railways

THE DB SCHENKER RAIL CUSTOMER MAGAZINE

NO. 03 | 12

DB SCHENKER

Ports

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Tradition and innovation

Timber is an ancient material – and at the same time a material with a great future. "It is not only demand from the paper industry that is growing continuously," reports Mario Carl, Director of Marketing and Sales at DB Schenker Nieten GmbH in Freilassing (photo, left). "As a renewable resource, timber is also becoming increasingly important to the construction industry and, owing to its climate-friendly properties, as a fuel," he adds. DB Schenker Nieten has been making a name for itself as a timber logistics specialist for almost 90 years – and since 2004 as a company that is part of the DB Schenker Group. From five German sites as well as offices in Saint Petersburg and Milan, its experts organise the Europe-wide transportation of some five million tonnes of raw timber, sawn timber, chipboard and wood chips every year. *dv* ■

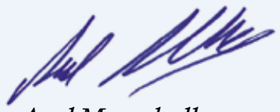
High capacity, rapid pace

Nowhere are the effects of globalisation more tangible than in the ports of the world. We have chosen these fascinating hubs of world trade as the focus for this summer edition of railways. Our cover story is devoted to Hamburg, and with good reason. We supply Germany's biggest port with over 100 freight trains every day, meaning one every 15 minutes – a much more frequent service than that offered by Germany's high-speed ICE passenger trains.

We also unveil the future JadeWeserPort container hub. We are ready to integrate Wilhelmshaven into our comprehensive intermodal transport network as soon as the first fully laden cargo vessel moors at this new facility. In addition, we turn our attention to Rotterdam, London, Szczecin and Duisburg. Ports are among the most significant origin and arrival points of our transport operations. We adapt to their needs, always and everywhere.

Please join us on our international harbour tour with railways!

Best regards,



Axel Marschall

Member of the Management Board
DB Schenker Rail

Cover photo: Stephen Scheuer / Lifesize / Getty Images; **Photos:** f1online; DB AG; Kai Hartmann / Deutsche Bahn AG

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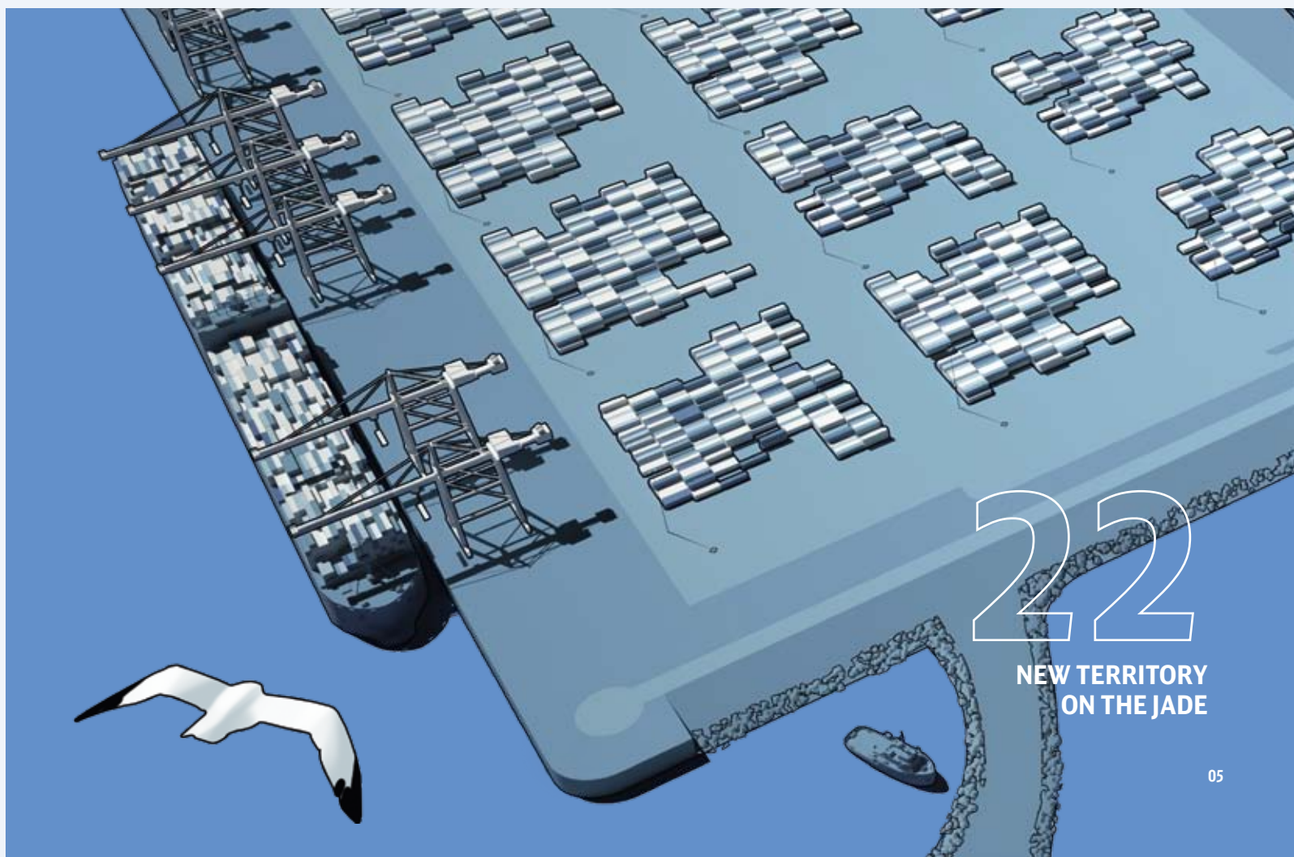
Photo: Heiner Müller-Elsner / DB Schenker; **Illustration:** Paul Trakies / Kinky Illustrators Agency



FRANKFURT/GERMANY

TFG TRANSFRACHT, METRANS AND POLZUG RELOADED

Hamburger Hafen und Logistik AG (HHLA) and Deutsche Bahn (DB) are reorganising their stakes in their companies for container transport operations by rail. HHLA is purchasing DB's holdings in the operator companies Polzug (33.3 per cent) and Metrans (35 per cent). In return, HHLA's present 50-per cent stake in TFG Transfracht is transferred to DB. Now, as the transactions are completed HHLA holds 86.5 per cent of Metrans and, including a capital increase, 74.5 per cent of Polzug Intermodal, whilst DB Mobility Logistics AG is holding a 100-per cent stake in TFG Transfracht. Read more about this in the next *railways* issue 4/12! *ok*

LONDON/UK

DOUBLE VICTORY

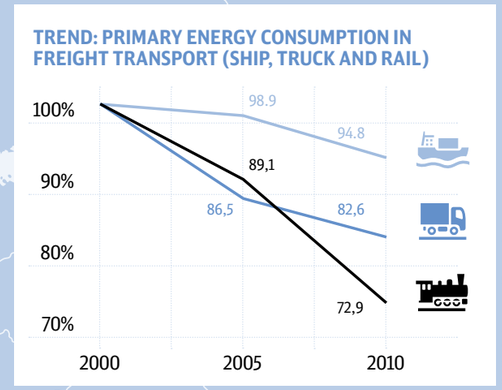
DB Schenker Rail UK has won the coveted British Rail Business Award in two categories in London. Derek Clark was awarded the title "Railfreight Engineer of the Future" for the development of innovative methods for greater fuel economy in locomotive operation. The sponsor of the award, Electro Motive, bestowed the DB Schenker Rail engineer with a specialist training course at their works in Chicago. DB Schenker Rail UK also won the Railfreight Excellence Award for the opening of the "High Speed One" line for rail freight transport and the successful introduction of the first direct rail freight link from Poland to the UK. *dv*

Gottfried Eymer (top)
Stig Kyster-Hansen (bottom)

TAASTRUP/DENMARK

GOTTFRIED EYMER HEADS DB SCHENKER RAIL SCANDINAVIA

Passing the baton in Denmark: Gottfried Eymer (photo at the top) took over management of DB Schenker Rail Scandinavia at the beginning of June. The 47-year-old replaces Stig Kyster-Hansen (photo below), who moved to take on the leadership of EUROM in Frankfurt am Main, the new European transport management initiative from DB Schenker Rail, after four years at the top of the Danish national subsidiary. Gottfried Eymer is moving from Belgium to Denmark. He previously worked in Brussels as Deputy Managing Director at COBRA, a DB Schenker Rail joint venture for rail freight transport in and through Belgium. Transit shipments are very much a priority for DB Schenker Rail Scandinavia too, with ever increasing volumes between Germany and Sweden. *ok*



BERLIN/GERMANY

RAIL EXTENDS ITS LEAD IN CLIMATE PROTECTION

"Rail is by far the most environmentally friendly mode of transport, as all scientific studies show," Jochen Flasbarth, Head of the German Federal Environment Agency (Umweltbundesamt – UBA), recently stated in Berlin. He based these comments on current data from the Institute for Energy and Environmental Research (ifeu), according to which rail transport reduced its specific energy consumption in the ten-year period from 2000 to 2010 much more significantly than road haulage and inland shipping (see chart). *ok*

KELSTERBACH/GERMANY

JENS NÖLDNER IS NEW CEO OF DB SCHENKER RAIL AUTOMOTIVE

At the start of June, Jens Nöldner took over as Chief Executive Officer of DB Schenker Rail Automotive GmbH, in which DB's rail freight transport operations for the automotive industry are pooled. The 48-year-old succeeds Axel Marschall, who was promoted to the DB Schenker Rail Managing Board as Head of Sales at the start of the year. Jens Nöldner, a graduate of the Dresden College of Transport, has been working at DB Schenker Rail for 20 years and has been a member of the Managing Board of DB Schenker Rail Automotive GmbH for three years. Nöldner made a substantial contribution to the development of the efficient DB Schenker Automotive RailNet system. *ok*

Photos: Łukasz Koch, DB AG (5); JET-FOTO Kranert / DB AG

KATOWICE/POLAND

POLISH DIAMOND

DB Schenker Rail Polska is one of Poland's fastest growing companies. This was confirmed by *Forbes* magazine, which awards the "Forbes Diamonds" each year to companies that have gained most in value over the last three years. In the "over 250 million Zloty" turnover category, DB Schenker Rail Polska came second place for the Silesia region and eighth for the entire country. Hans-Georg Werner, CEO of DB Schenker Rail Polska, accepted the award in Katowice from *Forbes* editor-in-chief Kazimierz Krupa and Marcin Krupa, the deputy mayor of the Silesian capital. *dv*

Harbour tour

Hamburg is Germany's gateway to the world. Every day, 400 DB Schenker Rail workers move thousands of containers off ships onto the railway system and vice versa.

