



International Road Federation

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IRF was founded in 1948 to encourage better road and transportation systems worldwide. IRF is a non-profit, non-political service organisation which helps in the application of technology and management practices to produce the maximum economical and social return from national road investments. Some 500 governments, companies and associations around the world are members of IRF and provide financial support to the dual offices in Washington, DC and Geneva, Switzerland. National and regional road associations around the world make up the Federation. IRF is an accredited transportation consultant to the United Nations, the Council of Europe, and the Organisation of American States, and works closely with other international institutions in the transportation field.

IRF promotes Black Sea Ring

A major conference is to be held in Turkey to discuss the IRF's Silk Road programme and Black Sea Ring Highway programme



Cahit Turhan (Director General of Highways); Yücel Erdem; Faruk Nafiz Ozak (Minister of Public Works); Tony Pearce, Director General IRF, and Emrullah Kardes (Deputy Undersecretary of the Ministry), in Istanbul

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Over the last decade IRF has promoted the rehabilitation of the Silk Roads
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A major upgrading of 7,000km of roads around the Black Sea is being strongly supported by the IRF. In November 2006 IRF Deputy Director General Sibylle Rupprecht signed a memorandum of understanding with the Black Sea Economic Cooperation (BSEC), creating a framework for the IRF and its members to assist BSEC with the development of the Black Sea Ring Highway, as well as assisting with training for best practice in areas such as road safety, signage and maintenance.

BSEC is an inter-governmental organisation founded in 1992 and comprises 12 states around the Black Sea including Russia and Turkey.

These countries are experiencing a dramatic social and economic transformation as a result of the end of communism and the expansion of the European Union eastwards. As industry and trade develop, there is an increasing need for an efficient trans-Eurasian transport system linking the core transport regions of Europe, the Caucasus and central Asia. To the west the Black

Sea region links with three Pan-European corridors: 7 (The Danube), 8 (East-West) and 9 (North-South). To the east the region links to the ancient network of Silk Roads across Asia to China. The region includes the Ohotsk Sea, Caspian Sea, Azov Sea, Black Sea, Marmara Sea, Aegean Sea and the Mediterranean, and is situated along several important sea lanes.

Multi-modal transport and efficient inter-modal exchanges play a major role in moving goods and people across the Black Sea region.

Over the last decade IRF has promoted the rehabilitation of the Silk Roads. The most visible part of this programme has been three major conferences, the latest of which was in Xi'an, China, in October 2004 attended by some 700 delegates. Considerable work has also been done over the last decade by the Traceca programme, which has now been transformed into an inter-governmental organisation of the central Asian states.

IRF Director General Tony Pearce signed a memorandum of

understanding (MOU) with Traceca in May 2006 to foster collaboration on the Silk Road and Black Sea Ring programmes.

The Black Sea Ring Highway will bring about major changes in the quality of life in coastal areas, stimulating further development and progress. The highway is planned to link important cities in Turkey, Georgia, Russia, Ukraine, Moldova, Romania, Bulgaria and Greece with additional connections to Armenia and Azerbaijan.

The IRF will assist the BSEC countries in preparing traffic forecasts, identifying projects that could be developed using public-private partnerships (PPPs), helping to promote best practice in PPPs and to realise viable projects.

This initiative will be spearheaded by a major conference to be held in Istanbul on 14-16 May 2007. This will be the fourth conference on the IRF's Silk Road programme and the first on the Black Sea Ring Highway programme. The aim of this major joint conference will be to focus strongly on concrete and practical results such as the identification and promotion of achievable projects.

Many of the countries of the region have put together substantial programmes to



Sibylle Rupprecht and Ambassador Murat Sungar, First Deputy Secretary General of BSEC, sign the MoU

promote their road programmes and PPPs, and the conference will enable the countries to set out their plans and invite collaboration from delegates.

The conference will take place at the start of the Turkish Presidency of the BSEC, and it is expected that ministers from around 20 countries will attend the ministerial session.

Tony Pearce met the Turkish

Minister of Public Works and Housing, Faruk Nafiz Ozak, on 17 January to agree details for this important ministerial gathering. It is expected that the conference will not only be a superb networking opportunity for IRF members and other delegates, but also will result in the launch of real highway development projects around the Black Sea, Caucasus and central Asia ■

Map of the Black Sea Ring Corridor



T-REX: a success story of dinosaur proportions



The Colorado Interchange on the T-Rex project

When a US\$1.7 billion multi-modal design-build project is completed ahead of schedule, under budget and with no major construction claims, it justifies being called a success story.

A significant contributor to this overall success was an approach to quality management oversight implemented by Delcan, a long-time International Road Federation (IRF) member.

