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Amultim fulle

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NEWSLETTER

Visit our website and sign up for our newsletter: www.dbcargo.com/ newsletteranmeldung



Dr Bosch, you served as director of production at DB Netz for many years. You are now head of DB Cargo. What do you see as your most important task in your new position?

since 1 December

We have to focus more on our customers' needs than is currently the case, so it is vital that we improve our service quality and reliability. Only if we achieve this can we move freight from road to rail transport in Germany and Europe as a whole, and so generate profitable growth at DB Cargo.

What role will rail freight transport play in Germany over the coming years?

A crucial one – that is my personal conviction. It will make a vital contribution to resolving Germany's transport-related problems and achieving the climate protection objectives laid out by the government in Berlin. Road haulage will not be capable of tackling growing freight volumes or cutting



CO₂ emissions on its own. And so we will need to continue to focus the public's attention on the fact that freight transport needs the right conditions if it is to be environmentally sound and economically viable at the same time. •

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EUROPE

Improved environmental footprint

Over the past 12 months, DB Cargo has increased its usage of renewably produced electricity for carbon-free rail transport (DBeco plus) by more than 50%. The company aims to repeat this increase in 2018. Freight trains generate up to 80% less CO2 than road-based transport as it is, but now DBeco plus gives customers the opportunity to go one step further as cargo is transported completely carbon-free in Germany and Austria. Since the climate-friendly DB**eco plus** transport product was launched in 2010, it has reduced carbon emissions by over 100,000 tonnes, which represents a more than five-fold reduction on the corresponding figure for conventional road haulage. This year, a special campaign is promoting climate protection. An electric DB Cargo locomotive is serving as an "ambassador" for sustainable rail freight transport: painted green, it marked the start of the environmental awareness campaign last November, and it has since been touring Germany under the slogan "For our world of tomorrow".

DB Cargo launched an accompanying photo competition as well. Anyone who spots the locomotive and sends a photo of it to umwelt-dbcargo@deutschebahn.com can expect to receive a small prize. Selected photos will be posted on www.dbcargo.com starting in mid-March.



GERMANY

Clearer overview

In the future, dispatchers will be responsible for an entire train, i.e. from its point of departure to the destination. Previously, dispatchers in different regions had to coordinate their work, which increased the complexity of a lot of transports. To tackle this, DB Cargo has created special P&D teams that feature planners and dispatchers working side by side. Each handles its own field: some teams focus on well-established, routine services, while others cater to volatile traffic. "Launch teams" provide support for the changeover to the new system. Six of these teams have already started work in the West and Central CMR regions, and four are planned for the East region

"Direct communication between planners and dispatchers will deliver a real increase in quality."

JENS SONNENBURG

Manages service design and operations at Cargo Management Region East

CHINA

Increased holdings

DB Cargo has increased its stake in specialist Trans-Eurasia Logistics (TEL) by 20% to a total of 60%, thereby strengthening its position in the trans-continental rail freight market. Joining forces and playing a bigger role in TEL will make it possible to considerably expand traffic to and from Asia. At present, DB Cargo operates 10-15 round trips a week via the overland bridge to Asia. "I believe that doubling traffic in the next two to three years is very much within the realm of possibility," says DB Cargo head of sales Raimund Stüer, pointing to rising demand from the automotive industry and other market segments.

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Mr Stüer, you joined the Management Board of DB Cargo in March 2017. What would you say about the year just ended?

RAIMUND STÜER — It's always exciting to take on a new role in a new company like I did last year. DB Cargo is a very dynamic company, one that offers tremendous potential for developing innovative rail freight transport solutions across Europe. Put these two things together, and I can only summarise 2017 as having been an excellent year.

What were the most significant challenges?

RS __ For us at DB Cargo, and doubtlessly for a lot of other rail companies. 2017 was very challenging in that our sector was hit by a number of events outside of our control, such as the unexpected closure of Europe's most important rail corridor in Rastatt, arson attacks on infrastructural networks and severe storms. These problems made us concentrate more than ever before on developing alternative solutions and strategies for minimising the impact of similar disruptions. Our goal is to provide our customers with solutions that increase our autonomy from such external factors.

What challenges do you predict for sales at DB Cargo in 2018?

RS — More than anything else, we want to reinforce our customers' awareness that DB Cargo is a lead logistics provider that is capable of delivering high-quality and stable logistics services throughout all of Europe. It is important that our customers do not lose faith in rail freight logistics and to ensure that we as a company are once again viewed as an excellent service provider across the continent. This will be our key goal.

What will you be focusing on this year?

RS __ In our business, the main task is to deliver the services that we promise to customers. Speed isn't the

"Wherever trains can make the most of their advantages, rail represents the most reliable option when integrated with other modes of transport."

only thing important to us in this regard - reliability and fulfilling our service promise are also vital. These are the core issues on our agenda in 2018. A lot of our activities this year will focus on working with customers to plan the transfer of additional freight to the rail network and devising solutions to make this transfer a reality. One key aspect here is the development of intermodal and multimodal systems solutions. More than ever, we want to connect rail with other systems because we know that wherever trains can make the most of their advantages, rail represents the most reliable option when integrated with other modes of transport.

Turning to the German Rail Freight Master Plan and the promotion of rail cargo services it envisages, what else do you need, along with competitive prices, to accelerate the long-term transition to rail for freight transport?

RS — People often view the Master Plan primarily as a way for rail operators to cut their costs somewhat and thus offer competitive prices. How-

ever, the real motivation behind the plan is to move traffic from our roads to the rail network. Prices and cost are just one consideration among many. Of greater importance is the fact that rail transport has to close the gap between it and other systems in terms of its performance and quality. With this in mind, we have decided to invest resources generated by cost reductions in our performance quality.

What specific measures do you have in mind?

RS — We will be focusing heavily on multi-system locomotives that can operate on cross-border routes. We will be investing in freight wagons as, due to an upswing in demand from industrial companies and Germany's current economic strength, many of our key accounts are experiencing growth they failed to predict. This means that we are facing orders for much larger numbers of wagons. We are also planning an extensive recruitment drive for our operations-related units, and we will be investing a great deal in automation and digitalisation. We believe that these are effective ways

to achieve the goal of shifting freight from the roads to the rails.

Looking at 2018, what are your plans for attracting customers to services that combine rail, road and waterway transport?

RS _ As a company providing cross-carrier services, we have established a unit for intermodal logistics. It takes care of container and trailer transports for our customers. We lead the market for hinterland container transports serving Germany's North Sea ports, moving about one million TEUs a year. In addition, our portfolio contains a growing number of intermodal solutions for the car industry: working with delivery companies, we provide collection logistics services to supply major auto firms with pre-production parts. We also operate interesting logistics chains that combine conventional and intermodal services. These are services that we will continue to expand.

Does this point to new, international markets?

RS — Our intermodal logistics generally take in all of Europe, meaning they are largely a continent-wide issue. So, looking at France or Spain for example, we can't really talk about new markets as such – instead, it is more a question of a new approach to markets where we will be increasing our efforts in these countries.

China's "One Belt - One Road" initiative sees Beijing investing heavily in expanding rail freight transport. What role will Asia play in your 2018 strategy?

RS — We have been involved in Asian markets for a number of years. Our first train service to Shenyang for BMW and initial transports from China to Hamburg and Duisburg marked the very beginning of a development that is currently going from



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strength to strength. This expansion is also evident in the Chinese government's efforts to strengthen the land bridge between China and Europe by means of the mammoth New Silk Road project, something that will ultimately affect all of Asia, including transport activities to Japan and South Korea. So, yes, China is a very significant topic that we will continue to focus on. In particular, we have decided to take a more integrated approach with more frequent services, which will enable us to keep making improvements to our east Asian offerings for customers based in Europe.

How is DB Cargo handling the issue of digital transformation?

RS — The steady rise of digitalisation is a development that we have already devoted a lot of attention to and, as part of the larger DB Group, DB Cargo will forge ahead with efforts in this field. Above all, we want to enhance the quality and competitiveness of our system and, ultimately, strengthen our position vis-à-vis our competitors from the road transport industry. As for the overarching objective, it is obviously the link to customers - we plan to use digitalisation to embed ourselves further into our customers' logistics and information chains, integrating our systems more closely with those of our customers.

Innovations are the key to successful transformation. What are you doing to make progress concerning innovation management at DB Cargo?

RS — The DB Group is pressing ahead with digital transformation for the benefit of all its companies, and it has created a digitalisation and technology division with its own board member for this purpose. We have also established management systems at the DB Group that enable us to use innovative mechanisms and work processes to assemble project groups. We task the operational level with projects



cv

1999

Co-founder of and partner in TX Logistik

2001-2011

President/Vice-President for Sales and Marketing at TX Logistik

2012

Senior Vice-President at Kühne + Nagel, responsible for global rail business

March 2017

Board Member for Sales at DB Cargo AG

- 1 Raimund Stüer is focused on making DB Cargo more international and intermodal.
- 2 __ Committed to what he wants: Stüer (56) talks to the railways team.

designed to look at and explore new, modern issues. The digitalisation projects are doing a lot to improve customer interfaces in particular. Our MyRailPortal serves as an internet-based platform for customers: they can use it to place orders and search for informa-

tion via the track and trace function. Our box2rail system is similar, providing clients with container transport services for shipping.