"Once more off to Bombay or then to Shanghai.
Once more off to Rio or then to Hawaii.
Once more through the Suez and through the Panama.
Then back to St Pauli, Hamburg-Altona!"

HANS ALBERS

I'm proud to be a small cog in this huge system," says Kai Steinhoff, giving his Gravita a nudge with the joystick. This is the brand new shunter that the fair-haired Steinhoff uses to start one of his daily port tours from the Alte Süderelbe station. First, he collects a train full of containers from China at the Burchardkai terminal. Later he watches from his workplace as a block train delivers empty wagons to the Hansaport terminal.

There are many scenic tours to be made on the Hamburg port railway, especially on this immaculate spring evening, as the sun bathes the Elbe River in a glittering silvery sheen. One such tour goes from the Alte Süderelbe port station over Kattwyk Bridge, the largest lift bridge in Europe, which crosses the Süderelbe river and leads directly to the other two major marshalling yards in the Port of Hamburg, Hamburg Süd and Hohe Schaar. From there, railway tracks lead to older parts of the port, such as K+S-Transport GmbH's "Kalikai" storage and handling facility for artificial fertiliser, the Oiltanking terminal or the smallest of the four container terminals with the promising name of Tollerort (German for "great place").

"We always drive the engine in pairs," Kai Steinhoff says. "This means we can do our shunting more quickly, because the port has lots of crossings and points that have to be operated by hand." Thuringia, where the 21-year-old Steinhoff grew up, has the Wartburg castle and the Rennsteig walking trail, but no ports. The Waterkant, Germany's most important interface in seaport-hinterland transport, is a place that this young shunting-locomotive driver came to know only after he had completed his apprenticeship. "When I drive my engine through the Port of Hamburg, I start yearning for faraway places."

The big tubs of China Shipping, MSC or Hapag-Lloyd. The cranes that seem to look down on the tower of the St Michaelis Church, Hamburg's landmark. The mountain of containers that is constantly dismantled and built up anew, as if Goliath was playing with building blocks. Heiko Wulff-Rabenstein agrees that this is a workplace that is pleasing on the eye: "Our port here is not just DB Schenker Rail's most important freight transport centre – it is also the most beautiful," says Wulff-Rabenstein, 44, who has been manager of the Hamburg production location – or, more colloquially, port chief – since 2011. "I can count on my well-coordinated, 400-strong team here," Wulff-Rabenstein says. The railway workers at the Waterkant literally have a big wheel to push: every day, 110 freight trains with 2,100 wagons roll into the port, where they are divided up among three large marshalling yards, re-assembled, checked and finally dispatched for loading onto freighters in one of the innumerable quays. "It's all go here, 24 hours a day, 365 days a year – or very nearly," says Wulff-Rabenstein. "In fact, work at the port is only interrupted for two days: 25 December and, in keeping with tradition, 1 May."

Three hundred kilometres of track weave their way through Germany's largest port like a network of veins and arteries. The heart of this great organism – Maschen Marshalling Yard, Europe's largest, ten kilometres to the south – pumps new trains from across half of Europe into the port every five minutes. These are loaded with everything that Germany, an exporting nation, sends overseas. Going in the opposite direction, they're packed with all the raw materials and commodities that Central Europe receives from faraway lands. Following the sharp collapse of 2009, container turnover at the four Hamburg terminals is now growing again – by an impressive 14 per cent last

TEAM LEADER: Heiko Wulff-Rabenstein, manager of the Hamburg production location for DB Schenker Rail.

Photos: Dennis Williamson

VEHICLE INSPECTOR: Thomas Hintz coordinates the deployment of the men with their wheel-tapper's hammers.

year. With nine million TEUs handled in 2011, Hamburg again pushed Antwerp out of second place in the rankings of Europe's largest container ports (see also page 26–27).

The huge rail infrastructure, which makes Hamburg the most important railway port in Europe, does not belong to the German national railway Deutsche Bahn, but to the Hamburg Port Authority. Even on these tracks, which are effectively owned by the city, DB Schenker Rail is, of course, not the only player: "The port is a target for our competitors," says Heiko Wulff-Rabenstein, referring to more than 50 other railway operators who bring their trains into the port and carry out marshalling operations there. "This place brings together very large quantities of goods that are suited to point-to-point transport by block train. Naturally, there are others who are keen to pick out the best for themselves."

Most of the freight traffic arriving and leaving is handled by the Alte Süderelbe port station, whose modern signal box is a match for any airport control tower. The traffic is controlled from here by the Hamburg Port Authority, the train dispatchers of DB Netz and the schedulers of DB Schenker Rail. This involves not merely setting points and signals but also organising the whole process by which the coloured boxes are sent in precisely timed slots to the container terminals in Altenwerder or at the Burchardkai. Incidentally, a wonderful panoramic view of the latter is

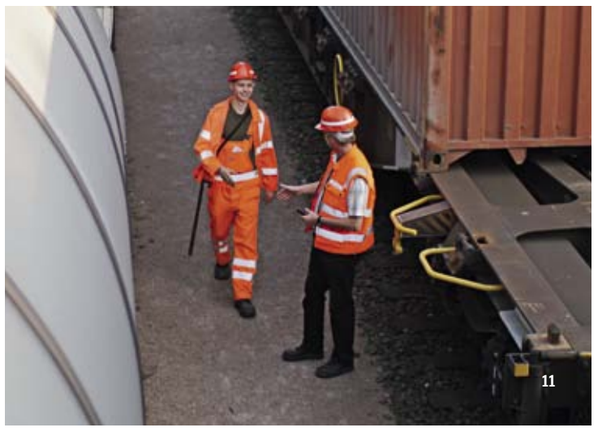
SKYLINE: The Alte Süderelbe port station with the A7 motorway and the Burchardkai container terminal in the background.

WAIT HERE! Hundreds of safety stop signals on the port railway ensure safety in marshalling operations.

"When I drive my engine through the Port of Hamburg, I start yearning for faraway places."

KAI STEINHOFF

LATE SHIFT: Shunting-locomotive driver Kai Steinhoff (left) and a vehicle inspector with his wheeltapper's hammer (bottom).



presented to all motorists on the A7 motorway as they approach the southern entrance of the Elbe Tunnel.

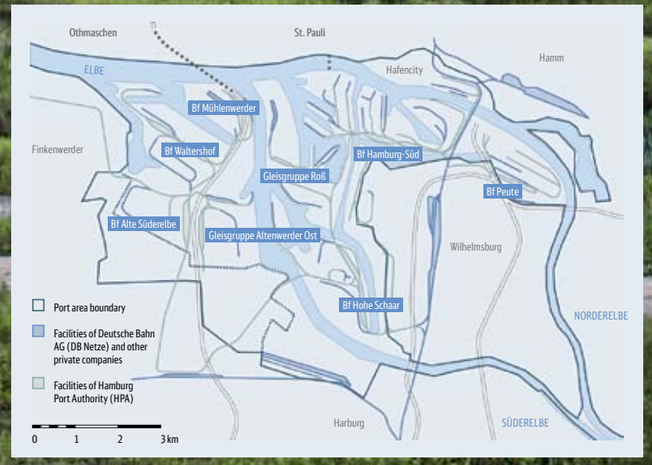
In light of the mountains of containers on the quaysides and on the decks of the 13,000-TEU freighters in the port basin, it quickly becomes clear that the interface between rail and ship needs first-rate IT to create a hidden order out of this apparent chaos. "That's why we have HABIS, the Port Railway Operation and Information System ("Hafenbahn Betriebs- und Informationssystem"), to enable us to control our processes here," explains Wulff-Rabenstein, who himself played a key part in the development of this software in the 1990s.

A successor system is now being developed, which will for the first time link up the port railway's schedules with those of the shipping companies and will also generate better information about the availability of containers at the terminal. The new IT will also organise the return of empty containers more efficiently. While boxes without any contents may make only a small contribution to worldwide supply chains, they are still part of the logistics sector's core business.

