

Conference Programme



**English seminars during
Elmia Nordic Rail and
Elmia Future Transport 2011
October 4-6**



MEETING PLACE • CONFERENCE • RAILWAY TRADE FAIR



meetingplace | conference | transport trade fair

Elmia Nordic Rail and Elmia Future Transport Programme Council consists of:

Mikael Prenler, Forum för Nordiskt Järnvägssamarbete, NJS, Sweden

Jan-Olof Björklund, Swedish Rail Industry Group, SWERIG

Guy Ehrling, Näringslivets Transportråd för Transportköpare

Louise Hopkinson, Forum för Nordiskt Järnvägssamarbete, NJS, Denmark

Kari Konsin, Trafikverket Liikennevirasto, Finland

Jan Erik Kregnes, Jernbaneverket, Norway

Tage Larsson, Trafikverket, Sweden

Anna Lühr, Alstom Transport Norden AB

Christian Schmidt, Bombardier Transportation Sweden AB

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TIME TO DISCUSS THE FUTURE OF THE RAILWAY IN AN INTEGRATED TRANSPORT SYSTEM!

It's time once again to come to Jönköping and Elmia Nordic Rail – Elmia Future Transport, the big meeting-place for anyone involved in the railway and future systems involving all modes of transport. The issue of an increasingly integrated transport system is a high priority. The rate of investment is high throughout the Nordic region, and the infrastructure is pivotal to the competitiveness of trade and industry, and indeed to social development in general.

We have therefore decided to focus on vital issues in key seminars for our conference programme at Elmia Nordic Rail and Future Transport. We will discuss topical issues, go into them in more depth and find out about the latest research findings. In each area we will be putting the railway into a wider context as part of a cohesive transport system in which all parts are crucial to the existence of passenger and freight transport that really works.

The programme also includes trade seminars where you can improve your knowledge in more specific areas. There are also free exhibitor seminars.

So there is every reason to come to Elmia Nordic Rail and Elmia Future Transport. It's a place for you to get together with the entire industry, meet representatives from every conceivable segment and discuss important future issues for the various modes of transport and their customers – all at a single venue.

We look forward to seeing you on 4–6 October!

Mikael Prenler

Chairman, Elmia Nordic Rail and Elmia Future Transport Programme Council

Key Seminars

NS1: Tuesday October 4, 09.00–12.40

International Very high speed train experiences

Very high speed trains – history and future

An international exposé of the Very high speed train development in Europe over the last 30 years. Where are we now and what can the history of Very high speed tell us about the future development of fast and sustainable railway travelling?

Lecturer: Francois Lacôte, Alstom

NS2: Tuesday October 4, 13.40–17.20

Development and trends in Europe

Mr Guillamo Dufresne, is Policy Adviser in charge of rail transport affairs at CLECAT and will talk about development and trends in Europe. Clecat is the European Association for forwarding transport, logistic and customs service.

Lecturer: Guillaume Dufresne, Clecat

NS7: Wednesday October 5, 13.40–17.20

The economy-wide benefits of transport infrastructure

Prof. Lakshmanan will give a talk revolving around questions relating to the scale and nature of transport infrastructure's contribution to the broader economy. He will highlight the wider economic benefits of transport infrastructure in economic development. Also, a brief review of recent theoretical developments aimed at identifying the multiple causal mechanisms which link transport and economic growth will be given. These mechanisms work through market expansion, gains from trade, technological shifts, processes of spatial agglomeration and processes of innovation and commercialization of new knowledge in urban clusters (made possible by transport improvements).

Lecturer: T.R. Lakshmanan – Director, Center for Transportation Studies and Professor Department of Geography and Environment, Executive Director, Center for Energy and Environmental Studies

THEME: ERTMS – where are we headed?
Experiences, expectations, challenges

FS6: Tuesday October 4, 10.00–10.40

Danish Trafikstyrelsen's Role and Responsibility as National Safety Authority for Banedanmark's nation-wide Signalling Programme

- The Copenhagen Suburban network will be re-signalled with a Communication Based Train Control (CBTC) solution.
- The entire long distance (Intercity and regional) rail network will be re-signalled with a ERTMS Level 2 solution.

