

# Railways

No 4 | August 2008

Informations around the rail logistics



**Our priority:  
climate protection**

Focus on

**Rail Safety Days:  
Fit to meet emergencies**

Technology & Trends

**Smart wagon control  
with RFID**

DB Intermodal

**Efficient organisation  
of port hinterland traffic**



*„Rail transport is effective  
in meeting both economic and  
ecological targets.“*

*Dr. Klaus Kremper*

**Dr. Klaus Kremper**  
CEO Railion Deutschland AG



## Dear Readers,

Climate change faces the mobility industry with major challenges. Transport in Germany and in Europe alone is responsible for almost a quarter of all carbon dioxide emissions, with 90 percent of this coming from the exhausts of road vehicles. Meeting rising mobility requirements while at the same time protecting nature and the environment is a top priority for us. Rail transport is effective in meeting both economic and ecological targets. Since 1990, we have been able to reduce rail freight's specific emissions of the greenhouse gas carbon dioxide by 44 percent: an enormous contribution to Deutsche Bahn's climate protection programme. Our new aim is to cut the specific CO<sub>2</sub> output of the entire DB Group by 20 percent between 2006 and 2020 – an ambitious target. How well rail comes off in a direct comparison with transport by air, lorry and ship is demonstrated by the calculations of the Internet application EcoTransIT, which has now been upgraded to yield even more accurate data. You can find out just what our climate protection programme involves and how the Internet application works from our leader starting on page 8.

One customer who has already been using rail for 15 years, chiefly for environmental reasons, is Kraft Foods. Since the start of the partnership, the Jacobs Café logistics train has completed 1,500 shuttle trips between

Bremen, where the raw coffee arrive from overseas, and the company's roasting plant in Berlin-Neukölln. These rail shipments for Kraft Foods have saved the environment from almost 100,000 lorry trips to date. At the end of July, Kraft Foods and DB Schenker Rail celebrated the train's anniversary in Bremen. You can find out more by turning to page 25.

Deutsche Bahn's rail freight transport is not just reliable, it also responds rapidly to production changes on the part of its customers. This is shown by the example of ArcelorMittal on page 26. In order to expand its cold rolling mill at its Eisenhüttenstadt site, the world's biggest steel producer has had to transfer part of its production operations to plants in Bremen and Ghent for a number of weeks. From July to September, we are laying on more than a hundred special trains to keep the three plants supplied with some 160,000 tonnes of steel products. This effective partnership with the steel-producing giant shows once again that rail transport really has the capacity to deliver.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'K. Kremper', written over a white background.

Dr. Klaus Kremper



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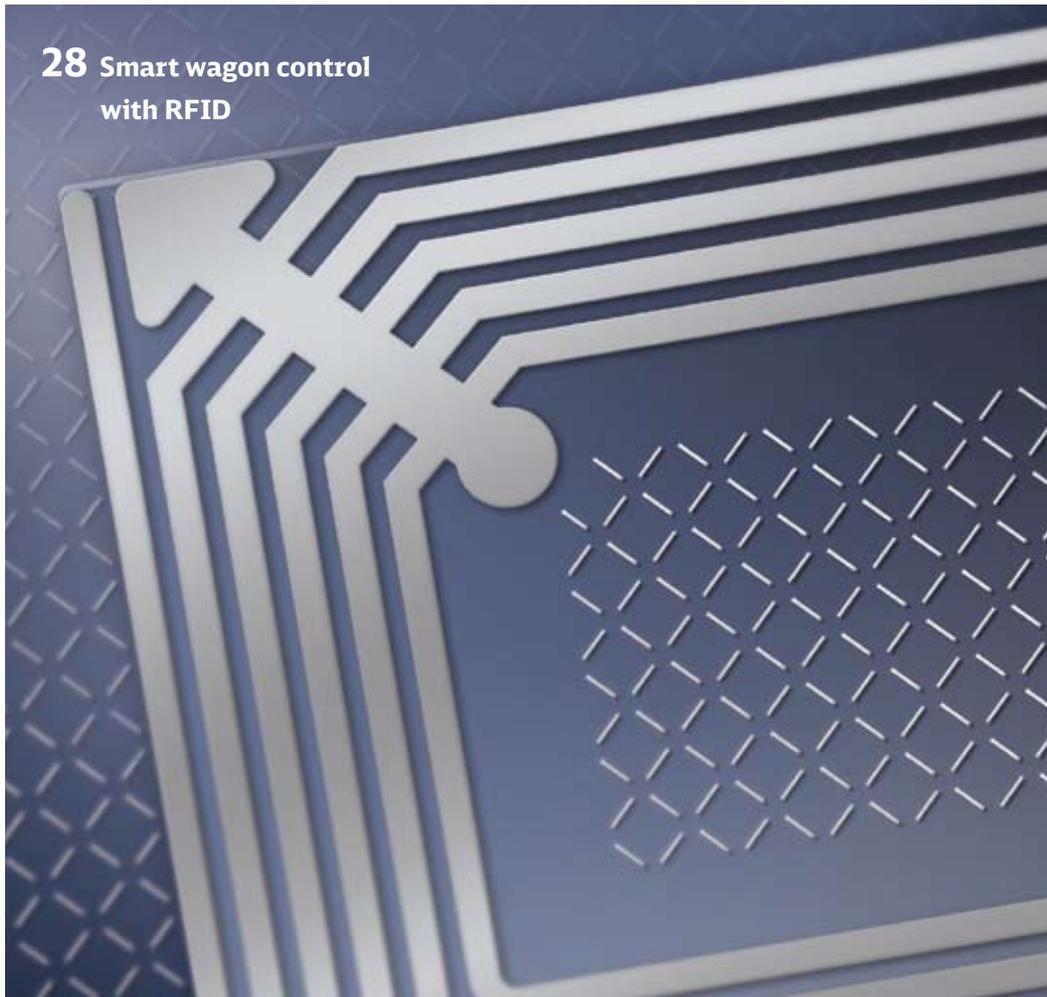
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*In October 2007, work began on the refurbishment of the railway tunnel in Mainz which links Mainz central station with Römisches Theater station. DB Schenker Rail is responsible for correct disposal of the almost 109,000 tonnes of excavation material by rail.*

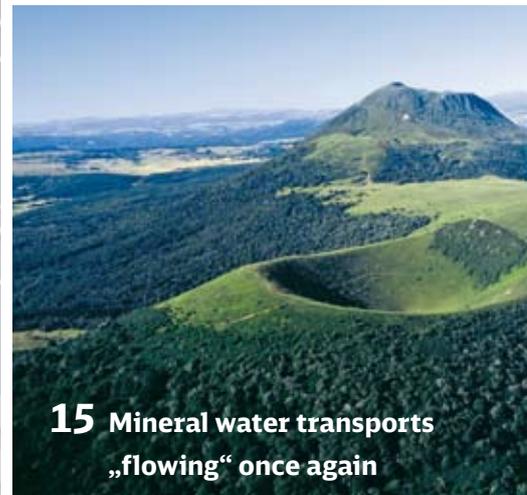
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## Imprint

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## Karsten Sachsenröder is appointed head of Sales

In addition to his function as head of the Market Unit Construction Materials, Industrial and Consumer Goods, Karsten Sachsenröder, was also appointed Head of the Sales Division at Railion Deutschland AG with effect from 15 July. 44-year-old Sachsenröder takes over from Dr. Klaus Kremper, who had been in charge of the division until then as part of his joint responsibilities.

„Karsten Sachsenröder is a highly experienced sales pro who enjoys an excellent reputation with our customers. His appointment to the Management Board of our Rail Freight Division will enable us to provide even better customer support,“ stated Dr. Norbert Bense, Member of the Deutsche Bahn AG Management Board for Transport and Logistics.

Sachsenröder is a graduate engineer who joined the DB rail freight sector four years ago as head of the Construction Materials Market Unit. In 2005, he also took over the Industrial and Consumer Goods Market Unit. The two units were merged under his overall management in 2007. Sachsenröder is also responsible for Rail Logistics and

Forwarding in the Land Transport Business Unit. For 15 years before joining DB Schenker, Sachsenröder was responsible for sales and strategy at various logistics companies, such as the central support division for key accounts Europe at DPD express and parcel services. ■

## Hans-Georg Werner to head DB Intermodal Business Unit

With effect from 1 October 2008, Dr. Sebastian Jürgens, aged 44, will be resigning the post he has held since 2005 as head of Intermodal Business Unit and Member of the Board of Management at Railion Deutschland AG. He is leaving at his own request, to take up a new position on the Board of Management of Hamburger Hafen und Logistik AG (HHLA). His successor is Hans-Georg Werner, aged 49, currently head of DB Schenker's Chemicals, Mineral Oil, and Fertilizer Market Unit and Management Spokesperson for DB Schenker subsidiary BTT BahnTank Transport GmbH.

„Dr. Jürgens has made a significant contribution towards DB Intermodal developing into the European market leader in Com-



Dr. Sebastian Jürgens

bined Transport. We thank him for his commitment and wish him all the best in the future,“ said Dr. Norbert Bense, Member of the Board of Management responsible for Transportation and Logistics at Deutsche Bahn AG. „In Hans-Georg Werner we have gained an experienced manager from our own ranks who will suc-



Hans-Georg Werner

cessfully extend DB Intermodal's business and secure its market leadership in the long term.“

Mr. Werner has a degree in business administration. He has held various executive positions in the chemical logistics industry over the last 20 years, most recently with Deutsche Bahn AG. ■



▲ The „DB Schenker“ logos mounted on the buildings – as shown here at Railion Deutschland AG Head Office in Mainz and at the Customer Service Centre in Duisburg – clearly display the new brand presentation of the Deutsche Bahn Transport and Logistics Division at its central locations. The new logo has also been installed at the DB Schenker building in Leipziger Platz, Berlin.