In recognition of this success and the significant role played by quality management, the International Road Federation awarded its 2006 IRF Global Achievement Award for Quality Management to Delcan Corporation in partnership with the Colorado Department of Transportation (CDOT) and the Denver Regional Transportation District (RTD).

This transportation expansion project in Denver, Colorado, US, was nicknamed T-REX (the Tyrannosaurus rex dinosaur

**1 st Black Sea &
4th Silk Road Conference
Istanbul, Turkey
14 - 16 May 2007**



With the IRF Global Road Achievement Award for Quality Management for the T-REX project are (from left) Tom Norton (Executive Director of the Colorado DOT); Cal Marsella (RTD General Manager); David Brown (Delcan's Quality Manager), and and Brian Stearman (Past IRF Chairman and President of Delcan's US Infrastructure Business

Entries invited for GRAA

The International Road Federation's Global Road Achievement Awards (GRAA) programme is a competition to honour and recognise IRF members that demonstrate excellence and innovation in road development worldwide.

The programme, which is designed to elicit information on successful projects and programmes from leading industry organisations, will draw attention to these leading projects and organisations, providing a road map for others to follow in continuously improving and advancing road development worldwide.

The competition is open to both IRF members and non-members. There is no limit to the number of entries an organisation may submit.

Entries are open to projects that may have been recognised in other award programmes, providing that they have not been recognised in an IRF GRAA competition during any previous year.

• Please visit www.irfnews.org for more information or call IRF's Magid Elabyad at +1 703 535 1001.



**International Road Federation
Fédération Routière Internationale
Federación Internacional de Carreteras**

"From historical links to a modern network"

**Further information on our website:
www.irfnet.org**

became the public face of the project).

CDOT and RTD administered the project jointly, using Delcan as a subcontractor. The scope of the project covered the reconstruction of 17 miles (27.35km) of intra-urban Interstate highway, the demolition and reconstruction of more than 30 major bridge structures, and the construction of a new 19 miles (30.57km) double-track light rail transit system with 13 new LRT stations and parking for more than 7,000 vehicles.

The quality oversight programme that Delcan developed for T-REX is the latest generation of a systematic approach to verifying design and construction work products. Delcan has used this approach on more than \$12 billion worth of major projects spanning more than a decade.

The programme is based on and registered to the internationally recognized ISO 9001-2000 standard for quality programs. Upon arriving on the project, Delcan staff, working with others within the project team, was able to identify a data set of more than 20,000 unique contractual requirements that then were incorporated into a web-enabled database. A user-friendly interface to the requirements database empowered all members of the project oversight team to verify any set of requirements using a risk-based auditing approach.

Delcan's approach to quality management allowed both managing agencies to move from a traditional random inspection approach to a more systematic and more efficient, risk-based method of requirement verification. This systematic

IRF awards ten Executive Fellowships

The IRF Executive Leadership Programme identifies promising, international students who are nearing the end of their graduate studies, and who plan to return to their home countries and work to develop better, safer roads and road networks.

This year's class of Fellows have shown excellent potential, passion, and determination in their coursework. Each was nominated by his or her professor for this prestigious award.

2007 IRF Executive Fellows		
Fellow	Country	University
Dooyong CHO	Korea	University of Florida
Siew Hwee KONG	Malaysia	Purdue University
Rong LUO	China	University of Texas
Issa MAHMUDI	Afghanistan	Purdue University
Orlando NUNEZ	Bolivia	Virginia Tech
Abdul Rawoof PINJARI	India	University of Texas
Ulas TOROS	Turkey	University of Florida
Feng-Ming TSAI	Chinese Taipei (Taiwan)	NJIT
Xiaokun WANG	China	University of Texas
Xin WANG	China	Rice University



An aerial view of Interstate 25 through the Narrows, part of the reconstructed Interstate



* = New Issue

approach also opened the door for a straight-forward final acceptance process. When it came time for senior management to make decisions on completion and acceptance of the work, they had immediate access to relevant data, building their confidence that things had been done right. Issues detected during the course of oversight audits were tracked within the database until satisfactory closure was achieved.

Throughout the course of the project, Delcan was able to analyse comprehensive information from the database and produce a series of management reports. This information was then summarised in a series of text-based status reports and innovative color-coded graphical representations (see chart).

Presenting the information in this manner allowed managers from the owner's oversight team as well as the contractor's project management team to make informed, knowledgeable and timely decisions on issues that potentially could affect the project's outcome.

Delivering a successful project depends on a series of "intelligent efforts" working in harmony with each other. Delcan's approach to quality management allowed the T-REX management team to be systematic and effective in its overall management of this complex, region-critical project.

As is recognised by the prestigious IRF Global Road Achievement Award, the result provides a model for other complex design and construction projects ■