



InnoTrans 2004

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REPORT.

B2B MAGAZINE FOR RAILWAY TECHNOLOGY

InnoTrans Convention

Invitation to an international dialogue



(VDV), the Union of European Railway Industries (UNIFE) and the Association of the Railway Industry in Germany (VDB). On the programme for the two-day Forum are topics such as "Perspectives for the railway industry in an expanded Europe" and "How much interoperability do the railways need?" Under the auspices of Deutsche Bahn AG, the East European and Asian Rail Summit (EEARS) is being held for the third time this year. The event offers transport ministers and railway chiefs from countries in Central and East Europe and Asia an opportunity to meet and exchange ideas and experiences.

This year's EEARS Symposium is to focus exclusively on cross-border railway traffic between Asia and Western Europe. The topics to be addressed include interoperable technology and door-to-door logistics. The specialist BahnBau conference within InnoTrans has become a fixture in the calendar for consultants, trade and industry, and railways and public authorities. Organised by the Association of German Railway Engineers (VDEI), the conference this year will be focusing among other topics on line electrification and vehicle technology.

One of the major factors behind the success of InnoTrans in Berlin is the convincing way it combines a trade fair with a high-quality supporting programme and product presentation in the static track displays (see page 2 for detailed information).

New speed record of 581 km/h

Central Japan Railway has set a new speed record for a magnetically levitated (maglev) train. On 2 December 2003 the manned test train achieved a speed of 581 km/h on the Yamanashi Maglev Test Line, well above its own previous record of 552 km/h attained in 1999.

On 16 February Guinness World Records, Ltd. certified the speed, meaning the run is awarded an entry in the Guinness Book of Records. The test line, stretching over 18.4 km, is currently conducting repeated test runs in order to verify the technology's reliability and durability for commercial operations.



Photo: Central Japan Railway

The Dialogue-Forum is once again the main event at the InnoTrans Convention 2004

Under the heading of InnoTrans Convention, a number of high-quality specialist events will again be taking place this year. The focal point will be the InnoTrans Dialogue-Forum for transport experts from Germany and abroad, to be hosted jointly by the German Transport Forum with the Association of German Transport Operators

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InnoTrans SPECIALIST PROGRAMME

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InnoTrans Convention 2004

DIALOGUE FORUM

Attendees: InnoTrans specialist visitors
Conference languages: English, German

22 September 2004 - 10.00 to 12.00

Perspectives for the railway industry in an expanded Europe

Underlying conditions, railway operator and industry expectations, infrastructure and financing

Organiser:

Union of European Railway Industries (UNIFE), Brussels / Association of the Railway Industry in Germany (VDB), Berlin

Contacts:

Bernard von Wullerstorff / UNIFE (bernard.von.wullerstorff@unife.org) / Dr. Claudia Langowsky / VDB (langowsky@bahnindustrie.info)

22 September 2004 - 14.00 to 16.00

How much interoperability do the railways need?

The Technical Specifications for Interoperability (TSI) are aimed at bringing Europe's railway systems closer together. How far are the TSI in line with demand and implementation requirements, what are the costs to railway operators of implementation? What form could operationally, technically and economically rational solutions take?

Organiser:

German Transport Forum, Berlin
Association of German Transport Operators (VDV), Cologne

Contacts:

Thomas Hailer / Verkehrsforum (hailer@verkehrsforum.de)
Friedhelm Bihn / VDV (bihn@vdv.de)
Organisation: Irmgard Kirstgen / Verkehrsforum (kirstgen@verkehrsforum.de)

23 September 2004 - 10.00 to 12.00

Innovations in the railway industry worldwide

Latest trends in vehicle development, infrastructure, accessories and communication systems for high-speed and conventional railways

Organiser:

Union of European Railway Industries (UNIFE), Brussels / Association of the Railway Industry in Germany (VDB), Berlin

Contacts:

Bernard von Wullerstorff / UNIFE (bernard.von.wullerstorff@unife.org)
Dr. Claudia Langowsky / VDB (langowsky@bahnindustrie.info)

23 September 2004 - 14.00 to 16.00

Investment potential in public transport and its financing

In summer 2004, the Transport Forum and the VDV will be publishing the findings of a study into public transport investment potential. As well as presenting the study, the event will discuss the chances of implementation given the current debate on government financing of public transport

Organiser:

German Transport Forum, Berlin
Association of German Transport Operators (VDV), Cologne

Contacts:

Thomas Hailer / Verkehrsforum (hailer@verkehrsforum.de)
Friedhelm Bihn / VDV (bihn@vdv.de)
Organisation: Irmgard Kirstgen / Verkehrsforum (kirstgen@verkehrsforum.de)

3rd East European and Asian Rail Summit (EEARS)

20 - 22 September 2004

Transport ministers and railway CEOs of Central European and Asian transport operators, as well as members and observers of the Organisation for Railways Cooperation (OSShD), will be meeting for what has become their traditional dialogue on the occasion of InnoTrans.