Experts have called on German companies to invest more in training skilled workers and managers for logistics. If they don't, Germany will soon lose its title as the world's exports champion due to a lack of logistics professionals. Do you share their opinion?

RS Absolutely, Vocational training in the logistics sector is of vital importance. It affects the entire logistics industry. DB Cargo is doing very well in this regard, as we offer a range of training courses in addition to programmes on a European level. This year, we will once again be providing 26 employees with a chance to start out on a new career as part of our euroTRAIL traineeship programme. All the same, we have to invest far more in training logistics specialists, for example by increasing our support for logistics universities. The entire sector needs to get behind this issue: we can only expect to attract enough talent if our industry is sufficiently appealing to young people. At DB Cargo, we are undergoing a long-term shift from being a transport logistics operator to a lead logistics provider for a host of different business sectors. I think that this is precisely what captures the attention of young, highly qualified people who want to contribute to our mission. Sustainability is a topic that plays a key role for young people, i.e. millennials.

What can DB Cargo do here to raise its profile?

RS — I see it in many young people: their core values are ecological soundness and long-term thinking. We have a natural advantage at DB Cargo, as these issues underpin our activities: trains are and will continue to be the most sustainability-focused mode of overland freight transport.



1 The outlook for multimodal logistics in Europe is strong.

Multimodal mobility is a megatrend.

Combining various means of transport promotes efficiency, secures planning and protects the environment. This train leads to the future. To miss it is to be left behind.



British futurist Rohit Talwar describes a vision of future transportation in our major cities that is every bit as dynamic as it is well-coordinated. "In this scenario, traffic and pedestrian streams have become a great deal more regular, and transport's impact on the environment has been reduced significantly. A single control centre at the core of major cities manages and links services automatically in line with needs - it connects buses, subways and longdistance trains and controls both road and rail traffic signals. Real-time analyses enable a more comprehensive use of roads and rail lines. Automatic boats shuttle back and forth on the rivers."

In the cities of the future, what applies to passenger transport will apply to freight transport even more, especially since freight transport forms the backbone of a modern industrial and service economy, is a critical factor for companies and sites engaged in global competition, and provides a yardstick for prosperity and employment by means of its efficiency and performance. This is particularly true

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for Germany as a leading business powerhouse and logistics hub in the heart of Europe.

However, the present looks much less spectacular. Today, large portions of the trans-European road network are overloaded. You could say one is likelier to be "just in traffic" than "just in time".

Multimodal systems will show the way out of this predicament, says Talwar. "Rail freight transport companies have to update their portfolios of transport services to offer smarter, more flexible and more highly automated services to meet the requirements of the future," says the researcher, who advises companies and governments on confronting global megatrends. The fact that digitalisation has developed at breakneck speed is yielding great potential for streamlining the transhipment of goods, he believes. "Artificial intelligence has made most customer experiences today smart and predictable. Rail freight transport service providers have to offer services that keep up with this trend."

However, they also have a special responsibility to bear. Emitting up to 80% less CO2 than goods hauled by road, rail transport is shaping up to be the lynchpin of a comprehensive logistics strategy for the economy, people and environment on the way to a multimodal future. "As central players in the area of transport, rail companies have the chance to decouple their services from coal as a fuel and make giant strides in efficiency." Talwar believes that companies like this have a double responsibility when it comes to climate change: "International rail transport companies could sustain heavy losses themselves if they fail to avert the effects of climate change on infrastructure." The future market for rail transport could also face mounting competition from private companies and from start-ups, which would do even more to kick-start research and innovation.

Multimodal transport models bring both opportunities and challenges. But whatever the motive for their development, they are certain to keep propelling us as we race along the path to a multimodal future. Industry, the envi-





ROHIT TALWARFuture researcher and founder of
Fast Future Research

Rail freight transport companies have to update their service portfolios to meet the requirements of the future.

~

ronment, companies and customers alike stand to benefit.

DB Cargo shows how to develop forward-looking freight transport.

In 2018, the company plans to funnel targeted investments into multimodal approaches, an efficient network of routes and digitalisation; the aim is for transport and route capacities, timetables and regulations to be booked online and for train paths to be allocated digitally. Going forward, automation should improve the capacity utilisation of routes and boost performance. Operational processes will be slimmed down, and transport more reliable. "Automatic coupling, automatic shunting and smart freight wagons linked to the internet will make rail freight transport considerably more attractive," predicts Berthold Huber, DB's Member of the Management Board for Transport.

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- 2___ Both road and rail DB Cargo is multimodal.
- 3 __ Strong on the rails: Siemen's Vectron locomotive.
- **4** Multimodal logistics centres build efficiency.

At the same time, German logistics companies can use the government's Rail Freight Master Plan and the associated support from Berlin to expand key routes and nodes, such as passing loops for longer trains, or to build them from the ground up. "Right now the length of trains is capped at 700 metres," says Raimund Stüer, Member of the Management Board for Sales at DB Cargo. "If we can run 740-metre trains, which poses no technical problem, it will be a quantum leap in efficiency for us amounting to well over 5% of the cost structure. Naturally, that would also give network utilisation a considerable lift."

All these measures are not only about gains in efficiency; environmental sustainability is another critical aspect. DB Cargo's path to the multimodal future will involve such key points as reducing non-electrified sections of routes, stepping up the utilisation of hybrid locomotives, implement-

80%
less CO2 emitted by rail transport

ing logistics chains with electric vehicles to serve commercial centres and pursuing a green logistics strategy for trade and industry.

Apart from the Rail Freight Master Plan, rising demand in operational business and momentum for growth coming from the Zukunft Bahn programme are strengthening the economic tailwinds at DB Cargo. Against this backdrop, the Group recently launched its Freight Transport Campaign. Back in 2017 as part of the campaign, DB Cargo purchased the first five of a planned 60

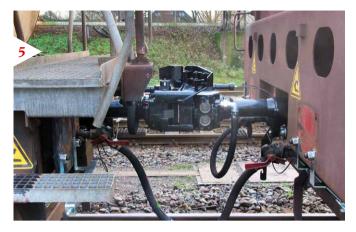
new Vectron multi-system locomotives worth roughly a quarter of a billion euros. According to Raimund Stüer, this investment shows that multimodal traffic is a crucial element needed for a viable approach to freight transport. "We see demand taking off, and we want to develop substantially in this area and build expertise – specifically in the transhipment of goods, and in consolidating information between road logistics, inland navigation, seaports and rail logistics."

In line with this intention, Intermodal Logistics at DB Cargo, which is one of these development measures, has been active since 1 January. "We established this unit within DB Cargo Logistics Sales, where modern logistics solutions are developed for various industry groups." Five employees are developing approaches and services here that focus on intermodality. At the same time, this unit is a central pool of expertise aimed at building knowledge, standardising it and rendering it accessible to everyone. Investing in German freight transport requires responsibility. Multimodality is a key component in the process.

The Digitalisation of Intermodal Supply Chains: KV 4.0 project makes transport even more efficient.

Information on the status of transports is crucial for all of the stakeholders in combined transport. In order to ensure resource planning and make dispatching decisions, they need to know where products are located and when they are expected to arrive. However, although estimated times of arrival are already a

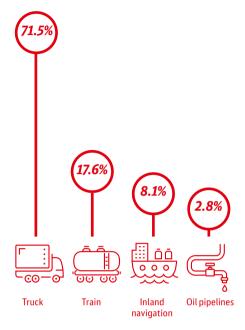
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- minals in Europe: wigshafen.
- __ Automatic coupler: simplifies shunting processes and optimisestrain formation activities.
- **6**_ One of the leading road/rail transhipment terthe multimodal terminal in Lud-



Total distance covered in tonne kilometres in 2016



Source: Pro-Rail Alliance, based on German Federal Statistical Office data



standard feature of road transport, they are not yet generally available for rail traffic. Actual values are known, but ETAs generally are not, which is partly attributable to gaps in the information base.

This is because the large number of parties involved in combined transport, the physical interfaces (terminals) and the cross-border requirements make it very challenging to ensure information is available throughout the entire chain. While sufficient information is available on each individual section of transport, there is still no central data platform. That is about to change. In September, Kombiverkehr, DB Cargo, Lokomotion, SBB Cargo Deutschland, KTL Kombi-Terminal Ludwigshafen, Hupac Transport, HOYER, Paneuropa Transport, Hupac Intermodal, Bertschi and Hupac SpA began working in partnership on the Digitalisation of Intermodal Supply Chains: KV 4.0 project. The objective is to remodel the entire intermodal trans-



CHRISTOPH RENSCHLER, Head of the KV 4.0 project at DB Cargo

Our target is to bring about an end-to-end improvement in the transparency of intermodal transport throughout the entire supply chain.

port chain and its underlying logistics processes to ensure it becomes more transparent and clearer across stakeholders and countries.

"Our target is to bring about an endto-end improvement in the transparency of intermodal transport throughout the entire supply chain," says Christoph Renschler, Head of the KV 4.0 project at DB Cargo. "To accomplish it, a project consortium consisting of operators, freight forwarders, terminal operators and rail companies will develop an integrated logistics platform for exchanging and consolidating information on the status of transports. This will make it possible to verify at any time and at any step of the way where transports are currently located and where they will head next."