Customs procedures also play a major part in the immense system that is the Port of Hamburg. Unlike lorries, which have to pass through physical checkpoints upon entering and leaving the free port, rail freight traffic is confronted with a virtual customs barrier. "We also use HABIS to handle this electronically," says Wulff-Rabenstein. For instance, for a freight train carrying import containers, the signals do not change to green until all the boxes have been cleared by customs. There will be quite a few changes to the procedures in the near future because the city of Hamburg is going to lose its Zollausland (foreign customs territory) status in the port at the end of the year and thus, after 124 years, relinquish the former privilege of a free port, which many experts now consider to be more of a handicap. "The edge of the quay will then become the customs border," Wulff-Rabenstein explains. Computers have revolutionised the world of logistics, but this new world still needs experts who know how to use a wheeltapper's hammer. "We vet every departing freight wagon thoroughly," says Thomas Hintz, head of DB Schenker Rail's 65 vehicle inspectors in the Port of Hamburg. "Our inspectors each carry a calibrated hammer, made of ash and 75 centimetres long. By striking the tread of a wheel, they can tell whether the brakes are working properly or not." The inspectors also check whether containers or hazardous goods are stowed correctly and safely. They are highly trained and extremely fit: an inspector at the Port of Hamburg walks alongside many freight trains on each shift, covering ten to twelve kilometres in the process. The immortal Hans Albers sang about Hamburg, its port, the sailors and their loneliness and, of course, about the Große Freiheit, a street off the Reeperbahn. This all seems so near and yet so far away as you descend the six floors from the windy roof terrace of the Alte Süderelbe signal box in the fading sunlight: a fascinating tangle of tracks, points and signals, in which the shadows grow longer and longer. The soundtrack to this is provided by the noisy motorway that crosses the area on stilts. Kai Steinhoff has swapped his orange protective clothing for a T-shirt and jeans and is on his way home. Colleagues are now taking on the night shift. The port that never sleeps. *ok* ■

> "In fact, work at the port is only interrupted for two days: 25 December and, in keeping with tradition, 1 May."
> **HEIKO WULFF-RABENSTEIN**

PORT RAILWAY NETWORK HAMBURG



NETWORK: The port railway system has almost 1,500 points, 470 crossings and 61 bridges.

Curvy cargo

The consignment of bananas has already been on the high seas for 16 days before Heuer Logistics conveys them from Bremerhaven to Switzerland by rail.

"When the bananas arrive here by ship from Central America they are still grass-green. They are a very delicate cargo. We can rely on DB Schenker Rail to transport them to Switzerland carefully."

They must be treated with care. "The banana does not forgive rough handling," comments Marc Fröhlich. The Managing Director of the Bremerhaven-based Heuer Logistics knows what he is talking about when it comes to the curvy cargo from Costa Rica that his company does more than just unload at the mouth of the River Weser. All bananas are subjected to meticulous quality control, weighed by customs, put into interim storage where necessary and then transported inland.

On behalf of a supermarket chain, Heuer Logistics dispatches wagon groups, each consisting of up to ten cold-storage wagons, from Bremerhaven to Switzerland twice a week. DB Schenker Rail is in charge of the transport operation, lasting some 40 hours, whilst Heuer Logistics looks after the wagons' diesel-operated refrigerating equipment, which ensures a constant temperature of 14 degrees inside the wagons.

A few of the traditional white banana boats are still in operation, but they are increasingly being replaced by the large container freighters, which now have up to 1,000 reefer plugs for refrigerated containers on board. *ok*

MARC FRÖHLICH
(45) is the Managing Director of the Bremerhaven-based Heuer Logistics, a company specialising in fruit logistics.

"When importing wood pulp via the Baltic Sea, the Weser and western North Sea ports, we say goodbye to the conventional competition between rail, road and inland waterways. We need all these different modes of transport and utilise them in our customers' interest. There are good reasons, however, for shifting more traffic onto the rail network, such as the high diesel costs, environmental issues and the excellent understanding which DB Schenker Rail has developed for these shipments."

BERND MÜLLER
is Corporate Manager for Forestry Product Imports at Fr. Meyer's Sohn (FMS), an international logistics company specialising in paper and wood pulp.

Photos: dpa picture-alliance; DB AG (2); dapd / ddp-images

No lightweight

Wood pulp is the paper industry's primary raw material. A large proportion of it is imported to central Europe via the ports of Lübeck, Brake and Vlissingen.

Every Central European consumes 700 grammes of paper per day on average – from newspapers, cardboard boxes and toilet tissue to disposable nappies. The most important raw material – apart from waste paper – is wood pulp, the vast majority of which is imported by sea via German and Dutch ports. "The cargo is not containerised, but comes in bales, each weighing between 200 and 250 kilogrammes, with six or eight of them bound with wire into a unit," explains Rolf Hadeler, Head of the Industrial Team for Pulp & Paper – Seaport to Hinterland at DB Schenker Rail in Bremen.

Whereas the wood pulp from Scandinavian forests is traditionally handled chiefly in the Baltic Sea ports of Lübeck and Rostock, the ports of Brake and Bremen on the lower Weser as well as Vlissingen/Terneuzen and Amsterdam in the Netherlands have come to specialise in wood pulp imports from overseas and from the Iberian Peninsula, emerging from the shadow of the major all-purpose ports of Hamburg, Rotterdam and Antwerp. "In Vlissingen alone, 3.5 million tonnes of wood pulp from South America are handled annually," says Hadeler, adding, "This is a logical development because eucalyptus trees in Brazil grow quickly and wood pulp production there is more efficient than in North America and Scandinavia."

Every working day, DB Schenker Rail operates some 130 high-capacity goods wagons in seaport-hinterland traffic with a cargo capacity equivalent of 330 trucks. The largest volume is taken by Brake/Bremen (63 wagons per day), followed by Vlissingen/Terneuzen (31) and Lübeck/Rostock (7). About two-thirds of the wood pulp shipments go to German recipients, and 15 per cent to Italy, with the remainder being distributed among Austria, Switzerland, France and Southeast Europe. *ok*

WHITER THAN WHITE: Wood pulp is predominantly sold in bleached form.

On the water

A *railways* interview with two senior figures from DB Schenker Rail: Ummo Bruns, Port Representative West Ports, and Dr Bernd Pahnke, Port Representative North Ports.

Dr Pahnke, Mr Bruns, the North Sea ports attract not only ships from all over the world but also freight trains from half of Europe. What's happening at these important interfaces in world trade?
Ummo Bruns: As port representatives we are, in a manner of speaking, DB Schenker Rail's eyes and ears: I perform this role in the Benelux countries and my colleague Dr Pahnke does the same for the German seaports. We ensure transparency and are the points of contact for operators, shipping companies, the port industry, authorities and policymakers, and we bring all these functions together under one roof.
Bernd Pahnke: Ports are major logistics hubs in the DB Schenker network, and this will be of increasing importance in the future. Globalisation and the resulting increase in seaborne trade are leading to significant increases in tonnage in import and export operations, as well as in transit traffic. We are currently experiencing a big change coming from the shipping companies, which are consolidating their capacity through, for example, the collaboration between CMA CGM and MSC and the new G6 Alliance. This also means intensified competition among operators and railway companies. We at DB Schenker Rail have to have the right products to respond to this.

In Hamburg and Bremerhaven the modal split in favour of rail in seaport-hinterland transport is between 35 and 45 per cent, whereas in Rotterdam and Antwerp it is only just over ten per cent. This leaves quite a lot of room for improvement, doesn't it, Mr Bruns?
Bruns: The most important issue in the Western ports at present is the Maasvlakte 2 port expansion project in Rotterdam with its extraordinary dimensions. The railway's share of the modal split there is to rise to 20 per cent in future. This is a very ambitious target! Since 2008, we have also had an effective stretch of track for freight trains in seaport-hinterland transport in the form of the Betuwe Line from Rotterdam to Zevenaar, although this currently only extends as far as the border. To supplement it on the German side, we urgently need the third track on the Emmerich – Oberhausen line. In general, the implementation of the Trans-European Networks (TEN) as defined by the EU is a key priority.

Investment in infrastructure is always a major political issue. How does the picture look on the German side, Dr Pahnke?
Pahnke: The JadeWeserPort near Wilhelmshaven, Germany's first deep-sea port, is expected to begin operations at the end of September. We at DB Schenker Rail are well-prepared for this (see also page 20–21). In addition, we urgently need the deepening of the Lower Elbe to be completed. Hamburg will otherwise become separated from the trade lanes of the major shipping companies – because in future they will all acquire and deploy these large container ships with a capacity of 13,000 TEUs and upwards.

The big hubs such as Rotterdam, Antwerp, Hamburg and Bremerhaven currently serve almost the whole of Europe. Will this always be the case? Who stands to win and lose out here?
Pahnke: The larger the ships, the fewer ports they will use. Competition is intense. The shipping companies are looking to reduce their unit costs and are concentrating on a smaller number of ports. Ports are having to adapt to

NO SAILORS' YARNS: *railways* interviewed the Port Representatives Dr Bernd Pahnke (left) and Ummo Bruns in Hamburg.

Photos: Dennis Williamson

providing top-quality processing of large container ships with suitable container-handling gantry cranes, adequate storage areas and outstanding hinterland transport links. From the shipping companies' perspective, it is the hinterland transport links that are a particularly decisive factor in their choice of ports. This is perfectly understandable, since the value chain can only be completed when the goods reach their intended recipient, not while they are in the port! In principle, we at DB Schenker Rail benefit from the trend towards larger and larger ships. This is because the more containers are handled in the port, the greater is the role played by rail freight in transporting these large quantities to the hinterland.
Bruns: The world is changing quickly. I also see potential in the future for ports such as Le Havre in France and Koper and Trieste on the Adriatic, which are growing in importance. To date, Italy is served mainly through the North Sea ports, for example, but this is not set in stone. At DB Schenker Rail, we are also paying a lot of attention to ports in the Mediterranean and in France. We are talking to the shipping companies about this, too.

Competition in seaport-hinterland transport by rail is intense, and the price pressures are great. How can DB Schenker Rail score in this area?
Bruns: As the only European rail freight operator, we offer our clients an extensive network across the whole of central Europe.
Pahnke: Our size offers great customer benefits, especially in relation to wagon availability and capacity in train haulage. In the future, maritime transport is likewise expected to do more to integrate hub systems. We shall thus be able to offer extensive transport services even for smaller quantities. We are continuing to develop our processes and IT applications in close collaboration with our partners. For example, through the VESUHV project we are integrating our processes and IT applications in such a way as to allow all DB Schenker Rail data to be exchanged online with ports, operators and shipping companies. This software, which will be trialled in 2013, will automatically process ship delays and the resulting consequences for train planning in the systems. VESUHV will also help us with the handling of empty containers, which currently continues to cause us great problems (see box).
Bruns: This is a great improvement. However, in the long term we need a European IT platform.
Pahnke: Another of our unique selling points is our ability to combine shuttle and hub trains using the Maschen Marshalling Yard. We are also able to combine our maritime and continental trains. This is where the true art of logistics really begins.