Organiser:

The Federal Minister Transport, Building and Housing / The Governing Mayor of Berlin
Association of the Railway Industry in Germany (VDB) / Deutsche Bahn AG

Attendees: Invited guests

Conference languages: English, German, Russian

Contacts:

Reiner Rodig / DB AG (reiner.rodig@bahn.de)

BahnBau 2004

21 - 24 September 2004

Specialist conference on railway infrastructure themes

Major themes:

21 September 2004 / 13:00
Innovations in line electrification

22 September 2004 / 10:00
Innovations in vehicle technology

23 September 2004 / 10:00
Specialist conference on civil engineering

24 September 2004 / 10:00
Specialist conference on structural engineering

Organiser:

Association of German Railway Engineers (VDEI)
Entry fee and further information: www.vdei.de

Contacts:

Dr. Ing. Erwin Moras / VDEI-Service GmbH (service.gmbh@vdei.de)

Further InnoTrans Events

19 to 21 September 2004

2nd International UITP Conference on Regional and Suburban Rail

The renaissance of regional rail 10 years on – where do we go from here?

Railways and regions: New business models for better services, developments to date, and future prospects / Contracts / Infrastructure / Organisation and personnel policy / Rolling stock and resource management

Organiser:

International Association of Public Transport (UITP), Brussels

Contacts:

Valérie Mindlin / UITP (valerie.mindlin@uitp.com)
Programme available at <http://www.uitp.com>

20 September 2004 - 10.00 to 17.00

2nd DVWG Railway Forum

Main theme: "The future of the railways"

Theme: "Fast-track approval of railway components as an aid to increased systemic efficiency of the railways"

Organiser:

Deutsche Verkehrswissenschaftliche Gesellschaft (DVWG), Berlin

Contacts:

Prof. Dr.-Ing. Jürgen Siegmann, Technische Universität Berlin (wiss. Leiter)
Boris Kluge / DVWG (seminar@dvwg.de)

23 September 2004 - 9.30 to 13.00

4th Public Transport Forum

Long-run development of public transport systems – Underlying conditions and solutions to safeguard public transport networks –

Attendance fee: EUR 60,-
Conference languages: English / German

Organiser:

PBV Planungsbüro für Verkehr / ETC Transport Consultants GmbH

Contacts:

Wieland Brohm / PBS (w.brohm@pbv-berlin.de)
Thorsten Wichert / ETC (thorsten.wichert@etc-consult.de)

23 September 2004

12.00 to 13.00

Presentation of First "Environment Comparison (Railways)" Award

by Federal Environment Minister Jürgen Trittin on the BMU/UBA stand in Hall 4.1

13.00 to 14.00

Specialist event on environment comparisons in railway transport

Environmental comparisons show that in both the freight and passenger sectors railway operators

are making serious efforts to improve the ecological balance. The event presents best practice examples and discusses strategies to further improve the ecological balance and environmental standards.

Organiser:

Federal Environment Ministry
Allianz pro Schiene

Contacts:

Matthias Pippert / ApS (matthias.pippert@allianz-pro-schiene.de)

24 September 2004 - 10.00 to 12.00

Specialist event on "Innovative public transport technology in public tenders"

How to win in public tenders with innovative technology – the Helsinki judgment of the European Court paves the way. How to proactively deal with the requirements under the EU air quality and environmental noise directive – Securing the investment, planning and legal foundation

Organiser:

Federal Environment Ministry
Organisation: Verkehrsverbund Berlin-Brandenburg GmbH (VBB)

Contacts:

Gabriela Felder / VBB (felder@vbbonline.de)



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Interview with Chung Hak Jin, CEO of Rotem Company, Seoul

Europe and Asia can profit from each other

Rotem Company of Seoul is the first South Korean firm ever to exhibit at InnoTrans in Berlin. InnoTrans Report spoke to Chung Hak Jin, Rotem's Chief Executive Officer (CEO), about his plans for the European market.

