

## Editorial

The InnoTrans trade fair definitely is a "lighthouse" for the Transport and Mobility Cluster in the German Capital Region. For four days in September every two years, the worldwide railway community meets in Berlin. Last time, the InnoTrans counted some 85.000 professional visitors and exhibitors from more than 40 countries. Bearing in mind the development in the past as well as the booking situation, the organizers expect even higher figures for 2010.

The presence on the InnoTrans is important for the cluster manager TSB-FAV. With our booth we are focusing on the results of international rail projects with strong contributions from Berlin and Brandenburg based companies and scientific institutes. The projects Skillrail and Futurail stand for measures to attract young people for the future railway professions. EcoRails is looking for improved energy efficiency of regional rail transport via appropriate new public tenders. The standardized and ergonomically optimized workplace for the train driver in Europe is the subject of EUDDplus. Last but not least the EURNEX network of the excellent rail researchers in Europe is present at the Berlin-Brandenburg fair area.

We warmly invite you to visit the TSB-FAV stand at InnoTrans and to discuss the challenges for the future railway system with our experts.



Thomas Meissner  
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## ECORails The ECORails Project

Railway

Supporting regional railway decision makers to award green railway services: The ECORails Project



The EU project ECORails („Energy efficiency and environmental criteria in the awarding of regional rail transport vehicles and services“ – duration 2009–2011) aims at the inclusion of environmental criteria by Public Transport Administrations for Regional Rail Passenger Transport. The project elaborates guidelines as decision support for the involvement of energy efficiency improvements, noise and Green House Gases/exhaust gas reductions into regional awarding. Part of the Guidelines, developed by a project consortium of 15 partners from six European countries (coordinated by TSB-FAV), is among others a catalogue of energy efficient technologies and operational measures. The guidelines also encompass legally secure text modules for the energy efficient and environmentally friendly tendering and procurement of passenger transport.

The Guidelines are going to be tested in four European regions (Berlin-Brandenburg, Øresund, Lombardy, Timisoara), which are exemplary for the different European situations in Regional Rail Passenger Transport. Altogether 50 target groups and stakeholders of the project from Public Transport Administrations, Train Operating Companies, Infrastructure Managers and Suppliers, identify the different requirements, needs and expectations on environmental-related awarding. Among these are different national and regional ministries, and international associations such as UIC – International

Union of Railways, UITP – International Association of Public Transport and the CER – Community of European Railway and Infrastructure Companies.

Furthermore, the stakeholders evaluate the project results and the European-wide applicability of the Guidelines. One of the key ECoRailS objectives is the achievement of a system-wide reduction of 15 % until 2020 both for energy consumption and CO<sub>2</sub> emissions.

On 1st of March 2010, the pilot applications started at the four regional sites. In several stakeholder workshops the different expectations towards the Guidelines are formulated. A first result was the identification

of common requirements which are needed to be fulfilled for green awarding. In particular the different stakeholders agreed on the main awarding phases on which the Guidelines to be targeted, namely the preparation of the awarding and the related consultation of parties issuing an awarding offer, for the formulation of offers, as well as for the monitoring during the contract duration. All results of the pilot applications will flow into the final Guidelines version (provided in April 2011) and will be published in 7 languages.

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## Project EUDDplus: Realisation of a Europe-wide train driver's desk concept

### Railway

Built on the preparatory work of the successful projects EUDD and MOD-TRAIN/EUCAB, this project on European Driver's Desk Advanced Concept Implementation – Contribution to Foster Interoperability, achieved the essential step towards the standardisation and harmonisation of functional alignment and design of the future European driver's desk for locomotives and multiple units.

In EUDDplus the acquired ergonomic criteria could be tested for the first time pre-competitively in practice under real world operational conditions. The project was coordinated by TSB-FAV. It integrated 17 partners from science, industry and operators that corporately aimed at developing and testing innovative European standardised systems in rail traffic. The project results were presented at the Headquarter of UIC (International Union of Railways) in Paris on 27 January 2010.

EUDDplus comprised the functional description of the driver's desk based on the operational requirements specification given by UIC leaflet 612-0, as well as hardware and software development and integration of the desk into a prototype of the latest generation of multisystem locomotives from Alstom Transport – PRIMA II. The main idea of EUDDplus is a shift of functions from hardware to software with enhanced flexibility, improved ergonomics and reduced costs.



*European Driver's Desk Advanced Concept Implementation*

Hardware controls will be reduced by 30 % without any loss of operational performance.