Interview: Olaf Krohn

WHAT IS VESUHV?

The more containers are handled in the ports, the more pressing is the need for communication among all involved parties. The VESUHV research project puts the focus on standardised, reliable data exchange among shipping companies, ports, railways and operators. The aim is to make more effective use of the limited resources on shore by producing and utilising advance notice data relating to expected ships and containers. VESUHV is a project involving the TU Darmstadt University, DB Schenker Rail, Hapag-Lloyd, Hamburger Hafen und Logistik AG (HHLA) and TFG Transfracht.

Biographies:

DR BERND PAHNKE
(60) has been DB Schenker Rail's Port Representative for the North Ports since 2011, responsible for all Germany's seaports between Sassnitz-Mukran and Emden. Prior to this, he was employed in various positions at DB Schenker Logistics from 1990, joining Deutsche Bahn when it acquired Schenker in 2002.

UMMO BRUNS
(59) lives in Antwerp and works in Rotterdam. Since 2007, he has been DB Schenker Rail's Port Representative West Ports and is not only responsible for those two leading ports but also for Amsterdam, Terneuzen, Vlissingen, Zeebrugge and Ghent. Before joining DB, he worked for the Port Authority of New York & New Jersey, PSA Antwerp and the shipping companies Hapag-Lloyd and Cast.

Think big? Think bigger!

Europe's biggest port is seeking to build on its lead. Rotterdam is entering new territory with Maasvlakte 2.

Photos: Dennis Williamson; epa Au Tu / dpa picture-alliance; **Graphics:** Port of Rotterdam, Project Organisation Maasvlakte 2

The port of Rotterdam already extends over a good 40 kilometres in an east-west direction in the Rhine-Meuse delta. But this is not enough: an expansion called Maasvlakte 2 is scheduled to start operations in 2013. It is currently under construction directly on a shipping channel on some 2,000 hectares of land reclaimed from the North Sea. The new port facilities are envisaged first and foremost for the chemical industry and a new container terminal with a handling capacity of 4 million TEUs per year. On Google Earth, you can already marvel at to what degree this megaproject will change the coastline of the Netherlands.

The port expansion is directly linked to the new 160-kilometre-long Betuweroute freight railway running through the southern Netherlands to the German border. APM Terminals and Rotterdam World Gateway, the new container terminal at Maasvlakte 2, will boast extensive handling capacity for intermodal transport by rail. The Port of Rotterdam Authority would like to increase the railway's modal split in seaport-hinterland traffic in the medium term from the current nine per cent to 20 per cent. Thanks to the expansion of the rail infrastructure at the port as a whole, the waiting time for freight trains is to be reduced by 20 per cent and rail transport made more competitive. With its location on the Rhine estuary, inland vessels have, however, traditionally played the dominant role in seaport-hinterland transport operations in Rotterdam. *ok* ■

DOMINANCE:
In terms of total handling volume, Rotterdam takes on more than three times as much as its major German rival Hamburg does.

RECLAIMED TERRITORY:
A visualisation of the new Maasvlakte 2 port area to the west of Rotterdam.

Ship ahoy

The JadeWeserPort container hub will go into operation in Wilhelmshaven in September. Germany's first deep-water port will also be accessible to the latest generation of container ships with their 18,000 TEU capacity and 17-metre draught.

Siphon pipes and dredgers have wrested 46 million cubic metres of sand from the North Sea, creating 360 hectares of reclaimed land and the 1725-metre-long new quay wall, called the quayside, at which the first ships are set to moor in just a few weeks' time: welcome to the new JadeWeserPort container hub! North of Wilhelmshaven, the states of Lower Saxony and Bremen have built Germany's first tide-independent deep-water port, which is scheduled to be handed over for use in September. With a water depth of 18 metres, even the largest container vessels currently under construction will be able to call at JadeWeserPort fully laden – this is not possible in Bremerhaven or Hamburg. The 400-metre-long and 59-metre-wide "Triple-E class" container ships built by the Danish shipping company Maersk will be able to transport 18,000 TEUs. The gigantic cranes, whose seaside booms can reach across 25 container rows, are also designed for these dimensions.

As conceived by its planners, the new port is intended to become a significant hub for transhipment traffic to Scandinavia, Russia and the Baltic States. The majority of the containers from overseas handled here will be transhipped from supersize ocean-going vessels onto feeder ships in short-sea traffic for onward transportation towards the Baltic Sea. A significant proportion of freight traffic is also expected to be conveyed into the hinterland of central Europe by road or rail. However, the JadeWeserPort hub does not yet possess a direct link to the major inland waterways of the Rhine, Ems, Weser, Elbe, Elbe Lateral Canal and Mittelland Canal.

"We will be ready for operation in September," says DB Schenker Rail's representative for the German seaports, Dr Bernd Pahnke. "We started to take the necessary steps for the port's commissioning eight months ago in terms of planning for the processes, IT procedures, staff and locomotives." The new deep-water port's rail link to the DB network is also already in place. A 16-track marshalling yard is situated on the reclaimed site. The continuous double-track upgrading of the Wilhelmshaven – Oldenburg railway section is scheduled to be completed by the end of 2012 and its electrification by 2017.

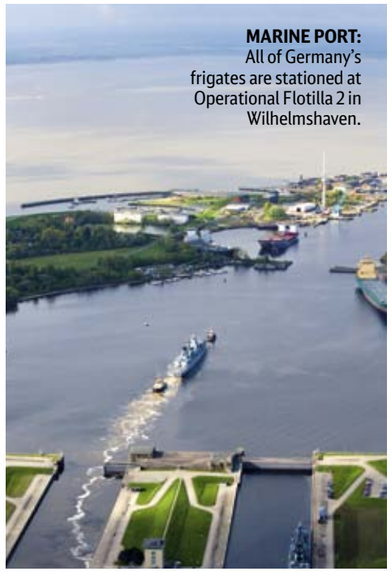
Shortly before this *railways* issue went to press, Bremen's mayor Jans Böhrnsen announced that the opening of the JadeWeserPort had been postponed from 5 August to the end of September of this year. At the end of last year, over 170 cracks, or construction faults, had been discovered in the quayside. Owing to the damage, the port's trial operation in early May had to start on a quay length of just 350 metres, instead of the originally planned 1,000 metres. The removal of these construction defects was in full swing in June.

JadeWeserPort's operator is EUROGATE Container Terminal Wilhelmshaven GmbH & Co. KG, a joint venture of EUROGATE-Holding and APMT Wilhelmshaven GmbH, owned by the Moeller-Maersk Group. In a radio interview, the Danish shipping giant announced its intention to utilise one-third of the new handling capacity (2.7 million TEUs per year in total) at Wilhelmshaven. Other shipping companies have not yet been willing to commit to whether and to what extent they intend to incorporate the JadeWeserPort container hub into their planning.

The new deep-water port is certainly likely to emerge as a rival to the established North Range ports. Hamburg and Bremerhaven are accessible only to container ships with a draught of up to 13.5 metres – and then only depending on the tides. With its 18-metre-deep shipping channel at the quay wall, JadeWeserPort also represents an alternative to Rotterdam and Antwerp. "North Rhine-Westphalia's import and export flows, for example, run chiefly via the western North Sea ports at present and I certainly see growth prospects for Wilhelmshaven in this regard", says Bernd Pahnke. DB Schenker Rail's port representative is also cautiously optimistic about Wilhelmshaven and the other container hubs on the coast: "If we achieve moderate handling growth of five per cent this year and if this trend continues, the new capacity of JadeWeserPort could be utilised without a loss of volume for other German seaports." *ok*

NEW SKYLINE: The first four container cranes arrive at JadeWeserPort from China on the Zhenhua 23 special transport vessel. When completed, 16 of these giants with a boom length of 69 metres will operate at the EUROGATE Container Terminal Wilhelmshaven.

Photos: Rolf Vennenbernd / dpa oicture-alliance; LOOK-foto



MARINE PORT: All of Germany's frigates are stationed at Operational Flotilla 2 in Wilhelmshaven.

WILHELMSHAVEN

Imperial naval port and oil import harbour

Wilhelmshaven has only been recorded on maps and atlases since 1869. The Kingdom of Prussia purchased 313 hectares of land from the Grand Duchy of Oldenburg and inaugurated the first naval port in Jade Bight, which from 1871 became, along with Kiel, one of the Empire's two imperial naval ports. During both the First and Second World Wars, a large proportion of the German deep-sea fleet was stationed in Wilhelmshaven. As a consequence, the population grew very rapidly, reaching its historic high of 133,041 in 1940. The German armed forces also made Wilhelmshaven a naval port after 1956, which as part of the German armed forces' reform plans is to grow into the largest base with 8,570 service personnel. Since the end of the 1950s, the town by the Jade has also expanded to become Germany's largest oil import harbour. In 2010, a total of 271 tankers unloaded 20.1 million tonnes of crude oil at the three discharging heads – equivalent to 21.5 per cent of total German imports. The JadeWeserPort container hub, which borders the oil harbour to the north, is expected to give the town a new maritime mainstay with its container handling operations. Wilhelmshaven's population has decreased steadily over recent decades and currently stands at 81,000. *ok*

TRIMODAL: At its southern edge, JadeWeserPort is connected to the A29 motorway. This is also where customs clearance is located.

