

# railways

The customer magazine of DB Cargo



02/19

FOCUS

## TRADE FAIR & MORE

A platform for logistics specialists, a network for experts, and an inspiration for the entire sector: the transport logistic trade fair showcases what's happening now and what the future holds. The focus is always on providing the best solution for customers.

→ Page 08

# Editorial



Dear reader,

American author Mark Twain is reported to have once said you can change the world or yourself, and that the latter is harder to do. As new Board Member for Sales and Marketing, that's incentive enough for me to join my colleagues in working hard to ensure the future of Europe's largest freight rail company.

In this magazine, and at transport logistic in Munich, the world's leading trade fair for logistics, mobility, IT and supply chain management, we will show you what the whole logistics industry needs to do and how DB Cargo is arming itself for future challenges.

Included in this issue is our map of the trade fair and the booths to serve as a little guide to help you get your bearings and ensure you don't miss us in the more than 115,000 m<sup>2</sup> of exhibition space. The map is handy to take out when you're on the move.

Happy reading!

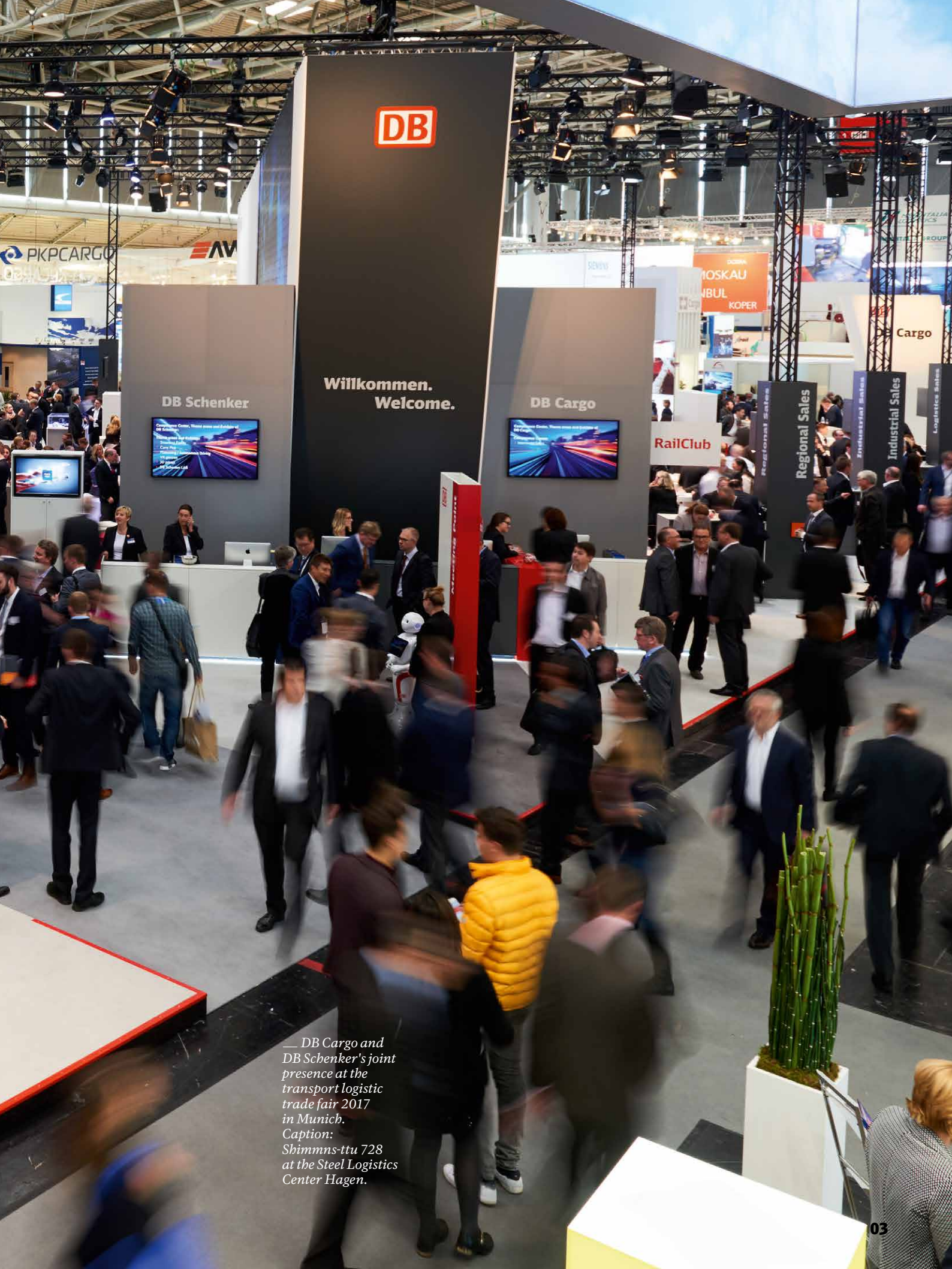
Sincerely,

A handwritten signature in black ink, appearing to read 'P. Timmermans', written in a cursive style.

**Pierre Timmermans**

Board Member for Sales and Marketing, DB Cargo AG





**DB**

**Willkommen.  
Welcome.**

**DB Schenker**



**DB Cargo**



**RailClub**

**Regional Sales**

**Industrial Sales**

— DB Cargo and  
DB Schenker's joint  
presence at the  
transport logistic  
trade fair 2017  
in Munich.  
Caption:  
Shimmns-ttu 728  
at the Steel Logistics  
Center Hagen.

# Trade fair & more

## FOCUS

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DB Cargo is therefore investing in the multi-system Vectron locomotive.



— Digitalisation is one of the main topics at the transport logistic.

# 02/19

— *The quickest way to the DB Cargo booth in Hall B6 is via the east-side entrance.*



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Safe transport of transformers weighing hundreds of tonnes.

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... a sales manager at DB Intermodal Services?

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#### Looking ahead and publishing details

## NEWSLETTER

Visit our website and subscribe to our newsletter:  
[www.dbcargo.com/newsletteranmeldung](http://www.dbcargo.com/newsletteranmeldung)

Our customer magazine won a gold at the FOX AWARDS 2018 in the "Transport and Logistics: external communication" category.





— Steffen Bobsien is taking on a new role in Zabrze, Poland.

NEW BOSS

## Bobsien heads to Poland

Effective 1 April, Steffen Bobsien took over from Marek Staszek as Managing Director (CEO) of DB Cargo's Polish subsidiary DB Cargo Polska S.A. He previously served as head of the Assets & Technology unit (F.CBA) at DB Cargo, where he has been replaced on an interim basis by Thomas Jäger. Marek Staszek switched to the management board of the German parent company in February and is now managing the Production Division there. •

WELKOM BELGIË!

## DB Cargo is now in Antwerp

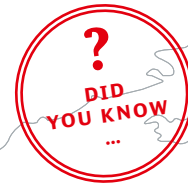
DB Cargo wants a local presence in the growing Belgian freight market and has therefore founded DB Cargo Belgium BVBA. Based in Antwerp, the new production company has already commenced operations. The Belgian rail freight market is attractive and full of potential, with anticipated annual growth of 1.5%. The two Belgian ports of Antwerp and Zeebrugge have great strategic significance for European freight transport.



— The spectacular Antwerp Central station is not far from the port.

The new company, DB Cargo Belgium, will now be running block trains and single wagonload traffic between Belgium and its neighbouring countries, mainly on the Aachen-West corridor to Germany. The company's base is close to Antwerp's port, which is Europe's second largest seaport.

In the next issue of railways, you will find an article that takes an in-depth look at DB Cargo's activities in Belgium. •



that DB Cargo's outdoor exhibition track at the transport logistic trade fair is

# 69

metres long?

that DB Cargo and DB Schenker's joint exhibition booth measures

# 1,128

square meters?

that the transport logistic trade fair has

# 2,397

different exhibition booths for visitors to see?



— Summit meeting: the head of Swiss company SBB Cargo, Nicolas Perrin (l.), and the head of DB Cargo, Dr Roland Bosch.

#### CONTRACT RENEWAL

## DB Cargo and SBB Cargo set an ambitious goal

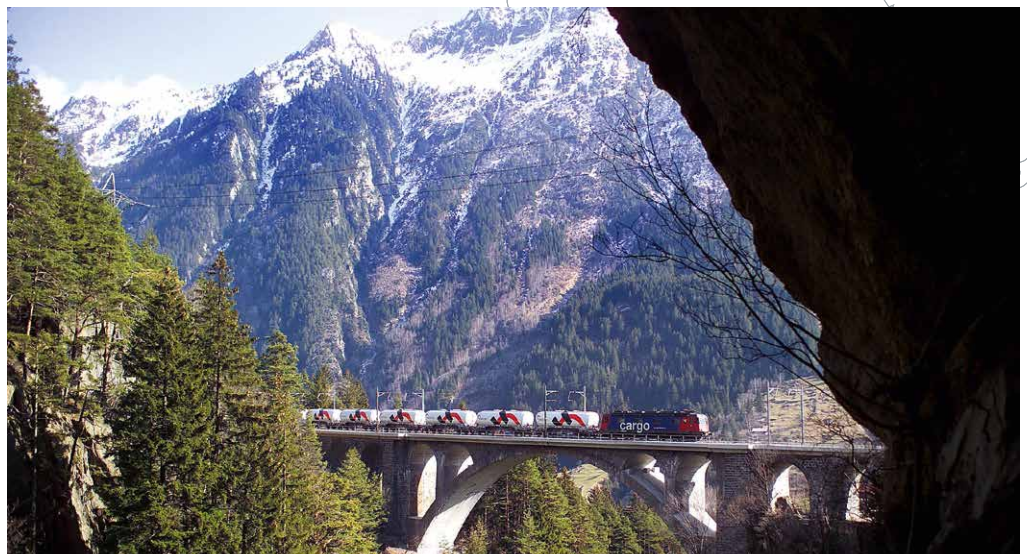
The successful collaboration between DB Cargo and Swiss company SBB Cargo has been extended for another three years, ahead of schedule. On behalf of its German partner, SBB Cargo operates approximately 130 freight trains per week from the German city of Mannheim or the Swiss city of Basel across the Alps to Chiasso on Switzerland's border with Italy. What is more, it does so with an ambitious on-time arrival goal of 95%. Freight trains are considered to be late if they arrive more than 60 minutes behind schedule.

The freight companies have already been working together for five years to move more transports from road to rail. A three-hour interval between Mannheim and Chiasso was introduced to accomplish that aim.

DB Cargo head Dr Roland Bosch and his SBB Cargo counterpart Nicolas Perrin both gave an extensive double interview commenting on how this collaboration is working and what areas can still be improved. You can find the complete interview here:

<https://www.dbcargo.com/interview-bosch-perrin-en> ●

— Silo wagon of the Swiss building materials manufacturer Holcim at the Gotthard Pass.





# First impressions

Starting in the spring, two experienced logisticians and railway employees joined DB Cargo's Management Board: Pierre Timmermans (57), the new Board Member for Sales and Marketing, and Marek Staszek (50), Board Member for Production. We asked them to introduce themselves.

## PIERRE TIMMERMANS

**Mr Timmermans, what has your first impression been like?**

**PT**— I can feel a great deal of enthusiasm and commitment, despite the challenges posed by economic and production concerns. But most importantly, I see huge potential, both in Germany and in other countries. There is much that needs to be done in the intermodal area in particular. The biggest objective is growth. We want to

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**“On the whole, I tend to look forward more than backward.”**

**PIERRE TIMMERMANS**  
Board Member for Sales and Marketing

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bring even more traffic from the roads onto rail. We will succeed in accomplishing that, too, with close collaboration between Sales and Production.

## CV

**1995–2002:**  
Frans Maas, Board Member for Contract Logistics

**2002–2010:**  
CEO PSA Europe (Port)

**2011–2015:**  
CEO AWT (Rail freight transport)

**2015–2019:**  
Interim Manager/CEO NRG

**2010–2019:**  
Prorail Supervisory Board

**Since March 2019:**  
Board Member for Sales and Marketing DB Cargo AG

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**What characteristics do you consider to be particularly valuable in the team?**

**PT**— For me, it is especially important to think and act in an entrepreneurial way, and to be honest and transparent. What I really don't like is when people cover up mistakes. There's one thing I learned early on from my American customers: you should spend less time on the question of why things went wrong and who is to blame for it. Instead, you should look for solutions and ideas of how to



move forward. On the whole, I'm a person who prefers looking forward to looking backward.

**Has your leadership style changed over time, and if so, how?**

**PT** — I believe I used to be very quick to draw conclusions. Over time I've noticed that it's worth looking at both sides of the coin and examining situations from various points of view. Today, I listen much more and do a little less talking.

**Digital or analogue – which do you prefer to spend your free time on?**

**PT** — “Get outdoors” is my motto. I cycle or run, including longer stretches of up to 16 km. I'm also an enthusiastic sailor. I particularly enjoy taking a yearly trip to Croatia with my family.