## More steel per wagon

DB Schenker has just introduced some 200 new Samms 489 flat wagons specifically for the steel industry. The first user to benefit from the new equipment is Benteler Stahl/Rohr GmbH in Lingen. To facilitate the company's inter-plant shipments, the load limit of the wagons has been increased significantly.

From the outset, the new special wagon was developed by DB Schenker in cooperation with Benteler and other steel customers specifically to meet the requirements of the industry. A visible advantage of the new wagon over its predecessor is to be seen in the additional stanchion shafts, which offer even greater flexibility in positioning the load. Furthermore, the Samms wagon is equipped with ultra-modern braking technology based on what is called the „K block“, which makes it a great deal quieter. But the biggest benefit of the new wagons lies in the increased load limit – from 89 tonnes, the limit in the past, to a whopping 105.5 tonnes. „This means that we can save Benteler up to 20 percent of its use of wagon resources,“ explains Klaus Schütte, responsible key account manager at Railion's Market Unit Metals/Mining. „And what is more, the extra loading space created can also be used for the benefit of other

steel customers – an important advantage in view of the current positive market developments in the industry.“

Benteler operates an electric steel mill in Lingen, where more than 500,000 tons of steel billets are produced every year for the company's own pipe plants in Dinslaken and Schloss Neuhaus near Paderborn. 120 of the new flat wagons are already being used there. For these to be loaded up to the higher limit, official authorisation had to be

obtained. But it was worth the effort, as both Benteler and DB Schenker Rail benefit – with fewer wagons in use, shunting operations are reduced and loading and unloading times speeded up. „In view of the curtailment of the logistics processes involved, this means that we can now adjust the transport chain even better to Benteler's requirements,“ says Schütte, summing up. DB Schenker aims to continue expanding its new Samms fleet, gradually replacing older vehicles. ■



Impressed by the new steel wagons (from left to right): Bernd Töpfer (Railion Metals/Mining), Christian Meyer, Thomas Löpker and Horst-Dieter Kürpick (Benteler) as well as Klaus Schütte (Railion Metals/Mining)



# Our priority: climate protection

For years, rail freight has maintained its position as the most environmentally friendly transport mode while introducing numerous measures to improve climate protection even further. How well rail comes off in a direct comparison with transport by air, lorry and ship is demonstrated by the calculations of the Internet application EcoTransIT. New functions have recently been added, making it possible to calculate energy and emission data resulting from transport operations throughout Europe with even greater precision.

**C**limate protection first featured on the agenda of the DB Group years ago, long before it became a topical issue in the media. As far back as 1994, the DB AG Board of Management introduced its „Energy Saving Programme 2005“ aiming to reduce the specific consumption

of electric power and diesel in rail transport, along with the associated greenhouse gas emissions, by 25 percent. 2002 saw the achievement of this target, ahead of schedule – DB had already succeeded in cutting its carbon dioxide emissions by 25.9 percent. In all consistency,

the DB Group then embarked on the next step, adopting a „Climate Protection Programme 2020“. This aims at a further 20 percent cutback in emissions and has now been extended to apply to the entire Group. Dr Klaus Kremper, Chairman of the Board of Management of Railion



Photo: IFA Bilderteam/Jupiterimages

Deutschland AG (DB Schenker Rail), confirms DB's sense of social responsibility based on the awareness that the DB Group is one of the biggest providers of mobility services in Europe: „The World Climate Report published by the UN at the beginning of 2007 does not mince its words. At some 20 percent, worldwide transport is one of the main originators of climate-damaging carbon dioxide emissions. If we are to be able to keep the greenhouse effect within manageable limits, serious efforts towards

the reduction of carbon dioxide emissions are called for from all the players involved.“

#### **Rail – one of the most environmentally friendly carriers**

In the transport sector, there have not been so far any restrictions on carbon dioxide emissions similar to those imposed on power companies and industrial enterprises by the European Union's Emissions Trading Directive. „We are convinced, however, that the unambiguous

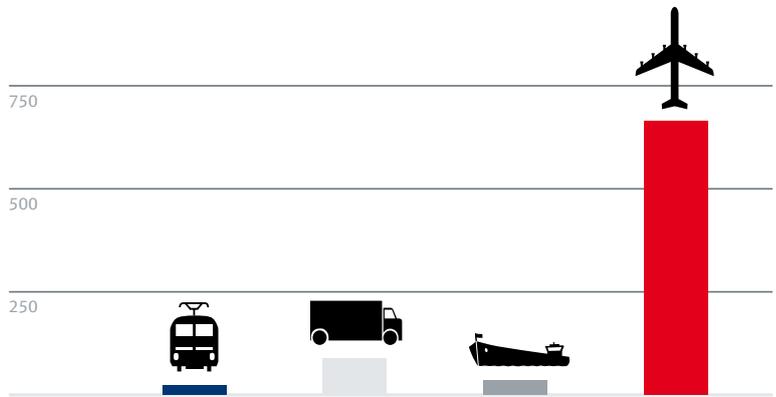
allocation of climate-polluting factors to specific transport services would be the first step in the direction of improving the environmental record of the transport sector,“ is the belief of Dr Hans-Joachim Braune, Environmental Manager at Railion Deutschland AG. A study on the feasibility of emissions trading in the transport sector published by the German Federal Ministry for the Environment, Natural Conservation and Nuclear Safety in 2005 shows, however, what a challenge the accurate allocation

of such data would present for the originator.

For DB Schenker Rail, by contrast with many other players in the transport industry, the complexity of the task would not be excessive. Since as early as 1996, Deutsche Bahn has been publishing regular data about its carbon dioxide emissions along with the comparative values for transport by air, ship and lorry. The statistics are all in favour of rail as the most ecological carrier. Rail freight transport emissions amount to some 24 grams per tonne-kilometre; lorry transport yields 88 grams, while transport by air results in a whopping 665 grams of carbon dioxide. The only competitor that comes anywhere close to rail is inland waterway transport, with emissions amounting to 35 grams per tonne-kilometre (see diagram 1).

Braune is certain that these differences in ecological performance are a matter of ever increasing interest to DB Schenker's customers: „Anyone who invests in the development of environmentally friendly products and manufacturing processes will sooner or later want to put his transport operations to the test as well.“ Take, for example, the

## CO<sub>2</sub> emissions compared by carrier



CO<sub>2</sub> emissions in grams per passenger-kilometre (freight transport: per tonne-kilometre)  
Based on 2007 data (Source: DB AG 2007)

Diagram 2

foodstuffs group Kraft Foods: as long as 15 years ago, the company transferred the greater part of its raw coffee shipments from road to rail (see also the article on page 25). All raw coffee that Kraft processes in Germany is checked for quality in Bremen and then carried by rail to the company's roasting plant in Berlin or to its production site in Vienna. Gerald Neumair, Vice President and Area Director at Kraft Foods Deutschland, Österreich und Schweiz, draws a positive conclusion from this change of carrier: „Although transferring to rail involved an investment that ran into the mil-

lions, the investment has paid off in many respects. Shipments with our Jacobs Café logistics train are more reliable and more ecologically sustainable than in the past. Furthermore, we have been able to cut power consumption by more than 60 percent and emissions of the greenhouse gas carbon dioxide by as much as two thirds.“

### EcoTransIT: even more accurate thanks to new functionality

Anyone who would like to ascertain whether his own transport operations could benefit from similar savings can now find out the facts, easily and free of charge, by using the Ecological Transport Information Tool – EcoTransIT for short. Jointly developed in 1999 by the German, French, Italian, Swedish and Swiss freight railways, this Internet application yields a direct comparison between the various carriers to show the most environmentally compatible transport option for routes anywhere in Europe. In June of this year, under the auspices of a conference of the European Environment Agency (EEA), the latest upgrade of

## Reduction of carbon dioxide emissions from DB's rail transport since 1990

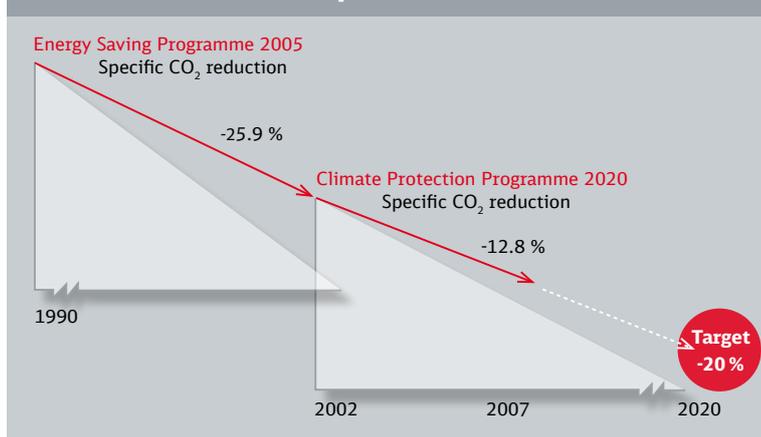


Diagram 1

Ever since it was first founded, Deutsche Bahn has been pursuing a policy of active climate protection, with long-term planning targets aimed at the reduction of CO<sub>2</sub> emissions.

Source: DB AG 2007

EcoTransIT, with the addition of important new functions, was unveiled to the general public.