Lecturer: Stefan Schwaab, Trafikstyrelsen Danmark

FS7: Tuesday October 4, 11.00–11.40

What are the strategies in Norway and Finland?

- Why new signalling systems, and why move to ETCS/ERTMS?
- Can next generation signalling systems be more environmental friendly?

Lecturer: Kjell Holter, Jernbaneverket

Aki Härkönen, Trafikverket Finland

THEME: ITS – safer, more efficient transport

FS43: Tuesday October 4, 15.40–16.20

Utilising RFID Technology to Automate the Rail Industry

The rail industry is adopting Radio Frequency Identification (RFID) Technology in a wide range of applications to automate the identification of components and rolling stock. The presentation will cover topics such as RFID technology, interoperability and application areas within the railway industry. These applications include ongoing RFID tagging of goods wagons in Europe, component item tracking on the railways and RFID for positioning within Mass Transit systems.

Lecturer: Richard N G Holt, TagMaster AB

THEME: City initiatives

FS58: Wednesday October 5, 10.00–10.40

New Railway Copenhagen-Ringsted

May 2010, the Danish Parliament adopted a Construction Law for a new railway west of Copenhagen. The new railway will be the first high speed line in Denmark (for 250 kph) and doubles the railway capacity in this vital section, where not only local trains but also international passenger and freight trains operate. Railnet Denmark (Banedanmark) is in charge of the construction process and has the vision to construct "Best-in-class" in an European perspective. The speakers will give a status of project works and highlight the "Best-in-class" goals adapted from similar European projects.

Lecturer: Jan Schneider-Tilli, Banedanmark

Inara Trabo, Banedanmark

THEME: Passenger Safety and Security**FS85: Wednesday October 5, 13.40–14.20****Train Interior Safety for passengers**

The design of the interiors of the vehicles is very crucial from a safety perspective. In this seminar international results based on experiences from SNCF is described.

Lecturer: John Roberts, Bombardier

FS86: Wednesday October 5, 14.40–15.20**Optimized Crash Performance**

Train passenger safety are in many terms related to crash performance and energy management to reduce the effects of a collision. In this seminar we discuss how to improve crash worthiness by the use of smart and optimized energy management systems.

Products that handles high crash forces and absorbs energy are required together with software to optimize the system of energy absorbents – Involving ideas and technologies from other areas give new possibilities within the railway industry.

Lecturer: Kenth Ackemo, Dellner Couplers AB

FS87: Wednesday October 5, 15.40–16.20**Fire detection, suppression and control meeting the new directives and standards**

Presentation of State of the Art Flexible and Cost effective Fire Protection System Solutions which fulfills the Coming European Directive and Standards.

Lecturer: Klas Nylander, Consilium Transport Safety

THEME: Increasing energy efficiency in the transport system**FS93: Thursday October 6, 09.00–09.40****Energy efficiency – the new competition factor for rail?**

European state of the art for solutions and assessment of rail system energy efficiency.

Lecturer: Mads Bergendorff, Macroplan Consulting

FS94: Thursday October 6, 10.00–10.40**DSBs (Danish Railway) ecodriving system – GreenSpeed – is in its final phase of implementation of ecodriving in all the trains**

GreenSpeed will save energy, reduce CO₂, increase security and improve the train drivers workflow. At the same time as building platform for increased punctuality and better passenger information. DSB has independently, as an operator, specified, developed GreenSpeed, and are in the implementation of the computers, screens, data systems, software, training and security verification of GreenSpeed system. Implementation is including computer based learning for 1350 train drivers and the platform is as well a prerequisite for supporting full traffic management. The presentation will – for confidentiality – not cover deeper technical details.

Lecturer: Steen Ruby, DSB

FS95: Thursday October 6, 11.00–11.40**Energy saving technology and design**

Cutting edge technology create great potential for decreasing the energy consumption of railway vehicles. The seminar presents technical solutions and design for energy-saving trains.