The benefits for customers are immense. "End-to-end visibility of transport improves the quality of intermodal services. Seamless status information, for instance, can be the basis for robust ETA forecasts, which can

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target the necessary changes in resource planning when incidents occur, and can be used to provide customers with relevant information," says Sylke Hussmann, Head of Carrier Sales at Intermodal Sales, who serves on KV 4.0's steering committee.

With the assistance of a new common data hub that is to be developed and with standardised interfaces, all participants are expected to gain direct access to their respective transport-relevant parameters of combined traffic. This will include order and timetable data, but also any available forecasts on arrival and information regarding transport. For instance, going forward, automatic communication between trucks and terminals during first-mile road shipment will optimise processes at terminals. If trucks are forecast to arrive late, operators can use the appropriate flow of information to reallocate the vacant space on the train to ensure its capacity is used more efficiently. According to Christoph Renschler, the project represents a double challenge. Aside from the technical, data-related challenge, the success of the project hinges on the willingness of all parties to collaborate on, promote and maintain a consortium comprised of direct competitors as well as partners. "The

trick will be ensuring every stage of the process is as transparent as possible while preserving each company's internal interests." Back to the multimodal mobility of the future: today, it is still impossible to predict which modes of transport will ultimately reap the most benefits. The critical factor will be how quickly the individual providers of transport services move to meet the necessary requirements for this mobility and are able to participate in it. This is precisely the great opportunity that lies in store for DB Cargo, as a leading provider of multimodal rail freight transport services. •





This project has received funding from the German Federal Ministry of Transport and Digital Infrastructure (BMVI) as part of the Modernity Fund research initiative (mFUND).



Sylke Hußmann, Head of Carrier Sales at Intermodal Sales, DB Cargo Logistics sylke.hußmann@deutschebahn.com

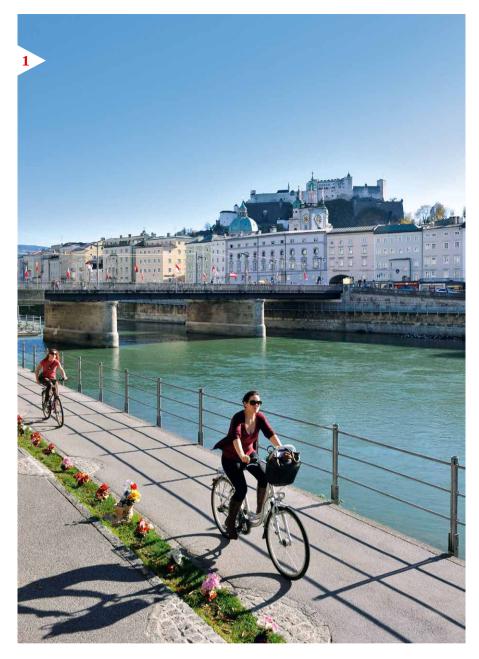
SUMMARY

- ► In the future of multimodal mobility, rail transport will be a key element of a comprehensive logistics strategy for the economy.
- ➤ This will require a prudent mix of various sustainable drive systems – it will not be enough to rely on only one technology.
- Cross-modal transport models need to be established.
- ► By and large, transport will be electrified in the medium to long term.
- Providers of rail freight transport services will increasingly offer digitalisation services.
- ► In the future, real-time analyses will make it possible to use road and rail routes more efficiently.



7_ Connects multimodal traffic: Hamburg's port.

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Next stop: Salzburg

Salzburg wants to blaze a trail through the future of mobility and set a new standard with the "salzburg.mobil 2025" mobility concept. The transport plans of tomorrow are being developed in numerous research projects to do precisely that.

1 — The network of cycling paths in Salzburg stretches for over 180 km. Most of it runs along the river Salzach.

2 __ Transporting up to 15 passengers to the centre of town at roughly 8 km an hour: Salzburg's self-driving minibus.

he "salzburg.mobil 2025" plan is at the core of Salzburg's bid to usher in a multimodal future. A total of 83 specific measures are targeted at easing traffic's impact on the climate and making it more environmentally friendly by establishing an appropriate mix of various modes of transport. For instance, "salzburg. mobil 2025" aims to boost both bicycle traffic and public transit by nearly 20%. The objective is to promote multimodality on a massive scale.

10,000
ELECTRIC VEHICLES

Going forward, residents will not be stuck with only one form of transportation; an improved range of choices will substantially add to the number of options they have to choose from. The idea is to develop the spatial structure of populated areas to prevent dependence on the automobile. Also, funding programs, such as financing for 10,000 electric vehicles, are designed to promote the use of electrical drives. Gas-powered buses will also run more frequently on biogas produced in the region.

As one can imagine, right from the start, Salzburg is well-positioned to launch this ambitious project to shape

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the future: cycling traffic already makes up 20% of overall traffic in the city, thanks the lack of hills and the open area. This city of 150,000 has already been full of great, fast cycling paths for quite some time. Nevertheless, the basic conditions in this Austrian state capital are challenging: space is at a premium, and construction to establish new traffic patterns is not always feasible, especially in the historic Old Town (Altstadt). "That's why we'll coordinate different transit modes with each other," says Dr. Karl Rehrl, Head of Mobile and Web-based Information Systems at the independent research organisation Salzburg Research.

means of transportation they use. The idea is to render regional centres, jobs, places of study and social institutions equally well accessible."

150,000
RESIDENTS

"The state mobility concept 'salz-burg.mobil 2025' puts us on a great path," Rehrl notes. "Ultimately, tackling future mobility challenges is about creating the comprehensive plan for all modes of transportation," he adds. •

20%

CYCLISTS

"Where does cycling make the most sense, where does walking and where does public transit?"

That's why moving freight transport to rail is also an objective of "salzburg.mobil 2025". This should go a long way toward cutting air and noise pollution and reducing the consumption of space and resources. The concept also has a powerful social component. It aims to ensure that citizens of all ages have the same opportunities to be mobile and can freely select what

THE CITY AS A LABORATORY

The "Salzburg Urban Mobility Laboratory" initiates, backs and assists with innovative plans for promoting the intelligent organisation of mobile persons and goods in Salzburg. However, this "laboratory" is not some fenced-off zone; it encompasses the entirety of Salzburg's transit space with its infrastructure.

SALZBURG.MOBIL 2025

Salzburg is raising the bar with the state mobility plan "salzburg. mobil 2025".

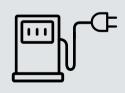


ACCESSIBILITY

The goal is to make institutions and services that are available only in Salzburg accessible from all districts, with mobility requiring a comparable amount of effort.



All of Salzburg's residents are expected to have the same opportunities for mobility and thus to be at liberty to access the means of transportation they need without breaking the bank.





EFFICIENT FUNDING

Public funds for transit, such as subsidies for the use of drive systems that do not consume fossil fuels, are to be used effectively and efficiently.



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How paper gets to Europe.

South America is one of the key source markets for the production of pulp, the main material used in papermaking. Large quantities of this pulp are imported through European ports for onward transport to customers, increasingly using DB Cargo's smart logistics and transport solutions.

rom notebooks and photocopying paper to the paper towels on standby in our kitchens and, of course, the indispensable paper tissue, we Europeans

consume an average of 700 grams of paper every single day. Pulp is the most important raw material for making paper. Globally, more than 165 million tonnes of pulp was produced for the paper industry in 2017, more than 24 million tonnes of it in South America. Importing pulp from South America is done mainly through seaports in the Netherlands, Italy and Germany.

Vlissingen and Brake: expertise in handling pulp and paper

"The different types of pulp arrive at the ports in bales weighing up to 250 kilograms, tied together in units of six to eight," says Martin Reiser, key account manager and business developer for the pulp market at DB Cargo in Bremen. Two ports in northwest Europe specialise in importing pulp from overseas, with the Verbrugge terminal in Vlissingen and the J. Müller terminal in Brake handling the cargo. "Vlissingen is the main port. The Verbrugge terminal there handles 4.5 million tonnes of pulp a year from South America, northern Europe and Portugal," says Reiser. "Our partnership with Verbrugge is one of the preconditions that permit us to design new connections to get even more transport off the roads and onto trains. With it specialised facilities, the terminal operator in Brake has made the port the largest base for importing cellulose in Germany, and three trainloads of pulp leave the port every day. Flexible additional services are used to handle any surplus. Reiner Schelling, pulp logistics expert at J. Müller in Brake, says:

"Thanks to the excellent rail connection and years of good cooperation with DB Cargo, more than two-thirds of the cargo we unload in Brake is transported onwards to the customer by eco-friendly rail." Every year, DB Cargo's seaport hinterland services carry some 43,000 high-capacity freight wagons with a loading volume equivalent to 110,000 lorries.