This comes along with the new arrangement of the traction/braking operation with a new developed master controller, the modularisation of remaining hardware controls according to functional and logical groupings, the standardisation of component interfaces enabling interchangeability and the application of the drive-by-wire control concept. The most important information to the drivers will be shown on four displays. In November/December 2009, 17 drivers



from ten European countries tested the ergonomic advantages of the uniform European driver's desk concept on tracks at the Siemens Test and Validation Center Wegberg-Wildenrath. The challenging testing programme consisted of six different scenarios for normal operation, operation with selected degraded modes for shunting operations.

The results of the tests were obtained by means of questionnaires, measurements of the eye movements and the evaluation of recorded operating data. Generally, the driver's desk was evaluated very positively by the drivers. With a compliance of 80 % to the UIC leaflet 612-0, it was possible to show that EUDDplus is well on the way to fully matching the functional and operational specifications elaborated by the operators involved and supported by the industry members of the EUDDplus User Platform. This considerably simpli-

fies and facilitates further Europe-wide standardisation and authorisation processes for innovative railway technologies. The results of EUDDplus provided essential input to the Technical Recommendation on Driver Machine Interfaces jointly published by UIC and UNIFE in the scope of the Technical Specifications of Interoperability (TSI) for High Speed and Conventional Rail. With the end of the project, commercial exploitation will start. EUDDplus has proven to be an important step towards overcoming the remaining obstacles in international railway transport.

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## IMCOSEC IMCOSEC: IMprove the supply chain for COntainer transport and integrated SECurity simultaneously

EU Project

### Security measures vs. free trade?!

There are two contradicting trends in global transport (which are valid also for the segment of containers and other ILUs ) that have to be aligned in the most efficient way – assuring free trade and assuring transport security. On the one hand huge efforts have been made to eliminate trade barriers in order to ensure free trade and cargo flow within regions (such as the European Single Market or free trade area agreements) and globally. On the other hand additional security requirements such as checking the integrity of containers, their contents or third parties as well as advance data reports have the opposite effect.



The main objective of project IMCOSEC, supported by the European Commission, is to create a win-win solution between industry and supervision whereby the level of security is at an optimum level balancing effectiveness with practicality within the regulatory framework. Thus IMCOSEC will not aiming at introducing as much security as possible, rather than as much as needed, suitable and acceptable.

### What can be done against security gaps in container supply chains? IMCOSEC is guided by the following approach:

- ▶ Identification of security gaps based on the current processes, e.g. using the resilience matrix approach
- ▶ Elaboration of target processes for closing these gaps and ensuring product integrity is supported by technologies either already deployable or under development
- ▶ Identification of existing technologies to support and improve the container transport chain and integrate security
- ▶ Consideration of ongoing projects and their intended results as well as parallel actions
- ▶ Identification of additional requirements for R&D actions where these gaps cannot be closed by existing measures or research
- ▶ Provision of a roadmap for demonstration activities where target processes and supporting technologies can establish efficiency, effectiveness and acceptance.
- ▶ Development of a guideline to improve existing or develop new technologies in order to meet the requirement given by the developed research roadmap.

## Roadmap for large scale demonstration

The major result of IMCOSEC is to determine a basic concept and roadmap for a large scale demonstration with a funding budget of 20–30 mio. Euro. Intermodal chains will be demonstrated as “secure” corridors with effective processes and state of the art information, security and component technologies.

The whole package should be acceptable to private end-users (e.g. carriers, shippers, transporters, terminal operators) and public end-users (e.g. customs authorities, port authorities, European regions including their legal authorities).



*Improving the supply chain for container transport*

## How can you contribute to improve container supply chains?

Acceptance by the industry is one of the most important issues regarding the sustainability of the roadmap to be developed. Therefore, all the above issues will be discussed and validated by workshops with stakeholders and the projects Advisory Board involving additional stakeholders from private end-users and public end-users.

Together with the international workshops these groups will ensure European wide awareness and that the target processes and technologies will be acceptable to the global business. The three public workshops will be held in Ostende, Berlin and Brussels. If you are interested to participate on workshops, please contact the coordinator.

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### Upcoming Events

- ▶ InnoTrans 2010 – Brokerage Event  
“Connecting Railways”  
21 – 24 September 2010, Berlin  
[www.fav.de/innotrans](http://www.fav.de/innotrans)
- ▶ IMCOSEC – international Workshop on “Identifying suitable technologies and methods to improve the supply chain”  
13 December 2010, Berlin  
[www.imcosec.eu](http://www.imcosec.eu)
- ▶ „Qualität im Verkehr” – Symposium on transport telematics  
22 November 2010, Berlin  
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