InnoTrans: Rotem Company is exhibiting at InnoTrans for the first time this year. What led you to take this step?

Chung: We've been planning for some time now to take part in this leading trade fair so as to expand our position in the world market. Now the time is ripe to present our activities to the industry.

InnoTrans: What aims is Rotem Company pursuing in the European market?

Chung: Well, we all know that Europe is the world's most developed railway market. We want to advance our technology so as to be able to gradually progress our globalisation efforts and to gain access to the European market.

InnoTrans: What does Rotem hope to gain from exhibiting at InnoTrans?

Chung: We want to use InnoTrans as a bridge to the world market, to showcase our proven technology and demonstrate our competence in project implementation.

InnoTrans: What products and services are you going to be showing at InnoTrans?

Chung: Our aim is to highlight our visions for the future and the quality of our products by showing our latest developments in the field of maglev technology and electric traction.

InnoTrans: Where do you see the biggest differences and similarities between the European and Asian railway markets? Where could they learn from each other, and where should they cooperate more closely?

Chung: Previously, the Europeans certainly led the field in the technology sector, but nowadays there's hardly any difference. However, I still see Europe as leading in design and manufacturing. From our perspective, cooperative ventures with European firms will enable us to benefit above all from their competence in electrical componentry and manufacturing. For our part, we can offer our European partners support in assembly but also in terms of access to the Asian market.



Chung Hak Jin
CEO, Rotem Company



Electric motor coach from Rotem

Rotem Company in brief

Founded on 1 July 1999, Rotem Company is a private company belonging to the Hyundai Motors group. Headquartered in the country's capital, Seoul, the railway technology company also has two research and development centres. Rotem currently employs a total of around 4,000 staff, including over 600 researchers, engineers and product designers. In addition to the railway sector, the company is active in defence technology, aerospace and plant construction. In the field of railway technology, Rotem develops and manufactures electric multiple unit trains, high-speed trains, LRT vehicles, maglev railways, diesel multiple units, locomotives, passenger coaches and goods wagons, and traction motors and converters.

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Bombardier / Carillion Projects
Nottingham gets new light rail transit system



Photo: Bombardier Transportation

With UK Transport Minister Alistair Darling in attendance, representatives of Bombardier Transportation officially launched the Nottingham Express Transit (NET) Line 1 in early March. In a consortium with Carillion Capital Projects, Bombardier is a member of the Arrow Light Rail Ltd. Concession Company, which is responsible for the 30.5-year contract to design, build, operate and maintain the 14-kilometre line. In addition to designing and building the power supply, control, communications and signalling systems, Bombardier took charge of providing the maintenance equipment, project management, systems engineering and integration, and supply of 15 100% low-floor LRT vehicles. Bombardier also has a 27-year contract for maintenance of the vehicles. Carillion Capital Projects was responsible for the construction work, including materials and trackwork.

Alstom Transport
Coradia Lint trains delivered to Denmark ahead of schedule



Photo: Alstom Transport

The first of a total of 29 Coradia Lint trains that are to run on Arriva's lines in central and western Jutland have been delivered to Denmark. Alstom commenced delivery three months in advance of the planned June deadline. The first train, which the Danish operator Arriva Tog showed to the Danish media in Silkeborg on 11 March 2004, will serve initially for the training of Arriva drivers. The first six new trains will commence passenger operations in June, with all 29 blue-and-green trains being operational by the end of the year. The old MR trains will then be taken out of service. The new trains differ in many respects from the 25 year old MR trains that Arriva currently uses, being based on the latest technology and fitted with environmentally friendly low-emission Euro III engines.

Electric LRV system enters service in Houston, Texas

Streetcars return after a 76-year break

Since the beginning of this year, the city of Houston in Texas has finally had streetcars again. The electric LRV (light rail vehicle) system, developed and implemented by Siemens Transportation Systems (STS) on a turnkey basis, officially commenced passenger operations on 1 January. After a multi-year planning exercise and a project timescale lasting only 35 months, the Metropolitan Transit Authority of Harris County has launched a mass transit system which the city of Houston hopes will help integrate the region as well as contributing to overcoming the city's traffic problems.