Market leader Fibria: pole position in sustainable eucalyptus cultivation

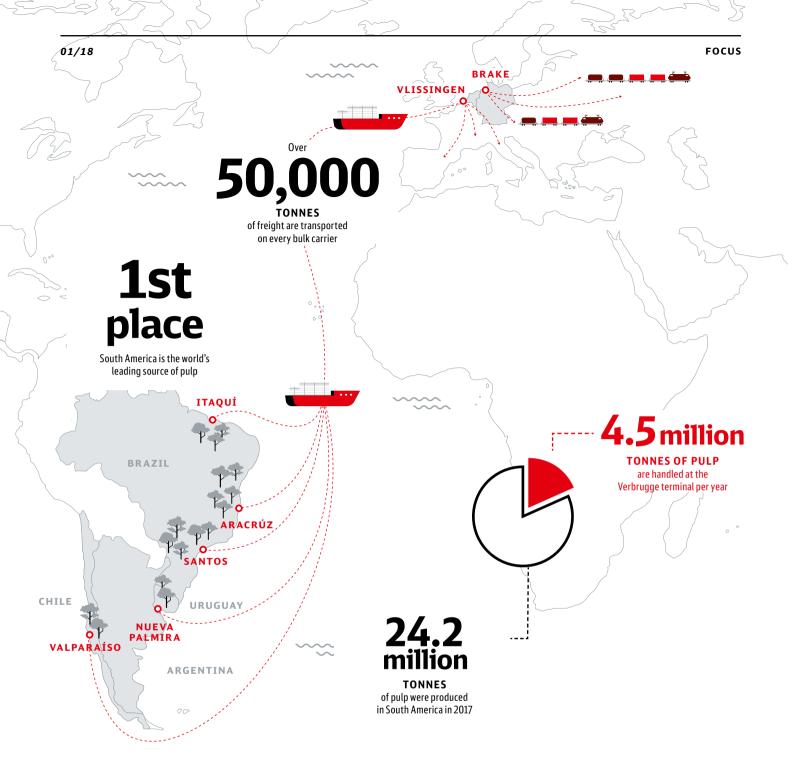
One of the leading pulp producers in South America is the Brazilian company Fibria, which is aiming for an output of over 7 million tonnes this year.





1 — From seedlings to pulp: eucalyptus is a key raw material.

2 ___ The trees spend seven years growing before they are logged.



Fibria owns over 1 million hectares of forestland and focuses on sustainable eucalyptus lumber production. It leaves more than two-thirds of its forestland unexploited, while the remaining area is devoted to eucalyptus plantations managed using the latest ecological insights. Targe Bock oversees Fibria's logistics activities in Europe. "Our activities in the field of sustainability, to protect the environment, are a perfect match for sustainable transport services by rail and inland waterway," he says.

UPM - from sustainable plantations to the quayside

In Uruguay, UPM's production facilities in Fray Bentos are located on the banks of the river that gave the country its name. They opened as the country's first paper pulp plant in 2007 and, today, they are considered to be one of the best production sites in the world. There, UPM produces an annual 1.3 million tonnes of what the industry calls "bleached hardwood eucalyptus pulp". A fleet of 350 lorries ferries the

necessary 4.6 million m3 of wood from the plantations to the plant. The resulting bales of pulp are then loaded onto barges and brought to the deepwater port of Nueva Palmira, where they switch to ocean freighters bound for Europe and Asia. UPM's plantations are managed sustainably, and ownership is shared by the company and local landowners. Since 2016, the company's foundation has worked with regional stakeholders to develop the rural community by means of education, training and entrepreneurship

focusing on paper- and pulp-related business activities. UPM's Matti Tamminen heads up pulp logistics for Europe. He says, "We're always checking to see what rail services we can use to transport pulp and so take pressure off the road network."

"We are a partner for stakeholders in all industry supply chains."

To Martin Reiser, it goes without saying that this growth also has an impact on DB Cargo's service promise to its customers that import pulp from South America to Europe. "In the past four years, we have made consistent advances regarding our cooperation with customers on the basis of our

THE PULP-SPRINTER

DB Cargo delivers over

140,000

tonnes of pulp per year from a variety of starting points



Active supply chain monitoring



Prioritisation enables outstanding punctuality



Deliveries continue regardless of the weather

Pulp & Paper Roadmap," Continuing, he names the four parameters essential to successful cooperation that were identified: communication, strategy, competitiveness and operational collaboration. "We created expert teams for our customers to develop joint solutions for specific requirements," he says. For Reiser and his team, it is important to be a reliable partner for stakeholders throughout the entire supply chain industry. "We are therefore working hard to talk to the professionals who shape the network and make the decisions. By getting to know their needs and strategies, we can develop solutions that add value," he says. One such solution is the DB Cargo Pulp Sprinter.

Customer solution: "Pulp Sprinter"

"The Pulp Sprinter is a flexible rail solution consisting of connected blocktrain and wagonload capacity to ensure a stable pulp supply chain with optimised costs," says Martin Reiser, explaining the principle. One customer for whom DB Cargo uses the Pulp Sprinter system is Mondi Neusiedler GmbH in Ulmerfeld-Hausmening. Lower Austria. More than 140,000 tonnes of pulp a year are transported straight to Mondi's paper factories by DB Cargo services originating from a range of departure points. DB Cargo functions as a contact for the entire logistics chain. "Delivery is by block train supplemented by Sprinter wagon groups that depart from the ports of Brake and Vlissingen and allow us to adjust capacity individually," says Reiser. This means that Mondi can run the transports even if volumes are too small or too large for one train. The people that oversee pulp supply chain management are responsible for ordering and timely provision of empty wagons, coordination with the terminal,



3 — The eucalyptus wood is sourced exclusively from sustainably managed plantations.

4 The pulp is shipped from these points to Europe on bulk carriers.



5 — Dr Paul Bartmann, Head of Pulp Sourcing for Europe & International at Mondi Group.



"We're always checking to see what rail services we can use to transport pulp and so take pressure off the road network."

MARTIN REISER

Key account manager and business developer for the pulp market

proactive monitoring of the transport chain and prompt information to customers. "With the help of the Pulp Sprinter, we ensure an efficient, competitive and fast supply chain for transporting pulp. It is punctual right down to the hour," says Dr Paul Bartmann. As head of pulp sourcing at the Mondi Group, he is responsible for external pulp procurement for all Mondi factories, as well as for internal coordination of pulp activities. "Our deliveries are given high priority in the rail network so that they arrive on time at our

paper factories even when the external conditions are tough," Bartmann adds.

Mondi Group: a global player in the paper market

Mondi is a global packaging and paper company employing some 25,000 people in more than 30 countries. Bartmann, who also sits on the executive committee of Utipulp, an association of European pulp purchasers, says, "We are active all along the packaging and paper industry supply chain - from the management of our forestland and the production of pulp, paper and composites to the development of efficient and sustainable packaging for consumer and industrial goods." That is why the group operates a series of research and development centres. It has six innovation bases in Germany and Austria alone, making it one of the leading firms in its sector. Given this background, Bartmann is very appreciative of his company's strategic partnership with DB Cargo: "Thanks to the Pulp Sprinter, we can guarantee that the supply chain for pulp transportation is efficient, competitive, fast - and extremely punctual."

Developing logistics solutions together

Martin Reiser and his team can also develop logistics solutions to suit



FOCUS 01/18



6 __ At ports, pulp is delivered in bales weighing up to 250 kg.

IN FOCUS MARTIN REISER

Five trends Reiser believes we will see in pulp & paper transport in the next ten years

- Smart logistics systems with integrated, eco-friendly rail solutions
- Logistics and transport solutions that generate added value for customers
- Technological innovations such as more efficient wagons, as well as management platforms
- Increasing digitalisation of processes with stakeholder integration
- Increasing stakeholder integration to create efficient system solutions

forwarder uses its container-related expertise for loading and transporting pulp and paper. Rail transportation on board DB Cargo services is supplemented by inland shipping supplied by its affiliate Interrijn and a small but professional fleet of lorries. This enables FMS to offer its customers maximum flexibility. Its Cruise Control tool also ensures that it can analyse and manage complete logistics systems that encompass every mode of transport, Bernd Müller, commercial manager for imports at FMS, says, "Our advantages include our extensive network, our expertise in the paper industry and our operations at a large number of ports."

43,000

high-capacity wagons are moved by DB Cargo each year as part of its seaport hinterland services.