**MAREK STASZEK**

**Mr Staszek, what is your impression of the switch from the Polish national company to the Management Board of DB Cargo?**

**MS** — I have already visited a few sites and I met professional, highly committed colleagues everywhere I went. However, the competition in our industry is fierce. There are also quality deficits at our end that erode our market position. We have already done a lot to improve quality. Nevertheless, we still have a long way to go.

**“Success is possible only when a lot of people contribute.”**

**MAREK STASZEK**  
Board Member for Production

**CV**

**2010–2014:**  
Board Member for Finances at  
DB Schenker Rail Polska

**2014:**  
CEO DB Cargo Polska

**Since February 2019:**  
Board Member for Production and  
Production Germany DB Cargo AG

**What is important to you as a manager?**

**MS** — I was 29 when I became the head of a marshalling yard. That was where I learned that I shouldn't dictate to anyone what to do or how to do it. Everyone already knows that very well for themselves. Instead, managers have to create an environment where everyone can bring their strengths to the table in an optimal fashion. That's because success is possible only when a lot of people contribute. I also appreciate it when someone likes to take on responsibility and wants to contribute to the big picture.

**Do you always decide everything on a rational basis or do you also trust your gut instinct?**

**MS** — I can't answer that in a general way. Of course, making decisions rationally on the basis of facts is the right way to go, but it also has its limits. There is often some uncertainty left over, and you can cover that with your gut feeling. Emotions also play a role, opening up more space for intuition, when decisions affecting a lot of people are at stake.

**Do you prefer non-fiction or novels?**

**MS** — The last book that I read was *The Structure of the Human Person*, by Edith Stein. I also find audio books very practical when I'm travelling. However, I prefer listening to classical music even more. My favourite composers include Frédéric Chopin, Johann Sebastian Bach and Igor Stravinsky. •



*#logisticsconnected*

# shaping the future

**T**he logistics industry is the backbone of the global economy. Not only does it transport goods, it also fosters the spread of innovation and frequently enables businesses to create value in the first place. It is also called upon to constantly adapt and improve its solutions as few other industries are. Digitalisation, climate protection and the recruitment of specialists are the current hot topics, and the transport logistic trade fair in Munich will address them.

DB Cargo will showcase its whole portfolio and show how our customers can benefit from the company's status as a European market leader with an extensive network: The company offers multimodal solutions on the Eurasian corridor and innovations such as Wagon Intelligence and the new digital link2rail platform. The following pages and the enclosed map of the trade fair will help you find your way around DB Cargo's extensive range of products at transport logistic.

However, even if you are unable to visit us in Munich, we would like to bring you up to speed on current issues facing rail freight transport and the logistics industry. BVL President Robert Blackburn has penned a guest contribution that sheds light on the future of logistics providers from the standpoint of digitalisation, artificial intelligence and the struggle for talent.

We will also be taking a look at the most state-of-the-art vehicles that DB Cargo has to offer at the moment - both in this issue and at the trade fair.

**Welcome to the world of DB Cargo!**





### IS THE MAP OF THE TRADE FAIR MISSING?

You can download the map of the trade fair here as a PDF:



# Our presence at the trade fair

**DB Cargo and DB Schenker's combined exhibition booth is the largest at transport logistic 2019. Learn more from the market leader at first hand.**

## SALES DIVISIONS

**1**

### INTERMODAL SALES

We introduce our new product modules.

**2**

### LOGISTICS SALES

DB Cargo Logistics as a product developer and solution provider: discover our portfolio.

**3**

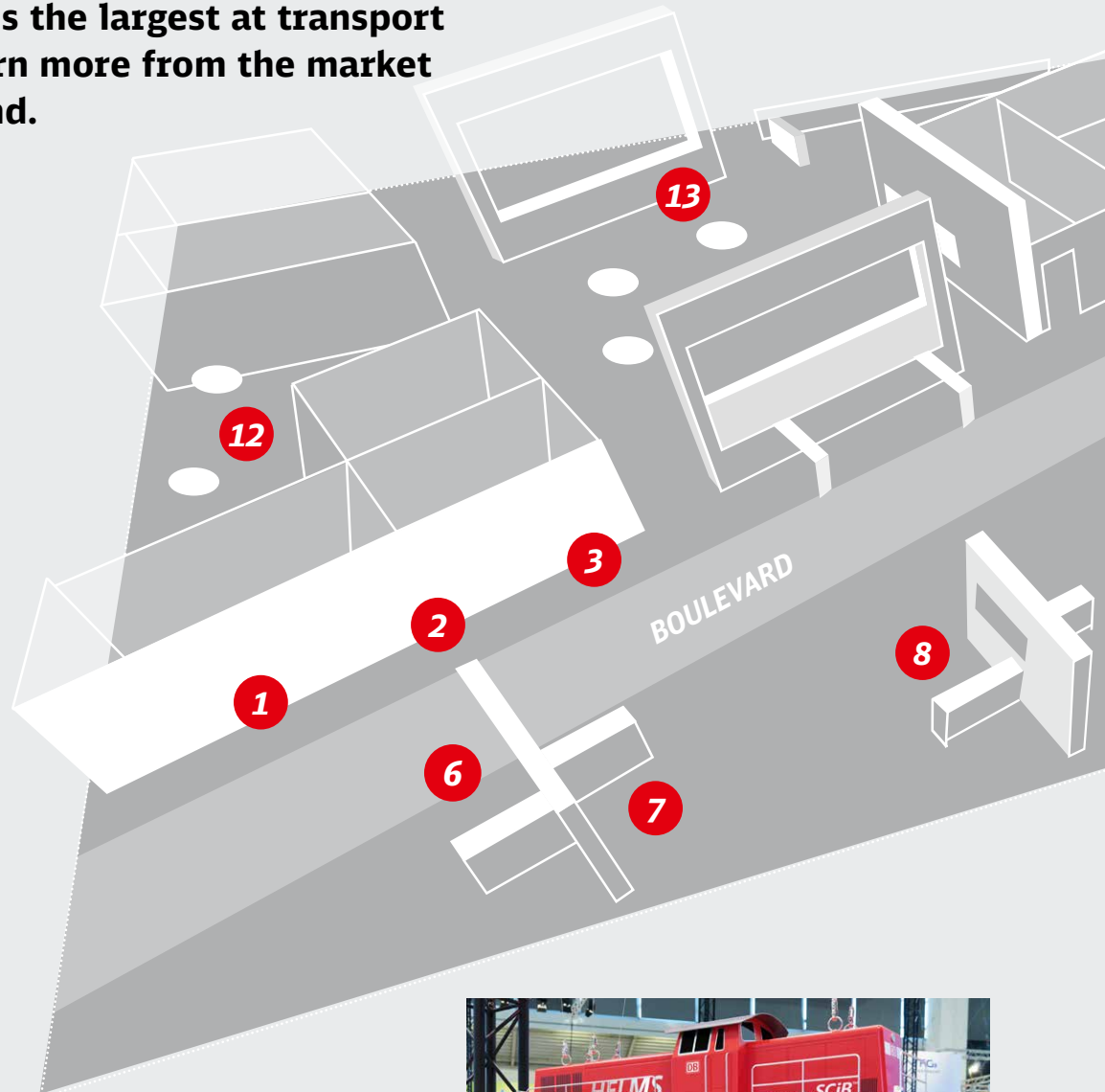
### INDUSTRIAL SALES

New direct services to complement the single-wagonload network and new developments in the fleet.

**4**

### INTERNATIONAL & REGIONAL SALES

Transporting even small cargo volumes in our European network.



*— We aim to leave no question unanswered. Please speak with us directly at our booth.*



— Our knowledgeable employees will explain our digital portfolio to you, as well as our new link2rail platform.



— Our generously sized exhibition booth offers multiple opportunities to engage in conversations and establish contacts, including for new customers.



**INFORMATION CENTRES**

**5 NEW CUSTOMER SOLUTIONS**

Become one of DB Cargo's new customers and benefit from 4,000 private sidings and 1,500 freight terminals.

**6 TRANSFRACHT MARITIME SOLUTIONS**

Information about company trains, traffic on short routes and new port connections.

**7 EURASIAN CORRIDOR SOLUTIONS**

Get to know our activities on the Eurasian corridor.

**8 MULTIMODAL SOLUTIONS**

Introduction to and conceptual development of multimodal products and logistics services.

**9 RAIL SOLUTIONS**

Learn more about our European network with help of our innovative network map.

**10 DIGITAL ASSET SOLUTIONS**

Digitalisation of our assets as a basis for innovative services and tools.

**11 LINK2RAIL SOLUTIONS**

Our central platform for all digital services and solutions for your company.

**BAR + MEETING**

**12 MEETING ROOMS**

**13 INFO COUNTER MEETINGS**

**14 INFO COUNTER**

**15 EXHIBITS**

**16 HR AREA**

# Trust comes with obligations

**DB Cargo manoeuvres the exhibitors' wagons onto the outside exhibition space at transport logistic. A task requiring careful planning.**

**A**t the outside exhibition space at transport logistic, manufacturers, freight forwarders and transport companies demonstrate the latest developments in rail transport. From 30 to 40 wagons are expected every year; they are often prototypes or one-of-a-kind, high-value wagons. All of them have to be placed on three exhibition tracks and in the



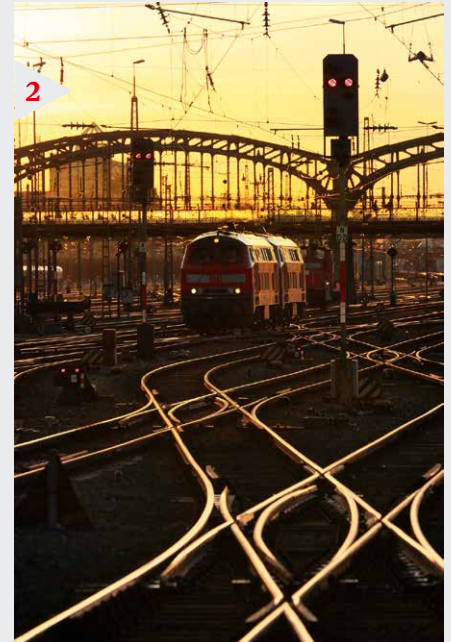
proper order. Both the location and the orientation of the wagons have to be correct. After all, an information stand generally has to be placed before the wagon, and stairs are required to provide access to the presentation at the trade fair.

Thomas Gabler of DB Cargo Munich knows how complex it is to place all of the wagons in exactly the right position. He has been planning these transports for years. Weeks before the trade fair, the customer wagons arrive at the transshipment terminal of Munich-Riem in no particular order. Well before the beginning of transport, a DB Cargo team gets together and works out in what order the wagons need to roll along the entrance track onto the three trade fair tracks. "Exact planning is everything," says Gabler.

Often, wagons first need to be turned around. This involves performing a "turning movement" in the Munich area with complicated shunting manoeuvres. This is a special challenge for the shunting locomotive drivers. After all, they are working

**1** — DB Cargo's exhibits are on the outside exhibition space at transport logistic on track 3/8.

**2** — A view to the west of Munich's central station with the distinctive silhouette of the Hackerbrücke.



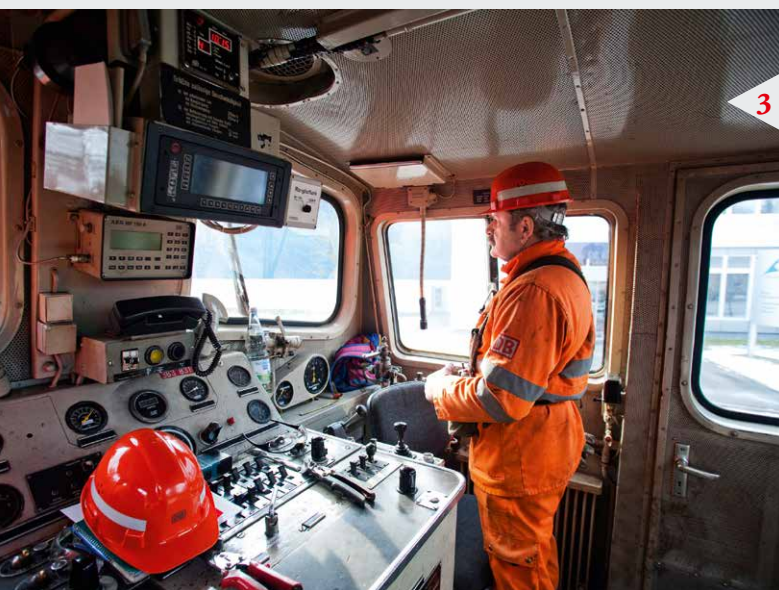
## "The trade fair customers entrust their most valuable assets to us."

**FLORIAN ZÖLCH**  
Head of DB Cargo's Munich site

with valuable, brand-new wagons, many of which have never been on German tracks before.

"Care and conscientiousness are important qualities for planning and shunting operations," says Gabler. His colleague Florian Zölch, Head of the Munich DB Cargo site, adds: "The trade fair customers entrust their most valuable assets to us. And trust comes with obligations."