An input mask enables users to enter the starting point and destination, the preferred means of transport and the type and quantity of the goods to be carried. They will be given prompt information on the most favourable routing, along with the associated data on energy consumption and emissions. For the first time, the new version now also takes differences in the nature of the freight into account. „In ‚Expert mode‘, you have the option of getting an even more exact ecological record for freight consignments,“ says Oliver Gerlings, describing the new function. Gerlings is Head of EcoTransIT Development at DB Schenker Marketing Rail. For calculations for Combined Transport, besides the exact specification of the transshipment stations you now also have the possibility of defining the load capacity of the TEU container units. „This has direct implications for the environmental record,“ Gerlings explains. „The values applying to capacity utilisation and empty runs are quite different in container transport. The higher the degree of capacity utilisation, the lower the emission level.“

But the analysis is not just limited to the emission of climate-damaging carbon dioxide. EcoTransIT also determines the quantities of other air pollutants emitted – such as nitrogen oxides, non-methane hydrocarbons, sulphur dioxide, total dust and soot particles – as a direct function of the transport mode and route chosen. It is important to avoid distortions between various modes of transport that use different sources of energy, like diesel or electricity. The EcoTransIT application therefore

not only takes account of the power consumption involved in the actual transit, it also considers power generation – in other words, the preliminary links of the energy chain. In the case of electrically powered rail transport, the emissions are created indirectly, at the power station. Here the way the energy is generated in the given country is an important factor. In some countries, such as Norway, electric railways completely run on regenerative energy based on hydropower, so the CO<sub>2</sub> emissions are zero. Other railways, on the other hand, use whatever mixture of energy sources the country has to offer. Most commonly this involves coal or some other form of fossil fuel, with regene-

rative energy sources gaining in importance.

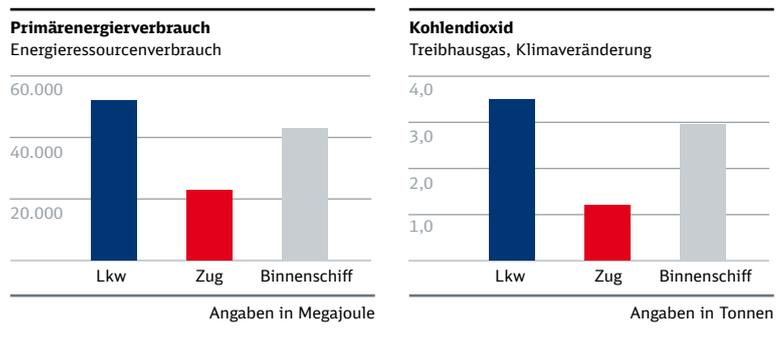
One reason to trust the objectivity of the data used to map out the various scenarios is the involvement of the Heidelberg Institute for Energy and Environmental Research (IFEU). „But you don’t need to worry that you will have to work your way through lengthy scientific tracts,“ Ulrich Ostermayer hastens to reassure us. Ostermayer is Head of Strategic Development and Process Optimisation at the DB Group’s Environmental Centre. The results are presented in easily manageable bar charts or in tabular form, thus giving the user, at a glance, a realistic impression of the differences in

## EcoTransIT: environmental comparison on the web

The screenshot shows the EcoTransIT web application interface. At the top, it says "EcoTransIT - Ihre Transportdaten" with language options (Deutsch | English | Français | Italiano). Below this, there are input fields for "Versandort" (Hamburg-Halterhof) and "Empfangsort" (Mannheim-Rheinau HPN). The weight is set to 100 tonnes. Under "Verkehrsträger", options for Lkw, Zug, and Binnenschiff are checked. The "Transportart" is set to "40 Tonnen" and "mischelanger Zug". The "Schadstoffklasse" is "EURO 5" and "Elektro". The "Belastungsgrad" is 100% and "Leerfahrtsanteil" is 43%. The "Energieeinheit" is "Megajoule". At the bottom, the "Ergebnis der Berechnung" section shows "Primärenergieverbrauch und Kohlendioxid" as the selected metric.

Diagram 3

Comparison of carriers for the shipment of bulk goods from Hamburg Waltersdorf to Mannheim



terms of environmental sustainability between lorry, air, inland waterway and rail transport (see diagram 2).

**DB Schenker continues to work on energy-saving measures**

In a direct comparison of transport modes, the emission values almost invariably show rail as the most ecological option. But Deutsche Bahn is not inclined to rest on its laurels. Environmental Manager Braune sees still further potential for improving the climate record of DB Schenker Rail and its customers: „Notwithstanding the modernisation and efficiency improvements that have been achieved so far, the rail system still has considerable reserves to offer which can significantly improve its competitive position from the climate protection angle.“ The key to a further reduction of pollutant emissions, and also of costs, is to be seen in the efficient use of energy. In freight transport, Deutsche Bahn’s energy consumption amounts to an average of around 1.2 litres of diesel per tonne. By

contrast, lorries consume an average of 3.6 litres and an aircraft as much as 25.3 litres for the same distance.

„This low energy consumption is not just a fact of nature – it is the result of a whole raft of measures that DB Schenker has implemented in recent years within the framework of its climate protection programme,“ says Braune, underlining the real latitude of action open to players in the transport industry. One possible strategy is to make large-scale investments in your vehicle fleet. „Innovations in vehicle technology,“ Braune points out, „lead to significant reductions in total energy consumption.“ For example, all multiple unit sets and locomotives are equipped with three-phase current technology: when the train brakes, the kinetic energy is converted into electricity and fed back to the overhead line. Last year alone, DB’s rail operations saved a total of around 850 gigawatt hours by this method – amounting to almost eight percent of DB’s entire annual power consumption.

Besides technical developments, the human factor also plays an important part. Since 2005, DB Schenker has been giving its train drivers – of whom there are around 5,400 – regular training in how to save energy when driving a train. The key is maximum circumspection in handling the traction unit: a measured startup, coasting and braking. Around 80 percent of DB’s traction units are now equipped with an energy consumption display. What is more, all train drivers receive a traction unit statement once a month showing how well they have scored in energy consumption terms. The data for this are determined by the „TEMA box“ (from the German „TraktionsEnergie Messen und Abrechnen“ – „Traction Energy Metering and Accounting“); they are then sent to head office by radio and evaluated. There is now even an annual computer-supported competition – train drivers can compete to become energy-saving train driver of the year.

Further strategies for relieving the environment can be found in the optimisation of operating processes and the choice of energy sources. Effective timetabling and computer-supported command/control technologies improve the trains’ capacity utilisation. Whereas in 2003, this was on average some 391 tonnes per train, by 2006, DB had managed to raise capacity utilisation to 474 tonnes. At the same time, the number of empty runs was reduced. Furthermore, Deutsche Bahn exerts its influence as a major energy consumer through the type of energy it favours: over recent years, the proportion of renewable energy in the overall mix of energy used by DB has continued to rise steadily – most recently, it was around 13 percent.

When it comes to distribution, domestic and commercial appliance producer Miele makes use of the services of Deutsche Bahn



Photo: Miele

## Comparison of carriers for pollutant emissions

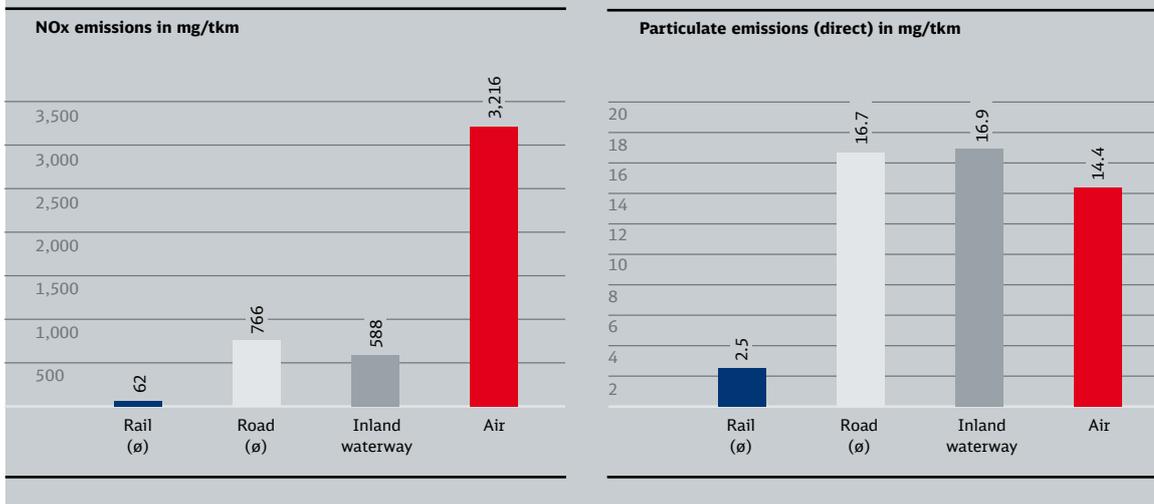


Diagram 4

Specific nitrogen oxide (NOx) emissions resulting from rail freight transport only come to one tenth of the emissions from lorries and one sixth of those from inland waterway vessels

Source: DB AG 2007

### Rail transport reduces fine dust pollution

DB Schenker Rail relieves Europe's roads of around 100,000 lorry loads every day. In an age when freight transports are steadily increasing, making fine dust pollution a growing problem, this is a contribution to climate improvement that can hardly be overestimated. In the battle against pollutants, which in the transport sector are mostly attributable to diesel vehicles, stricter limiting values will apply in the EU from 2010 on. Although this means that DB Schenker will also have to invest in new diesel engines in coming years to meet the more stringent statutory norms, only a relatively small number of traction units will be affected. „Even today, around 90 percent of our transport output is based on climate-friendly electric traction – and the trend is continuing,“ Braune explains.

As a result of the systematic electrification of lines, increasing use of lighter and lower-pollutant DMUs and diesel locomotives as well as the re-engining of shunting and mainline

locomotives, Deutsche Bahn has been able to reduce its emissions of air pollutants (diesel soot particles) by 85 percent since 1990 (see diagram 3). The release of diesel traction-induced nitrogen oxides (NOx), a contributing factor to acid rain and summer smog, has been cut back by 71 percent. In areas where diesel engines are still indispensable, DB Schenker is closely cooperating with the developers. For example, trial models of new locomotives are being subjected to suitability tests in real-life rail operations. More than half of all the diesel locomotives in use are now equipped with modern, low-pollutant engines. Particle filters and catalytic converters in new locomotives are to improve the situation still further.