Optimising round trips

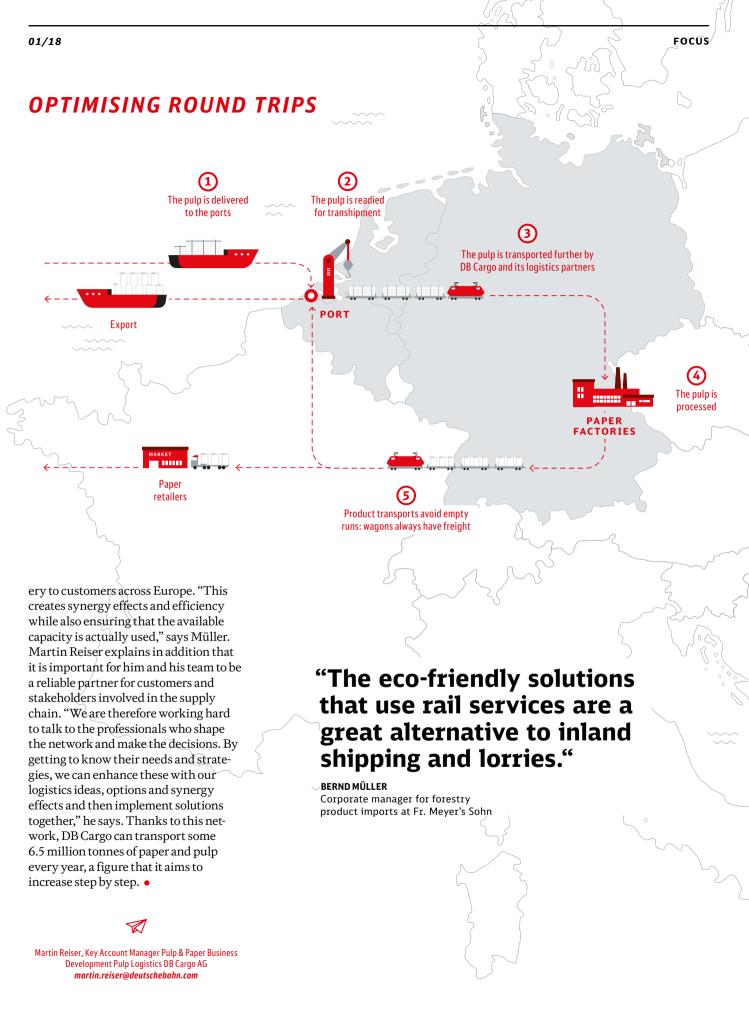
FMS and DB Cargo have developed an efficient joint approach involving the development and optimisation of round trips. Their aim: to have pulp transported by rail from the ports of Brake or Vlissingen to paper factories, where the trains can be loaded for the round trip with paper destined for export and deliv-

customers who do not yet have a private siding or whose siding lacks sufficient capacity. He is currently advising a large paper manufacturer with two plants that still transports almost all 400,000 tonnes of its raw materials by inland waterway and road, but the company now wants to avail itself of rail-based solutions as well. "We are currently thinking with the customer about how we can handle this by using its private sidings, and about which operational system is the most suitable," says Reiser. The large Hamburgbased freight forwarder Fr. Meyer's Sohn (FMS) is a tried-and-tested partner in this area.

FMS: specialists for pulp products

FMS is the world's largest logistics specialist for pulp, paper and wood products. For the main leg, especially from South America, most of the pulp is loaded onto bulk carriers. These colossal ships can carry over 50,000 tonnes of cargo and can only be handled at a limited number of ports. As an alternative to bulk transports, the freight

26





For DB Cargo, the New Silk Road is already a reality.

STRONG POTENTIAL FOR AUTOMAKERS

DB Cargo transports cars in containers from China to Belgium twice as fast as by ship.

B Cargo accomplishes this feat with the Chinese "One Belt, One Road" initiative, also known as the New Silk Road. It takes finished vehicles 18 to 20 days to traverse this route from the Volvo plant in the northeastern Chinese province of Heilongjiang to the Belgian port of Zeebrugge. Trains traveling on the route cross nearly 10,000 kilometres through Russia, Belarus, Poland,

Germany and Belgium. Commissioned by the Chinese automobile logistics company and the Chinese platform company HAO Logistics, Volvo class S90 vehicles are now being transported even all the way to Ghent with rack systems.

"Starting in February, Volvo's volume will level off at roughly two trains per week, although there have been peak periods when we transported five trains per week to Belgium," says Markus Fischer, Head of the Sales & Operations Centre, Finished Vehicles at DB Cargo Logistics. Volvo uses the rail transport approach because the company supplies its European distribution network from Belgium. Volvo also sends auto parts from its European plants to China to supply manufacturing facilities there. "But this connection could also be very exciting for British automobile manufacturers whose volumes for Asia are consolidated in Zeebrugge," Fischer continues. "For instance, using ships for firstmile transport to Zeebrugge, and then bringing goods by rail to northern or western China would shorten current times considerably." •

"The connection to China could also be very exciting for British automobile manufacturers whose volumes for Asia are consolidated in Zeebrugge."

MARKUS FISCHER

Head of Sales & Operations Centre, Finished Vehicles, DB Cargo Logistics



Markus Fischer, Head of Sales & Operations Centre, Finished
Vehicles, DB Cargo Logistics
Markus.Ma.Fischer@deutschebahn.com

01/18 FOCUS

he KombiTerminal Burghausen GmbH multimodal terminal is a joint venture of DB Cargo BTT, the German transhipment company Schiene-Strasse mbH and freight forwarder Karl Schmidt Spedition. With four tracks (two loading tracks and two stacking lanes) and the recent addition of two gantry cranes, the terminal provides an outstanding connection to the European intermodal and rail network. The multimodal terminal currently services 16 trains a week, including third-party shuttles; some 46,000 containers are transhipped a year.

"Regardless of their own loading capacity, we make it possible for customers to ship their cargo by rail and reap the benefits of the European rail network (single wagonload network and clocked shuttle connections)," says Tom Schimmel, team lead at DB Cargo BTT. "That eases the burden on the roads and reduces CO₂ emissions. Transhipment capacity jumped to 70,000 containers per year upon completion of the second crane."

FROM ROAD TO RAIL

Construction and commissioning of the second gantry crane at the KombiTerminal Burghausen multimodal terminal.

However, the success of the terminal is also based on the interests of the population; both local residents and industry representatives were included in the process as early as the design phase. During current operations, this close collaborative approach is still a strength of everyone involved. After all, residents benefit most from moving freight transport from road to rail. •



The KombiTerminal Burghausen multimodal terminal.



Tom Schimmel, Terminal and Depot Head at Kombi Terminal Burghausen GmbH

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INTERMODAL LOGISTICS

The Daimler RailNet is going all in on multimodality. Along the way, the focus is on supplying Daimler's plants.

he multimodal aspect is ideal for our overall responsibility for supplying the plants," says Martin Fildbrandt, Head of Sales & Operations Centre Components at DB Cargo Logistics. Fildebrandt adds that in the Daimler RailNet, multimodality primarily stands for flexibility and reliability of planning. "We take on door-to-door responsibility. Sometimes we go multimodal, and sometimes we use a single mode of transport, but we always aspire to be more reliable." Daimler RailNet's central mainstay is Kornwestheim. Customised and cus-



Delivering efficiency: The Daimler RailNet.

tomer focused, this shunting yard at the northern outskirts of Stuttgart links eight of the big German automaker's central European manufacturing sites: the factories in Sindelfingen, Untertürkheim, Rastatt and Gaggenau in the Federal State of Baden-Württemberg, the Hamburg and Kölleda production sites, Bremen and one factory in Kecskemét (Hungary). The dispatching tower in Kelsterbach manages Daimler RailNet's operational processes.

All of this happens virtually. Even though the staff at Cargo never see them, the employees at dispatching always know where freight is located. Two shifts and additional on-call staff ensure that customers' operational requirements are met and that the company responds as rapidly as possible to incidents in the transport chain.



Martin Fildebrandt, Head of Sales & Operations Centre Components, DB Cargo Logistics martin.fildebrandt@deutschebahn.com CUSTOMERS & MARKETS 01/18





Something is great in the state of Denmark

Boasting an annual capacity of 4,000 wagons and 200,000 tons, the tank terminal in the Danish city of Taulov is well on the way to becoming a key hub for the transshipment of chemicals and hazardous materials in the DB Cargo network.

or DB Cargo, globalisation is all about enabling and optimising supply chains, especially in Europe. Chemical companies in particular are increasingly fleeing the volatile freight rates of lorry transport to lean more heavily on reliable and rapid rail links. The multimodal tank terminal in Taulov wants to cater to this demand. Since October 1, 2017 the terminal has been able to process two trains twice a day. "In Taulov, we can organise transshipment and onward carriage by rail or lorry, so we can finally offer an appropriate door-to-door product to all

"Linking the European single wagonload system to the terminal unlocks entirely new opportunities for our customers."

the major chemical producers that export to Denmark," explains Thomas Vestergaard, who heads the Sales Division at DB Cargo in Denmark. This lets us slash throughput times in the terminal, which raises the level of quality we provide to our customers, especially during rush hour." The terminal is thus positioned as a multimodal link for the transport of chemicals and hazardous materials between Germany, northern Europe and the Baltic states. In addition, digitalised operational processes have been set up to entice new customers and boost volumes.

01/18 CUSTOMERS & MARKETS



1 __ Cutting-edge technology and experienced staff: the Taulov tank terminal.

2 Road tankers on rail: faster transshipment without the wait time.

New opportunities for customers

The new tank terminal with its competitive product portfolio has made a splash on the logistics market between Germany and Denmark for chemicals and hazardous materials. "By linking the European single wagonload system to the terminal we can unlock completely new opportunities for our customers." But Taulov is more than an ideally positioned road and rail transport hub for moving goods to and from Denmark. Taulov is also one of Den-

mark's pre-eminent multimodal centres for shipping from the industrial harbours of the Baltic Sea and the Baltic states. "Taulov's link to the Baltic Sea creates perfect opportunities for the transshipment of chemical goods between rail, road and ships on the overall corridor for importing chemicals from Europe to Denmark," says Thomas Vestergaard.

"We tap into the best two modal worlds"

There is no doubt that Taulov's perfect location yields numerous benefits for customers. But that fact alone goes only partway toward answering the question of DB Cargo's strategic target for the tank terminal. Thomas Vestergaard explains: "So far, only a few of our chemicals customers in Denmark have their own sidings; most chemicals are transported by lorry." Vestergaard. 39, says the Danish authorities are correspondingly skittish when it comes to transshipment between rail and road transport. "That will all change with the tank terminal for the transshipment of chemicals, since we will finally be able to process more chemical freight by rail and tap into the best two modal worlds: strong rail capacity utilisation through Germany and strong road transport capacity utilisation through Denmark."