Finally, the shunting movement onto the Munich exhibition grounds is performed. The wagons need to be pushed during the manoeuvre, so that the locomotive can exit the site afterwards. Extreme caution is needed when crossing the outside exhibition space. The train drives at walking speed, and all train movements take place in daylight. With set-up work already underway, lorries or other objects could be blocking the track. In the end, it all goes well and the wagons can show the visitors their best side. ●



**3** — A DB Cargo driver in the cab of a class 363 shunting locomotive.



Florian Zölch, Head of DB Cargo AG's Munich site  
[florian.zoelch@deutschebahn.com](mailto:florian.zoelch@deutschebahn.com)

— Huge tasks such as digitalisation can only be tackled if we have highly qualified employees.



OPINION PIECE BY ROBERT BLACKBURN

# “Logistics needs employees with excellent qualifications”

**Digitalisation, international trade, recruitment: what are the major issues at this year’s transport logistic trade fair in Munich? How do things look for the changes unfolding in the German logistics sector? An opinion piece by Robert Blackburn, board chairman at Bundesvereinigung Logistik (BVL) e. V.**

**T**he world has changed a lot since the last transport logistic fair was held two years ago. Back in May 2017, the UK had already formally started the Brexit process, but no negotiations regarding the country’s departure had begun. In the USA, Donald Trump had been sworn into office in January and the world had seen the first indications of his presidency’s style and substance, which Europe largely took in its stride. The economy was humming.

In October 2018, logistics experts working in industry, trade and transport services took a look ahead at the possible developments over the coming months, and for the first time in over two years, their prognosis was one of scepticism. This change in outlook persists and is now supported by the latest economic data. The EU is searching for a new equilibrium and long-term stability. An unpredictable transformation is taking place in its political and possibly also in its economic relationship with the USA, an

export market of crucial importance. The conferences scheduled for this year’s trade fair demonstrate that logistics specialists are wondering how international trade is likely to develop in the future.

Eastern markets are one focus: the New Silk Road has inspired companies’ strategies as well as their imaginations. Other key topics are transport infrastructure, multimodal transport, urban logistics and last-mile solutions, improvements at ramps and staff shortages in every logistics-related profession. However, the digitalisation of business and services dominates everything else, and developments here are picking up speed.

## **Digitalisation can improve the quality of logistics services**

Digitalisation that uses artificial intelligence (AI) poses a challenge for everyone and every company involved in logistics.

Extensive investments are necessary, as are new ways of thinking ▶

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**“It’s surprising that the issues of recruitment and qualifications don’t feature more prominently in Munich.”**

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► and working. These will have implications for staff, qualifications and organisational activities alike. The term “intelligence” is, unfortunately, misleading in this particular context. AI can aggregate and process large quantities of data quickly, but it has so far had difficulty coping with unforeseen and unusual situations, and the speed at which machines can learn is slow in comparison with people. Nevertheless, there are already many practical applications for AI in the logistics sector – it can identify sources of data that had previously gone unnoticed, link databases and consolidate multiple information duplicates.

These features mean that AI can make forecasting future requirements far more accurate. Planning and managing activities can be optimised using real-time data. This also leads to simpler processes and greater efficiency, and the quality of logistics services can improve because the reasons for disruptions can be identified faster despite being embedded in a highly complex context, and we can use agile management to address them. The potential uses of AI are manifold: intelligent access equipment that uses cameras to identify who is at a loading bay, intelligent pallets that know when they are being moved and supermarket shelves that give personal tips to shoppers. Virtually everything will be digitalised, and AI algorithms will supply specific datasets, be they about companies or individuals.

AI can perform certain tasks faster and with greater precision than people, which means it can reduce employees’ day-to-day workloads. Because it can process huge quantities of data, it can generate faster decisions and solu-

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**“Virtually everything will be digitalised, and AI algorithms will supply specific datasets, be they about companies or individuals.”**

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tions than even the most experienced member of staff. If this leads to merged goods flows, the better utilisation of resources and fewer delivery runs, the overall result is better for the environment. These are exciting prospects, and the logistics sector has a key role to play in them.

**We need people with good qualifications and who enjoy the world of Logistics 4.0**

To make efficient use of the latest tools and working methods, the logistics sector needs employees with excellent qualifications and the right training. Competition for staff is fierce, particularly because we are up against other technology-dependent sectors. With this in mind, it’s surprising that the issues of recruitment and qualifications don’t feature more prominently in Munich. I think many of the conversations at the trade fair will be about this issue and the search for answers. This is important because if companies want to grasp the many opportunities offered by digitalisation and the logistics market, they have to win the support of their employees – people who have the right qualifications, who are motivated by and unafraid of

changes, and who enjoy Logistics 4.0 and their work.

One final point: the logistics sector’s image is often a problem for companies. They need to make changes here as well. Interesting reports from the trade fair, continuous PR activities to clarify questions about logistics, participating in the annual Supply Chain Day and support from the new “Wirtschaftsmacher” initiative with its “logistics heroes” campaign – all of these are important if companies want to show the public a realistic image of what the sector is like. This is all the more important because logistics is Germany’s third-largest industry. Each and every day, the sector tackles highly challenging situations and offers interesting job openings to people with ambitions. ●



**ROBERT BLACKBURN**

— became chairman of the board of Germany’s logistics association, Bundesvereinigung Logistik (BVL), in January 2018. Holding a PhD in economics, he was previously CEO at Hoffmann Group, president of supply chain operations and information services at BASF SE, and vice-president and business unit head for manufacturing, software and services at IBM. A pioneer in the fields of transformational leadership and digitalisation, he also teaches at the Massachusetts Institute of Technology and holds an honorary professorship at the Karlsruhe Institute of Technology.

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**> 3 mio.**

people work in  
the logistics sector

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1

**1** — We want and need to be proactive in winning over skilled personnel for ourselves.

**2** — Logistik 4.0 needs one thing above all: specialists with good qualifications.



2


**Learn more about recruitment at the transport logistic trade fair:**

Come and talk to us in our HR area.

→ Trade fair map, p. 11, 12 & 13

— DB Cargo is getting more digital, more multimodal and consequently more sustainable.

# Digital, multimodal & sustainable



**Developments in the business and logistics sectors have always been shaped by a host of factors, some of which are almost impossible to plan for. Every two years at the transport logistic trade fair in Munich, the sector discusses and demonstrates their direction for the future. Digitalisation continues to play a crucial role, something that is unlikely to change in the foreseeable future. At DB Cargo, it encompasses several undertakings, such as expanding the digital link2rail customer platform and establishing a direct connection to customers. Their transport-related demands are becoming steadily more complex, so it is necessary to make greater use of multimodal solutions. The goal of all of these is to shift cargo to the more environmentally friendly rail network: the “Fridays for Future” demonstrations make it absolutely clear that climate protection is and will remain one of the most important topics facing society. At the same time, it is one of the rail freight network’s strengths.**

# New platform for digital services



**A**bout two years ago, DB Cargo launched the myRailportal platform and, since then, the experience has been positive for the company and many customers. Consequently, myRailportal now offers large clients customised portal solutions. In the next stage, the firm wants link2rail to build on these and establish a standard approach that it can resize as required for as many customers as possible. Easy app-based access to functions is being added to the portal, and customers can use an API – an application programming interface that enables data to be easily exchanged and further processed – to connect their own company software.

Jürgen Bosse, head of customer integration, explains: “In this way, we are able to provide our customers with services and data on the channel that they require. link2rail is the unified brand presence for our digitalisation and product development platform, which we created so we could offer customers added value.” Looking ahead to the DB Cargo transport logistic trade fair, Thorsten Meffert, Vice President of Marketing at DB Cargo, adds, “Our focus with everything we endeavour is always on the customer. That is why we will be opening the doors to our workshop to demonstrate just how our digital services work and be ready to provide help and advice in person at the trade fair.”

## Focus on customers

Several digital services are being developed, including a uniform, simplified order placement process for shipments and empty wagons. Bosse says, “Our customers informed us that this wasn’t very easy, so we put this item on our to-do list. The advantage is that these functions are linked with one another, so you don’t have to keep switching between applications or memorise things like wagon numbers.”

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**“Our digital services will help customers to boost their efficiency and easily control complex logistics chains.”**

**DR ERIC PFAFFMANN**

Head of Customer Service Logistics, Head of IT Projects Sales at DB Cargo AG

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DB Cargo’s digitalisation activities all focus on a higher goal: increasing customer satisfaction levels, creating added value, and so making the railway a more appealing option for freight transport. “It goes without saying that we also take a look at how we can

## DIGITAL

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#wagonintelligence is one of the teams laying the foundations for digitalisation at DB Cargo. It is working on sensor technology, interface points and the associated algorithms at the amspire lab in Frankfurt. This team recently fitted the company’s 15,000 freight wagons with telematics systems.

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improve our internal processes so that we can concentrate on our customers more,” says Bosse.

In the meantime, DB Cargo is continuing to overhaul freight wagons with a plan to refit the entire fleet with sensors and radio technology by 2020. This upgrade opens up a host of options: location identification via GPS, information about movement, mileage and impacts, plus short-range communication by means of NFC and RFID. The company’s systems will also collect additional information about air humidity, temperature and dew point, depending on the wagon fleet, while freight cars will also be able to report if they are full or empty.

Dr Roland Bosch, CEO at DB Cargo, says, “We will retrofit our fleet of approximately 68,000 wagons by the end of 2020, which means that we will be able to view up-to-the-minute GPS and other data on a centralised system. The efficient, end-to-end monitoring of transport chains will be possible.” ●

— link2rail is  
DB Cargo's new  
digitalisation and  
product develop-  
ment platform.

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# 67

“amspire” lab staff are  
working on the digital solutions  
of the future.

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Learn more about this topic at the  
transport logistic trade fair:

- 10 Digital asset solutions
- 11 link2rail customer solutions

→ Map of trade fair, p. 11, 12 & 13

# The future is multimodal

**E**nd-to-end visibility is the term experts use when the progress of a freight shipment along its route is completely transparent. It plays a key role in enhancing the quality of transport services. Digitalising, accelerating and simplifying processes represent just the first step: the actual delivery that follows has to be as smart, from the customer's point of view, as the upstream action of placing the order. With its multimodal transport solutions, DB Cargo is constantly improving how it links up with digital interfaces and harnesses them more effectively for its freight operations. This form of integration not only enhances punctuality, reliability and resilience, but it also has the potential to shift more freight to environmentally friendly rail services as DB Cargo caters to every link in the transport chain. This chain normally starts long before a freight wagon embarks on its journey.

Customers do not necessarily need to have their own sidings to gain access to DB Cargo's Europe-wide rail network: instead, more and more freight gets loaded onto trains at the public sidings, seaports, 150 combined transport terminals and some 100 railports covered by the company's network. Multimodal terminals and railports are the key to the multimodal transport chain, and they are the interface point between the different modes of transport that are essential for customised, door-to-door transport services. Railports in particular are, increasingly, more than just places where freight gets loaded from lorries onto trains.

## Solutions with added value

Staff at logistics service provider Fichtl in Saal an der Donau, Bavaria, pack, load and transport goods by lorry to their end customers. The company's portfolio also includes pallet handling, tray packing, packaging loose items, container solutions and outsourcing solutions. These services give SMEs easier access to the multimodal transport chain as the companies do not need their own warehousing space or the required in-house capacities for packaging or order picking activities.

Family-run company Fichtl not only handles combined transport and rail-road transshipment, but it also caters to triple-mode transports that combine ocean, rail and road. Almost every sector makes use of multimodal solutions, and the company has even developed its own technical solutions for transporting components from OEMs to carmakers. Crane-incompatible trailers such as lorry semi-trailers are loaded onto special pocket wagons using the CargoBeamer system. This made it possible for DB Cargo and Volkswagen's group logistics and haulage company Waberer's to perform the first multimodal delivery for the German carmaker. Special transports are possible even for things such as the parts of a power plant's cooling towers, which can cross several national borders as part of a multimodal chain. Trains are used for the main leg of the journey, while DB Cargo organises the first- and last-mile segments by lorry. ●

— Standardised data enhances the transparency needed for multimodal supply chains in particular.





## MULTIMODAL

The extreme complexity of intermodal supply chains is often seen as a disadvantage for combined transport (CT) compared with end-to-end road haulage. Rail usage is difficult due to the physical interface points (terminals) and large number of players involved, in addition to the many different cross-border requirements relating to freight transport. The CT 4.0 project is designed to create a more transparent, clearer intermodal transport chain. It will use standardised interfaces and provide access to order- and timetable-related data, ETA forecasts and supplementary transport-related information.

**51%**  
of the  
**4.49** mio.

euros in the CT 4.0 budget comes from the German Federal Transport Ministry.

Learn more about this topic at the transport logistic trade fair:

- 1 Intermodal sales
- 8 Multimodal solutions
- 9 Rail solutions

→ Map of trade fair, p. 11, 12 & 13




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# 290

million tonnes of CO<sub>2</sub> emissions could be saved by the Rail Freight Forward initiative in the coming ten years.