Lecturer: Katja Wehbi, Bombardier

Xavier Allard, Alstom

THEME: Maintenance and refurbishment**FS106: Thursday October 6, 10.00–10.40****Re-engineering Diesel Locomotives**

When a diesel Locomotive reach a level where the reliability is decreasing and the maintenance cost is increasing then Re-engineering of the Locomotive is a strong alternative investment in new material. By performing a Re-engineering program the diesel Locomotive will achieve a lifetime extension of 20–25 years including fulfilment of today's latest standard regarding emissions and in addition obtain major operational cost savings resulting in a short payback time of the investment. Using the Bombardier Re-engineering programme including Control system the Locomotive will achieve improved performance as well eliminate problems with obsolescence systems and components.

Lecturer: Poul Schram, Bombardier

THEME: Nordic tramways, prospects and insights**FS109: Thursday October 6, 09.00–09.40****How does our future trams better meet the needs of passengers?**

Alstom and Bombardier provide an industry outlook of the development of future trams. The outlook is based on how best to meet passenger's needs both in terms of demographic changes and passengers preferences.

Lecturer: Roland Scheich, Alstom

Representative of Bombardier

FS111: Thursday October 6, 11.00–11.40**Expansion plans in Helsinki**

In the Finnish capital it seems that the tram is going through a phase of expansion. But ambitious plans for a comprehensive net of trolleybuses are also on the agenda. We get a progress report.

Moderator: Thomas Lange, Stockholms Spårvägar AB

Lecturer: Ville Lehmuskoski, chef för utvecklingsprojekt, Helsingfors

Regionstrafik, HRT

US4: Tuesday October 4, 12.00-12.40**Banedata – Maintaining the Norwegian railroad**

Jernbaneverket in Norway uses IBM Maximo and Syclo Mobile solutions to maintain and track:

- About 700 000 assets
- 73 000 Masts
- 12 000 Signals
- 4 500 Level crossings
- 13 000 Railroad tracks segments

Hans Svee is the Sr.Program Director for asset management at Jernbaneverket in Norway. Mr. Svee will take you through the challenges and future possibilities on Enterprise Asset Management for railways.

Lecturer: Hans Svee, Jernbaneverket

Exhibitor/inviting company: PATH AS

Stand: C02:38

US9: Tuesday October 4, 13.40-14.20**How to be more specific about weather forecasting for the rail industry**

Find out how MeteoGroup, Europes largest private weather company, has managed to help train operators, rail infrastructure owners and maintenance contractors to improve operational efficiency by providing new specific forecasting services predicting rail adhesion, conditions of conductor rail and overhead line, rail route forecasting and various alerting services.

Lecturer: Ralf Davidsson, MeteoGroup

Exhibitor/inviting company: MeteoGroup

Stand: C03:70

US13: Tuesday October 4, 13.40-14.20**How can we efficiently reduce the CO2 emission of civil engineering projects?**

Over the last few years there has been increased focus on the carbon footprint of projects. To deal with this, Atkins has developed a tool to calculate the CO2 emissions of civil engineering projects. This tool can be used to pinpoint which elements of the projects produce the largest CO2 emission and determine where it is possible to reduce emission, for example by changing construction methods or materials.

Lecturer: Russel da Silva, Atkins Danmark A/S

Exhibitor/inviting company: Atkins Sverige AB

Stand: D01:45

US17: Wednesday October 5, 09.00-09.40**The Danish Signalling Programme**

The Danish Signalling Programme, a large programme for resignalling and upgrading the entire signalling infrastructure in Denmark to modern ERTMS level 2 systems (Fjernbane) and CBTC system (S-bane).

The speech will present Banedanmark's Signalling Programme in overall terms seen from a consultant's point of view, including benefits, scope, approach, challenges and implementation plans. The speech will describe the organization and the integrated team.