"Plans to significantly grow our slice of the market in Denmark"

Thomas Vestergaard and his team are aiming to substantially grow DB Cargo Denmark's slice of the market for the transport of chemicals to and from Denmark, and to persuade Danish

SHORT FACTS

Five ways the terminal can benefit new and existing customers:

- 1 Higher ecological standards compared to current lorry-based transports
- 2 Competitive overall price thanks to sourcing strategy for chemical traders
- 3 Cost reductions thanks to enhanced capacity utilisation of combined rail and road transports
- 4 Tank terminal with the latest storage facilities, i.e. for oil-based products and liquid gas
- 5—Storage capacities support efficient distribution

authorities that transporting chemicals by rail with transshipment to lorries is both more economical and more environmentally friendly than transporting them exclusively by lorry. •



Thomas Vestergaard, Head of International Sales Denmark, DB Cargo Danmark Services A/S thomas.vestergaard@deutschebahn.com

Siding service:

Two

Annual transshipment capacity:

200,000

UU 2×80

Length of

loading tracks:

Maximum simultaneous transshipment capacity:

8

times per day

tons (without expansion) meters

Chemical wagons (four-axle), expandable to 12

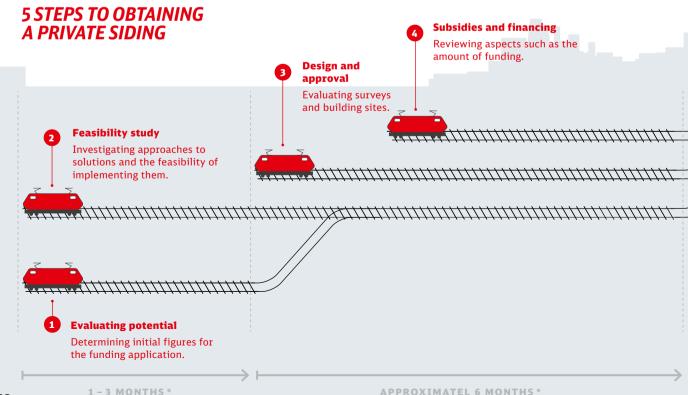
CUSTOMERS & MARKETS 01/18

The dream of one's own track

For many shippers and freight forwarders, their own private sidings are the most important way to access the rail network. The German federal government subsidises new construction and expansion of sidings. DB Cargo and DB Engineering & Consulting support companies at every step of the project.

ADVANTAGES

The advantages of rail freight transport could not be clearer: companies with their own private sidings have a hub that links them directly to the German and international rail transport network. This allows for the seamless integration of manufacturing and transport processes and lowers storage and transhipment costs. It also allows for environmentally friendly and carbon-neutral transport. Having one's own private siding is the perfect solution for any job, from heavy and oversized loads to particularly hazardous materials. The reliability in planning it provides cuts costs considerably, especially with connections from



APPROXIMATEL 6 MONTHS*

01/18 CUSTOMERS & MARKETS

one siding to another. Many European companies have already noticed this.

FUNDING

The German federal government assists private companies with financing by subsidising up to 50% of capital expenditures and 10% of design costs. DB Cargo lends a hand to companies applying for this assistance by providing them with advice.

Funding is available for the following activities: new construction and expansion or reactivation of private sidings and loading and unloading facilities for freight wagons. Specific examples include civil and underground engineering projects, track work, installation of junction switches, rail equipment, track lighting and power systems.

REQUIREMENTS

Companies are entitled to funding if they cannot finance projects in a cost-effective manner with their own capital and if the project in question has not yet commenced at the time the application is submitted. The proposed

measures also must ensure that freight is transported by rail in the long term. It also goes without saying that applicants must be private companies.

AMOUNT OF FUNDING

Projects are funded with a non-repayable grant of no less than EUR 15,000 and no more than 50% of investment volume. Design costs are considered by calculating a lump sum of 10% of eligible construction costs. The upper limit by to rail freight transport revenue is EUR 8 per ton or EUR 32 per 1,000 tonne kilometres annually, and half of the transport performance figures from non-German networks can be counted.

ASSISTANCE

Anyone designing tracks and unloading facilities is in need of assistance. Especially when it comes to including all key stakeholders or applying for funding.

DB Cargo and DB Engineering & Consulting's expertise makes them ideal partners. DB Engineering & Consulting is an international leader in

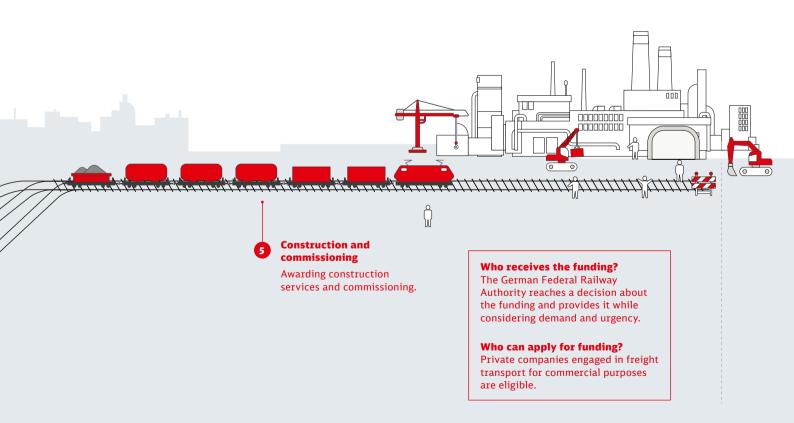
engineering services focused on rail. Whether they are designing and planning track and loading systems, handling tenders for construction services or supervising construction, the company's 4,000 employees offer comprehensive service to shippers and freight forwarders. This allows companies to rely on a single partner instead of on multiple parties. Private siding projects are managed from a single source from the time ideas are developed to commencement of operations. Efficient management of interfaces is also crucial here, such as those with infrastructure companies such as DB Netz, or with the German Federal Railway Authority when it comes to obtaining approval for funding. •

For more information:

dbcargo.com/gleisanschlussfoerderung dbcargo.com/gueterwagenkatalog



Dennis Bressel, head of customer acquisition and sidings dennis.bressel@deutschebahn.com



INNOVATIONS & SOLUTIONS 01/18

SAFETY AT DB CARGO

GETTING THE CHEMISTRY RIGHT

In Germany, the chemicals industry is one of the sectors with the greatest needs in terms of transport. Freight safety is the central issue. BTT experts use the Rail Safety Days event to improve all stakeholders' safety management processes.

n 2016, some 28 million tonnes of chemical products were transported by rail in Germany. Achieving volumes of this size is possible only because trains offer a host of advantages when it comes to moving freight for the chemical sector: not only are they ideal for transporting large load units over long distances, but rail also offers advantages in terms of sustainability, energy efficiency and - most importantly safety. Erik Koning (57), senior account manager and the person in charge of safety and security at DB Cargo BTT, puts it like this: "Whenever dozens of companies coordinate activities, whenever thousands of people work together and cover tens of thousands of tonne kilometres every day on different routes, some of which run through residential areas, the most important issues are avoiding all possible accidents and working to keep it that way."

"Safety takes absolute priority when transporting chemicals"

After more than ten years of handling chemical logistics at DB Cargo BTT, Koning knows what he's on about: "Safety takes absolute priority when transporting chemicals. Every day, we go above and beyond what is required by legal regulations to deliver this safety." With this goal in mind, he has been a driving force behind the European Safety & Security Program (ESSP) for a number of years. It is an international programme for pooling expertise and ensuring transparent communication concerning the issue of safety. The programme aims to merge every approach developed by

sales and marketing staff under the roof of Safety & Security. Koning describes one of the programme's strategic focal issues: "Discussions of safety are shaped by the management of key performance indicators, i.e. figures that show our development, how we are progressing and what we have achieved." Against this backdrop, the Rail Safety Days event has a very important role to play.



"Safety takes absolute priority when transporting chemicals. Every day, we go above and beyond what is required by legal regulations to deliver this safety."

ERIK KONING

Senior Account Manager erik.koning@deutschebahn.com

Rail Safety Days: a unique approach within the industry

The idea behind DB Cargo BTT's Rail Safety Days is unique in the rail industry, and it enables the company to advance bit by bit towards its goals every year. Koning says, "Since its launch in 2004, the Rail Safety Days event has brought all of the stakeholders in the issue of safety together at a single table. These people include representatives from the European chemicals industry, infrastructure managers and relief forces, plus representatives from government agencies." The largest Rail Safety Days event so far took place in October 2017 on the premises of industrial company Evonik at the Marl Chemical Park on the northern edge of Germany's Ruhr region. Over the course of five days, 300 transport professionals took part in training sessions on handling hazardous freight, and almost 200 figures from business and politics came to the talks and networking meetings. Koning says, "The event's objective is to generate a comprehensive image of rail safety in the entire supply chain for the chemicals industry." This plan seems to be working: a growing number of companies are interested in sending employees on the courses, theoretical and practical, to learn how to manage hazardous freight and to establish contacts with other people working in the same field. Koning states, "Safety is the focal issue of the Rail Safety Days, and this will be the case in 2018 again. Previous events have shown what the market needs: more cooperation, more information sharing, more progress towards obtaining a 'licence to operate' - all of which can be achieved through a sustained dialogue with the safety community."