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## For the climate

**W**hat do digitalisation and multimodal transport have to do with climate protection? The answer is simple. Taking to the streets to prevent climate change is right, and it is an issue that concerns every generation. Around the world, the Fridays for Future demonstrations by schoolchildren make it clear that its significance is set to increase further. However, if Germany wants to even have a chance of achieving its climate objectives, it is absolutely essential

that traffic starts making the shift to the railways now. This is what the Rail Freight Master Plan addresses with its comprehensive range of measures focusing on the rail system's reliability, digitalisation and increased capacities. The plan's funding is earmarked specifically for new locomotives such as the multi-system Vectron e-locomotive (read more on p. 34) and new wagons such as the slab and coil car (read more on p. 28), which promises to deliver greater flexibility and efficiency for the steel industry's transportation

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# 9x

less: the difference in CO<sub>2</sub> emissions generated by rail-based freight relative to road haulage

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— Freight wagons fitted with whisper brakes are up to 10 decibels quieter than conventional brakes. To people, this means a 50% reduction in noise.

railways to be a quiet, good neighbour to everyone, especially when it comes to freight services. To achieve this, we have introduced noise-differentiated track access charges and we are investing over EUR 150 million in government subsidies to fit wagons with whisper brakes. In addition, starting at the end of next year, loud freight wagons will not be permitted to use the German rail network. We want to use these and other measures such as noise reduction as effective, audible improvements that protect people living near train tracks.” DB Cargo is making a major contribution by installing whisper brakes. Over 80% of its wagon fleet – that’s more than 50,000 cars – have already been fitted with these low-noise brakes. Once government funding is subtracted, this undertaking alone costs the company a total of EUR 200 million.

**“We want to use these and other measures such as noise reduction as effective, audible improvements that protect people living near train tracks.”**

GERHARD SCHULZ

State secretary at Germany’s Federal Ministry of Transport and Digital Infrastructure

needs. The Vectron locomotive, slab and coil wagon and other innovations will be waiting for visitors at the outdoor display area of the transport logistic trade fair in Munich.

### Sustainable investment

Shifting more transport to the greener railway system is, however, a mammoth task with countless variables. It’s not just customers who need to be won over. A specific segment of the public also needs to support the modal shift though it will, at first glance, benefit them the least – people living beside the rail lines. Gerhard Schulz, state secretary at Germany’s Federal Ministry of Transport and Digital Infrastructure, says, “We want the

## SUSTAINABLE

Deutsche Bahn is already Germany’s largest user of renewable energy: in 2018, the share of green energy in the company’s traction mix rose to 57%. The target for 2030 is 80%. Hydroelectric power accounts for the majority of the traction mix, and many of the plants are located in Germany. One of them is in the Bavarian town of Bad Reichenhall: it is managed by DB Energie itself and has been in operation for over 100 years.

### Noah’s Train

DB Cargo is also a member of Rail Freight Forward, a coalition of European freight rail operators that have made it their goal to drastically reduce freight transport’s negative impact on the planet and transform mobility using innovations and an intelligent combination of transport services. Dr Roland Bosch, CEO of DB Cargo, says, “We are working with our European partners to change the transport mix of the future. If Europe’s roads see a 30% increase in cargo between now and 2030, that will translate into one million additional lorries, more traffic jams and additional harmful CO<sub>2</sub> emissions. The transport transition will only succeed if we can get more freight onto trains.” As part of a headline-grabbing campaign to promote this modal shift, DB Cargo set Noah’s Train off on its journey from Katowice in Poland to Brussels at the end of the recent World Climate Conference. A symbol for change, the train is also the world’s longest mobile artwork: at each stop along its route, well-known street artists added images of animals to its wagons. ●

Learn more about this topic at the transport logistic trade fair:

Come to our info desk 14 and talk to us.

→ Map of trade fair, p. 11, 12 & 13

# An efficient and flexible all-rounder

**Working with its business partners, DB Cargo has created a wagon for the steel industry that combines the features of two freight wagon types in one. This means greater flexibility and efficiency for customer thyssenkrupp Steel Europe.**

**T**he slab and coil wagon is the new multifunctional freight carrier from DB Cargo AG. A six-axle flat wagon, it allows trains to transport steel in either slab or coil form, and can also be used for moving containers. The wagon's requirements were defined and tested in different ways, including as part of a joint undertaking with DB Cargo's customer thyssenkrupp Steel Europe (tkSE). This collaboration resulted in a new kind of freight car that can handle both slab steel and coils of steel. For steel industry customers like tkSE, the new wagon

means greater flexibility and efficiency.

Resource manager Jan Bellmann is in charge of qualitative and quantitative management for DB Cargo's steel fleet. "The central idea behind this new creation was to increase the flexibility of the freight wagon fleet while at the same time maximising efficiency," he says. "At present, two different types of wagon are still in use for transporting slabs, i.e. rectangular blocks of cast steel, and coils, which consist of rolled-up sheet steel. Our design for the new slab and coil wagons merges the two types."

## **A completely new creation: the slab and coil wagon**

Bellmann continues: "There were no precursor models." The idea for the new wagon dates from 2015. DB Cargo ordered five prototypes, and their development was coordinated with Germany's transport and digital infrastructure ministry. The ministry helped fund the development process, and the wagon's small environmental footprint was one of the contributing factors in this decision.



— Coils are loaded onto the wagons at the steel logistics centre in Hagen.

**“We have flexibility in how we use this wagon, which means that we can react more quickly to changes in production.”**

**MELANIE ÜBELÄNDER**  
Senior expert for purchasing and coordinating rail services at thyssenkrupp Steel Europe

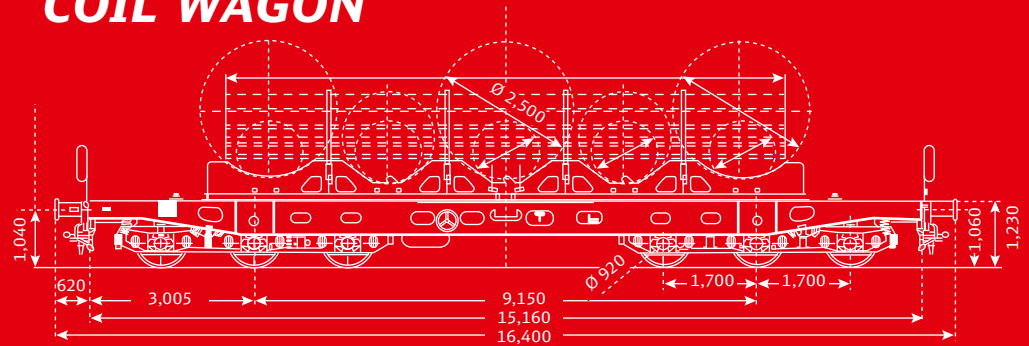
## SPECIFICATIONS

Length over buffers:	16.40 m
Loading length:	15.16 m
Loading width between cradles:	2.40 m
Width between stanchions:	2.63 m
Axle load:	22.5 t
Max. empty weight (incl. stillage):	35 t
Max. payload:	100 t
Max. total weight:	135 t

## SLAB AND COIL WAGON

**Specific uses:**

Transporting steel slabs, steel coils and containers



## INFOBOX

The six-axle slab and coil wagon is a new type of transporter from DB Cargo for carrying steel products. It can be used for a number of purposes and can also transport 20- and 40-foot containers in addition to steel slabs and coils.

The purpose of the new wagon type was simple: it had to do exactly what slab wagons and coil cars could each do separately. Bellmann says, “We took the best features of each wagon type and combined them to make a single wagon.” One factor was particularly important: the new model had to be capable of carrying 100 tonnes.

### Orders for 95 more wagons

The prototypes were put to work at DB Cargo’s steel industry customer, tkSE. They completed their test runs at the end of 2018 and made the switch to scheduled operations at the start of 2019. “We got really good feedback from the very first day, so we ordered 95 of the wagons,” Bellmann recalls. Delivery will start in the fourth quarter of this year, and the wagons are to be used for tkSE’s inter-plant transports in the Ruhr district. Bellmann says, “Above all, this innovative new design enables our customers to make their shuttle services more efficient

and streamlined.” Needless to say, tkSE is extremely pleased with the new model.

Melanie Übeländer, senior expert for purchasing and coordinating rail services at thyssenkrupp Steel Europe: “Thanks to the slab and coil wagons, we can reduce the need for shunting, and wagons are at our disposal faster because we no longer need to return empty cars. We now also have greater flexibility in how we use the wagon, which means that we can react more quickly to changes in production. Less shunting and fewer empty runs also have a positive impact on CO<sub>2</sub> emissions.”

As Jan Bellmann emphasises, the new wagon is by no means the end of DB Cargo’s endeavours to enhance its vehicle fleet: “Alongside this multi-functional wagon, we will also add other wagons to our fleet – Shimmns and Samms, for example – in response to customer demand.” •



Jan Bellmann, resource manager for wagon demand planning at DB Cargo  
[jan-christian.bellmann@deutschebahn.com](mailto:jan-christian.bellmann@deutschebahn.com)



**“The central idea behind this new creation was to increase the flexibility of the freight wagon fleet while at the same time maximising efficiency.”**

**JAN BELLMANN**

Resource manager for wagon demand planning at DB Cargo

Experience technology up close in the outdoor area of the transport logistic fair:

**Track  
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→ Map of trade fair, p. 11

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# 10.5 mio.

tonnes: how much steel  
DB Cargo transports with  
this wagon every year.

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*— What makes the  
slab and coil wagon  
special: it's possible  
to change the type  
of cargo without  
having to modify  
the wagon.*



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# The new 561: the strong type

**Europeans like to be prepared for anything that comes their way. They are increasingly buying large size sport utility vehicles (SUVs). This trend also has consequences for logistics providers in the automotive industry, who need to adapt their means of transport to the new vehicles. DB Cargo has now developed a wagon that can transport heavy cars.**

**E**urope is driving SUVs: market research institute Jato reports that 5.51 million of the big cars were sold in Europe in 2017, up nearly 20% from the previous year. These vehicles are selling so well that car manufacturers are switching their production. At the same time, logistics companies are adjusting their supply chains, since transport of the large and

heavy vehicles (possibly even with alternative drive systems) alters existing systems. DB Cargo Logistics is also adjusting to the trend and is now adapting its freight wagon fleet to the needs of its customers. “Today, we continually run into limits when it comes to efficiently transporting SUVs”, says Markus Fischer, Head of the Sales & Operations Centre Finished Vehicles at DB Cargo Logistics.

“The wider and heavier vehicles are a drag on the capacity utilisation of our wagons, which pushes up the unit costs of transport.” DB has therefore developed a new type of wagon for finished vehicles that uniquely combines the advantages of existing fleets with innovative new elements: the Laaeffrs 561.

## Stringent technical requirements

For the construction of the wagon, DB Cargo Logistics relied on tried-and-tested partners that were familiar with the requirements of auto transporters and able to bring excellent industry expertise to the table. After all, developing the new model 561 was a very tough nut to crack from a technical perspective. New SUV models had to be transported as efficiently as possible. Having an especially low bottom loading level was of prime importance, because cars that are roughly two metres tall can barely be loaded onto existing double-decker wagons. To avoid running up against track clearance limits, the maximum possible height and width of the load on the transport route had to be factored into the development of the wagon. Given the increasing weight of the vehicles, freight wagons also need to be more stable. “We modified techniques from



— The wagon is 33 m long and equipped with telematics and a flexible load securing system.

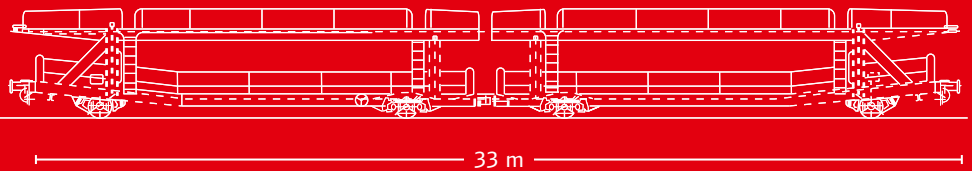


## TECHNICAL DATA

<b>Total length:</b>	33,000 mm
<b>Upper load length:</b>	32,550 mm
<b>Upper load width:</b>	2,794 mm
<b>Lower load length:</b>	32,080 mm
<b>Lower load width:</b>	2,950 mm
<b>Max. car height</b>	
<b>Double-decker:</b>	roughly 1,990 mm
<b>Empty weight:</b>	36.5 t
<b>Max. payload:</b>	35.5 t

**LAAEFFRS 561**

The wagon is equipped with telematics. The flexible load securing system enables a wide variety of transport and loading options.



existing freight wagons in order to combine all of these aspects regarding the structure of the wagon and the high level of stability”, explains Tobias Sander, Project Manager Equipment at DB Cargo Logistics. For instance, the 561 model has flexible upper loading levels for vehicles of various heights. Small wheelsets reduce the height of the overall wagon. Other improvements that were made include flexible elements on the lower loading level, a special geometry of the upper loading level and the loading surface, which is two metres longer than that of conventional flexible freight wagons.