So it's a still unfolding story with the DB Group's climate protection strategy. Dr Kremper, Head of Rail Freight Transport at DB Schenker, thinks politicians also have to do their share: „Speedy modernisation of the railways is an environmental necessity. This calls for the setting of clear priorities, at both national and European levels, in the public funding of the transport in-

frastructure. In Germany, moreover, a reduction of the high taxes on electric power is imperative as it continues to distort competition to the disadvantage of the only electrically powered mode of transport.“ The Chairman of the Board of Management is convinced that in calling for a strengthening of rail transport he is speaking in the name of his customers, who see ecologically sustainable logistics as an integral component of their own Corporate Social Responsibility. This is just how it is viewed at Miele for instance, as Dr Stefan Schwinning, Head of Miele's Distribution Logistics, confirms: „We claim to be the producers of the longest lasting and best quality domestic and commercial appliances in the world. When it comes to distribution, we make use of the services of Deutsche Bahn because we know that transport by rail is more climate-friendly than transport by lorry or by plane. So not only the appliances we produce have a positive carbon footprint – the same applies to the distances covered by the products.“ ■

# „When it comes to climate protection, rail just can't be beaten“

As Environmental Manager, Dr Hans-Joachim Braune is responsible for all issues relating to sustainability and energy management at Railion Deutschland AG. Railways talked to him about the rising interest in environmentally friendly transport solutions.

**Dr Braune, in the transport industry, what counts above all is price and speed. Under such circumstances, what importance do customers attach to a „soft“ factor like environmental friendliness?**

Of course, the first considerations for our customers are price and quality. And yet, the environmental factor shouldn't be underestimated: many com-



panies have their own environmental and sustainability programmes, which in some cases may also include the selection of suppliers and logistics solutions. If you want a climate-friendly way of sending your goods, rail just can't be beaten. This applies to long-distance transport in particular, where the benefits of the low CO<sub>2</sub> emissions can be

fully exploited. So if you have to choose between identical offers of two suppliers, environmental friendliness may well be the crucial factor in your purchase decision.

**This is conditional on your customers having a concrete idea of the effects of their transport operations on the environment. Is that why you have further developed the Internet tool EcoTransIT?**

Absolutely. In this way, logistics decision-makers and environmental specialists can easily put a figure to the advantages of rail transport in comparison with other carriers. We know from talking to our customers that there is a lot of interest in meaningful data on emissions in relation to freight transport. This is why we decided to expand EcoTransIT's functionality. It has recently become possible to specify route-specific transport data even more precisely than before. And for the future, we are planning to add a function for the calculation of annual quantities.

**The German Federal Government and the EU have set themselves ambitious climate targets. Are you anxious that this could lead, in the medium term, to more stringent statutory requirements for the limitation of pollutant emissions?**

That will be unavoidable, and not just in the medium term either. For example, internal combustion engines that are newly placed on the market will be subject to

more stringent limiting values for pollutant and particulate emissions as early as 2009 and 2012 respectively. Railion has no reason to be worried about these political initiatives. In the last five years alone, we have already adapted several hundred diesel locomotives to environmentally friendly standards as a result of our re-engining policy. Furthermore, we are working with industry in a number of research projects to prepare for the limiting values of the future. For example, we have a research project with MTU in Kornwestheim where we are testing a shunting locomotive that already meets the 2012 requirements for nitrogen oxide and particulate emissions.

**Would more political pressure and a more consistent breakdown of the environmental impact and consequential costs by transport mode be desirable from Deutsche Bahn's point of view?**

Yes, it would. Today large parts of the environmental costs are what is called „external costs“, i.e. they are not cost-effective. This means that the advantages of rail do not show up in the price. So these costs do not have an influence on the customer's choice of carrier and do not lead to shifts in the modal split. To ensure fair competitive conditions between the carriers, the different environmental and safety benefits that they offer should also be reflected in the price. ■

# Mineral water transports „flowing“ once again

Volvic mineral water is once again being carried on rail by DB Schenker, together with its subsidiary Euro Cargo Rail SAS (ECR). The bottles are transported from the village of the same name in Auvergne to Hockenheim in Baden, Germany, where Landauer Transportgesellschaft Doll KG (LTG) takes over storage and further distribution.

„After the evian brand, Volvic is the second mineral water of Danone Waters Deutschland GmbH where transport is now being handled on rail instead of road,“ said Markus Wemmer, Deputy Head of Regional Sales Mannheim/Stuttgart of Railion Deutschland AG. In view of the positive development of the mineral water transports to date, the company had decided to expand its cooperation with Deutsche Bahn.

The contract between Danone Waters France and ECR, the company responsible for overall management of the transports, was signed in June and a regular

shuttle service will be introduced in September, shifting a volume equivalent to 40 trucks per week onto rail. As from 2009, twice that volume is expected to be carried by train. ECR is responsible for the transport in France, carrying the water from Riom freight terminal near Volvic to Saarbrücken on the German border. DB Schenker then handles the ongoing transport to Hockenheim, where LTG takes over transshipment and storage as well as distribution of the bottles to wholesale and retail outlets as required. ■



Ensure water-tight transport (from right to left): Peter Oelmaier, Rudolf Lang-Himmelsbach and Markus Wemmer (DB Schenker), Carsten Stelter (Danone), Reiner Landsgesell and Heinrich Doll (LTG) and Heike Gerling (Danone)



At the leakage wagon, participants practise dealing with a sudden leakage of dangerous chemicals

### Rail Safety Days:

## Fit to meet emergencies

For years, DB Schenker has been investing millions of euros in equipment and staff training to ensure the safe transport of dangerous goods. Rail Safety Days are safety workshops that take place on a regular basis, offering customers in the chemicals and mineral oil industries comprehensive information and putting them in an ideal position to deal with emergencies.

**D**B Schenker carries more than 250 million tonnes of goods by rail every year. Almost every seventh tonne consists of dangerous goods, which means that the shipment will be subject to special requirements in terms of safety and reliability. The industry, too, sees the safe management of dangerous goods as a top priority. Dow Europe GmbH, a subsidiary of the American chemicals group Dow and the biggest chemicals customer of the DB Schenker Association, has opted for rail transport in view of the statistics showing that rail is 17 times safer than road haulage.

As a consequence, DB Schenker carries more than 1.7 million tonnes of fertiliser, mineral oil and other chemicals for the chemicals giant every year.

In order to minimise the risk associated with the carriage of dangerous goods to the greatest possible extent, all the partners concerned need to be well prepared to handle emergencies. This is the point of departure for the Rail Safety Days, which Dow has been making use of since 2004. At four locations: Schkopau, Stade, Terneuzen and Rheinmünster Dow employees and

regional fire brigades had the opportunity to learn how to keep a cool head when faced with an emergency and how to carry out every single operation with professionalism and control.

### Briefing, observation and practice

„Hitherto, Dow has been practically the only customer making use of this offer,“ stresses Jan Elfenhorst, Head of the Chemicals Team at BTT BahnTank Transport GmbH. „But we are now increasingly offering this exceptionally comprehensive and professional

joint safety event to other customers in the chemicals and mineral oils industries as well. In the course of the annual workshops, we work with the customer to train his staff – these may be employees of nearly any job description – and we also involve the regional as well as the customer's own fire brigades.“ The dangerous goods training train of DB Netz AG is a special feature here, being provided by DB Schenker for the event. It consists of a classroom coach, a tank wagon with all kinds of fittings such as safety and shut-off devices and a tank wagon for the simulation of leaks, so offering every kind of facility for briefing, observation and practice.

First of all, those attending the course are instructed in the topic of general safety. One important point here is the meaning of „safety and responsible care“, an indispensable standard for the handling of dangerous goods, in connection with the carriage of chemical products by rail. The ensuing panel discussion offers an opportunity for the exchange of ideas between carriers, tank wagon rental companies and customers on the most recent safety management advances in rail freight transport. The next step consists of theoretical instruction, in which employees learn how incidents in rail transport can be avoided and what they need to be aware of when rapid intervention is called for.

The practical part is then dedicated to specific emergency exercises carried out in or on the training train. The fittings wagon shows the operation and functionality of various fittings, while the leakage wagon gives participants the opportunity to practise dealing with a sudden leakage of dangerous chemicals (for practice purposes, water is used as a substitute) and sealing

leaks. The third step involves the customer's industrial fire brigade as well as the regional fire brigades. They demonstrate how every move must be just right when dealing a tank wagon leak, so as to rectify the damage as quickly as possible. At the end of the course, all participants are given a certificate free of charge, based on section 6 of the Safety Adviser Regulation [Gefahrgutbeauftragtenverordnung]

### On track for safety

„We are delighted that these Rail Safety Days meet with such a positive response from the participants every year,“ says



Dieter Baierle, Key Account Manager for Chemicals and as a safety specialist, one of those responsible for launching the Rail Safety Days. „The objective of the event is to further improve the interlocking of the individual links in the transport and safety chains in cooperation with customers and partners. Only effective communications and professional training can provide a long-term basis for the safe transport of dangerous goods and show the public that we are acting responsibly in relation to safety issues,“ continues Baierle, who will be coordinating the Rail Safety Days from now on. „This is why we are going to continue

to place maximum emphasis on safety and dangerous goods management in future and give our customers proactive information on these topics.“ The costs of the safety workshops are shared between DB Schenker and the customer; the programme of the training modules is adapted to the customer's specific requirements.

Besides its offer of workshops, DB Schenker has other facilities lined up for the prevention of emergencies. For example, a specially established network of around 250 safety specialists in 40 districts works with the Emergency Management department

of DB Netz AG to support regional fire brigades all over Germany – with a response time of just 90 minutes. This rapid response is the result of a professional communication system, which supplies emergency task forces, customers and the general public with all the relevant facts and data at very short notice. ■

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Participants of the Rail Safety Days include regional fire brigades and the industrial fire brigade of the company in question.