- 1 __ A tank car is provided for exercises in certain courses.
- 2 __ Just in case: safety practice using a damaged tank car.
- 3 __ DB Cargo in Denmark: your link to Scandinavia.

Innovations for chemicals logistics to and from Denmark

This year's Rail Safety Days will be held on 4-5 September in the small town of Taulov in Denmark. Why there? Koning explains: "Danish chemicals companies normally use lorries for transportation and rail services have so far not figured in their logistics." A terminal has therefore been built in Taulov (see p. 30 for more information) to facilitate the transfer of hazardous goods and chemicals from rail to road and vice versa. "This helps enhance the safety of chemical logistics activities to and from Scandinavia," says Koning. Against this backdrop, the 2018 Safety Days event will focus on different national considerations concerning the transportation of hazardous materials. By providing the Danish authorities with clarification and facilitating the exchange of information, they will be in a better position to manage cargo of this nature. Erik Koning: "The event's atmosphere of open exchanges will give every stakeholder the chance to discuss best-practice cases and incorporate a broad-based understanding of safety issues into their day-to-day operations." •





SAVE THE DATE

4-5 September 2018
Rail Safety Days in Taulov/Denmark

Further information is available at btt.dbcargo.com



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The logistician makers

From the shop floor to the management level, qualified employees are in short supply across the entire logistics industry. A research institute hopes to rectify the situation: the Institute for Supply Chain Management (ISCM) in Oestrich-Winkel, Germany.



"All of our teaching is done in English.
This is important as the logistics sector is international."

DR JULIA HARTMANN

Professor for sustainable supply chain management

1 — Plenty of space for logistics specialists: Schloss Reichartshausen in Oestrich-Winkel

2 __ Benchmark in terms of supply chain expertise: students at the ISCM in Oestrich-Winkel ccording to a recent survey performed by Kühne Logistics University (KLU) on behalf of the World Bank, the logistics sector around the world has a shortage of qualified employees – logistics managers, supply chain managers, rail traffic controllers, dispatchers, etc. As a result, it is now often impossible to manage ever more complex supply chain processes. The study forecasts that if companies, universities and vocational academies fail to take urgent action to stop the decline in

numbers, the situation will deteriorate further over the coming years. Is this view correct?

"Germany's logistics sector remains in very good shape"

Dr Julia Hartmann is a professor for sustainable supply chain management at the EBS Business School's operations department in Oestrich-Winkel, Germany. She says, "Essentially, I believe that Germany's logistics sector – particularly in the context of its competitors in Europe – remains in



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very good shape. However, employee shortages seem to be more pronounced in this industry than in the manufacturing sector or retail." Hartmann believes that the real problem begins much earlier – when young people start looking for a career. "Too few school leavers see the logistics sector as an interesting field that offers them a good future," she says, adding that educational institutions and logistics companies should step up their cooperation so that they can spark and support young people's interest in careers in the field.

DB Cargo's extensive support for junior employees

In Mainz, 28 kilometres east of Oestrich-Winkel, DB Cargo has already focused resources on initial and advanced training courses and has established career paths. "In our role as a partner of the Mainz University of Applied Sciences, we can suggest a bachelor's or master's degree course to employees interested in studying while they work," says Barbara Grimm, who is in charge of recruitment and professional and career development at DB Cargo. For the past 22 years, DB Cargo has provided students in sandwich courses with a grounding in theory and practice for their jobs. Around Germany, 26 of these students are currently enrolled in a BA course that covers freight forwarding, transport and logistics. Grimm explains: "The goal of the course is to make sure that the students learn about and understand theoretical and practical issues concerning the different business activities of companies active in freight forwarding, transport and logistics."

"We see our cooperation with institutes of higher education as an important means of training young professionals for the rail freight sector"

DB Cargo is also investing time and money in vocational training: since 1999, DB Cargo lecturers focusing on practical issues have used a course



2004

Year founded

≈800

Annual number of students at institute

≈300

Annual number of graduates from institute

about the rail system to communicate innovative information to the BA students at DHBW Mannheim during their first two semesters. This work is rounded out by the euroTRAIL programme that DB Cargo offers. It is an international starter and development programme for graduates from all kinds of different courses and for internal employees who do not have a

degree but who have drive. The first year of students completed the euro-TRAIL programme in 2011, and the total number of these trainees so far now stands at 110. In light of these statistics, Grimm believes that things are looking good for DB Cargo: "We see our cooperation with institutes of higher education as an important means of training young professionals for the rail freight sector in general, and for DB Cargo in particular."

ISCM in Oestrich-Winkel: setting standards in skills acquisition for the logistics sector

Back to ISCM in Oestrich-Winkel. It's no wonder that the transfer of knowledge here sets standards: first of all, ISCM performs what it calls consulting field studies (CFSs) each year. A CFS is a project-based teaching module that sees the students tackle a "real" problem at a company and work on devising a solution. Secondly, digital lectures are combined with interactive face-to-face learning to enhance dialogue and knowledge sharing.

FIVE PARAMETERS

Five traits which Dr Julia Hartmann believes qualified logistics specialists will need in the future

- 1 The freedom to make their own decisions
- 2 Joined-up thinking
- 3 __ Analytical thinking
- 4 __ English
- 5 Willingness and ability to keep learning throughout their careers



INNOVATIONS & SOLUTIONS 01/18

Fully digital

Frictionless flows of goods and transport, flexible work processes: Durban's port gets smarter and more efficient.

frica's largest container port, located in the South African city of Durban, boasts over 80 million tonnes of freight per year and 10,000 employees. However, its growth has a downside: overstretched capacities. Lorries back up on the roads leading to the port, while freighters often have to wait for hours before they can enter the harbour.

The solution to these problems is digital: operator Transnet is transforming the South African port into a "smart port". Drones and surveillance cameras, sensors and tracking tools now feed data to a single control centre. Smart infrastructural and logistics solutions simplify handling and promote the automation of freight and traffic flows. Having a comprehensive overview of processes also makes it possible to streamline activities. At the heart of this new system is a database with a performance capacity of up

to six terabytes. The data is evaluated in real time at the control centre and displayed on screens. It is then forwarded to different points around the port, often by means of completely automatic systems.

The companies ran a pilot scheme to demonstrate their strengths to the customer before the contract was agreed. T-Systems showed that it could enhance efficiency at the port. Roland Salis from T-Systems says, "The goal of the project was to develop the nerve centre for an operations hub that lets the customer simplify its operational processes and fuse a system that analyses data in real time with its business processes. This harnessing of real-time integration and the ability to coordinate processes means that the port can improve its resource management and allocation activities."

In 18 specific cases, operational processes were simplified or accelerated. These included access and entry

controls, container and lorry tracking, plus a host of work-related processes on water and in the field of customer services. The use of high-tech solutions provided an integrated overview along with optimised traffic flows, and boosted turnover by making cargo handling faster. In the past, lorries often had to wait days - or even weeks - for their deliveries, but it is now possible to manage loading activities with much greater accuracy. Drivers can report delays, and in turn receive automatic alerts if there are problems on their routes or if a freighter is behind schedule. On-board units use geopositioning technology to provide constant data about a lorry's location and time spent at the port, and this information makes it possible to reroute vehicles if necessary.





- 1 __ Ships, drones, lorries: Durban's smart container port.
- 2 __ An average of 82,000 containers per month are shipped from the port.



INNOVATIONS & SOLUTIONS 1 — Important for rail freight transport: 18 years Öresund Bridge. PADBORG MALMÖ COLOGNE

Faster link from Sweden to the Ruhr district

From Malmö to Cologne in 18 hours: DB Cargo's new direct service expands the company's single wagonload network and forges another link between Germany's Ruhr district and the industrial powerhouse in southern Sweden.

he new service was inaugurated last September for SSAB and Outokumpu, and it transports about 1,600 tonnes of steel items on every trip - six days a week, no less. This addition to the network generated a tremendous amount of interest right from the very start, and other customers are already using the new train, for example to transport paper. Katja Janschersky, head of rail services for Sweden, says, "There are no limits on freight in terms of weight, size or type - the train is there for every kind of customer." With its set journey times, the new train offers Scandinavian companies highly

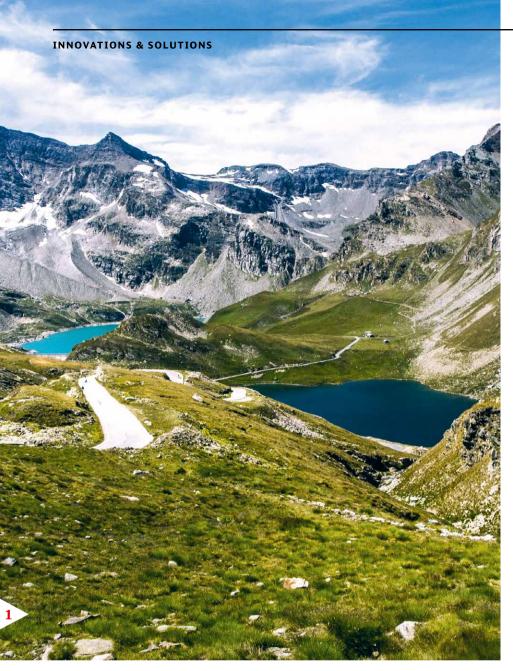
reliable schedules at competitive prices. It also represents the ideal way to access central Europe thanks to nearly seamless connections: Gremberg marshalling yard in Cologne is a central hub served by scores of long-distance services linking it to all of Germany's major industrial centres. Freight can also be transferred to DB Cargo's Europe-wide network for onward travel: shuttle services run from Cologne to destinations throughout the wider region and in the Netherlands, Belgium and Luxembourg. DB Cargo is the only rail freight operator to provide a direct single wagonload connection between Malmö and

Cologne. The company also offers more than "just" transport: customers can make use of the door-to-door logistics chains that DB Cargo manages inhouse and which also include first- and last-mile services throughout Europe. It's just about the easiest way of getting freight to central Europe's markets.