For Siemens, the completion of the project represents a major success for the turnkey concept in the USA. Siemens was responsible for project management and system integration as well as for delivery of 18 Avanto S70 LRVs, for signalling and communications systems, power supply, overhead lines and embedded trackwork.

The Avanto S70 LRVs were assembled at Siemens' facility in Sacramento, Ca. The three-section low-floor vehicles are bidirectional and capable of speeds up to 105 km/h. Each vehicle features room for 200 passengers (72 seated).

The vehicles have air-conditioning, video surveillance and a hydraulic height control system that ensures a constant access level. Depending on the time of day, the LRVs run at 6, 12 or 15 minute intervals. The aim is to achieve a 3-minute interval at peak times, enabling 8,000 passengers an hour to be carried in either direction.

The launch of the new LRV system marks the return of streetcars to Houston after a break of 76 years. From 1891 onwards, up to 200 electric streetcars were in operation on a dozen routes. The streetcars were replaced by buses in 1927.

The LRV needs only 29 minutes to cover the 11 km distance; buses take 45 minutes
Photo: Siemens AG



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Siemens Transportation Systems Renfe orders ten new high-speed trains



Photo: DB AG/Warter

State-owned Spanish railway operator Renfe decided in early March to order a further ten high-speed trains from Siemens. The order is worth a total of € 430 million, with around EUR 240 million earmarked for the trains themselves and EUR 190 million for their maintenance over a period of 14 years. Model for the new trains for Spain is the ICE 3 train that is in service in Germany, for which Siemens headed the manufacturing consortium.

24 A Plug-In Contact for Quick Signal and Power Wiring

„See you at
InnoTrans 2004“

The Flexible Plug-In System

The ST-COMBI spring-cage terminal block range is a flexible plug-in system. With its structure of overhung connections, the powerful 24 A/500 V plug-in contact can also be used for other solutions regardless of the DIN rail used. Connectors can be connected flexibly using the PIN/PIN version of base terminal blocks.

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www.phoenixcontact.com

KTX line links Seoul and Busan

High-speed rail arrives in South Korea



When complete in 2008, the new line will more than halve journey times

Photo: Alstom Transport

1 April 2004 saw the inauguration of services with the first high-speed train in Korea, the Korea Train eXpress (KTX). Developed using technology from the French TGV, the train links the major Korean cities of Seoul and Busan. The project was lead-managed by Alstom and its Korean subsidiary Eukorail, working jointly with 13 French and Korean firms.

The Seoul to Busan corridor contains 70% of South Korea's population and is of great strategic importance for the country's economic development. The construction of the KTX line is aimed at relieving traffic

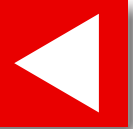
on the roads between the two cities and significantly improving passenger services. The opening of the first part of the line has brought a reduction in journey time from 4 hrs 10 min to 2 hrs 40 min. Once the last section opens for high-speed services in 2008, the journey time will be shortened to 1 hr 55 min. The operators forecast annual passenger traffic of 120 million on the 412

kilometre line. The order from Alstom and Eukorail includes 46 KTX trains, a traffic control system, line electrification and maintenance services. Each of the 388 metre long trains comprises 20 units and carries 935 passengers. Maximum speed is 300 km/h. The total cost of the project is USD 17 billion, with Alstom accounting for a share of USD 1.5 billion.

Following a large-scale technology transfer, 34 of the 46 KTX trains were built in South Korea

Photo: Alstom Transport





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Plasser & Theurer

Optimal track and switch maintenance with dynamic stabilisation



The UNIMAT 09-32 4S Dynamic combines two machines in one Photo: Plasser & Theurer

The UNIMAT 09-32 4S Dynamic is one of the latest developments from Plasser & Theurer. The new machine is a continuous action line and switch tamping machine with integrated stabilisation trailer, combining the proven properties of the continuous action line tamping machines and the most up-to-date switch tamping machines with those of the dynamic track stabiliser.

The processes and speed of operation of the UNIMAT 09-32 4S Dynamic are coordinated, and the interaction between the technologies is optimised, which according to the company offers the best conditions for efficient planning of operations. With just one machine, tracks and switches – and entire switch groups in station areas – can be maintained in one operation, leading to

increased performance, quality and cost-effectiveness. The company reports that the UNIMAT 09-32 4S Dynamic already produces an excellent track position after the track lifting/lining/tamping operation. As well as leading to compaction of the entire ballast bed, the subsequent application of the stabilisation unit is said to increase durability and service life.