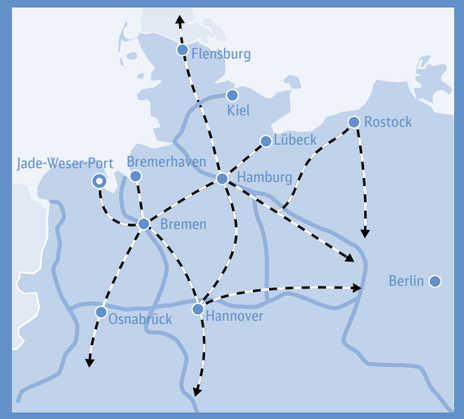
LARGE AND SMALL: The world's largest container freighters can moor at the quayside – irrespective of the tides. The tugboat port is at the front.

POTENTIAL: There are plans for a 160-hectare freight transport centre next to the tracks. There is still lots of space left here to exploit.

AMPLE SPACE: The container terminal at JadeWeserPort covers an area of 130 hectares. The intermodal transport terminal with six tracks is located to the right of it.

Illustration: Paul Trakies / Kinky Illustrators Agency **Map:** illuteam43

GERMANY'S SEAPORTS AND THEIR TRANSPORT LINKS



New territory on the Jade

With the new JadeWeserPort container hub, Germany's territory has grown by 360 hectares. The visualisation shows the reclaimed land north of Wilhelmshaven as it is likely to look in its final state. The quay wall (to the left) at Germany's first deep-sea port is 1,725 metres long. The annual handling capacity will be 2.7 million TEUs (by comparison: Hamburg handled some 9 million TEUs in 2011). The rail link – the 16-track marshalling yard is located at the front – is already finished. The JadeWeserPort container hub is scheduled to open at the end of September.

New capacity for combined transport

A new container terminal in a Polish Baltic Sea port is strengthening seaport-hinterland rail traffic.

30 CONTAINERS PER HOUR: The new gantry cranes at DB Port Szczecin

The opening of a new container terminal in April is strengthening the position of Szczecin port as an attractive hub in the Baltic Sea region. "The project is of great importance for the development of intermodal transport in Poland," explains Manfred Michel, CEO of DB Port Szczecin. "We expect the port's expansion to boost seaport-hinterland rail transport operations," he adds.

The terminal, which is operated by DB Port Szczecin, boasts quay facilities with state-of-the-art gantry cranes, each of which can move 30 containers per hour. Rail connections, internal and external road links with parking and manoeuvring areas, as well as storage capacity enable transshipment of containers between ships, trains and trucks. The new terminal is capable of handling an annual volume of up to 120,000 containers. This can be increased to 200,000 TEUs in the next stage of expansion. Szczecin port is the largest transhipment point for general cargo in western Poland. The new container terminal will significantly increase the handling quality of sea-going, feeder and inland vessels. "Our aim is to create a transport corridor from north to south, from Scandinavia via Szczecin to southern Poland and as far as the Czech Republic," said Poland's Deputy Transport Minister Andrzej Massel at the opening event. Jarosław Siergiej, President of the Szczecin Port Authority, pointed out that in a worldwide comparison the Baltic Sea region was showing the most dynamic market growth for container traffic.

The cost of the entire project at Szczecin port comes to PLN 56.3 million (around €15 million), to which DB Port Szczecin is contributing some PLN 37 million. The remaining funding is being provided by the Port Authority and the EU. *dv* ■

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Hub on the Thames

London Gateway – a container port and logistics park – is being built 40 kilometres east of the capital.

NEW DIRECTION: DB Schenker Rail will be a key partner for landside transport operations to and from London Gateway.

Photos: Pablo Castagnola / Anzenberger Agency; DB AG

It is not only the ports of Continental Europe that are adapting to the emergence of new and larger container vessels. Currently under construction on the Thames is a new deepwater port with adjacent logistics park, called London Gateway, which, according to its operator DP World, is set to become the largest of its kind in Europe. Thanks to its proximity to Britain's largest conurbation, transport planners predict that the new port will save over 100 million kilometres of truck movements per year.

In addition, DP World and DB Schenker Rail UK (DBSR UK) agreed in June that a considerable proportion of the port-hinterland traffic will be handled by rail. From the day of opening – expected to be in the fourth quarter of 2013 – DBSR UK plans to operate at least four container trains to and from London Gateway every day. There are also plans to expand these services in 2014 as soon as the handling capacity has reached the forecast volume of up to 3.5 million TEUs per year.

"London Gateway is the most significant logistics project in the UK and will boast the biggest terminal for rail freight transport in the country," notes Carsten Hinne, Managing Director Logistics at DB Schenker Rail UK. "It is our business to offer our customers logistics solutions. We look forward to being able to achieve these goals at London Gateway together with our partner DP World," he adds. *ok* ■

THE UK'S LARGEST PORTS

Port and region	Turnover 2010
1 Grimsby and Immingham (Humber)	54.0 m tonnes
2 London	48.0 m tonnes
3 Milford Haven (Wales)	42.8 m tonnes
4 Southampton	39.3 m tonnes
5 Tees and Hartlepool (Middlesbrough)	35.7 m tonnes
6 Forth (Scotland)	34.3 m tonnes
7 Liverpool	30.0 m tonnes
8 Felixstowe (near Harwich)	25.7 m tonnes

Source: UK Department for Transport

Container handling 2010	
Felixstowe	3.4 m TEUs
Southampton	1.5 m TEUs
London (Tilbury)	0.7 m TEUs

Ports in figures

Europe's largest ports lie on the North Sea. Hamburg and Antwerp compete for the number two position in container handling behind the undisputed leader Rotterdam. Beyond this section of the map, Marseilles and Le Havre in France together with Algeciras in Spain are the most important ports in Europe. In Germany, the Baltic Sea ports of Lübeck and Rostock play a significant role. With the new deepwater port JadeWeserPort near Wilhelmshaven, a further player will be entering the arena in September (see pages 20–23).

N

Kiel

Rostock

Brunsbüttel

Lübeck

Emden

Wilhelmshaven

Bützfleth

Brake

Bremen

Bremerhaven
5.9 m TEU

Hamburg
9 m TEU

BY COMPARISON: THE LARGEST PORTS INTERNATIONALLY

Shanghai
31.4 m TEU

Singapore
29.9 m TEU

Amsterdam

Rotterdam
11.9 m TEU

Vlissingen

Zeebrügge
2.1 m TEU

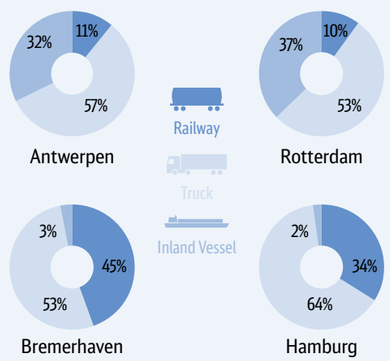
Terneuzen

Antwerpen
8.7 m TEU

KEY:

Total turnover in million TEU

CONTAINER PORTS – MODAL SPLIT IN SEAPORT-HINTERLAND TRAFFIC



Infographics: Axel Pfaender

Source: Port Authorities

EUROPE'S LARGEST PORTS (TOTAL TURNOVER IN 2010)

1. Rotterdam (NL)	395.8 m tonnes
2. Antwerpen (BE)	160.0 m tonnes
3. Hamburg (DE)	104.5 m tonnes
4. Marseille (FR)	82.4 m tonnes
5. Amsterdam (NL)	72.7 m tonnes
6. Le Havre (FR)	65.8 m tonnes
7. Algeciras (ES)	58.6 m tonnes
8. Immingham (UK)	54.0 m tonnes
9. Valencia (ES)	53.1 m tonnes
10. Bergen (NO)	49.8 m tonnes

GERMANY'S LARGEST SEAPORTS (TOTAL TURNOVER IN 2011)

1. Hamburg	114.3 m tonnes
2. Bremerhaven	55.8 m tonnes
3. Wilhelmshaven	24.4 m tonnes
4. Rostock	18.1 m tonnes
5. Lübeck	17.7 m tonnes
6. Bremen	12.9 m tonnes
7. Brunsbüttel	7.9 m tonnes
8. Brake	5.3 m tonnes
9. Bützfleth	5.2 m tonnes
10. Emden	4.5 m tonnes

Going with the flow

Germany's inland ports are growing. As trimodal hubs, they play a pivotal role in European freight traffic.

Before the railways came, waterways were the chief lifelines of freight transport. Major cities arose along navigable rivers and those who controlled inland shipping were able to acquire great wealth.

Nowadays, freight transport in Germany is handled by road and rail for the most part, with inland waterway transport in third place, accounting for a good ten per cent of haulage capacity. The inland barge continues to play a significant role, chiefly with bulk cargo such as coal, but also with containers. Just under 4,700 vessels transported some 55 million tonnes of goods on German rivers and canals last year.

Experts predict steady growth prospects for inland ports, particularly on the Rhine. "This is due, firstly, to the importance of vessels as a comparatively eco-friendly and economic mode of transport and, secondly, to the fact that the ports are expanding their range of services," says Erich Staake, CEO of Duisburger Hafen AG. In particular, inland ports are continually expanding their role as multimodal logistics platforms. At Duisburg port alone, for example, some 125 million tonnes and 2.5 million containers were handled last year. Duisburg, at the confluence of the Ruhr and Rhine rivers, is thus not only Europe's biggest inland port but also a central hub for the hinterland traffic of the North Sea ports Zeebrugge, Antwerp, Rotterdam and Amsterdam.

Key rail connections also interlink in Duisburg. Every week over 350 train services link this logistics centre with 80 different destinations across Europe and beyond – including direct rail links to Moscow, Istanbul and Chongqing in China.