## Light at the end of the tunnel

In October 2007, work began on the refurbishment of the railway tunnel in Mainz which links Mainz central station with Römisches Theater station, as the old tunnel no longer satisfied the latest safety and technical standards. DB Schenker Rail was responsible for correct disposal of the almost 109,000 tonnes of excavation material by rail, which was completed in June. The formwork is currently being installed in the main tunnel bore, and this will be followed by the southbound bore. However, it will be some time before the tunnel can go back into operation: re-inauguration is scheduled for the change of timetable in 2009/2010. ■





The futuristically designed Corporate Headquarters of B. Braun in Melsungen

## Logistics in the services of medicine

At the end of June 2008, the logistics company TRANSA Spedition GmbH supplied new trailers to B. Braun Melsungen AG, one of the world's leading health care providers, to improve the supply process to the company's transshipment points along its transport network in Germany and Austria.

**B.** Braun Melsungen supplies the worldwide health care market with medical products for hospitals, health centres and the homecare sector. It operates in numerous countries, where it either has its own companies or holds shares in other enterprises, and also maintains a worldwide logistics network. The product portfolio ranges from disposable syringes and infusion solutions to medical appliances for hospi-

tals, dialysis wards, pharmacies and the wholesale sector.

### Move at a fast pace

As the company's shipping department guarantees its customers next-day delivery of all pharmaceutical products, provided that the order is submitted by 14:00 h, everything has to move at a fast pace. Accordingly, the trailers are unloaded as

soon as they arrive at the nine B. Braun transshipment terminals throughout Germany and the orders for the individual consignees are made up in precise detail, right down to the smallest packaging unit. This saves valuable time during the delivery process. Final distribution to the individual recipients – in the case of hospitals even right to the place of use – takes place the same morning as they are delivered.



As the principle forwarding company of a transport consortium, TRANSA is responsible for handling the main hauls in the extensive B. Braun Melsungen network. Every day, between 30 and 40 trucks leave the plant in Melsungen, carrying goods to the different transshipment terminals where the new trailers are now in use.

**State-of-the-art standard**

The new box trailers satisfy all the latest safety requirements: better insulation ensures efficient protection against external climatic effects. The trailers can be retrofitted with refrigeration equipment without any problems. The hard sides afford bet-

ter protection for the cargo and additionally help to prevent damage in transit. Another advantage is the continuous satellite monitoring of the entire truck fleet, which means their position can be established at any given time. Hans Löffert, Chairman of the TRANSA Management Board, believes that this cooperation offers crucial benefits: „As an integrated services provider, we can achieve substantial reductions in the system costs of the load quantities at B. Braun and thus guarantee service stability.“

Jens Wrobel, head of the Transport Logistics Team at B. Braun, is also convinced of the advantages of the new acquisition: „With these new trailers, we can

expand our already almost traditional cooperation with Deutsche Bahn even further.“ The first transport units were officially handed over by Löffert and Rainer Barth, head of TRANSA Central branch, back in April. The TRANSA office in Melsungen is responsible for management and scheduling of the trailers.. ■

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▲ Jens Wrobel (l.) and Hans Löffert at the official handover of the first transport units

◀ B. Braun supplies the worldwide health care market with medical products for hospitals, health centres and the homecare sector

# Full control with RailService Online

Based in central Hessen, the stainless steel producer Buderus has been managing its transport orders and empty wagon orders with the help of Railion's Internet tool RailService Online (RSO) since May 2007. This offers status notifications in real time, so forming a basis for comprehensive scheduling transparency.

**B**uderus Edelstahl in Wetzlar was among the first users of Customer Service Online, an application for the electronic transmission of orders and the forerunner of the new system. No surprise, therefore, that the implementation of the new scheduling system was met with great interest by the users. A good year from the changeover to the new RSO platform, Fritz Jacobs, Head of Logistics at Buderus, delivers an overwhelmingly positive judgement: „In comparison with order processing in the past, the new system amounts to a quantum leap. The quality of the information that is exchanged on

a transport order or empty wagon order. „In this way, we can offer our customers automatic status notifications showing how their order is being dealt with, shipments can be tracked in real time and invoice data are issued in easy-to-manage pdf format,“ says Reiner Elter, Head of Order Management, Communication Processes and Systems at the Customer Service Centre, illustrating the advantages of RSO scheduling.

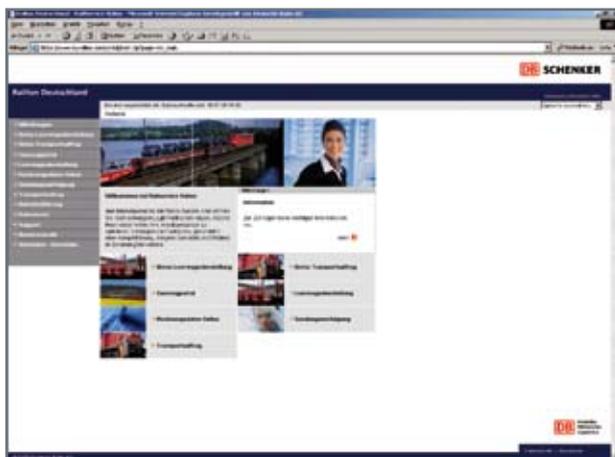
## Automatic templates reduce data input workload

Transport operations at Buderus involve around 8,000 wagons for single wagonload transport, both incoming and outgoing, including regular shipments across European borders. It is crucially important to Buderus to be fully informed of the status of every single wagon at all times. RSO's consignment tracking system provides data on the current location of the wagon, border crossings, time of arrival at the customer's site and any other information relevant to the shipment. This fits the bill exactly, as Bernhard Stoitner, rail scheduling dispatcher at Buderus Edelstahl, confirms: „The transport order function means that we now have an overview of all orders at all times, as well as being able to see what wagons are on their way to us.“ The order data can be input right away in the format of the consignment note that is to be made out – another feature showing how precisely

the functionality of RSO is tailored to the customers' needs.

Bodo Janson is another scheduling dispatcher at Buderus. In view of the large number of individual consignments, he appreciates the input templates that the system provides for placing orders or ordering empty wagons. „As our master data are stored in the system, and recurring orders can be saved as a template, standard data input is reduced to a minimum. This saves us a lot of time in transmitting data to the Customer Service Centre.“ All the more as the system checks new data records for plausibility and in case of doubt returns an error message. „As a result, we no longer lose time trying to identify the source of the error together with our contacts at the Customer Service Centre,“ says a relieved Janson.

This means that there is more time available for discussing the possibility of expanding the use of RSO at Buderus. „An invoice format based on Excel would mean a further simplification for our internal settlement processes and for statistical evaluation,“ says Head of Logistics Jacobs, to give just one example. „We would be pleased if DB Schenker would further extend the functionality of RailService Online in this direction.“ ■



RailService Online facilitates direct access to all data generated at DB Schenker's Customer Service Centre in connection with a transport order or empty wagon order

a daily basis between our Rail Dispatch Division and the Customer Service Centre in Duisburg has greatly improved.“

What are the reasons for this? Once you have logged onto the system, RailService Online allows you direct access to all data that have been generated at DB Schenker's Customer Service Centre in connection with



# Deutsche Bahn trainees campaign for tolerance

In good form: participants in this year's concluding event of the nationwide competition in Nuremberg

For many years, Deutsche Bahn has actively combated racism and intolerance. In pursuit of that aim, the DB Group runs an annual nationwide competition entitled „Deutsche Bahn Trainees against Hatred and Violence“. This year, the prize went to seven youngsters from Frankfurt.

Cultural diversity and transnationality have always been part and parcel of day-to-day business life at the DB Group, not least because it employs 182,500 people from around 114 different nations in Germany alone. The „Deutsche Bahn Trainees against Hatred and Violence“ competition is aimed at making the company's youngest employees in particular more aware of the need for mutual respect, tolerance and harmonious coexistence. „We take an active stance against extremism, violence and discrimination and have organised various projects aimed at promoting diversity within the DB Group,“ stresses Margret Suckale, Member of the Management Board for Human Resources and Services at DB Mobility Logistics AG. Ms Suckale is patron of the competition, together with Lothar Krauss, Chairman of TRANSNET trade union and Klaus-Dieter Hommel, National Chairman of GDBA transport union.

The prizes were presented to the winners of this year's competition in Nuremberg in June. From the total of 33 entries submitted, first prize went to trainees from Frankfurt am Main, who had handed out „Red Cards“ to the spectators at a football match of

1. FC Kaiserslautern for one euro each. The aim was to make a statement against unfairness and intolerance in connection with sports. The proceeds amounted to roughly EUR 700 and were donated to strahlemaennchen.de, an organisation which supports children with cancer. The winning team can now travel with Deutsche Bahn to Lido Di Ostia in Italy to enjoy a short break. The runners-up were trainees from Munich's rapid transit company, who won a trip to the Cote d'Azur sponsored by the railworkers' union Transnet. The third prize went to trainees from Mannheim and Stuttgart. This was also the first year that representatives of a partner railway from another country had taken part in the competition and the trainees of the Austrian Federal Railway were awarded a special prize for their entry.

## 6,800 trainees have already taken part in the competition

Since the competition was first launched in 2000, more than 6,800 trainees have submitted around 550 projects on the subjects of extremism, racism and violence as well as mobbing at the workplace. The project involves a seminar as part of the vocational training programme, the

annual competition and prizes for the best schemes. After the final round, the winning entries travel the country in a touring exhibition.