While the new connection is currently of particular interest to Scandinavian companies that use Europe's north-south corridor for their cargo, DB Cargo is also responding to its customers' wishes and making further plans for its network. For example, the company is now working on establishing a direct connection for the return leg of the same journey, promising excellent access to Scandinavia.



Katja Janschersky, Head of Rail Services Sweden Katja. Janschersky@deutschebahn.com



1 __ Across the Alps: the corridor from Amberieu to

2 __ Optimised mix of Ealos-t and Roos-t wagons.

3 _ Up to 22 wagons can be loaded at the same

the end of 2015, DB Cargo Logistics and Italian timber company Barbieri commenced talks and started looking into a reliable solution for the end-toend rail transport needs of the familyowned firm, in existence since 1982. Clemens Pflästerer, who heads up timber sales and operations at DB Cargo Logistics, says, "The goal of our joint project was to give the customer a single-source solution for the entire logistics chain, starting at the station in France where timber is loaded. Our solution would also cover planning activities for the loading timetable along with operations management." With this as their target, Pflästerer and his Italian counterpart Learco Limontini set to work.

The old transport system: no longer cost efficient

"There used to be a rail connection," says Pflästerer, "but the market in France and other factors influencing the situation changed over the years until the old transport system stopped being cost efficient at some point." Based in the northern Italian city of Modena, Barbieri has been a successful operator in the timber industry for more than 30 years. The company needed to maintain a transport link from France to Italy, so it was forced to fall back on a fleet of lorries to move

Returning to rail

Italian timber trader Barbieri Fratelli imports over 150,000 cubic metres of green wood from France annually. A few years ago, all its lumber arrived by lorry, but this changed in 2015. 01/18 INNOVATIONS & SOLUTIONS

cargo. "After that happened, we failed to win Barbieri back as a rail customer for a number of years," says Pflästerer. However, Limontini and his team never stopped assessing the option of switching back to rail.

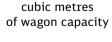
"We now have a stable system"

Reviving the route across the Alps between Amberieu and Cuneo and transforming the west-south rail corridor into a proposition with long-term appeal for customers required a major rethink. The new solution entailed integrating timber supplies from loading points at different locations in the Massif Central region with the larger rail concept. It didn't take long to gen-



corridor length; 700 km end-to-end

90





Loading capacity of up to 22 wagons simultaneously

erate initial ideas for a new multimodal plan, nor to find new partners who wanted to sign up for the undertaking. Pflästerer says, "We started our test in 2015 and then used 2016 and 2017 to keep working on improving the connection. We can now say that we have established an efficient system for round trips."

Through the Alps: a solution tailored for customers

The revived route is some 500 kilometres long and starts in Amberieu, located in the Rhône-Alpes region in southeast France. Pflästerer describes the connection: "Amberieu forms the hub at the French end. From there, we break the train up between different routes that radiate out to different loading stations in the Auvergne region." Following loading, the cargo returns to Amberieu, where it starts out on the line running towards the Alps to the southeast. After 300 kilometres, it reaches the Italian border high in the mountains at Mondane, and then it continues for another 200 kilometres before reaching its destination in the Piedmontese town of Cuneo. There, the train is separated into two sections for dispatching to the recipient. "Volumes have seen such steady growth that we now operate two train sets on a permanent basis," says Pflästerer. Limontini adds, "Our office in Novate Milanese handles the operations for the entire run."

French timber market reconnects with Italy - by rail

In January 2009, a severe storm hit southern France, uprooting many trees. Once they had all been cleared, rail transports of logs from France to Italy came to a virtual standstill. In light of this situation, Pflästerer says, "It goes without saying that we also deliberately aimed to make sure that our new service functioned as an advertisement for our sector." He and his team therefore designed a solution with a twofold objective: to be a potential cross-customer solution for the timber industry, and to establish a sustainable rail connection linking forests

IN FOCUS

Four ways that new and existing customers benefit from the Amberieu-Cuneo corridor

- Shorter lead times thanks to an efficient round-trip system
- Efficient utilisation of train and wagon capacities
- Professional sales-focused product development and operations management
- (Reduced carbon emissions

in France to markets in Italy. The revived route has established itself as an efficient, cohesive round-trip service, but Pflästerer and Limontini feel they still have work to do. Their next goal: getting more customers in Italy to use "their" corridor through the Alps as access to the French timber sector.





INNOVATIONS & SOLUTIONS 01/18

JUST WHAT IS THE JOB OF A ...

...DISPATCHER AT DB CARGO?

Rüdiger Horstmann, a member of the customer service team in Duisburg, describes how varied the work of a dispatcher is at Europe's largest rail freight transport company.



y work as a dispatcher poses new challenges for me each and every day. As someone on the Metals customer service team, one of my roles is that of the single point of contact for Deutsche Edelstahlwerke Speciality Steel GmbH & Co KG. Providing this customer with empty freight wagons and planning transport orders are among my main duties.

Typically, an order starts with a request for empty wagons that can then be loaded with cargo. The order also comprises transportation to a destination yard on a date specified by the customer. A total of 912 people work at the Duisburg customer service centre, and my team has 37 members. My working day starts at 7:00 am. When I get in, I first check to see if the customer orders from the previous day have been carried out correctly. If necessary, I follow them up. While I'm on my shift, I oversee five trains running from the Ruhr district to the Siegerland region for Deutsche Edelstahlwerke Speciality Steel GmbH & Co KG. It goes without saying that transports can be suspended because of damage to a wagon or the cargo. Sometimes, an entire train has to be cancelled. If this happens, I inform my customers about

AND WHAT IS THE CUSTOMER'S OPINION?

"We are very happy with Rüdiger Horstmann's work. We particularly appreciate his rapid, customer-focused support in time-sensitive situations."

EDGAR FRANKE

Head of Logistics, Deutsche Edelstahlwerke Speciality Steel GmbH & Co KG

the service disruptions. Depending on the situation, I coordinate my work with our production or wagon management teams and look for alternatives that I can offer my customers quickly.

In this job, if you want to cope with the different dispatching tasks to the satisfaction of the customer, there are some qualities which are key: levelheadedness, customer focus and a talent for solutions. These are particularly important when you have to manage difficulties. • U

This November, DB Cargo will once again open the doors of its Duisburg customer service centre as it hosts its dispatcher day for the industrial sector. Meet our employees for interesting talks and discussions.

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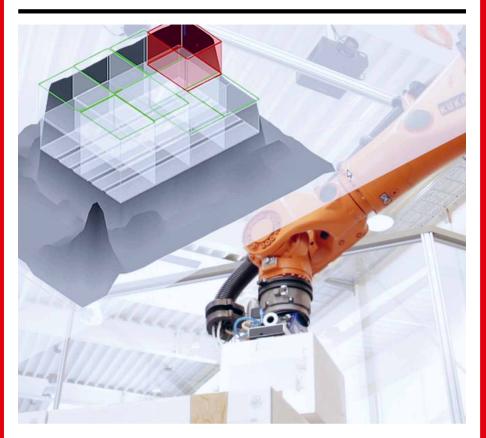
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Innovative and efficient: logistics at DB Cargo.

// LOOKING AHEAD

IT'S A MATTER OF **TECHNOLOGY**

DB Cargo is ready for the future.

to meet its competitors' challenges.

What are the technological solutions and innovations that are necessary to ensure that customers can create the most efficient supply chains possible? The next edition of railways will see us take a close look at DB Cargo's work (often behind the scenes, but always in close coordination with customers) to set the pace in the logistics sector. This requires us to know precisely what it is that customers require - ideally before they know it themselves. DB Cargo deploys predictive analytics to evaluate complex data and so plan customers' resource-related needs on a day-by-day manner that always has an eye to the future. On behalf of Germany's transport and digital infrastructure ministry, DB Cargo is conducting research into freight wagons that are quieter, more energy efficient and more economical than ever before. Perfect implementation of these plans is the goal. Other research issues include solutions for autonomous driving to aid train drivers and improve operations at marshalling yards. In addition, smart sensors are already contributing to the virtually uninterrupted monitoring of transport chains and customer

freight. We will also explore the potential of blockchain to make trans

port chains even more transparent, and we will introduce the specialists whose work is necessary to keep DB Cargo fit for the future and ready

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