The importance of cross-border transport operations for the ports is also demonstrated by their increasing international integration: Duisburger Hafen AG, for example, has a stake in the Antwerp Gateway seaport terminal in Antwerp and maintains many cooperative agreements with other ports and logistics centres worldwide. Erich Staake is confident that inland ports will continue to gain in importance moving forward, noting: "The inland ports are developing into logistics centres with multimodal networks, which will be able to move even greater volumes in the future, offering industry and commerce crucial economies of location." *dv* ■

DEEP IN THE WEST: The Rhine is by far Germany's most important inland waterway – with Duisburg its biggest port.

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Transporting chemicals intelligently

Shipment tracking information makes the transportation of chemicals safer and more reliable.

AkzoNobel Industrial Chemicals, a subsidiary of the globally operating Dutch chemicals group AkzoNobel, produces chemicals that are used as raw materials by many industrial companies, including from the glass, textile and detergent industries. DB Schenker Rail conveys the bulk chemicals produced by the company at its sites in Bitterfeld, Frankfurt-Höchst and Ibbenbüren to destinations across Germany and to neighbouring countries.

AkzoNobel plans the transport operations, which are handled by DB Schenker BTT, DB Schenker Rail's tank wagon specialist. For AkzoNobel, safety and reliability are paramount – and shipment tracking information makes a crucial contribution to this. Since the start of the year, AkzoNobel Industrial Chemicals has been integrating such data, which DB Schenker BTT produces and updates daily, into its SAP system. The data supplements the location information provided by GPS transmitters, with which a large number of the approx. 300 wagons in the AkzoNobel fleet are equipped.

As a result, AkzoNobel knows not only where each wagon is located at any time, but also where it is heading and whether there is any disruption on the relevant route. "No wagon can be on the move without our knowledge – and this is hugely important with hazardous materials," says Danny Dees, Planning Manager at AkzoNobel Industrial Chemicals, adding, "But by integrating the data from DB Schenker BTT into our business processes, we can also improve wagon fleet utilisation." For the first time, the data is indeed now making it possible to analyse the turnaround times and routes of each individual wagon and thus to identify potential for improvement.

"As a result, we expect to be able to supply our customers even more quickly and reliably," notes Dees. In fact, AkzoNobel's customers are already benefiting from this, because with the shipment tracking information, estimated times of arrival (ETAs) are now also available in real time. *dv* ■

KNOWS WHERE IT'S HEADING: Tank wagon by AkzoNobel Industrial Chemicals

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Photos: Duisport PR; Akzo Nobel PR

Delivery flow northwards

Bayer MaterialScience entrusts DB Schenker Rail with the transportation of large volumes of chemicals from the Lower Rhine to the North Sea. The contract will initially run for three years.

Bayer MaterialScience (BMS), the materials division within the Bayer Group, is among the biggest manufacturers of high-tech materials. They are, for instance, the global market leader for polyurethane, an adaptable plastic that can be found in a wide variety of everyday items, ranging from mattresses or the soles of shoes to washing-up sponges or floor coverings. The company operates around 30 large and numerous smaller production plants across four continents. While a large number of manufacturing processes can be performed at a single plant, one site can often serve as the supplier for another.

This is where logistics come into play. "Inter-plant transport operations are crucial to the functioning of our production process," explains Rudolph von der Heiden, Logistics Purchasing Manager at BMS, adding, "Raw materials, often in large volumes, have to be moved from one location to another in a quick, reliable and flexible way. If this does not work, the production process may have to be slowed down at the destination." Moreover, this interaction, complicated enough in a snapshot, is constantly changing. BMS plans to increase its polyurethane production this year and optimise its production and delivery processes.

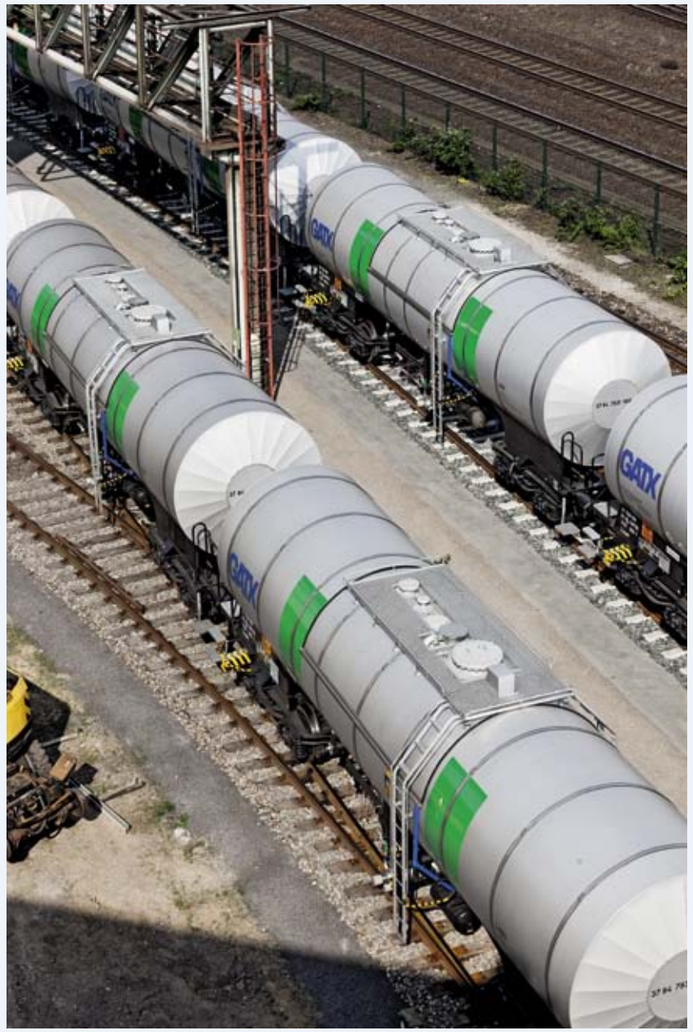
Photos: Michael Neuhaus

New delivery flows for the input materials formalin, nitrobenzol and TDA are a consequence of this move. These chemicals were so far transported mostly by tank vessels on rivers and canals. Since March, however, DB Schenker Rail has been conveying them in special tank wagons by rail from Krefeld-Uerdingen to Bayer's plant in Brunsbüttel in Schleswig-Holstein.

On 12 March, Thomas Klessmann, Head of Service Procurement at Bayer MaterialScience, came to DB Schenker Rail's headquarters in Mainz to sign the new three-year contract: "We need fast, on-going and reliable deliveries. DB Schenker Rail has won us over with a concept that meets all our needs." Until 2015, five block trains per week, each comprising 26 tank wagons, will be sent from Krefeld on the journey northwards, transporting some 380,000 tonnes of chemicals every year. And it does not stop there: from 2015 onwards the volume is set to rise to 580,000 tonnes.

"The scope of the contract demonstrates the great faith that Bayer has in us and in rail as a mode of transport," noted Dr Alexander Hedderich, CEO of DB Schenker Rail (DBSR), at the signing of the contract, which was also attended by DBSR Head of Sales Axel Marschall and Dr Jörg Hilker, Head of DBSR's Chemicals/Oil/Fertilisers unit and Managing Director of DB Schenker BTT GmbH. DB Schenker Rail's experts carried out months of groundwork in order to comply with Bayer's requirements. To ensure just-in-time

SMOOTHLY WORKING TEAM: (from left to right): Cenk Seringölge (Chemion Key Account Manager), Dr Arnulf Werner (Bayer's Krefeld-Uerdingen Plant Manager), Rudolph von der Heiden (Bayer MaterialScience, Logistics Purchasing Manager), Karl Falkus (Head of Rail Operations at Chemion), Sascha Hüttemann (Chemion shipping team), and Heinz Thomalla (Head of Chemion's shipping processes).



BMS TANK WAGON: Chemicals on the way from Krefeld to Brunsbüttel

deliveries, transport handling and resource availability had to be planned in minute detail, and responsibilities and monitoring tasks clearly defined. Contingency plans were drawn up and information processes laid down in order to deal with any disruption. Special challenges needed to be overcome during the planning process. The special rail tank wagons used for these transport operations can be loaded and unloaded only from one side. "With conventional transport operations, changes to operational sequences can result in the wagons being in the reverse position at the destination," explained Dieter Baierle, European Key Account Manager in DB Schenker Rail's Chemical Industry team, adding, "But this cannot be allowed to happen with these shipments – and we've taken the necessary precautions to ensure this."

On the evening of the very day that the contract was signed, the first train set off from Krefeld-Uerdingen. 26 wagons per workday now run towards the mouth of the Elbe river. *dv*

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Hand in hand for reliable transport operations

Rudolph von der Heiden (right) from Bayer MaterialScience and Dieter Baierle from DB Schenker Rail explain why the transportation of chemicals relies on transparency and close cooperation.

Why has Bayer MaterialScience now changed its concept for deliveries from Uerdingen to Brunsbüttel?
Rudolph von der Heiden: We constantly need to adapt production and logistics to market conditions. All the locations work together within a large system. A large-scale project is currently underway to optimise our international delivery flows. Shifting the transport operations from Uerdingen to Brunsbüttel from inland barge to rail is part of this project.

How have you experienced rail operations on this route?
Rudolph von der Heiden: Our experience has been excellent. DB Schenker Rail has been transporting TDA for us from our site in Dormagen to Brunsbüttel for some years. The learning process has been very positive and we have now reached the stage where we can rely on our individual wagon shipments arriving on time.

How do you ensure the reliability of the BMS consignments?
Dieter Baierle: Both sides are working together hand in hand. Transparency is a very important ingredient. For example, Bayer uses its own Tracking & Tracing system for its tank wagons, into which we also feed our production data. All the transport operations are monitored from DB Schenker Rail's cargo control centre in Frankfurt, which is in close contact with the chemical team at the Duisburg customer service. This means that all those involved can be informed very quickly if any irregularities arise.