Lecturer: Peter I. Koch, Rambøll Denmark – Rail, Signalling

Exhibitor/inviting company: Rambøll Denmark – Rail, Signalling

Stand: D04:59

US18: Wednesday October 5, 10.00-10.40**Fern Landworks North, Railway upgrade**

As part of the agreement between Denmark and Germany concerning the constructing a fixed link between the countries, the existing railway between Ringsted and the new link will be upgraded. The upgrading is an important element in the efforts to increase speed and capacity for the complete section from Sweden to Fernern. From Ringsted to Vordingborg the line will be electrified and from Vordingborg to Holeby the line will be extended to double track and electrified. Furthermore several alternatives for upgrading the speed are investigated. The total budget for the project is between 8 and 9 billion DKK.

The presentation will go through the project and various alternatives and challenges for this very important railway project.

Lecturer: Tonni Christiansen, Rambøll Denmark – Rail

Exhibitor/inviting company: Rambøll Denmark – Rail

Stand: D04:59

US21: Wednesday October 5, 09.00–09.40

Tata Steel High Performance Steel to adress Wear and Rolling Contact Fatigue

The new steel HP-High Performance developed by Tata Steel has challenged the long established dependence of wear resistance on hardness, and the engineered pearlitic microstructure has produced a step change improvement in the resistance of rails to both wear and rolling contact fatigue compared to that of existing grades of similar or higher hardness.

This development based on detailed understanding of the rail degradation mechanisms led to the design and optimization of a premium grade that have been evaluated in order to be sure that beyond its anti-wear and anti-head checks properties. It can be manufactured through reliable process to achieve optimum resistance to deformation and brittle failure, good weldability and durability on track. The basis of development of this steel, its properties, its ability to be welded and repaired, and the results of early in-service performance are described in this presentation.

Lecturer: Pascal Sécordel, Tata Steel Rail France SA

Exhibitor/inviting company: Tata Steel Rail France SA

Stand: D04:40

US23: Wednesday October 5, 11.00–11.40

Waste water management for passenger rail coaches

Innovative technologies for waste water disposal systems and fresh water supply service systems for passenger rail coaches, including:

- Centralized multi position systems
- Stationery single position systems
- Mobile systems
- Cleaner cabinets for train interior cleaning services
- Automation, authorization, and remote control systems

Lecturer: Christoph Meyer zu Holsten, Vogelsang Sverige AB

Exhibitor/inviting company: Vogelsang Sverige AB

Stand: D05:69

US41: Wednesday October 5, 13.40–14.20

Dual mode locomotives – a future possibility for rail freight

Part 1

Challenges in rail freight – background to dual mode locomotive activities

A future challenge for rail freight is an improved productivity by better utilization of personnel and rolling stock, especially locomotives. A challenge is also to reduce the direct consumption of fossil fuels (diesel) and increase the share of electric power used, in order to reduce both the energy bill and the environmental strain. Introduction of new technologies like dual mode locomotives is a way to meet those challenges and probably necessary for the future development of rail freight. A dual mode locomotive is a locomotive that on electrified railway lines or tracks is supplied with electricity from overhead catenaries and when catenaries are not present is powered by diesel engines.

Lecturer: Peter Bark alt. Mattias Skoglund, TFK (Transport Research Institute)

Future traction power – from a shipper's and operator's perspective

For shippers and operators dual mode locomotives can probably be a solution to the problems that can arise when rail transports and inter-modal transports are organized in new relations and cases and when the traditional use of both electric and diesel locomotives will be too expensive to make a rail transport case competitive.

Moderator: Peter Bark, TFK (Transport Research Institute)

Lecturer: Lars Yngström (preliminary), The Association of Swedish Train Operating Companies

Exhibitor/inviting company: Bombardier Transportation Sweden AB

Stand: D02:10

US42: Wednesday October 5, 14.40–15.20

Dual mode locomotives – a future possibility for rail freight

Part 2

Dual mode power locomotives and future freight applications for those in standardized locomotive platforms

Rail Industry can help to solve the problems of designing freight applications of dual mode locomotives by innovations and standardization. A possible solution is TRAXX with Last Mile feature that will eliminate the need of shunting locomotives, e.g. in terminals. Features will be full performance on mainlines and reduced performance with diesel engine. An advantage is also that standard, large series diesel engine can be used. Emissions will then be based on upcoming Stage IIIB.