# 16%

more vehicles can be transported by the open Laaeffrs 561 type wagon.

a new order that the company recently landed. A market leader for large off-road-capable cars and SUVs opened a plant in Slovakia in October 2018 to manufacture two particularly stately members of the SUV class. The company invested several million dollars in the state-of-the-art production site. The plant produces various versions of SUVs, and in the future they will even have a range of drive systems. The vehicles are already larger and heavier as it is, and the electric drive systems will add another couple of hundred kilograms to the weight of the vehicles themselves and therefore their transport weight. Deutsche Bahn applied for the order back in 2016, and was awarded the rail transport contract after a year of bid processing.

DB Cargo Logistics will now transport the vehicles to the exporting port of Zeebrugge. “It is rare for new car plants to be built in Europe. It is a wonderful confirmation of our work that we are able to be there from day one to transport new vehicles”, says Markus Fischer.

**Prototypes win over the customer**

DB Cargo Logistics will use the Laaeffrs 561 to transport over 200 vehicles per train to Zeebrugge several times a week. The new wagons will

**FURTHER DEVELOPMENT**

The freight wagon with two load levels is able to transport cars, SUVs and vans throughout Europe. Its special geometry and flexible, adjustable elements makes it perfectly suited for transporting SUVs and vans efficiently even for low clearances. Given the high load limit of 35.5 tonnes, it can also transport vehicles that are particularly heavy.

increase the proportion of the fleet that is able to transport heavier passenger cars. “The additional flexible elements and the load securing systems allow us to transport roughly 16% more vehicles on one train”, says Elisa Glinkowski, Account Manager at the Sales & Operations Centre Finished Vehicles. Soon, other car manufacturers will also be able to appreciate this advantage, as the wagon can be used all over Europe. ●

**Maiden voyages**

It took two years of development time before DB Cargo Logistics was able to present the first prototype in 2018. The first freight wagons will be delivered in April 2019. More than 200 more will follow in the coming months. DB Cargo intends to use the freight wagons for the first time with



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Experience technology up close in the outdoor area of the transport logistic trade fair:

**Track  
3/8**

→ Map of trade fair, p. 11

# The best of both worlds

Rail logistics experts from DB Cargo and engineers from InnoFreight are working together on new freight wagons for the steel industry. Multifunctional wagons with flexible superstructures fuse both companies' expertise.

**M**any companies in the steel sector require transport services for a large volume of semi-finished steel products, slabs in particular. DB Cargo has responded to customer requirements and created additional wagon space by deploying its 80-foot InnoWaggon with steel pallets. In the process, DB Cargo and InnoFreight joined forces to discuss new wagons that could be used more flexibly. InnoFreight develops innovative freight wagons, containers and unloading

systems, and it has been working with DB Cargo for the past two years as part of a close and successful partnership.

## First joint development project

Many people think the InnoTainer Coils wagons are a visually appealing but nevertheless conventional freight car. However, pulling back the wagon cover reveals more than just steel: the new wagons are the latest product of DB Cargo and InnoFreight's cooperation, and they combine the experience of both companies. This particular



**“By using InnoTainer Coils, we have expanded DB Cargo’s portfolio of freight wagons and created additional loading space for customers.”**

SAGEEV SATHIYANATHAN  
Resource manager for wagon demand planning at DB Cargo



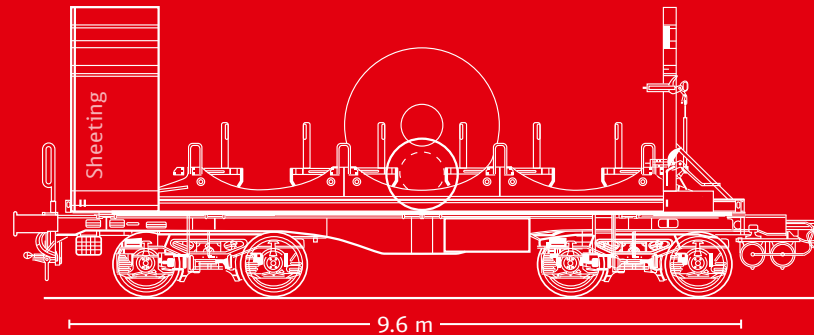
**1** — Coils (wide and narrow) are loaded safely using the positioning arm.

**2** — The cover only needs to be fully opened once, cutting the time needed for loading and unloading.

## TECHNICAL DATA OF EACH WAGON

<b>Total length:</b>	11,250 mm
<b>Length:</b>	9,600 mm
<b>Width:</b>	3,040 mm
<b>Height:</b>	2,970 mm
<b>Max. load width:</b>	2,029 mm
<b>Design:</b>	3 loading cradles
<b>Max. load per cradle:</b>	35.5 t
<b>Max. load per metre:</b>	8 t/m

## INNOFREIGHT



solution is the multifunctional answer to the transport needs of many rail freight customers.

In spring 2018, DB Cargo submitted its initial requirements in connection with steel coil transportation: the company wanted multifunctional freight wagons with modular container solutions. At DB Cargo, Sageev Sathiyathan coordinates the joint undertaking with InnoFreight. He says, "In terms of its function, the new wagon had to be built like the Shimmns-ttu so that customers would warm to it." InnoFreight didn't need long to come up with a proposal, and the demonstration of the InnoTainer Coils prototype took place in August 2018.

### Heavy cargo, short wagons

As the limits had been reached in terms of length and payload, the new wagon is especially short: instead of five cradles, the 30-foot superstructure only has three. This increases the utilisation of train capacities while at the same time making the wagons lighter and less susceptible to faults. Loading and unloading are also easier, something that saves time and money given the high safety standards in place in the steel industry.

Sathiyathan says, "By using InnoTainer Coils, we have expanded DB Cargo's portfolio of freight wagons and created additional loading space for customers."

The design of the new cars offers two key advantages. For one, it has a replaceable superstructure, which

means that it can be returned to use faster in the event of maintenance work. It is also possible to rectify minor damage "on the go" if necessary. For another, the wagons are more flexible in terms of use. Sathiyathan explains: "When demand fluctuates or customers' requirements change, we can change one superstructure for another type or replace it with a container. Using a single vehicle, we can cater to the needs of a number of business sectors."

Mario Carl, CEO at InnoFreight Germany, believes that this modular design will play an important role in the future of rail freight transport and explains that his company has long been using modular concepts. So far the logistics provider has brought over 12,000 standard and container wagons to the market.

### Scrap has high requirements

Another prototype from DB Cargo and InnoFreight's joint development stable is the ScrapTainer, the name of which accurately describes its purpose. Scrap poses several challenges in terms of equipment and transportation (including weighing). As freight, it is heavy and frequently bulky, and it can cause substantial damage to wagons, as the visible bumps and bulges on cars

clearly reveal. Sathiyathan says, "The ScrapTainer is built of ultra-strong steel for greater stability and higher utilisation in comparison to conventional Ea wagons." DB Cargo and InnoFreight started the development process at the end of last year, and the first wagons are currently undergoing testing.

### Development is set to continue

The concept underlying the multifunctional freight wagon has a lot more potential left in it, and there are plans to create modular vehicles for other sectors as well. Companies in the chemicals and raw materials industries are also very interested in these modular systems: combined with the right unloading equipment, they offer the necessary flexibility for planning transport services and for transshipment activities at railports and other hubs away from customers' premises. The future belongs to the multifunctional freight wagon. ●



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Resource manager for wagon demand planning at DB Cargo  
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See the technology for yourself in the outdoor exhibition area of the transport logistic trade fair:

**Track  
2/2**

→ Trade fair map, p. 11

# European markets are losing their borders

**DB Cargo is helping to make this possible by investing in multi-system locomotives. These are allowing trains to avoid a locomotive changeover on a growing number of international European routes.**

**T**rans-European traffic has been constantly growing for years. The results can be seen on major highways day in, day out, with seemingly endless lorry convoys from every corner of the continent. “International transport is no problem for road hauliers,” says Karsten Boldt, procurement manager for traction units at DB Cargo, “but for rail freight providers there are some technical challenges involved in crossing borders.”

## BRIEF FACTS

Delivery and approval of the first 60 Vectron locomotives in the A22 version, which is primarily designed for use on the Rhine-Alpine Core Network Corridor, was completed by the end of 2018. Since the 2018/2019 timetable change, DB Cargo trains have been running for the first time without a change of locomotive all the way from Rotterdam to Verona, for example.

Delivery of the remaining 40 locomotives, which will be used on corridors to eastern and southeastern Europe, will follow in 2019 and 2020.

## Historical legacy creates a competitive disadvantage

Boldt understands the root causes of rail’s competitive disadvantage compared to road: “While road transport was largely standardised across Europe, a wide range of different motive power systems emerged on the railways, which are often incompatible with each other. This had historical reasons and was closely linked to the heavy national focus of the then state-owned railways.”

**“Our customers expect us to handle their rail consignments punctually and reliably”**

Despite progress with standardisation, technical boundaries between different systems are still a feature of Europe’s rail network. These require rail operators to have a supply of vehicles that are compatible with the local infrastructure. Running trains across Europe still requires a locomotive changeover at many points in the network. This creates the potential for delays and bottlenecks, says Boldt.

“Whatever the technical barriers, our customers expect us to handle their rail consignments punctually and reliably. Our mission at DB Cargo

is not only to meet these expectations but also to systematically expand our transport capacity along the trans-European corridors. This relies on the availability of suitable locomotives.”



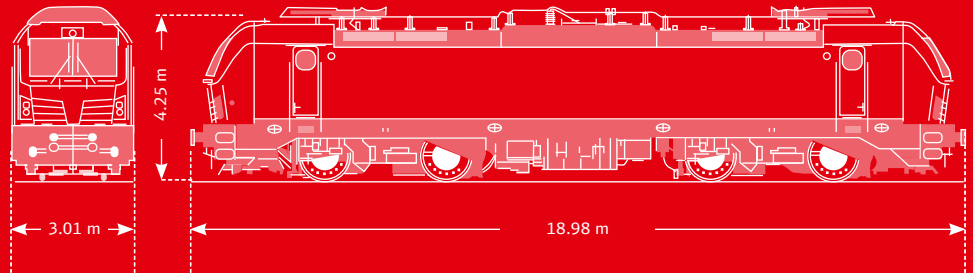
**“Using multi-system locomotives improves the reliability and quality of transport for our customers.”**

**KARSTEN BOLDT**  
Asset Management & Procurement –  
Vectron, DB Cargo AG

## 193 VECTRON MS (CLASS 193)

### SPECIFICATIONS

<b>Length over buffers:</b>	18.98 m
<b>Width:</b>	3.01 m
<b>Height:</b>	4.25 m
<b>Bogie wheelbase:</b>	3,000 mm
<b>Axle load:</b>	max. 22.5 tonnes
<b>Tractive effort:</b>	300 kN
<b>Maximum speed:</b>	160 km/h or 200 km/h



### The DB Cargo fleet for Europe

As Europe's largest rail freight company, DB Cargo therefore kicked off a comprehensive programme to procure new multi-system electric locomotives in 2017. The company is currently procuring 100 class 193 Vectron MS locos from the manufacturer Siemens in various country packages. Boldt: "The locos are currently being used in Germany, Austria, Switzerland, the Benelux countries and eastern and southeastern Europe." They integrate the train protection systems and cab radio standards used across Europe."

### Use at DB Cargo

Using the locomotives on DB Cargo's freight corridors requires not only type approval but also the gradual series approval of every single vehicle in the countries concerned. "For example, to obtain approval in Poland and Hungary, every locomotive must complete its own local test run, sometimes under official supervision. There are also strict requirements in Italy, where the locomotives must be presented individually to the competent authority," says Boldt.

### More competitive journeys in Europe

The class 193 overcomes the need for a locomotive changeover at the border when crossing from one technical system to another, removing one of the sources of operational disruption. Boldt: "The Vectron allows us to optimise our turnaround cycle, minimise dependence on other service providers and expand our transport capacity on

European corridors. This systematically improves reliability and quality for our customers and ultimately their competitiveness in the European market." ●



Karsten Boldt, Asset Management & Procurement  
Vectron, DB Cargo AG  
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— DB Cargo is investing around a quarter of a billion euros in 60 new Vectron multi-system locomotives.