And what happens in the event of disruption?
Dieter Baierle: Thanks to the Tracking & Tracing system we can respond very quickly. If a delay of more than 30 minutes occurs, BMS is informed immediately. Our customer service takes speedy measures in order to convey the shipment to the destination as quickly as possible and informs BMS of the new estimated time of arrival. *dv*

Project with prospects

Bayer MaterialScience is planning a further expansion of its inter-plant transport operations by rail.

Contract term:	**2012 – 2015**
Cargo:	Formalin, Nitrobenzol, TDA
Route:	Krefeld-Uerdingen – Brunsbüttel
Departure frequency:	**5 trains per week,** each consisting of 26 wagons
Transport volume:	**380,000 tonnes** per year; expected to rise to **580,000 tonnes** from 2015
Special Features:	Hazardous goods, just-in-time delivery , tracking & tracing system, tank wagons must not be in the reverse position at the destination

Photos: Michael Neuhaus

COLD START: The FLIRT – pictured here before its departure for Norway – is equipped to cope with extreme weather conditions.

Northern FLIRT

50 regional trains from Switzerland run through Germany and Sweden on their way to Norway.

Successful FLIRT: Swiss train maker Stadler Rail has already sold several hundred of its "fast, light, innovative regional turbo-trains" on a gloabl scale. The Norwegian state railway NSB has become the most recent operator to fall in love with them and ordered 50 regional trains from Bussnang in the Thurgau canton. The Swiss manufacturers adapted their trains to NSB's exacting specifications – including the ability to operate at temperatures as low as minus 40°C – and dispatched them on their rail journey northwards.

DB Schenker's Rail Logistics and Forwarding (RLF) division was responsible for the logistics handling operation. "At first we were allowed to transport five FLIRTs to Norway as a trial run, and then Stadler commissioned us to transport the remaining 45 trains," says Daniel Knaus of Fertrans AG, responsible for sales at the RLF division in Switzerland. On the long journey to Scandinavia, a locomotive hauls one or two electric regional trains, which are not able to operate under their own power in Central Europe. The Swiss state railway SBB is responsible for the traction operation on behalf of RLF up to Basel, after which DB Schenker Rail Deutschland takes charge of the brand-new trains and conveys them on their own wheels to Rostock. In the Baltic Sea port, the trains are loaded onto railway ferries and then transported onwards to Trelleborg in Sweden. From there the journey continues across the Swedish-Norwegian border near Kristinehamm to their destination of Drammen in southern Norway.

"One of the challenges involved is to obtain the necessary permits for these transport operations, which are classed as wide loads in Switzerland and Germany, and to ensure punctual arrival in spite of the long and complex transport route," explains Daniel Knaus. Further safety is provided by an escort who travels on all the trains under the authority of DB Schenker: he oversees the whole transport operation and can take immediate counter-measures in the event of disruption. *dv*

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HEADING NORTH-WEST: : The PowerRailer transports consignments quickly and securely through Eastern Europe.

Success model in reverse

The PowerRailer links West and Southeast Europe and is now also operating in a south-north direction.

Bulgaria has become increasingly important in recent years, and not just as a sales market. Goods produced in the country are now being exported to the West on an increasing scale. Whatever the direction: for fast and secure transport operations through Southeast Europe, more and more companies are relying on PowerRailer, the block train service provided by DB Schenker's Vienna-based Rail Logistics and Forwarding (RLF).

The PowerRailer has been an established provider of transport services to Southeast Europe for many years now. Customers appreciate the range of services from a single source: DB Schenker takes charge of the preliminary leg for individual wagons, wagon groups or even block trains to the train formation points in Štúrovo on the Slovak-Hungarian border, in Sopron on the crossing from Austria to Hungary, in Villach in the tri-point of Austria, Italy and Slovenia, in Slovenia's Ljubljana and in Kiskunhalás in southern Hungary.

From there, more than 2,000 block trains operate annually under the direction of RLF to various destinations in Southeast Europe – on the basis of set connections and timetables and thereby with short transit times. Additional services such as complete transport planning, transit recording and the organisation of wagons complete the range on offer.

Since March, the freight forwarding industry has also been able to take advantage of these benefits in the opposite direction. The south-north PowerRailer groups consignments from across Bulgaria into block trains of up to 1,600 tonnes, which run two to three times per week to western Bulgaria, where their onward transportation by rail or truck to destinations in Austria, Germany or Poland is organised. There are also plans to allow deliveries from Turkey to join the trains in the near future. Several companies are already making use of the service – including a renowned Bulgarian steel producer and the German-Swiss Liebherr Group, which manufactures household appliances in Bulgaria. *dv*

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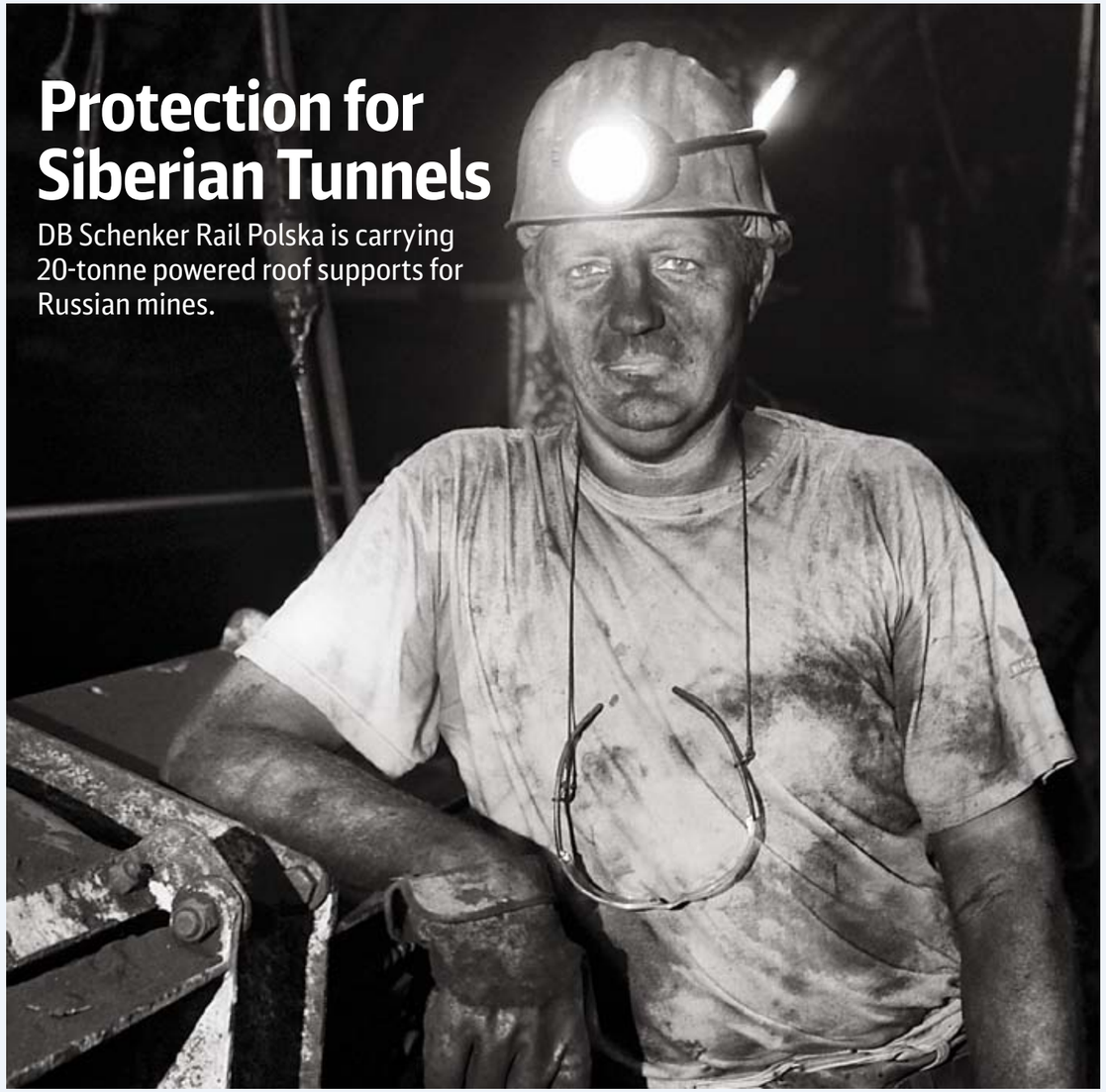
Photos: Stadler Rail PR; Dagmar Schwelle / laif

Protection for Siberian Tunnels

DB Schenker Rail Polska is carrying 20-tonne powered roof supports for Russian mines.



In modern underground mining operations, hydraulic powered roof supports protect the tunnels. Hydraulic power is used to press canopies against the ceiling of the tunnels to hold back falling rock. To enable them to resist the forces they are exposed to, the devices themselves have massive dimensions: a single powered roof support, which supports only a few metres of tunnel, weighs up to 20 tonnes.

At the beginning of March, DB Schenker Rail Polska started transporting powered roof supports for use in Siberian mines. In cooperation with its sister company within the DB Group, the Polish logistics company Schenker Sp. z o.o., it launched the first train with 56 roof supports from Gliwice in Silesia. The heavy freight was transshipped onto broad gauge wagons at Brest on the Poland-Belarus border. From there, it continued on towards Russia.

"The transport of powered roof supports for use in mining illustrates the breadth of services we offer and proves that DB Schenker Rail Polska can also handle tasks with extraordinary demands," says Christian Schreyer, CEO of DB Schenker Rail Polska. "Furthermore, it is an excellent example of the successful cooperation between Schenker Sp. z.o.o. and DB Schenker Rail Polska." *dv*

RUSSIAN MINER: Powered roof supports use hydraulic pressure to secure mine tunnels.

