SEETO Secretariat.

Erling HVID

AITC

The Adriatic-Ionian Transport Corridor (AITC) and the Adriatic-Ionian Highway (AIH) Common program and project by the seven countries of the Adriatic-Ionian initiative(AII)

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Chief presenter Dr. Darko Mlinarić, reported on the efforts made so far and the proposals for harmonization of the AITC concept throughout the seven AII countries, from Trieste in Italy to Kalamata on South Peloponnese, total length of which is around 1,500 km. The integral approach includes road, partly rail, sea and air transport, with emphasis on the road segment and gradual realization of the Adriatic-Ionian Highway (AIH) as the final aim.

The future motorway and the parallel upgraded coastal tourist road should be viewed integrally, as part of the traffic corridor, in order to achieve improvement of the existing network within the short period of time and simultaneously proceed with preparation of all studies and designs required for the agreed motorway route in full length from Trieste to Kalamata, as well as with preparations for the implementation and gradual construction of sections in each of the AII countries, with harmonization of border sections.

Dr. Sc. Darko Mlinarić



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Viaduct Crni Kal with windbreak, Slovenia

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PPP

Key Factors to successful PPP Road Projects 28

Professor Dimitrios Tsamboulas presented on main models and principles of successful PPP road projects and analysed possibilities for their application within the Trans-European Motorway Master Plan (TEM) programme. This report includes definitions of main PPP scheme types and basic objectives of both public and private sectors in realization of such projects. The report also includes conclusions relating to the possibility of realization of PPP projects within the TEM network.

Prof. Dimitrios Tsamboulas

Success Factors for PPP Road Projects 29

The French company Egis Projects as a private operator has a series of important references in PPP road projects worldwide, including participation in the Croatian PPP project of the Zagreb – Macelj Motorway. In his presentation, Alain Poliakoff, analysed main prerequisites and factors of successful PPP projects. Emphasis was placed on a successful example of a PPP project in Poland – the A2 Motorway (Autostrada Wielkopolska) on the Berlin – Warsaw route, demonstrating that successful PPP road projects are possible in Central and Eastern Europe.

Alain Poliakoff

PPP Tolled Motorway Projects in the Republic of Croatia 30

The presentation on Croatia's experience in the preparation, management and realization of two tolled motorway projects – the Istrian "Y" and the Zagreb – Macelj motorway according to the Public-Private Partnership model was held by Mr. Sc. Mate Jurišić. He clarified key provisions of concession agreements, key milestones, commercial structure and financing model. He also incited the difficulties successfully solved by concession companies BINA Istra and Autocesta Zagreb – Macelj.

Mr Sc Mate Jurišić

Road Maintenance

Performance-based Maintenance Contract 34

The method of delivering road maintenance has progressively evolved. Historically, road agencies have moved from using in-house force account to traditional maintenance contracting. Many countries are now heading towards performance-based contracting (PBC), an approach that has been deployed rapidly in the road sector in the past decade. However, while PBC offers a number of benefits for road agencies and road users, it is a relatively new approach and there are several aspects that need careful consideration to ensure that the goals of PBCs are fully achieved.

Vladimir Skendrovic

State Road Management at the Croatian Road Agency 39

The presentation describes activities on the development and implementation of the road management system in Croatian Roads. At the core of the efforts to implement a more efficient road management system was the development of the Oracle database, powerful enough to accommodate the inventory and condition data of all state road network assets. During the year 2002, an improved annual data collection system on the state road network was introduced, enabling an objective assessment of state roads condition and maintenance backlogs.

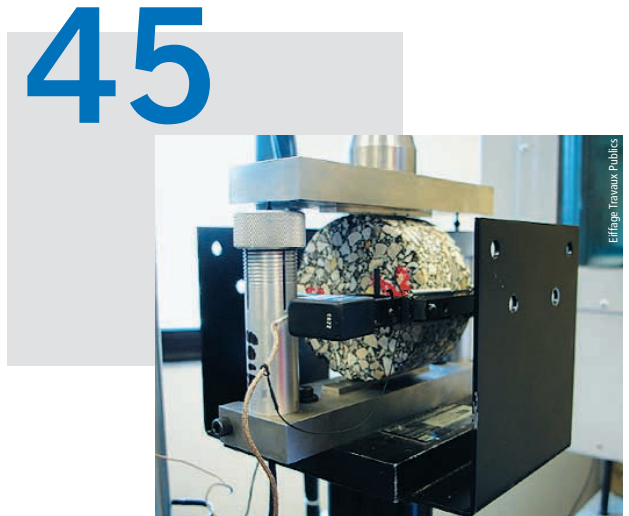
Miroslav Keller

Methodology: Mechanical tests for bituminous mixes

Mix Modulus Testing in indirect Tension mode at the Eiffage Travaux Publics Research Centre 45

Nowadays, modulus testing in indirect tension (IDT) mode is of little use in French laboratories. Notwithstanding this fact, the advantages of IDT test are numerous when carried out carefully on a sturdy and accurate press of the electro-mechanical or servo-hydraulic type. Given that a typical asphalt layer thickness is about a few centimeters and that coring is the most effective method of obtaining specimens from pavements, the IDT testing of cores – on pavements in connection with the European projects of the Eiffage Travaux Publics Group – is bound to become very practical for routine use. This new test, developed within the framework of cooperation with the Ecole de technologie supérieure (ETS) of the University of Quebec, adds to the range of test methods available at the Eiffage Travaux Publics Research Centre for asphalt mix design as well as for the mix performance characterization. This paper provides rational understanding, based on principles of linear viscoelasticity in particular, of the moduli commonly used for structural evaluation of asphalt mixtures: complex, secant and resilient moduli. The assumptions and limitations of these moduli are discussed.

The pros and cons of the adopted testing and analysis methods are evaluated. François Olard, Frédéric Noël, Frédéric Loup



Test Facility

Minnesota Department of Transportation (Mn/DOT) saves time and money through Accelerated Pavement Testing 54

Many changes in materials and structural design are considered by pavement engineers every year. The construction of test projects is expensive, allowing the evaluation of relatively few changes and the long-term results of field tests are often unavailable for several years. The Minnesota Accelerated Loading Facility (Minne-ALF) is a laboratory-based accelerated load test facility for pavements that is designed to be useful for a wide variety of structural and environmental response studies for both asphalt and concrete pavements. It is capable of simulating the movement of wheel loads traveling at speeds of 65 km/hr [40 mph] passing at rates of up to 4 load applications per second and does so without the potentially dangerous high-speed movement of heavy masses. This article briefly describes the development and alternate configurations of the Minne-ALF and presents examples of its use by the Minnesota Department of Transportation (Mn/DOT) in evaluating the effects of several design, construction and materials parameters on potential long-term performance of concrete pavements. Mark B. Snyder, David L. Rettner