The action of the machine, it is claimed, results in absolute ballast bed evenness and homogeneity both of lines and switches. Other factors leading clients to favour this machine, the company says, are the lower cost of acquisition relative to two separate machines and manpower savings due to simultaneous operation of the two elements.



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More online service in freight transport

Portal C: from road to rail in one mouse click



In late March, Stinnes Freight Logistics (Deutsche Bahn's freight transport arm) and East Hanover Railways (OHE), together with the Federal Ministry of Education and Research (BMBF), presented the latest results of the "Portal C" research project.

Under the guiding principle "From road to rail in one mouse click", Stinnes, OHE and BMBF are investing EUR 4.8 million in the development of innovative internet-based solutions aimed at simplifying access to the rail network and relieving road traffic by shifting freight to the more environment-friendly carrier. Deutsche Bahn has already developed an internet freight timetable that makes it just as easy to obtain transport information for individual wagon traffic as for passenger services. As well as current departure and arrival times, the timetable offers numerous additional functions such as a map system or indication of line classifications. In the next stage of the project, the available information is to be extended to cover additional freight lines by including cooperating railways.

A major improvement is expected from the online freight station directory that has already been developed, from which key

information on 12,000 freight stations in 23 countries across Europe can be called up, and freight rates calculated between stations. Another arm of the project has been the development of an XML interface through which clients can exchange data from their existing IT systems directly with the internet application. The first links with customer systems have already worked successfully in testing.

A major challenge is the development of overlapping internet solutions for combined transport (CT), given the complex value creation structure. A CT portal has been developed as part of the Portal C project with a view to offering traction service providers, terminal operators, shippers and customers easy access to overviews and information.

The sub-project "Siding Offensive" is developing a solution aimed at providing early information on rail freight access right from the initial planning stage of decisions on capital investment locations. New clients in particular often need more information on rail transport possibilities, and the aim is to have an online transport consultant to answer their questions.



The combined transport portal provides information on intermodal transport chains to all parties involved

Photo: DB AG/Seyferth



Riftec GmbH

Friction stir welding offers the industry new possibilities

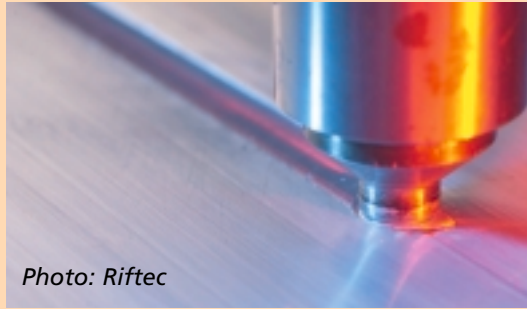


Photo: Riftec

Riftec GmbH of Geestracht is Germany's first industrial provider of friction stir welding (FSW) processes, whereby high-strength combinations of aluminium alloys and of a wide range of materials can be obtained at temperatures below melting point, with reduced production costs and enhanced quality. The FSW principle involves pushing a rotating tool into the materials to be welded. The rotation of the tool heats up and plasticises the materials it is in contact with. FSW is already being used in Japan to manufacture railway vehicles. For example, Sumitomo Light Metal is using the technique to weld aluminium floor panels for the legendary Shinkansen train.

Arthur Krüger

GRP paves the way

As specialists in plastics, Arthur Krüger with its 160 employees put their trust in glass fibre reinforced plastics (GRP) in the manufacture of gangways, landings, bridges and guard rails. Deutsche Bahn has also come to appreciate the advantages of this versatile material. For example, Arthur Krüger has connected up some 12 tonnes of GRP guard rail sections to make around 2,700 metres of guard rail at the ICE repair shop in Krefeld. The raised track system was fitted with 300 square metres of gratings and around 2 tonnes of insulation - all made of GRP. According to the company, GRP polymer sections and gratings offer numerous constructional and physical advantages over materials such as wood and steel, such as very high antiskid properties. Additional advantages of GRP are that it is corrosion-free, extremely strong and stable, has insulating properties and no earthing, and is resistant to chemicals, cold, heat, weather and ultraviolet radiation.