Experience technology up close in the outdoor area of the transport logistic fair:

**Track  
3/8**

→ Map of trade fair, p. 11





# From Poland to Romania in four days

**1,700 kilometres separate the coking plant in Zdzieszowice, Poland, and the blast furnace in Galati, Romania. For the steel works in Galati, DB Cargo offers a reliable supply chain solution to supply the blast furnaces with coke.**

*— Transports are documented in both analogue and digital form.*

**S**ince they began in 2017, the coke transports to Galati have been expanded to five round trips a week and a planned transport volume of 350,000 tonnes a year. They are based on a logistics concept jointly developed by DB Cargo and local experts. This was the product of years of close collaboration between DB Cargo and the Galati steel works, as well as DB Cargo Romania's more than ten years' experience in delivering coke to the site. ▶



**1** — The heavy sheet steel is loaded in Galati (RO) for the return journey.

**2** — The coking plant in Zdzeszowice (PL) was built in the early 1930s.

**3** — Waiting to be loaded in Zdzeszowice (PL): freight wagons for coke transports.

## INFOBOX

- 5 departures a week PL–RO (coke)
- 260 trains a year
- 350,000 tonnes of coke a year
- Over 1,700 km one way/3,400 km round trip
- 5 countries
- 4 Border crossing points: Chałupki, Kutry, Štúrovo, Curtici
- Journey time: average 4 days in each direction

### ► Four borders, five countries, 1,700 kilometres each way

The route is 1,700 kilometres long; it crosses four borders and traverses five countries. Multiple DB Cargo national companies and an external partner are therefore involved in the transport. Yet despite the complexity of the task, DB Cargo delivers the goods in just four days. The pressure is considerable: just-in-time delivery of coke is the basis for the entire production system at the Galati steelworks. “Whatever happens, the coke has to arrive on time. There is no other raw material that can replace it. The blast furnace will incur enormous damage if the supply is interrupted,” says Katja Eschke, Industrial Sales/Head of Project Business Development East at DB Cargo. That’s the very reason the customer opted for DB Cargo: “We’re well-known to our customer in Galati as a quality service provider.”

### Regular train paths to leverage high quality

To implement the customers’ wishes, DB Cargo has been using regular train paths along the entire route from the

# 350,000

tonnes of coke transported by DB Cargo annually from Poland to Romania

outset. That way, the customer could be assured fixed arrival and departure times on a binding schedule. “Using international regular block train paths means that DB Cargo trains are treated preferentially at the boundaries between infrastructure managers, speeding up their transit and easing planning,” explains account manager Mario Schreiter. Interoperable locomotives are used. Close, daily contact between the customer and DB Cargo guarantees the services’ quality and aids planning.



### An alternative service partner in every country

Ensuring on-time delivery is ultimately key to this transport mission. Special contingency plans take this into account. These include an alternative route plan in the event of engineering works or other disruption on the line, and an alternative service partner concept to cover bottlenecks caused by lack of resources. Back-up solutions are immediately implemented in the event of disruption: “For every border crossing, we have a tried-and-tested alternative contractually agreed with the customer,” explains Schreiter. “There is an operational back-up solution for every country along the route.”

### Operations management: a whole route under one roof

Close, continuous coordination of operational traffic implementation is one of the critical keys to success. The traffic is managed and monitored 24/7 through a corridor management unit established especially for this purpose. “The unit has an overview of everything happening on the railway,” says Katja Eschke. “A single hub looks after all the operational management and central coordination. The staff there speak a range of Eastern European languages.” The status of trains is checked against the plan multiple times every day and operational transport schedules adjusted to provide stable quality for customers along 1,700 km of track each way and across four international borders.

# 260

trains a year transport coke from Poland to Romania

### Future goal: More traffic on the route

For the customer, the DB Cargo service offers more than just high quality. The coke transports from Poland to Romania also allow Romanian steel products to travel in the opposite direction. On the return leg, the trains carry sheet steel from Galati to Poland. “As an added benefit for the customer, a portion of the wagons are loaded with steel bound for Poland.” For DB Cargo, the coke and steel transports open up intriguing prospects on this corridor. “We see great opportunities for the development and further expansion of this very interesting corridor between Poland and southeastern Europe,” says Katja Eschke: “Our aim is to win further business on this route. We’ll do so by boosting our capacity on the corridor.” ●

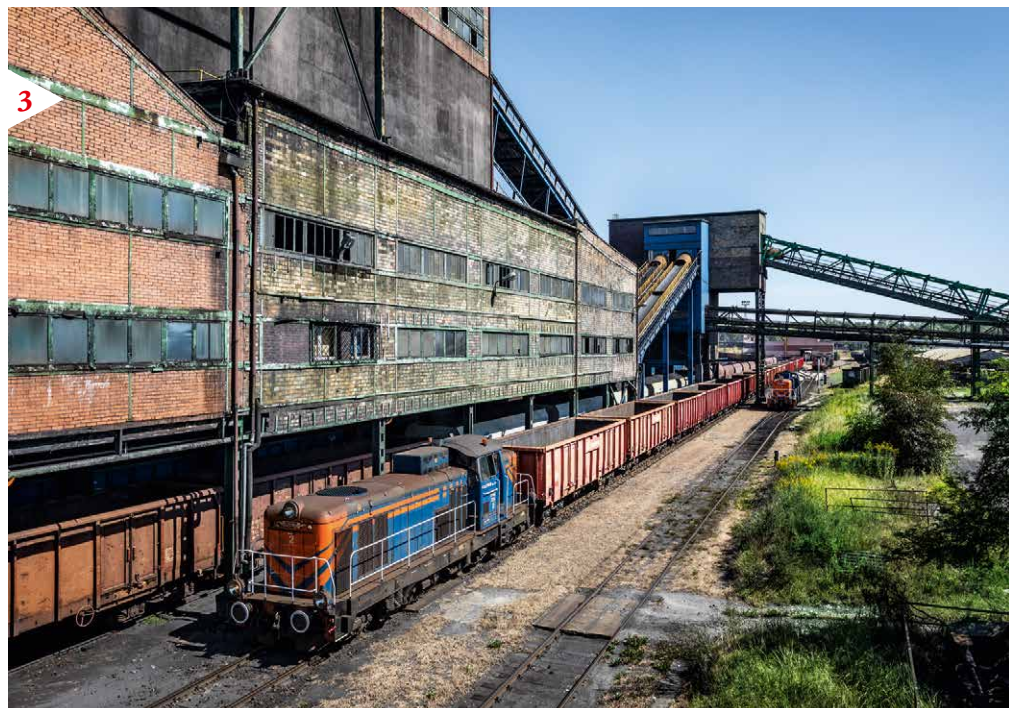
**“We see great opportunities for the development of this very interesting corridor between Poland and Romania.”**

**KATJA ESCHKE**

Industrial Sales, Head of Project Business Development East at DB Cargo



Katja Eschke, Industrial Sales,  
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— Neumarkt now has a link to the New Silk Road. From here, containers carrying a new magnetic levitation system are brought on the long trip to China.



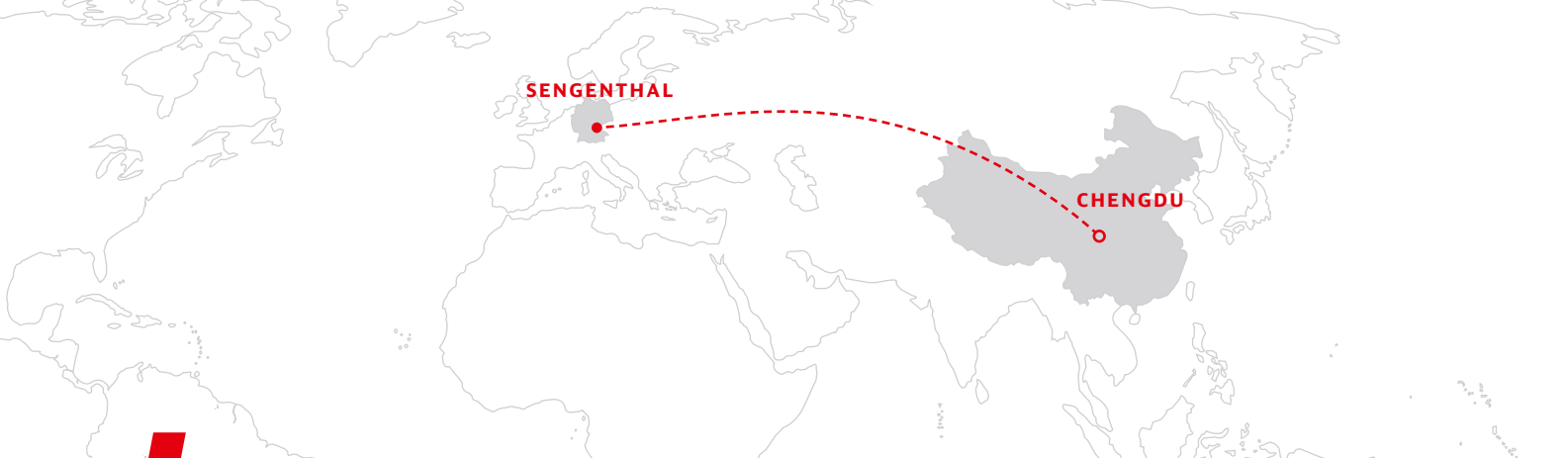
# From Bavaria to China on the New Silk Road

**Max Bögl, the construction company from Sengenthal in the Upper Palatinate region of Bavaria, is delivering a magnetic levitation system to China on the New Silk Road. This will be an important economic boost to both the region and the state.**



**1** — The containers are sealed so that nothing is lost.

**2** — Max Bögl benefits from rapid and environmentally friendly delivery for this order.



**I**n Chengdu, a demonstration line is being built for the Transport System Bögl (TSB), a magnetic levitation system with a maximum speed of 150 kph. The TSB is designed for local service, so it is considerably slower than the well-known Transrapid in Shanghai, which can reach speeds of up to 430 kph. Max Bögl is delivering the track supports and the vehicle for this demonstration line. Approximately 16 trains, each with 41 containers, will be sent to China every week to get the job done. The number of containers will surpass 650 by the end of August 2019. The containers are equipped with GPS boxes to keep the customer informed of the transport's location and condition at all times.

Every piece of concrete weighs some 20 tonnes, and is produced at Max Bögl's head office in Sengenthal and loaded using special machines. There are also other parts and materials needed to assemble the vehicle and ensure its operation. The trip starts in Sengenthal and runs through Neumarkt to Nuremberg, Frankfurt on the Oder, Poland, Belarus, Russia

At least  
**4 weeks**  
 Transporting goods from Germany to China is faster by rail than by sea.

and Kazakhstan, until it finally reaches China. That takes approximately 16 days, including two changes of gauge, since China uses the same track gauge as Germany and Poland, but the broad gauge in Russia comes between the two. Taking the sea route through Hamburg or Rostock and Shanghai, for instance, would have taken five to six weeks, which directly illustrates the advantages of rail.

Uwe Leuschner, Managing Director of DB Cargo Eurasia, is therefore

particularly satisfied: "We are proud that, by consolidating the skills and capacity of DB Schenker as a freight forwarder, DB Cargo as a rail producer and DB Cargo Eurasia as an operator on the corridor, we can be an attractive service provider for companies in relations between China and Germany, and that we can present a competitive logistics product under the umbrella of DB. Quality and punctuality are particularly important for us." The fact that some trains even reached their destination earlier than planned is a sign of how well rail service works now on the New Silk Road. ●



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# A higher-density network

**Direct trains from DB Cargo Italia connect France and Italy three times a week**

*— The train needs almost 17 hours for the route through the Alps.*

**T**o meet the needs of its customers, DB Cargo taps into Europe's largest rail network, which is becoming better connected all the time.

DB Cargo Italia recently added a new route directly connecting northern Italy and France. A DB Cargo train travels from the town of Melzo near Milan to the town of Vénissieux near Lyon – and back – three times a week. “This route is an outstanding example of how we are able to adapt to meet the demands of the market”, says Pier-alberto Vecchi, Head of International Sales Italy.

Each train comprises 17 wagons, which carry many different types of goods, including steel, consumer goods, waste and hazardous materials. The trains depart in the afternoon on Monday, Wednesday and Friday, and the freight arrives at its destination the following day.

## Hubs of industrial activity in Europe

The impetus for the new rail link was a client enquiry from Contship, the largest container terminal operator in Italy. As early as 2017, Contship had expressed interest in establishing a stronger rail link between Auvergne-Rhône-Alpes, an industrial region in France near Lyon, and northern Italy. This region happens to be one of the most important industrial hubs in Europe. The northern Italian regions of Piedmont, Lombardy, Emilia Romagna and Veneto can also count themselves among Europe's economic powerhouse regions.

## Strong demand from customers

Contship's enquiry met with great interest at DB Cargo. For some time, the freight operating company had been keen to expand its network and increase the number of transports through the border of Modane with the aim of establishing a direct rail link to France. Lorries had previously carried most of the goods transported between the regions. Working together, DB and Contship explored the technical and commercial dimensions involved in creating a direct link between the two regions. Because rail is the most sustainable mode of transport, a link between these regions also decreases CO<sub>2</sub> emissions for international transport. Sustainable transport plays an important role in transport

**“Since the link was created, DB Cargo Italia has been able to offer its customers more by leveraging its new position on a strategically important European corridor”**

**PIERALBERTO VECCHI**

Head of International Sales, DB Cargo Italia

through the Alps specifically. The greatest challenge in planning the new link was harmonising the timetables of the rail systems in Italy and France. “The first step in the process was to prepare a joint business plan for the direct links with ECR, DB Cargo's national company in France”, says Sven Loeffler, who manages the project on the ECR side. Next, details had to be hammered out with Contship. Both freight operating companies also

called upon their production teams to lay out clear processes for locomotive interoperability – Bombardier Traxx locomotives were chosen for the route. Finally, the train drivers were trained on the route, and the handover procedure was laid out for wagons crossing the border. The aim was to keep the stop at the border, which was required to change locomotives and train drivers, as brief as possible.

