by Amelie Isabel Dettmer, Hacon

Guaranteed to get border-crossing rail traffic moving: the EU CREAM project. Photo by Dirk Zender

Trains Crossing Borders CREAM expands railway routes from the North Sea to the Black Sea

It is something we are all familiar with: if it takes longer to travel any particular route by train than it does by car, it does not take long to decide which method of transport to use. And that is also exactly what happens with freight transport on rails. After all, no haulier wants his goods to be underway any longer than absolutely necessary.

Due to the expansion of the EU, freight traffic corridors to Greece and even on into Turkey are becoming increasingly important. These routes currently exhibit the greatest potential for growth in all of Europe. The few existing offers for railway freight transport on the axis between Central Europe and South Eastern Europe will not be able to meet growing needs in the long term. As a result, new, competitive offers on the rails are in high demand. The EU has earmarked several million euros for this purpose and has launched a project entitled CREAM. This project aims to significantly increase the capacities that the rail routes on this axis are able to handle. Plans have been made to improve the organizational framework in particular and to develop and implement new technologies.

Sustainable solutions

CREAM, an EU research project under the direction of HaCon and KombiConsult, has already used this approach to initiate several competitive connections in wagon-loading traffic and in intermodal transport. The result: enhanced quality and significantly shorter transport times. "We are transferring our know-how and technology to South Eastern Europe. However, the Western European models that have already been tried and trusted here for many years cannot simply be implemented in a different setting", explained Lars Deiterding, project manager at HaCon. "There are just too many differences in the railway structures. Only those solutions that can really be implemented and effective in the new environment shall lead to sustainable success in the long term." Examples include:

- Introduction of processes for the electronic exchange of data between operators and railway companies to optimize the time spent in border crossing
- GPS train monitoring to supply the railway companies and their customers with status information
- New transport offer for non-cranable semi-trailers through the use of 'ISU', the Innovative Semi-Trailer Transfer system
- Development of an intermodal transport network for South Eastern Europe
- Implementation of a multimodal transport concept on the Istanbul - Trieste - Ludwigshafen axis
- Use of multisystem locomotives in border-crossing

The first fruits

Within the scope of this project, a company called Eureka has successfully implemented a system of international route monitoring that supplies proactive customer information and tour evaluation. In the CREAM project, this company has developed an entirely new generation of the NavMaster telematics system, which uses GPS navigation and GPRS/text message communication to locate and monitor freight wagons, rail vehicles and other objects. The companies involved in the transport have direct access to information on the wagon route and the actual location of the wagon or train via a web front end. In the event of any deviation from the schedule, containers or trailers can be promptly rerouted to the correct destination. The system is also able to automatically collect and document information on transport quality. On the basis of this information, which is independent of the infrastructure, it is possible to specifically optimize transports.

The ISU system project (Innovative Semi-Trailer Transfer) promoted within the scope of CREAM has been started in a test phase. This is a system that can also be used to transport non-cranable semi-trailers in inter-modal traffic. ISU was developed by Rail Cargo Austria (RCA), the logistics division of the Austrian Railways (ÖBB) – a product somewhere between 'rolling road and unaccompanied transport'. In the future, an ISU train will be offered on the route from Wels to Halkali and back once a week, with the object of moving non-cranable semi-trailers to the rails – without any additional investment costs for the forwarding agent. This type of trailer is used very frequently, in Turkey in particular. The ISU product is marketed by RCA subsidiary, Ökombi.

No room for lots of traffic. Cramped conditions, badly maintained infrastructure and a defective portal frame complicate optimum freight handling in Sofia. Photo by Lars Deiterding

The CREAM project team has emphasized how necessary it is to have transfer opportunities available for inter-modal traffic by supporting a declaration to build an efficient container terminal in Sofia. The declaration was submitted to the Bulgarian government and the European Commission in October 2009.

Currently, there is only a sadly outdated container transfer point in Sofia, which is unable to manage the increasing demand. The lack of infrastructure prevents the optimal use of the pan-European traffic corridors. At present, the locations in Budapest and Belgrade are the last large transport hubs in the direction of South Eastern Europe. Improved infrastructure and conditions shall increase the share of inter-modal traffic on these routes. Particular attention should be paid to using efficient structures for the expansion and operation of the terminals and to ensuring that a well-organized container transfer terminal is built in or near Sofia.

The CREAM project has laid the cornerstone to enable rail traffic to once again take on a more important role in South Eastern Europe. "We are now entering the next phase," said Deiterding. "The measures that have been developed are being implemented step by step and positioned on the market."

What's behind CREAM?

25 partners from a total of 13 different countries are currently active in the CREAM project – this includes railway companies, the UIC (International Union of Railways), operators, research institutes and technology and consulting companies. CREAM stands for "Customer-driven Rail-freight services on a European mega-corridor based on Advanced business and operating Models". This EU research project aims to develop customer-oriented solutions to put freight transport on the rails. HaCon and the Frankfurt-based consulting company KombiConsult are coordinating the project.

New challenges

The latest project under the technical direction of the HaCon team is TIGER ("Transit via Innovative Gateway concepts solving European-Inter-modal Rail needs"), an international project operated by the EU Commission with two German and two Italian demonstration projects. The aim is to optimize ports and seaport hinterland connections on rails or with the inland waterways. New concepts are currently being developed to reorganize hinterland traffic, including existing hinterland terminals and new 'dry ports'.

What's behind HaCon Transport & Logistics

A team of interdisciplinary experts advises and supports the implementation of projects in rail freight traffic and in inter-modal traffic in particular. The services available range from strategic planning to development and right on up to implementation. HaCon can look back on long years of experience in the optimization of national and international railway transport. ▮