Westinghouse Rail Systems

With Futur and Westrace at InnoTrans

The UK company Westinghouse Rail Systems will be presenting two applications from its extensive range of signalling and control systems at InnoTrans 2004. One is its European Rail Traffic Management System (ERTMS), called Futur, for which the company was able to draw on its extensive know-how from co-developing the European Traffic Control System. This solution is designed to offer more flexibility in traffic management and high safety standards, as well as being cost-efficient in use. Alongside Futur, Westinghouse will be showing the latest version of its Westrace signalling and control system. According to the company, this safety application already has over 1,000 users worldwide, and can be directly integrated with Futur via a communication interface.

MKB Metallguss GmbH

Well-cast components

MKB Metallguss GmbH of Eichstätt will be exhibiting at InnoTrans for the first time this year. Looking ahead to the trade fair, Wolfgang Buckenauer, Head of Sales and Marketing, said: "Internationally growing markets and areas of application are where we want to demonstrate to existing and prospective clients the wide range of uses of existing castings, and to offer our comprehensive advice on new development based on our know-how in manufacturing options."

MKB specialises in producing precision castings in copper, aluminium and copper/zinc alloys and in special brasses for railway technology applications. The firm machines and surface-treats the components, and on request also assembles or packages them.

The product range encompasses spacers, contact wire terminals, door lock parts, fork connectors, carrying cable mounts, overhead line contacts and circuit breakers. The firm's customers include Siemens TS, Balfour Beatty plc, Bombardier Transportation, Ribe Verbindungstechnik,



MKB braces are used in line circuit breakers to insulate sections

Photo: MKB Metallguss

Vossloh Kiepe and Gebr. Bode GmbH. A special highlight for MKB this year is the order to supply parts for the Athens public transport system in conjunction with the 2004 Summer Olympics.

InnoTrans-Premiere für Autronic

Specialist in DC/DC converters for transportation systems

Autronic Steuer- und Regeltechnik GmbH is exhibiting its product range at InnoTrans for the first time this year. Autronic numbers itself among Europe's leading suppliers of DC/DC converters up to 200 watts in the field of transportation systems.

As one example, the ICE high-speed train has been running since the first generation with converters from Autronic. Other customers include Siemens and Bombardier. The range of standard converters encompasses around 700 different versions. At InnoTrans, Autronic is exhibiting the LEC-C Series, a new generation of DC/DC converters for chassis mounting with an output power of up to



A real space-saver: the LEC-CS converter from Autronic
Photo: Autronic

160 watts. The modular construction makes it possible to offer a shortened Euro-Rack version only 119 mm long. The new LEC-CS is designed to be ideal for applications with severe space constraints. It has constant short circuit protection, overtemperature and overvoltage shutdown, external switch-off, internal reverse battery protector, voltage control, thermal warning, synchronisation, voltage in fail, voltage out fail and sense functions.



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Harting – exhibiting at InnoTrans for the fifth time

Solutions for connectors in the railway market

Connectors are becoming more and more important in railway technology. As well as catering for trends towards modularisation and systems interlinking, which call for connector systems for power transmission and data communication, interfaces have to provide guaranteed performance over a period of many years under often severe operating conditions while yet offering reasonable value for money. The technology group Harting of Espelkamp is a specialist in this field and develops a range of solutions for the market. Its robust HAN

series connectors have established themselves in the railway market. Harting claims to be one of the very few companies that offer a full range of connector systems: alongside heavy-duty connectors, there is today a growing market for connectors for communication interfaces. "We don't want to reveal just yet what will be our Berlin trade fair highlights," said PR Manager Wulf

*Harting has developed the InduCom-9 connector with full metal casing especially for the interface requirements of the railway market
Photo: Harting*

Padecken. This will in fact be the fifth InnoTrans for his company – Harting has been there right from the beginning in 1996.

eprovi electronic & service GmbH

Cooled LED technology keeps outside displays working

Back in 2002, the ultra-flat provi® slim complete LED modules for outside displays developed by eprovi electronic & service GmbH of Bochum caused a sensation at InnoTrans. According to the company, its development work set a new benchmark in the field of dynamic passenger information displays. Its flat and comparatively lightweight design, with all components fully integrated, makes it possible to realise extremely elegant display technologies.

Unlike those of other manufacturers, which the company says switch off when the temperature gets too high so as to "conserve the electronics", information displays using the provi® complete system carry on working.