Lecturer: Janis Vitins alt. Mattias Nemitz, Bombardier Transportation

Development of dual mode locomotives for rail freight in Europe

Trains routes that are partly electrified have to use diesel locomotives also in electrified lines, or use two locomotives for one trains, one electric and one diesel, for the circulation in different parts of the line. Using the Vossloh EURO Dual approach will reduce the transport costs, using only one locomotive instead of two and reduce the maintenance and operational costs. Those locomotives will also increase the degree of operational flexibility together with a high traction capability. They will also be environmental friendly thanks to better global energy consumption efficiency, especially when referred to fossil fuel.

Moderator: Peter Bark, TFK (Transport Research Institute)

Lecturer: Antonio Garcia Ricos (preliminary), Vossloh

Exhibitor/inviting company: Bombardier Transportation Sweden AB

Stand: D02:10

USEFUL INFORMATION

ADMISSION SEK 200

Price includes admission to the fair and all exhibitor seminars. Admission free with invitation.

PRICES

Pre-ordered tickets may be collected when registering at Elmia. Prices exclude VAT.

The following day packages are available to book:

Package 1 – Day package Tuesday 4 October SEK 1,500

Includes all seminars on Tuesday 4 October, morning coffee, lunch and afternoon coffee. Parking Permit at Elmia for 4 October or a Jönköping bus pass valid on 4 October. Admission to the fair.

Package 2 – Day package Wednesday 5 October SEK 2,000

Includes all seminars on Wednesday 5 October, morning coffee, lunch, afternoon coffee and the Nordic Rail Buffet. Parking Permit at Elmia for 5 October or a Jönköping bus pass valid on 5 October. Admission to the fair.

Package 3 – Day package Thursday 6 October SEK 1,200

Includes all seminars on Thursday 6 October, morning coffee and lunch. Parking Permit at Elmia for 6 October or a Jönköping bus pass valid on 6 October. Admission to the fair.

Package 4 – Day package 4-5 October SEK 3,400

Includes all seminars on 4 and 5 October, 2 x morning coffee, 2 x lunch, 2 x afternoon coffee and the Nordic Rail Buffet. Parking Permit at Elmia for 4-5 October or a Jönköping bus pass valid on 4-5 October. Admission to the fair.

Package 5 – Day package 5-6 October SEK 3,200

Includes all seminars on 5 and 6 October, 2 x morning coffee, 2 x lunch, 1 x afternoon coffee and the Nordic Rail Buffet. Parking Permit at Elmia for 5-6 October or a Jönköping bus pass valid on 5-6 October. Admission to the fair.

Package 6 – Day package 4-6 October SEK 4,400

Includes all seminars on 4, 5 and 6 October, 3 x morning coffee, 3 x lunch, 2 x afternoon coffee and the Nordic Rail Buffet. Parking Permit at Elmia for 4-6 October or a Jönköping bus pass valid on 4-6 October. Admission to the fair.

Exhibitor seminars: All exhibitor seminars are free of charge.

Nordic Rail Buffet SEK 500: Onsdag 5 oktober, kl 19.00

REGISTRATION

Please register at www.elmia.se/nordicrail or www.elmia.se/futuretransport. Registration is binding. Participants may register until the start of the programme, depending on availability. Await confirmation from Elmia. Conference fees are paid by invoice.

CANCELLATION

In the event of cancellation by 5 September 2011, 40% of the fee will be charged. In the event of cancellation after 5 September 2011, the whole fee will be charged. Registration may be transferred to another person in the same company/organisation.

HOTEL ACCOMMODATION AND TRAVEL

Book accommodation and travel in plenty of time! Destination Jönköping will help you with your accommodation and travel arrangements.

Make your bookings at:

www.destinationjonkoping.se or call +46 (0)36 10 71 71

CONTACT

Conference programme and speakers

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FAIR OPENING TIMES

Tuesday 09.00-17.00

Wednesday 09.00-17.00

Thursday 09.00-16.00

FURTHER DETAILS

www.elmia.se/nordicrail

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