The „Deutsche Bahn Trainees against Hatred and Violence“ competition is intended to be effective at three different levels: by promoting the trainees' aptitude for working in a team and involving them in a social project, it encourages a harmonious multiethnic culture as well as boosting their intercultural and social skills on a personal level. Participants are also made more aware of these topics, which in turn strengthens their courage to intervene when they believe something is wrong. The project is also publicised in internal and external railway media such as BahnTV, DB-Net and the staff newsletter „DB Welt“. However, Deutsche Bahn also aims to draw widespread public attention to this programme by means of motifs on the paintwork of DB locomotives, posters, websites, calendars and other media. And, not least, the trainees themselves are more inclined to be active outside the working environment, for example helping to set up new programmes in cooperation with schools, youth clubs and other organisations. ■



Photo: VW

## VW engines travel by rail again

After a break of around one year, the Volkswagen Sachsen GmbH engine plant in Chemnitz is again linked to the rail network. This was possible thanks to the use of a siding outside the actual plant premises, which enabled Schenker Automotive RailNet GmbH, a subsidiary of DB Schenker, to implement an optimised logistics concept for these transports.

New investments in the construction of factory buildings on the Volkswagen premises had made it necessary to close down the old siding. This involved partial dismantling of the rails and consequently organising a new rail connection for Volkswagen. As the dispatch and receipt of freight wagons is now handled via the siding of a company which provides services on behalf of Volkswagen, DB Schenker

was able to resume rail freight transport for the engine manufacturing plant. Within the overall DB Schenker organisation, Halle cargo centre is responsible for the local supply of freight wagons, while Schenker Automotive RailNet again integrates the consignments in its Automotive RailNet, which is geared specially to the requirements of Volkswagen AG, carrying them to Volkswagen plants all over Europe.

and the benefits of rail freight transport for our client." Schenker Automotive RailNet put together specially coordinated block trains which transport only Volkswagen automobile parts to handle these time-sensitive transports.

From Saxony to destinations all over Europe

The engine plant in Chemnitz produces more than 3,000 petrol and diesel engines as well as various engine components every working day. On completion, most of the engines are loaded into four-axle covered high-capacity Habiis series 11 sliding-wall freight wagons. These wagons have special long-stroke shock absorbers to protect the engines from potential stress during transit. „Each wagon has a capacity of approx. 224 engines,

„The process changes which have resulted from the reorganisation of the rail link were a real challenge for both Volkswagen Chemnitz and for DB Schenker," explains Gunnar Grahlmann, Product Manager at the DB Schenker subsidiary Schenker Automotive RailNet GmbH. „Thanks to our newly devised logistics concept, we have succeeded in guaranteeing the necessary flexibility

Serving the new siding in Chemnitz



Photo: VW

which corresponds to roughly two truckloads," adds Stefan Maeder, Head of Logistics Planning at Volkswagen Sachsen GmbH in Chemnitz.

The loaded trains are carried on the Automotive RailNet to the different vehicle plants of the Volkswagen Group. The principal consignee is the parent plant in Wolfsburg, where the engines

are used in Volkswagen cars such as Golf, Golf Plus, Tiguan and Touran. Other Volkswagen plants which benefit from these material transports are Barcelona and Ingolstadt, where the engines are installed in Seat and Audi models.

„We are highly satisfied with the present developments," confirms Heinrich Nottbohm, Head

of the Chemnitz engine plant of Volkswagen Sachsen GmbH, as regards continuing cooperation with Schenker Automotive RailNet. „We have already favoured transport by train for years and we attach great importance to the subject of rail transport, not least for ecological reasons." ■

## DB Schenker and Kraft Foods:

# Jacobs Café logistics train has run for 15 years

For the past 15 years, the Jacobs Café logistics train has carried raw coffee for Kraft Foods by rail, the environment friendly option. To date, a total of 1,500 trains have run back and forward between Bremen and the Kraft Foods roasting plant in Neukölln, Berlin. The company celebrated the 15th anniversary of these rail transports together with DB Schenker in Bremen at the end of July.

The first Jacobs Café logistics train left Bremen's „Inlandhafen" for the coffee roasting facility in Berlin on 1 July 1993. The project was originally initiated by Kraft Foods, but soon evolved into a joint concept operated by Deutsche Bahn, Weser International Commodities (WIC), Bremer Lagerhaus-gesellschaft (BLG) and Industriebahn-gesellschaft Berlin (IBG). On inauguration of this train service, Kraft Foods transferred the transport of its entire incoming raw coffee onto rail. Since the launch of the project, rail carriage has eliminated the need for almost 100,000 truck trips and consequently saved almost 35,000 tonnes of carbon dioxide.

„The cooperation with DB Schenker pays off in many respects," explains Rudi Madel, Director of all four Kraft Foods coffee plants in Germany. „Long before the current debate on climate change began, we had already in-

itiated this environment friendly transport concept to reduce CO<sub>2</sub> emissions and thus make a contribution to climate protection."

### Economic transport concept

The transport concept has also already paid off in economic terms: in addition to ensuring precisely timed supplies to the company's production lines, the transport costs have been reduced and the quality of the transport continuously improved. Production stoppages owing to transport delays are now a thing of the past thanks to the Jacobs Café logistics train. DB Schenker currently handles an average of 100 coffee trains per annum. This flexible concept also enables the rail logistics company to respond to any changes at short notice in its customer's planning requirements.

„We are highly satisfied with this lasting and successful coo-

peration between Kraft Foods and DB Schenker," emphasises Karsten Sachsenröder, Manage-



Photo: Kraft Foods

ment Board Member for Sales at Railion Deutschland AG and Head of the Market Unit Construction Materials, Industrial and Consumer Goods, which is responsible for the transports. In future, too, we shall continue to aim to provide economically and ecologically convincing logistics concepts." ■

The Jacobs Café logistics train at the Bremen Inlandhafen freight yard



## Uninterrupted supply

In order to extend the cold rolling mill at its production site in Eisenhüttenstadt, ArcelorMittal, the world's biggest steel producer, has to transfer part of its production operations to two other plants for a number of weeks. DB Schenker has come up with an elaborate logistics solution to ensure that production can be kept going without interruption.

**I**n 2007, ArcelorMittal produced 2.3 million tonnes of crude steel at its Eisenhüttenstadt plant, to be processed into top-quality sheet steel – for the automotive industry above all. For years, DB Schenker has been responsible for supplying the plant with raw materials and shipping out semi-finished and finished products. Every day, three heavy trains carry more than 9,000 tonnes of iron ore from the Port of Hamburg to Eisenhüttenstadt, so ensuring a continuous supply to the blast furnaces. On the shipping side, Schenker carries some 1.2 million tonnes of steel

products and delivers them by environmentally friendly rail to destinations in Germany and all over Europe.

One reason for the extension of the plant is the high demand for top-quality steel sheet in the automotive industry. A project of this magnitude can only be carried out if the cold rolling mill is closed down for several weeks, while production is shifted to other locations – in this case, to plants in Bremen and Ghent. In view of the close interlocking between hot rolling mill and cold rolling mill operations,

ArcelorMittal's logistics specialists in Eisenhüttenstadt and DB Schenker were faced with the task of developing a transport solution that would be at once reliable and flexible, so as to enable supply to the plants to be maintained without interruption.

### Demanding logistics

„Our two main priorities in terms of logistics were availability and flexibility,“ says Ellen Finke, Head of Transportation and Logistics at ArcelorMittal's Eisenhüttenstadt plant, summing up what was required. „Between

July and September, we have to move 160,000 tonnes of steel products between the various sites without a hitch – and at the same time leave open the possibility of introducing changes to the schedule at short notice.“ To facilitate this massive temporary shift of production, DB Schenker and the logistics experts of all the plants involved first of all got together to discuss possible solutions.

„The plan that we worked out together involves continuous collection of the hot-rolled strips along with precisely synchronised deliveries to the cold rolling mills of the destination plants,“ says Christoph Tews, Head of Metals/Mining Sales East/Southeast at Railion, describing the exceptional challenge that this presents. The coils and slabs are carried on special coil-carrying and flat wagons. After the processing in Bremen and Ghent has been completed, the steel products are returned once again to Eisenhüttenstadt by rail for the subsequent production phases.

### 100 special trains laid on

For demand-oriented transport services between ArcelorMittal’s plants to be possible at all, DB Schenker uses what is known as „RAILIONflextrains“. They offer maximum flexibility and allow decisions on quantities and routes to be taken at short notice. With some 100 of these trains, the entire „rerouting services“ between the three plants of the steel company are safely managed from July to September. Smooth cooperation with the other railways involved is also required to make this possible. After loading in Eisenhüttenstadt, ArcorMittal’s industrial railway takes the wagons to the Ziltendorf marshalling yard, where they are handed over to Railion.

In Bremen, too, ArcelorMittal’s industrial railway takes over the goods for the last part of the journey. And for shipments to Ghent, DB Schenker hands over the block train to the Belgian railway SNCB at the border near Aachen.

„We were aware right from the start that the availability of loading space was going to be a critical factor,“ explains Heike Hebner, Product Manager at DB Schenker. „So together with our colleagues at SNCB, we placed a major emphasis on quick wagon turnarounds and a high reloading ratio.“ As a result, the trains to Bremen and Ghent are utilised to full capacity: depending on the route, they may have a gross weight of up to 2,600 tonnes and so in some cases call for double traction, with two locomotives supplying the power. But even a train loaded to the maximum limit only takes some 8 hours to cover the 530 kilometres from Eisenhüttenstadt to Bremen.