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A tough task

DB Schenker Rail's Variotrain conveys some 3,600 tonnes of steel billets from Hamburg to Duisburg for ArcelorMittal every week.

Photos: Becker&Bredel / Ullstein Bild; Jörg Stipke / epd-bild

A special inter-plant transport service operates between two locations belonging to ArcelorMittal. In Hamburg, the world's leading steel group produces billets from pig iron and scrap. These steel rods, up to two tonnes in weight and 16 metres long, are then processed into wire rod in Duisburg-Hochfeld.

DB Schenker Rail has been transporting the billets for ArcelorMittal for many years. Lately, however, the Group's capacity requirements have risen dramatically: from 2012 an additional 100,000 tonnes of steel billets will have to be transported from Hamburg to the Ruhr every year. DB Schenker Rail has now secured the contract for this extra volume, too.

"Crucial to our customer's decision was our Variotrain service, which allows us to offer ArcelorMittal a high degree of planning predictability," says Jens-Uwe Tagge of DB Schenker Rail's Coal, Iron and Steel division.

Following a set timetable, the Variotrain transports authorised minimum quantities. In addition, it offers the option of adapting, within monthly programmes, the volumes to current requirements. The Variotrains, each carrying 1,200 tonnes of billets, have been running from Hamburg-Waltershof to Duisburg-Hochfeld since the start of the year. The two departures per week were increased to three in April in order to guarantee supplies. *dv*

GROWING DEMAND: There are now three Variotrains running from Hamburg to the Ruhr every week as part of ArcelorMittal's inter-plant transport operations.

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Pivots and buffers

Manufacturers, rail freight companies and logistics organisations form a flexible system to minimise transport and storage costs for steel transports.

In its plant in IJmuiden, Netherlands, the world's biggest steel concern, Tata, manufactures products including steel sheets for the EMW Stahl Service Center GmbH in Neunkirchen (North Rhine-Westphalia). From the Siegerland region, the special logistics company supplies a wide range of industries with an almost unimaginable variety of steel products. "Not only are we responsible for the transport of steel coils from Tata to EMW," explains Jan Palma, Key Account Manager at DB Schenker Rail Nederland, "we also provide a pivotal and buffer function between the two sides and are part of an innovative delivery system that enables our customers to optimise both the reliability and the cost of their steel logistics."

Each individual roll of sheet steel, weighing several tonnes, is instantly "visible" in an electronic system once it leaves the Tata plant. The EMW Stahl Service Center immediately weighs up availability against its requirements and decides how best to proceed in order to minimise the expense in terms of cost and time for transport and storage. DB Schenker Rail loads the coil, together with many others, onto the next of its full trains running daily from IJmuiden towards Germany. "With the help of this so-called 'Green Light' procedure, Tata saves a huge amount on storage and admin costs because the coils are only stored in IJmuiden for a few hours," explains Palma. "We can reduce the transport costs by combining the steel transports with regular limestone shipments along the same line, creating very long trains of up to 40 wagons." Furthermore, a special licence facilitated the substantial increase of the tonnage per wagon from 55 to 68 tonnes.

The trains are split in Oberhausen: coils that are to be processed or sold on quickly, travel directly to the EMW site in Pfannenberg. At this point, the local Siegen-Wittgenstein rail company takes over haulage, on behalf of DB Schenker Rail, for the last few kilometres. The other coils are taken to DB Schenker Rail's coil warehouse in Hagen, Westphalia. "This saves the customer using their own storage capacities and consequently saves costs," says Palma. "We take expert care of the coils in our special warehouse, which has a capacity of 15,000 tonnes. We ship them out at short notice – either to the EMW site in Pfannenberg or directly to their customers, depending on requirements." In order to be able to respond at short notice, the coil warehouse in Hagen has significantly extended its operating hours and adapted them to EMW's production deadlines.

dv

HEAVY ROLLS: In order to be able to plan flexibly, Tata and EMW make use of the Hagen coil warehouse.

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Photos: Wolfgang Klee / DB AG, Bernd Hartung

TECHNICAL EXPERT: Ingo Piersig of DB Netz AG runs the practical exercises. This includes explaining the functions of the various valves and fittings on the rail tank wagons to participants.

Manoeuvre in Mainz

Safety comes with training: DB Schenker Rail organises Rail Safety Days every year to ensure that all those involved in handling hazardous goods know how to respond when accidents occur. This year, the event took place on the plant premises of TransTank GmbH in the Gustavsburg district of Mainz. BP has been operating a tank storage facility here since 1969, supplying customers and filling stations with fuel via pipelines, rail, road and waterways. In recent years, the oil group has invested heavily in rail facilities and contracted DB Schenker Rail to perform shunting operations. Some 130 people gathered on the site in May for the three-day "manoeuvre": employees from BP, ▸

TransTank and DB Schenker Rail were joined by members of the Ginsheim-Gustavsburg fire service and officials from the Federal Railway Authority in order to practice how to respond appropriately in an emergency situation. In an exercise train built specially for the purpose, the participants practised how to cope in various scenarios under realistic conditions. ■ *dv*

DOME COVER UNDER SCRUTINY: The training participants inspect a dome cover and its seal.

NO HOLDS BARRED: Sealing a bottom leak with an adjustable belt.

NOT A DRY RUN: Members of the Ginsheim-Gustavsburg fire service seal a leak in a tank wagon and cannot help but see the funny side of taking part in the simulation exercise.

MANAGERS IN THE FIELD: (at the front, from the left): Sebastian Reinicke (DB Schenker BTT GmbH), Thomas Schröder (TransTank GmbH) and Jörg Becker (BP Europa SE).

UNUSUAL PERSPECTIVE: The tank wagon's construction is also studied from the inside.

IS THERE A LEAK? Wolfgang Langhoff (BP Europa SE, on the left) and Klaus Krupka (TransTank GmbH) examining the exercise train. Leaks with fluid discharge are simulated in various places on the specially built rail tank wagon.

WOLFGANG MÜLLER
celebrated his 60th birthday in May and has been Managing Director of Deutsche Umschlaggesellschaft Schiene-Strasse (DUSS) for 22 years. The trained construction engineer has been working for the DB Group in various posts since 1979. DUSS operates 24 transshipment stations throughout Germany and plans to increase their capacity by some 15 per cent this year through the expansion of the biggest terminals in Munich, Cologne and Hamburg.

IN DEMAND

Wolfgang Müller on cranes

Mr Müller, the DUSS is a genuine weightlifter in intermodal transport. Just out of interest, can you actually operate a crane?
Wolfgang Müller: Yes, I have been known to drive one, even though I don't hold the licence you need. But as the boss you're allowed to try out everything under supervision. I am keen to experience anything and everything that moves and I like to operate the machines myself. I have licences for locomotives and motor boats and a sailing licence, for example.

Can your cranes do something today that they could not do when you started your job no less than 22 years ago?
They can generate power nowadays, for example. When we brake, we feed the electricity back into the grid. With a 300-tonne vehicle that is continually starting and stopping on a 700-metre-long track, it all begins to add up.

Are there still technical innovations to come for container handling?
Of course! The future Mega-Hub, to be built in Lehrte, will be equipped with a longitudinal conveyor for the first time. This means that the containers can be moved parallel to the crane runway as if on a conveyor belt, reducing crane travel and making our processes much more productive.

Do you expect to be marking your 25th anniversary as DUSS Managing Director in 2015?
It's very likely. Since I took up the position in 1990, we have modernised all the transshipment stations and we are operating successfully. I enjoy it – and most importantly, I still have a passion for this business!

Golden Oldie

The almost 60-year-old T3A belonging to DB Schenker Rail Polska has still got the stuff it takes! At the 19th Steam Locomotive Parade held in Wolsztyn, the golden oldie, built back in 1953 at the Feliks Dzierżyński locomotive plant in Chrzanów, provided a demonstration of its resilience. Engineers at DB Schenker Rail's maintenance depot in Pyskowice are supplying the locomotive with the tender loving care required. In socialist Poland, locomotives of this type were built right up to 1963. *ok*

Strong words

"It's the transport sector that will need to make the greatest changes in the next ten years in its effort to reduce CO_2 emissions. A sustainable and environmentally friendly transport strategy is not possible without strengthening the rail transport's position on the market."

JOCHEN FLASBARTH
President of the German Federal Environment Agency

Save the Date

Forthcoming trade fairs and industry events that DB Schenker Rail will be attending. Seize the opportunity for a face-to-face meeting!

17-19 OCTOBER
in Berlin (Germany)
DB Schenker Rail and DB Schenker Logistics will be represented at the **29th German Logistics Congress**. www.bvl.de

07-11 NOVEMBER
in Rimini (Italy)
DB Schenker Rail will be showcasing its products and services at **Ecomondo, the International Trade Fair of Material and Energy Recovery and Sustainable Development.** www.en.ecomondo.com

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Poster (around 1930) from the DB Museum in Nuremberg.

Photos: DB AG; Wojciech Gawlinski; Imago; Sammlung Bermeitinger

SIGN OF THE TIMES

Cod bound for Berlin and Bavaria

Freshly caught fish on dining tables in southern Germany could certainly not be taken for granted in the early 20th century. In 1930, however, the German National Railway (Deutsche Reichsbahn) operated what was for those times an exceptionally fast transport network for conveying cod, herring and mackerel from the north German fishing ports of Altona (Hamburg), Cuxhaven, Schlutup (Lübeck) and Kiel/Eckernförde far into the interior of the country. The historic poster "Express Fish Service" illustrates the transport routes and journey times: the express fish shipments reached Berlin, Würzburg and Karlsruhe overnight, with services to Munich or Basel taking two nights. In the 21st century, fish is mainly transported by truck and aeroplane. *ok*

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