This cooling system, called provi® cool, enables a constant operating temperature of 40° inside the module. The continuity of operation makes for a much longer useful life of the electronic components and means the luminosity of the LED stays constant even at high ambient temperatures. The provi® complete system is maintenance-free and wear-resistant and designed to be serviced by a single operative, leading to a considerable saving in operating costs.

LED displays with integrated cooling system supplied by eprovi keep their cool even when it's hot outside

Photo: eprovi

But eprovi has not rested on its laurels since its success at InnoTrans 2002; rather, it has been constantly working to improve the complete LED module. A major factor in increasing the service life of these modules is an inexpensive patented cooling system.

Siemens Transportation Systems

Largest ever interlocking project successfully completed

In late March, Deutsche Bahn AG started operating the last of three electronic interlocking systems installed by Siemens Transportation Systems (TS) as part of a modernisation programme for the rail junction at Magdeburg. This represents the completion of Siemens' largest ever interlocking project worldwide. The first two SIMIS C computer-controlled interlocking systems have been operating in Magdeburg since June and November 2003 respectively. The orders involved in this project were worth a total of EUR 63.8 million. Siemens TS has equipped

the Magdeburg rail junction with the latest electronic signalling and interlocking equipment. The project included three subordinate control centres with eight distributed trackside module computers, with which a total of 312 points and derailleurs, 13 level crossings and 1,055 displays or light-emitting points at 441 signals are controlled. The subordinate control centres replace 23 obsolescent interlocking systems – the oldest one dating from 1901. The electronic interlocking systems were set up on a modular basis. "This modernisation will enable Deutsche Bahn to

provide a more flexible and efficient railway service, and at the same time it fulfils a precondition for further reorganisation of the Magdeburg rail junction," explained Ralf Rothe, spokesman for the south-east regional office of DB Netz AG. From now on, the entire Magdeburg rail junction will be remotely controlled from the operations centre in Leipzig. This is one of seven new centres with which vehicles running in the main network of Deutsche Bahn will be controlled and monitored. The operations control centre in Leipzig was also equipped by Siemens.



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Danish RailWay Group

Born at InnoTrans

Danish RailWay Group (DRWG) is a success story intimately connected with InnoTrans: after a successful day at the trade fair, representatives of the Danish railway industry spontaneously created the DRWG in a Berlin pub during the third railway technology fair in autumn 2000. The original membership of eight companies has now grown to a total of

30 that will again be jointly exhibiting at this year's InnoTrans on their old "stamping ground" in Hall 2.2. DRWG has in the meantime also joined UNIFE (Union of European Railway Industries). Information on its member firms can be found on the website of the Danish Export Group Association (www.dega.dk), to which DRWG also belongs.

And lastly . . .

Only seconds late

Whereas railway companies in Europe generally consider that trains arriving up to five minutes late are still "on time", Japan's legendary high-speed train, the blue-and-white super-express Shinkansen, measures lateness in no more than seconds.

On average, Central Japan Railway's trains reached their destinations only 12 seconds late in 2003. What also needs to be borne in mind is that this is the world's oldest high-speed technology, which entered service in 1964 and currently carries an average of 350,000 passengers a day. The Shinkansen seems to be like a vintage wine: the older it gets, the better it becomes.

Strong resistance to rail budget cuts

Associations fear massive job losses

The Association of the Railway Industry in Germany (VDB) and the Association of German Railway Engineers (VDEI) have come out clearly against cuts in the railway budget in Germany. According to the VDB, these would result in a drastic reduction in orders to infrastructure suppliers and hence a loss of high-tech jobs. Even though a final decision has yet to be taken on the amount of the investment cuts, it is currently assumed that the 2003 railway budget of over EUR 4 billion will be reduced to around EUR 3.7 billion in the current year. These figures have been confirmed by the Federal Transport Ministry.

Railway infrastructure suppliers are already feeling a marked slowing of incoming orders. According to VDB President Friedrich Smaxwil, one in ten of the over 40,000 jobs in the railway industry is at risk. Many firms have already gone over to short-time working. Smaxwil intimated that in future there would probably be a need to concentrate on markets where there was ongoing investment in upgrading the railway infrastructure. For its part, the VDEI levels criticism in particular at the unequal treatment of rail and road transport: while the railways were facing funding cuts of 48%, the roads would only have to bear a 26% reduction.

Budget cuts affecting the existing network as well as projects for new and upgraded lines threaten the industry's livelihood
Photo: DB AG/Mann



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