The construction work at the Eisenhüttenstadt plant should be completed this autumn. Then the site will be able to produce



around 1.85 million tonnes of quality cold-rolled strips a year. „In view of the success of the special shipments to date and the effective cooperation we have enjoyed with ArcelorMittal and our partner railways, we are expecting that we will be carrying most of these shipments by rail as well,“ says a confident Tews. ■

Arcelor-Mittal’s Eisenhüttenstadt site

(from left to right): Olivier Dubreuil, Wim van Gerven, Ellen Finke, Lis Andersen, Sybille Klipstein and Frank Schulz (ArcelorMittal), and Boris Dobberstein, Dr Christian Kuhn and Christoph Tews (DB Schenker)



## Smart wagon control with RFID

**RFID (Radio Frequency Identification) technology can help to control not just flows of goods, but also freight wagons. This has been demonstrated by two projects in the Netherlands currently being carried out by DB Schenker's Logistics Services department in conjunction with T-Systems Enterprise Service GmbH.**

**R** RFID radio frequency identification has long since taken over the world of logistics. DB Schenker sees the use of the electronic „tags“ above all as an opportunity to manage supply chain transports more transparently and to make internal operating processes more efficient. In view of the high price of the transponders, the technology is not yet economically viable for mass application; nonetheless, in certain precisely defined areas, RFID offers clear advantages. This is why DB Schenker's Logistics Services department, which specialises in the development of rail-based logistics solutions, launched the first RFID pilot project for rail freight transport in early 2007. The project was conducted at DB Schenker's base on the Chemelot chemicals park

at Geleen in the Netherlands, where Railion Nederland provides in-plant shunting services for the chemicals groups Sabcic and DSM, as well as maintaining a repair workshop. The objective was to use RFID for optimising individual processes, such as the registration of incoming wagons or the handling of incoming and outgoing wagons, for improving data quality and for raising process reliability.

„The first phase of the project was carried out in the summer of last year. Already then, we were able to demonstrate on site that RFID technology works outstandingly well with freight wagons,“ says Lothar Welker of the Logistics Services department, who is the project manager in charge. „One particularly important

aspect was the selection of suitable transponders and reading devices. Another was the question of how to attach them to the wagons, or position them on the track.“ The new technology proved equally promising in connection with the tracking of plant locomotives. Here first of all a shunting locomotive was equipped with a reading device and transponders were positioned around the track network.

### **Reliable identification**

A second RFID project was launched in summer 2007 with tests carried out at the Port of Rotterdam, where coal and iron ore coming from overseas is loaded onto Fal hopper wagons. These wagons can normally carry up to 100 tonnes of ore or 65 tonnes

of coal, but in some cases the load capacity may vary as a result of technical modifications or mechanical factors. To prevent overloading, the transshipment company EMO (Europees Mas-sagoed-Overslagbedrijf) had in the past avoided loading the wagons to the limit, leaving a safety buffer averaging 1.5 tonnes per wagon. This was of course a waste of valuable loading space. „This was the reason why Railion's Market Unit Metals/Mining aimed to develop an RFID solution making it possible for every wagon lined up for loading to be uniquely identified by a wagon number,“ says Welker, describing the starting position of the project. Of course, even today, wagon data are already communicated electronically in advance; but it may still happen from time to time that a damaged wagon fails to arrive or that the sequence of the wagons on a train has to be modified at short notice as a result of changes in operations.

The use of RFID will make it possible in future for the wagons

to be reliably identified in the actual sequence in which they run, each with its own wagon number. The latter can easily be aligned with the data saved in a database known as the Wagon Information System or WIS, which contains all the relevant details (tare weight, number of axles and the resulting maximum load limit). „As a result, we can ensure that the wagons are fully loaded, and offer our customers additional transport capacity,“ Welker explains. EMO also benefits from the system as the boost in efficiency provided by the use of RFID increases transshipment capacities. At the same time, energy consumption and emissions per tonne of goods carried can be cut.

#### **Environmental conditions as a decisive factor**

With the large amounts of coal and ore dust generated at EMO, environmental conditions can hardly be compared with the comparatively clean surroundings of a chemicals park like Geleen. So first of all the technical

feasibility of RFID on the Rotterdam site had to be checked once again. This phase of the project could be concluded as early as November 2007, immediately followed by the second project phase. „The task here was to define the specifications, that is to say, to consult with EMO to arrive at an exact definition of all the necessary details for RFID to be successfully introduced,“ Welker explains. This resulted in comprehensive project specifications, in which all the details were precisely defined.

While the way is being prepared for the implementation of the RFID solution in Rotterdam, the Geleen project has now entered its second phase as well. „We hope to have the specifications finalised before the end of this year,“ says a confident Welker. It is hoped that the smart wagon control system can be put into operation in the first quarter of 2009, at the Rotterdam site at least.. ■



Test installation of an antenna on a shunting locomotive...



...and a reading device on the track at the Geleen plant



Photo: Metrains

## METRANS services on the increase

The METRANS terminal in Prague

With effect from mid-June, METRANS a.s., the biggest rail operator in the Czech Republic and Slovakia, has increased the number of shuttle transports from Bremerhaven and Hamburg to its own terminals in Prague and Dunajska Streda. This shows the company responding to the rising demand for Combined Transport services to the Czech Republic, Slovakia and Hungary.

**M**ETRANS was founded in 1991. Today, shares in the company are held by DB Intermodal and HHLA Intermodal. METRANS was the first operator in the Czech Republic to be in a position to offer global container shipments from a single source. The company now carries more than half of all intermodal shipments between the German seaports and the Czech Republic, plus 80 percent of those going to Slovakia and 35 percent of those to Hungary.

Since 15 June, 40 shuttle trains a week have been travelling between Hamburg or Bremerhaven and Prague. That is five more shuttle trains than in the past. The number of round trips between the German seaports and the Slovakian terminal Dunajska Streda has also increased.

„All in all, as from June, we have raised the number of trains by 20 percent to 102 trains per week,“ says Jiri Samek, Managing Director of METRANS. „On the Hamburg-Prague route alone, we now have four regular trains every day in each direction, based on what we call the four-stroke system.“ These trains are backed up by trains travelling on the Bremerhaven-Prague route, which operate on the two-stroke system. On the German section of the route, the trains travel at speeds of up to 120 kilometres per hour. The rail transport capacity made available by METRANS every week is the equivalent of around 4,600 lorry loads.

Prague, an important transport node, is where the company has its head office. From Prague, there are regular train services

to other METRANS terminals, like Zlin for instance, which offers further speedy connections to many parts of Hungary and the port of Koper. METRANS has more than 800 container-carrying wagons of its own and is constantly expanding its terminals to meet rising demand. This year, capacities at Dunajska Streda have been boosted by 150,000 square metres to 270,000 square metres, while a new depot measuring 60,000 square metres has been opened in Prague. To take some of the load off the Prague terminal, satellite terminals were opened in Pilsen, Otrokovice and Kosice in 2007.

### All-round services in demand

METRANS offers its customers, consisting for the most part of

freight forwarders and shipping companies, an all-round service all the way along the logistics chain. This extends from professional consultancy to implementing door-to-door shipments. Provision of the required transit documents and customs clearance at the borders also form part of the service portfolio. Furthermore, METRANS has a wealth of experience in container depot management. This includes the storage of goods in the most appropriate way – in refrigerated containers, for instance – as well as the repair and servicing of containers and freight wagons. Customers can also avail themselves of a wide range of ancillary services, such as customs clearance, pre-carriage and onward carriage, and services are available seven days a week and right round the clock.

In recent years, the company has notably extended its intermodal services. „But we don't want to rest on our laurels,“ stresses Jiří Samek. „Together with DB Intermodal, we are currently planning to expand train services still further, with even better interlinking in the Czech Republic and Slovakia; and we also aim to extend our product portfolio by adding new terminals and depots.“ Jörg Pötter, responsible for the east-west axis at DB Intermodal, sums it up as follows: „Together with METRANS, we have been able to achieve steady development of exchange services between Germany and the Czech Republic and Slovakia. METRANS leads the market in these areas.“ ■

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## Premiere of the new north-south connection for Combined Transport

The „Danube Nordic Shuttle“ is a new Combined Transport train, which has been linking Rostock with Wels in Upper Austria since the beginning of June. This new environmentally friendly corridor between Scandinavia and southeastern Europe is an example of successful cross-departmental collaboration between DB Schenker and DB Intermodal.

The prime movers of DB Schenker's new Combined Transport train were Schenker Deutschland, Schenker Österreich, Hangartner, DB Intermodal and Kombiverkehr along with their partner Rail Cargo Austria. „The North-South corridor by way of the port of Rostock is increasingly drawing the attention of the logistics industry because it offers everything that logistics planners require: speed, reliability, safety and attractive prices,“ said Dr Otto Ebnet, Transport Minister of the Federal State of Mecklenburg-Vorpommern, in his speech on the occasion of the train's maiden journey on 9 June, pointing out the advantages of Combined Transport. In future the shuttle train will be travelling twice weekly between Rostock and Wels, with a transit time of around just 22 hours. Trains depart at 7:00 pm and arrive at 4:00 pm the following day.

### Excellent connections to southeastern Europe

Meanwhile, good connections with Scandinavia are provided by Schenker Deutschland AG's ‚Baltic Sea Gate‘ at the Port of Rostock in Mecklenburg-Vorpommern. Wels in Austria also represents a strategically well chosen destination as the city offers excellent connections

to the growth markets of southeastern Europe. „This new logistics solution offers the freight forwarding industry an intelligent combination of road, rail and ferry transport for the carriage of goods, one that



Dedicating the new shuttle together (from left to right): Dr Dieter Bambauer (Hangartner), Reinhard Just (DB Schenker), Dr Otto Ebnet (Minister of Transport, Construction and Regional Development of the Federal State of Mecklenburg-Vorpommern), Lothar Rosenkranz and Winfried Palmen-Dréan (DB Schenker), Ueli Maurer (Hangartner) and Gunnar Scholtz and Bernhard Membir (DB Schenker)

combines economic and ecological benefits,“ says Lothar Rosenkranz, Member of the Board of Management at Schenker Deutschland AG. It is plain to see that the Combined Transport train is environmentally friendly. A train carries 32 fully loaded trailers. Each trip made by the Danube Nordic Shuttle replaces some 30,000 kilometres of road transport, with all the carbon dioxide emissions that involves. ■



Photo: DB AG/Heiner Müller-Elsner

## Efficient organisation of port hinterland traffic

Loading containers by night at the Port of Hamburg

Around 30 decision-makers from the seaport sector met at the third Northern Ports Conference staged by DB Intermodal in Potsdam on 2 July. The central demands made by the delegates related to more transparency along the logistics process chain and upgrading rail infrastructure to cope with demand.