## First transport completed in Autumn 2018

The first train to use the route left the station at the end of October 2018. The 450 km route requires trains to travel almost 17 hours through the Alps, passing through Turin, Modane and Chambéry. “Since the link was created, DB Cargo Italia has been able to offer its customers more by leveraging its new position on a strategically important European corridor”, says Vecchi. “European Corridor 6 has established a fast link connecting Lyon, a French industrial hub, with Trieste in the Italian region of Friuli-Venezia Giulia, Ljubljana in Slovenia, and the Hungarian capital of Budapest. This train system is truly European.” ●



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# A toast to the rails!

**Freixenet has been producing high-quality cava for 150 years. DHL FoodLogistics and the Spanish producer of sparkling wine rely on DB Cargo for transport to Germany. Most recently they have been using the Med Xpress trailer.**

## THE MED XPRESS TRAILER

- Route: Saarbrücken–Perpignan–Saarbrücken
- 5 departures per week in each direction
- Journey time day A/day B | over the weekend day A/day D
- Double pocket wagons for transporting cranable mega trailers and containers
- Suitable for all goods that are appropriate for multimodal transport (except for hazardous materials)
- Central management and transport tracking, including door-to-door

It's a chilly morning in Saarbrücken. A drizzle is falling and the temperature is seven degrees (also, incidentally, the ideal temperature for drinking sparkling wine), when the Med Xpress trailer pulls into the yard to cap off a 1,200-kilometre journey. The train has come from Perpignan in the South of France and it is loaded with much-loved sparkling wine from Freixenet. The Med Xpress trailer: from Perpignan to Saarbrücken. For many years, DHL FoodLogistics and DB Cargo have collaborated to transport Freixenet wines and sparkling wines, or *cavas*, from Spain to German supermarkets. "Since 2018, DB Cargo's Med Xpress trailer has provided a high-frequency shuttle system for transporting trailers and containers. It links Saarbrücken with Perpignan in the south of France and runs five times a week in both directions. "That is perfect for our Freixenet transports, which were handled with the Med Xpress Trailer for the first time last season", says Bernd Kloska, Sales Manager Consumer Goods at DB Cargo.

Previously, the pallets of drinks in Perpignan had to be loaded from lorries into the freight wagons individually. That took time. The shuttle service using the Med Xpress trailer will bring the bubbly to Germany much more quickly.

For Andreas Imme, Branch Manager at DHL FoodLogistics Mannheim and a business partner for many years, collaborating with DB is a no-brainer. "We benefit from having DB Cargo as a business partner," says Imme, "and our customer Freixenet also benefits from having a tailored logistics solution with stable transport times and

central management." That is the case even at peak times before Christmas and New Year, as sales of wine and sparkling wine begin to boom in November.

## Bubbling through France

The journey begins when the product is taken from Freixenet's cellars in Sant Sadurní d'Anoia and Vilafranca del Penedès near Barcelona and put on lorries. They bring the cava to the terminal in Perpignan, where the trailers are loaded onto the rails. Next, they take the environmentally friendly train journey to Saarbrücken. The 1,200-kilometre rail route generally takes the train less than 24 hours. For the last leg of the journey, the bottles of sparkling wine are transported on lorries to Freixenet's central warehouse in Biblis and to various large retail warehouses and supermarkets in Germany, before reaching consumers.

## A forward-looking approach

Our intermodal logistics systems, with the first and last mile transported on lorries and the main leg of the journey taken by rail, bring products to consumers in an environmentally friendly and reliable way, even for customers with no private siding. This alleviates the burden on both road traffic and the environment. Transporting products by rail reduces CO<sub>2</sub> emissions by up to 81% compared to exclusively lorry-based transport. •



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# All aboard Switzerland's ketchup express!

**Swiss supermarket chain, the Migros Group, aims to switch its delivery traffic from road to rail. And the mission is succeeding: ketchup and cat litter from the Netherlands already take the train.**

**M**igros, Switzerland's largest retail company, has entrusted DB Cargo with its deliveries from Europe to Switzerland via Germany since 2014. And this cooperation has intensified since 2017 with Migros's push to reduce CO<sub>2</sub> emissions as part of its sustainability programme. The results, achieved in close collaboration with Swiss Federal Railways (SBB Cargo), have been impressive.

## When kitty litter and ketchup take to the rails

"Heinz Tomato Ketchup has long been one of the first Migros suppliers to transport its products from the Netherlands to Switzerland by rail," says Kathrin Brunswicker, project manager and customer advisor for international sales at DB Cargo Schweiz. "Building on this success, we used the same location – Blerick, in the Netherlands – to organise transport for another Migros supplier, Teeling Petfood, simultaneously establishing a railport at the departure station,

Oosterhout. The products are taken a short distance by lorry to the rail-ports, which transship the cargo onto freight wagons." They then travel on DB Cargo's single wagonload network all the way to the private siding at the Migros distribution centre in Suhr.

## The Netherlands–Switzerland route is a real stroke of good fortune for us

Deliveries of products from Sivomatic, which makes cat litter, have also been successfully transferred to rail in the past couple of years. And there is more potential in the pipeline with Allesterin, a pet food producer. "The Netherlands–Switzerland route is a real stroke of good fortune for us," says Rolf Ryser, project manager for rail and combined transport at Migros. "It fits perfectly into our idea of sustainability

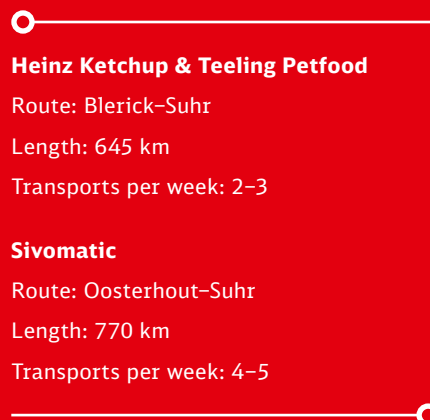
and major CO<sub>2</sub> reductions. A win-win for the environment, our company and all Migros customers." To ensure the deliveries are environmentally friendly, the rail link is not a one-way street. After unloading, the wagons are taken to Buchs in St. Gallen, where they are used to transport another company's products back to Germany. •



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## INFOBOX

*Delivery transport for Migros at a glance:*



# Strong partners in the Rail 17 network

**At the close of 2018, Swedish firm ScandFibre Logistics AB (SFL) renewed its existing transport agreement with DB Cargo for another two years. That means the Swedish rail logistics company will continue to count on DB's rail service to transport pulp and paper.**

**D**B Cargo has served as a service provider for SFL for many years. Since 2013, the railway has succeeded in steadily growing the volume of rail-based cargo moving both to and from Sweden. In December 2016, the two companies reached an agreement stipulating that DB Cargo would bring 1.2 million tonnes of paper a year to central and southeastern Europe for SFL. DB Cargo hauled roughly 12,000 wagonloads to Sweden for SFL in the opposite direction, especially for customers from the consumer goods industry. The customer has now renewed this three-year contract. "We are extremely satisfied with DB Cargo's services. Its strong single wagonload network all throughout Europe helps us be flexible and reliable in meeting the demands of the market and our customers", says Mats Erkén, CEO of SFL.

## Significant customer for the single wagonload system

For SFL, DB Cargo is using the entire European single wagonload network to accommodate the large amounts of

cargo. "SFL is one of our most significant customers in the single wagonload system that has chosen to rely on DB Cargo for the long term. There's not a company in Europe that ships more pulp and paper by rail", says Guido Schaefer, who is responsible for the customer as Strategic Account Manager at DB Cargo in Sweden.

SFL is a provider of transport and logistics solutions for the Swedish pulp and paper industry and belongs to Swedish paper producer Billerud-Korsnäs. SFL operates its own European transport network known as "Rail 17", and DB Cargo is one of its foremost service providers. In 2018

alone, the freight operating company transported nearly 1.6 million tonnes of paper, pulp and consumer goods for SFL. All told, DB Cargo moved over 30,000 wagons all through Europe to get the job done.

Most of the freight heads to Hamburg. From there, the products are transferred onto ships and exported overseas. DB Cargo goes to a total of twelve countries for SFL. The railway brings Swedish forestry products to Spain, Serbia and Northern Italy. The Bavarian railway station of Schwandorf to the north of Regensburg has a special significance as a hub for the Italian market. The products are brought to the station in single wagonloads, collected, sorted and regrouped. Afterwards, they make their way to three different destinations in Italy on six weekly block trains.

## Continuous improvement

DB Cargo and SFL have arranged for regular workshops to be held to continuously improve the transports. Workshop participants hammer out proposals aimed at cutting journey times – for instance, to enhance con-

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# 1.6 mio.

tonnes of paper, pulp and consumer goods have been transported by DB Cargo for SFL in 2018.

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1



2

**1** — BillerudKorsnäs' pulp and paper mill in Karlsborg, Sweden.

**2** — SFL's parent company supplies more than 2,000 customers with innovative paper packaging solutions.

necting services with neighbouring European countries and improve transfer times.

However, the availability of empty wagons is a major challenge for the Swedish paper and pulp industry. When trains run empty from Central Europe to destinations in the north, it makes them more expensive.

DB Cargo, SFL and wagon leaser TRANSWAGGON are jointly acquiring cargo, usually food, industrial and consumer goods, to better utilise wagon capacity on the way back to Sweden.

The customer is pleased with this improvement in capacity utilisation. "For us, DB Cargo is a strong partner

for making the Rail 17 system more cost-effective by adding cargo on the return trips", confirms Patrik Leylin, Manager Operations at SFL.

"The more goods we can carry to the north, the more we can carry back. In 2018 alone, we added 5,700 new wagonloads travelling north, considerably improving the capacity utilisation of our trains and the North/South and South/North balance", reports Schaefer. "That doesn't just cut SFL's costs; it also benefits rail as a mode of transportation." Every wagon replaces more than two trucks on the road. ●



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# A transport chain for delivering energy

**DB Cargo Logistics offers the automotive sector tailored, door-to-door concepts that connect battery factories with car plants.**

**E**urope goes electric: car-makers are bringing out a growing number of battery-powered vehicles. The power source of these e-vehicles is a battery that weighs several hundred kilos. Having a reliable supply of these components is vital for the auto companies.

At present, most of the lithium-ion batteries are shipped from Asia, but the major producers are now expanding their production capacities in Europe, and new companies are entering the market. Several carmakers have started to produce their own batteries as well, or they are working

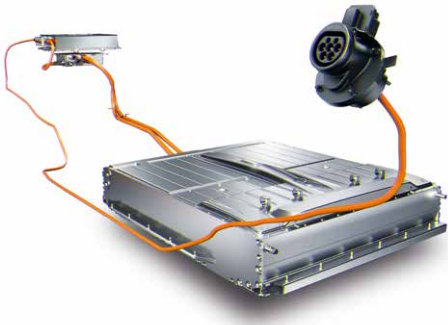
with suppliers who can deliver the components they need straight to their assembly lines.

Andrey Ludwigs, senior project manager for components at DB Cargo Logistics, says, "From original parts manufacturers to tier 1 and 2 suppliers, we offer the entire automotive industry customised and tailored transport solutions for lithium-ion batteries. We are the people who bring battery and car production together. Our multimodal concepts optimise logistics costs and cut CO<sub>2</sub> emissions at the same time." Some carmakers now actually require this of their suppliers.

Batteries are extremely heavy, which makes trains the ideal means of transporting them. The loading factor for a freight wagon is 2.5 times that of a lorry, so one freight car can handle the equivalent of 2-3 lorryloads. "It's not just the logistics costs that give rail transport the edge here, but trains also outperform trucks in terms of safety," says Jahn Reich, project manager at DB Cargo's automotive and logistics competence centre. When you compare the rate of accidents per 1 billion tonne kilometres, trains can be up to 40 times safer than road transport. Reich adds: "At the same time, regulations regarding hazardous materials do not impede operations as much as people often think." At DB Cargo, professional management processes for hazardous freight and excellent communications with everyone in the transport chain ensure maximum safety.



— Carmakers assemble batteries for electric cars from lithium-ion cells at their own factories.