During his introductory remarks, Detthold Aden, President of the Association of German Seaport Operators, underlined the urgency of improving the organisation of transport to and from the German seaports in Bremerhaven, Hamburg and Wilhelmshaven. „The capabilities of the hinterland connections are increasingly defining the limits of growth for seaports, and good rail connections are key,“ stressed Aden, explaining that already today, 70 per cent of the containers travelling to destinations over 200 kilometres from the port of Hamburg leave by train. Logistics experts predict further growth of between five and ten per cent per annum

for the container business up to the year 2015. Aden concluded that coordinated efforts were required from all actors throughout the logistics process chain, from shipping companies to forwarders, quayside operators and rail carriers right through to the ultimate customers, in order to cope with these growing goods volumes.

The delegates were thus eagerly awaiting the initial results of the pilot projects aimed at increasing the efficiency of port hinterland transport which were launched last year under the leadership of DB Intermodal and Technische Universität (TU) Berlin. Dr. Stefan Behn, Member

of the Executive Board of Hamburger Hafen- und Lagerhausgesellschaft (HHLA), presented the project, which is intended to optimise the flow of data on all aspects of incoming containers at the port of Hamburg. Since April 2007, the participating companies HHLA, Hapag Lloyd, Polzug, Transfracht, Schenker Deutschland AG, Kühne + Nagel and Heinrich Deichmann Schuhe have joined forces to improve coordination and consultation along the transport chain. Behn confirmed that the project had established that it was vital to ensure that all the parties involved in the transport received information at an early stage: „In the pilot project, we were able

to demonstrate that process improvements between the players across the entire transport chain led to significant increases in reliability and efficiency.“

Providing transport data and order details at an earlier stage allows shippers and transport companies to plan their resources better. This also means drawing up a shipping plan in consultation between the different actors and the prompt provision of information by the quayside operators in case of any deviations from schedule, for instance if a vessel is delayed. Behn also supplied examples of improvements which had already been achieved, such as increasing awareness of the problems that arise for other actors within the transport chain, as well as concrete figures on the reduction of the restacking rate in container shipping thanks to a holistic planning policy. The potential has not yet been exhausted. The findings obtained in the course of the pilot project will now be taken into consideration in the development of a port-wide communications platform for incoming transports.

### Wagon fleet to double by 2012

However, better communication alone is not sufficient to remedy the present hinterland transport bottlenecks. At the conference in Potsdam, Dr. Sebastian Jürgens, Head of the Intermodal Business Unit, pointed out that roughly two thirds of the growth in maritime traffic forecast for the period up to 2015 will affect the five major German rail corridors. „The homework to be done by DB Intermodal over the next few years therefore includes making substantial investments in terminals and in rolling stock,“ said Jürgens. An investment programme is to be launched to safeguard the existing terminal capacities, especially in bottle-

neck regions. New depots are to be built for empty and loaded wagons and existing depots upgraded in order to relieve the present ports and transshipment terminals (see also Railways 3-2008, page 24). The other piece of good news is that there will be a significant increase in the share of wagons allocated to the northern range ports by the year 2012, following the purchase and rental of further stock.

These plans are a bold step by DB Intermodal, which is now clearly leading the way for other port hinterland transport companies. Many of its competitors are reluctant to make such long-term investments in view of the planning risks as regards the anticipated growth rates in freight volumes. However, Jürgens emphasised that upgrading this infrastructure is in the interests of everyone involved: „The failure of just one link in the chain to adapt its capacities in good time leads to a bottleneck which then slows down the entire transport chain.“ That is why the participants at the last Northern Ports Conference had agreed to set up a neutral planning database, under the management of TU Berlin. Frank Straube, Head of the Logistics Department at TU Berlin, defined the objective as follows: „Our working group „Forecast“ provides the individual players with a reliable and neutral basis to help them plan their capacities and capital expenditures and thus helps to prevent the formation of bottlenecks in the transport network due to differing assessments by the various market players.“

Over the past few months, the working group has consequently collected studies and planning scenarios on this subject from numerous companies and merged them into one overall data pool. The next step will involve reviewing these results in the

course of interviews with the relevant decision-makers. After all, both optimisation of the information flow as well as resource planning are processes which call for continuous contributions from all the parties involved. At the end of the event, the delegates were fully in favour of continuing the dialogue initiated at the Northern Ports Conferences.

### Northern and Western Ports Conferences now well established

The situation at our neighbours in the Netherlands is similar, where Prof. Theo Notteboom of Antwerp University (ITTMA) provides expert support for the conference. Back in June, top-ranking representatives from the North Sea ports of Amsterdam and Rotterdam got together at



the Dutch Ports Conference in Rotterdam, which was also concerned with optimisation of the data flow and obtaining realistic forecasts of future freight volumes. There can be no doubt: the Ports Conferences instigated by DB Intermodal and TU Berlin in 2006 have already become established as a forum with a broad impact for triggering and promoting process optimisations along the entire transport chain. ■

Fighting to improve port hinterland transport services (from left to right): Dr Stefan Behn, Dr Sebastian Jürgens, Professor Frank Straube and Detthold Aden



## A rail specialist with port connection

It is 40 years now since Niederrheinische Verkehrsbetriebe AG (NIAG) started offering rail freight transport services. The private railway located in the Lower Rhine area does not limit itself to regional operations only: with its own Rhine port at Orsoy, it is able to offer rail transport services that go well beyond the boundaries of the region. NIAG has been working in a close partnership with Railion Deutschland for many years

**T**he private railway was created in 1968 as a result of the merger of Straßenbahn Moers-Homberg GmbH, Kreis Moerser Verkehrsbetriebe (KMV) and Niederrheinische Automobilgesellschaft mbH (NIAG). Since then, NIAG has been offering all kinds of freight transport-related services from a single source, including not just rail transport, but also the clearance of vessels at the port of Orsoy and the handling of bulk goods. The company has its own fleet of diesel locomotives and freight wagons (see box on page 31), as well as its own rail network, which extends to a total length of 36 ki-

lometres, covering the Kleve and Wesel districts as well as parts of Duisburg West.

The Rhine port of Orsoy is capable of handling around 3.5 million tonnes of goods per annum. It is at the core of NIAG's logistics operations. Mainly bulk goods are delivered to the port by inland waterway vessel, comprising at present some 75 percent coal and 25 percent ore. Ships are unloaded using three state-of-the-art port crane systems. In most cases, NIAG tranships incoming goods directly to rail, carrying them to Deutsche Bahn's handover points in Moers

and Rheinberg. There, DB Schenker Rail takes the goods in charge, using its own traction. This way, the business unit carried almost 870,000 tonnes of coal and more than 456,000 tonnes of ore in 2007 alone, for the most part to destinations in southern Germany.

### **DB Schenker extends the operating range**

The partnership between NIAG and DB Schenker has been going for a good many years, and covers various areas. „Our extremely close partnership is based on mutual trust. It has received

a further boost just recently," stresses Alexander Kirfel, Head of the Railway and Rolling Stock Workshop Division at NIAG. „This has enabled us to open up new market sectors, besides our main business of coal and ore transports.“ One example is to be seen in the Moers-Vluyn-Hoerstgen-Sevelen route, which had been shut down for a while as a result of the closure of the Niederberg mine. In cooperation with DB Schenker Rail, NIAG was able to reactivate part of this route for military transports and other customers.

But NIAG also carries out joint transport operations that take it beyond the region. In such a case, the private railway acts as an agent for Railion, using its own locomotives to haul the trains all the way to the final destination. Coal shipments from Rheinkamp to Krefeld-Uerdingen are a case in point. In 2007 alone, these came to more than 58,000 tonnes. And considerably larger quantities are carried by both partners for Railion's customer Solvay S.A., the world's biggest soda manufacturer. Based in Rheinberg-Millingen, Solvay takes delivery of large



Photo: NIAG

Effective partners for rail freight transport: Railion and NIAG

quantities of limestone, a fundamental production ingredient, from its own quarry in Belgium. „On the basis of the existing long-term contract with Solvay, Railion and NIAG were recently able to extend their partnership still further,“ explains Thomas Hünnewinkel, Head of Railion Deutschland's RU Cooperation Management, Rail Marketing Division. „The partnership agreement envisages that NIAG will carry as much as 630,000 tonnes of limestone per annum from Moers to Rheinberg-Millingen. That's an order of a quite respectable size.“

#### **In-company workshop**

DB Schenker provides state-of-the-art equipment for the Solvay

shipments. This includes Fals-y 182 bogie hopper wagons, which are capable of carrying more than 63 tonnes each. But for the trains, which may reach a total weight of 1,800 tonnes, to be able to do the job without a hitch, the wagons must be in perfect working order. This is where NIAG offers another service with its extensive portfolio of workshop services. Every year, some 4,000 wagons are maintained, serviced or repaired at its rolling stock workshop. The workshop facilities are located adjacent to Moers Kreisbahnhof – in other words, right at the interface with the Deutsche Bahn network. The facilities include a workshop shed measuring 1,600 square metres as well as a 2,200 square metre outdoor area. Flexibility and prompt service are guaranteed by a 300-metre siding for express repairs and a fully equipped repair lorry. This means that defective wagons do not need to cover long distances. DB Schenker Rail also benefits from the close proximity of the service, which allows damaged wagons to be fixed with a minimum loss of time. ■

## **Niederrheinischen Verkehrsbetriebe in figures**

Year founded	<b>1968</b>
Employees	<b>436*</b>
Diesel locomotives	<b>11</b>
of which shunting locomotives	<b>4</b>
Freight wagons	<b>115 (rented)</b>
Length of own rail network	<b>36 kilometres</b>
Revenues in 2007	<b>EUR 50.2 million*</b>

\*including local public transport

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