## LITHIUM PURITY LEVELS

- **Battery grade:** a purity level of over 99.5%, used predominantly for high-end battery cathode materials
- **Technical grade:** a purity level of approx 99.5%, used predominantly for ceramics, lubricants and batteries
- **Industrial grade:** a purity level of over 96%, used predominantly for glass, casting powder and lubricants

## Automotive RailNet for full reliability

DB Cargo Logistics makes use of its Europe-wide network for transporting batteries. The Automotive RailNet lets the rail freight operator combine tremendous flexibility, short journey times and outstanding reliability throughout central Europe as its fast overnight services move cargo between automotive plants. It is now adding its offerings for battery manufacturers and cell suppliers to this network.

Other added-value services complete the package, such as relationship management and customer support for selecting transport containers. Not only do these have to conform with RID and ADR regulations for transporting hazardous materials, but – like all rack systems used by DB – they are checked as part of special and extensive buffing tests to ensure they can carry their loads safely.

At the same time, DB Cargo Logistics manages cross-modal solutions in its capacity as lead logistics provider. “We offer customers different concepts as DB Cargo’s trans-European network enables us to operate conventional or

intermodal transports by rail,” says Heike Armgart, who also works in battery transport at DB Cargo Logistics.

Customers can use the system to book a whole range of services, as DB guarantees daily departures for loads of all sizes. In this regard, DB Cargo Logistics can once again deliver the same level of flexibility as lorries: thanks to its hubs in Stuttgart/Kornwestheim, Ingolstadt/Regensburg, Halle/Leipzig and Brunswick, it is in a position to handle fast freight transshipments. The many railports and terminals operated at different locations by DB Cargo and its business partners also play an important role: they provide manufacturers with access to the rail freight network if they do not have their own sidings.

### Hubs and railports

DB Cargo Logistics currently uses this system to transport lithium-ion batteries via the railport in the Polish city of Wrocław. The batteries come from new production facilities in Poland and Hungary and are destined for carmakers across Europe. Ludwigs: “We are able to refit this and other sites quickly and use them for the specific requirements of battery logistics processes.” The rail freight operator is already planning transport services for future customers. “We have performed very successful pilot runs for a number

Rail vs road: each train wagon is the equivalent of

# 2.5

lorry journeys.

of important battery producers and lithium-ion suppliers,” he says.

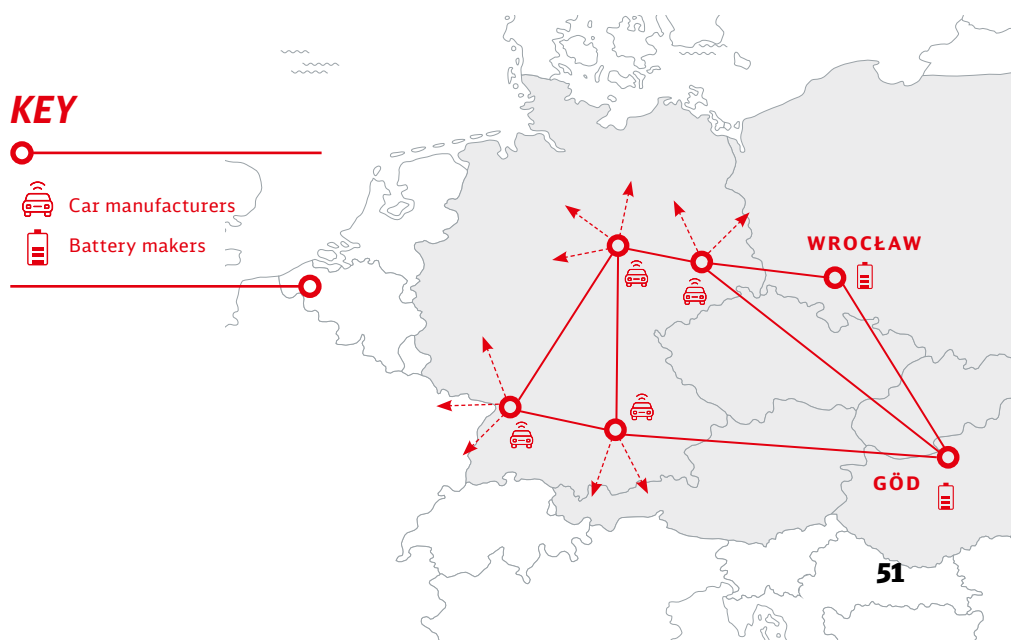
DB Cargo Logistics is currently assessing how to create efficient connections between the supply chains of manufacturers and suppliers for the production processes of a major automotive company in Germany. With reliable and sustainability-focused transport concepts, DB Cargo is set to help electric-powered vehicles successfully take their place on our roads. ●



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## KEY

- Car manufacturers
- Battery makers



# Ready for the all-electric future

**Audi has started series production of its e-tron in Brussels. DB Cargo’s carbon-free transports for components and vehicles guarantee sustainability.**

**T**he e-tron is Audi’s first step towards the future of e-mobility. In September 2018, the carmaker launched series production of its first fully electric car. When Audi started manufacturing the e-tron, it also transformed the production processes at its Brussels plant: body shell construction, the paint shop and the assembly line all underwent substantial changes. Driverless transport systems ferry the electric cars’ batteries just-in-sequence to the assembly line, and the company has even created an in-house battery assembly facility. DB Cargo has created a Europe-wide, sustainable transport concept to serve the e-tron. The rail freight operator supplies the Brussels plant with vehicle components and then transports the finished cars ready for export. All on schedule and carbon-free. The challenges the company mastered when designing this transport service make it one of the most impressive rail freight operations in Europe.

Michael Gaschütz, head of the sales and operations centre for components at DB Cargo: “We supply the plant with all the components it needs to assemble a vehicle, including body panels and electric motors.” Audi expects high predictability, easy management and adherence to deadlines, so DB Cargo established a reliable rail-based transport system and used the ramping-up stage from October 2018 to January 2019 to test the concept.







### Deliveries to the city centre

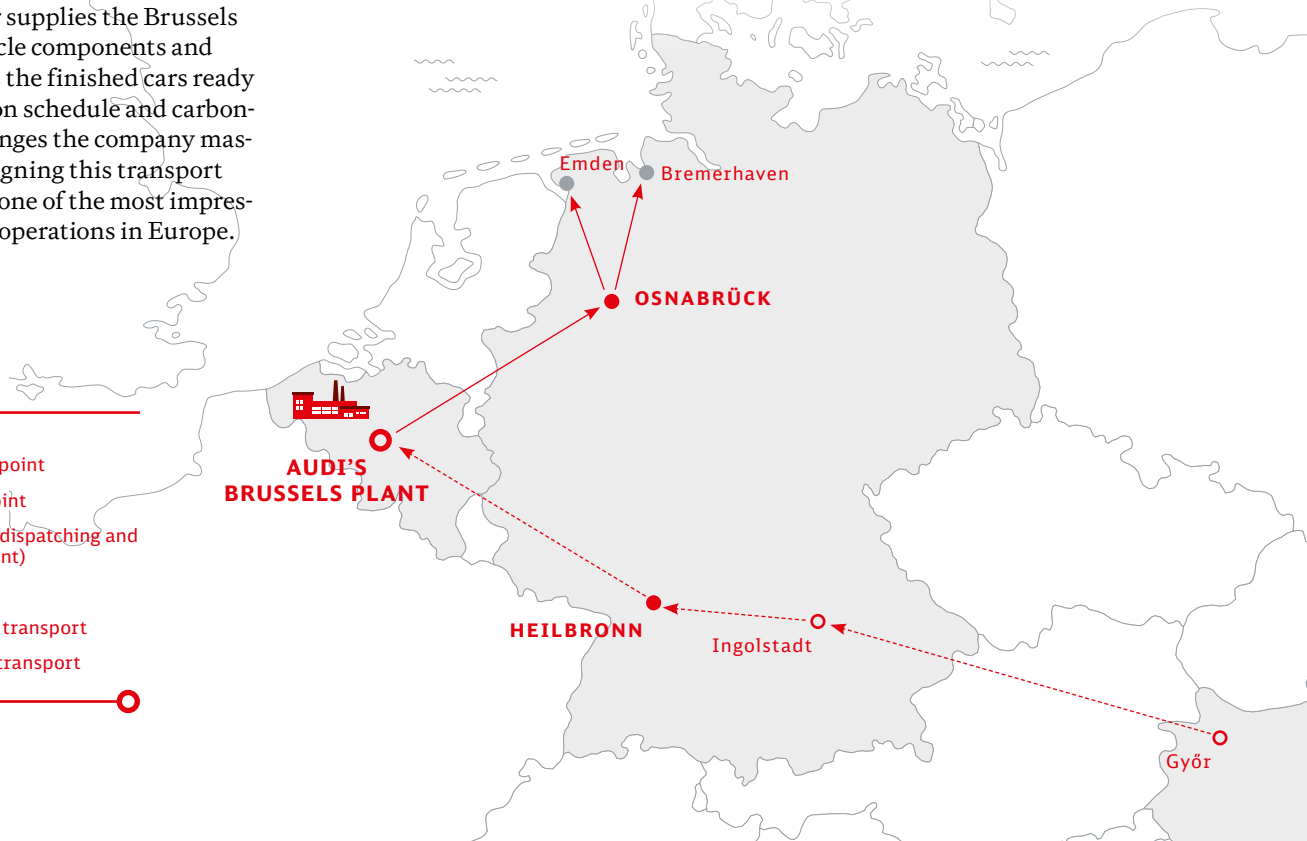
Materials from Audi’s plants in Ingolstadt, Neckarsulm and the Hungarian city of Győr are all routed (in some

cases via the single-wagonload network) to Heilbronn in southwest Germany. From this hub, they are loaded onto direct trains that take them to Brussels. Empty racks and pallets are returned to Heilbronn before being sent back to the various plants. Three weekly trains in each direction are planned for the future.

In Heilbronn, DB Cargo plays an important role that goes beyond merely transporting the parts: the company puts the components into the sequence that their assembly will follow later when they reach the plant. This is essential for the Brussels site to operate properly. “Things have to be perfect on arrival. The plant in

### KEY

-  Dispatching point
-  Receiving point
-  Production (dispatching and receiving point)
-  Hub
-  Finished car transport
-  Component transport





— The Brussels plant has an area of 540,000 m<sup>2</sup>.

Brussels has no buffer that would to compensate for delays using its own warehouse stock,” says Gaschütz. DB Cargo’s trains replace hundreds of lorries and take the pressure off the nearby motorway ring road and the historic centre of Forest/Vorst – the home of Audi Brussels.

#### Transporting exports via Osnabrück

DB Cargo also handles the first link in the finished vehicles delivery chain. Since February 2019, the rail freight operator has been using type 560 wagons to bring the vehicles to export ports. Block trains carry the cars from Brussels to Osnabrück in Germany, and current plans envisage up to ten trains a week. The town in northwest Germany is a hub for all Volkswagen transports, and Audi’s products are forwarded primarily to Emden and Bremerhaven. Alexander Röckelein, head of the sales and operations centre for finished vehicles, says, “Thanks to a flexible, adaptable rail system, our operations can respond exactly as needed if volumes change.” Nathalie Verbrüggen from the sales and operations centre adds, “When handling these transports, we use the store of

**“We supply the plant with all the components it needs to assemble a vehicle, including body panels and electric motors.”**

**MICHAEL GASCHÜTZ**

Head of the sales and operations centre for components, DB Cargo Logistics

experience we gathered from transporting the Audi A1.”

#### Carbon-free transport in Europe

For Audi, there is one factor that plays a crucial role in these transports: sustainability. Audi has a long-standing

business partnership with DB, and it was the first customer in the automotive sector to switch to the carbon-free transport service **DBecoplus**. Today, the Brussels e-tron plant is the first large-scale series production site for premium cars to have been certified as carbon-neutral. This means that Audi offsets all emissions generated during production and at the site by using renewable energy and supporting environmental projects.

DB Cargo’s sustainability-focused transport services are a crucial element of this. Since 1 April 2019, DB has ensured that Audi’s entire transport chain is either carbon-free or carbon-neutral: any CO<sub>2</sub> emissions generated by rail transport for Audi in Europe are offset elsewhere. ●



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# The greatest feat of the logistics industry



**Transformers weigh many hundreds of tonnes and are extremely valuable. To ensure they are transported safely, many factors must be taken into account.**

**W**ithout a doubt, transporting transformers is one of the most complex operations the logistics industry handles. It involves moving transformers weighing hundreds of tonnes to their destination, while ensuring safety and on-time arrival. If this sensitive equipment is damaged, the costs can be enormous, as can the harm to tracks, infrastructure and buildings in the transformers' path.

"Transporting heavy loads is the greatest feat of the logistics industry," says Thomas Müller, project manager for heavy load transport at DB Cargo Industrial Sales. "Safety is our number one priority when handling these loads." Müller has worked in special transport for almost eight years and knows the business well. When transporting transformers, DB Cargo works with DAHER PROJECTS GmbH, a project logistics company and freight forwarder for energy suppliers and transmission grid operators. DAHER provides the special wagons needed for heavy transport. Whenever a transformer is transported, it is accompanied by a specially trained team.

### Exceptional consignment

At the end of 2018 and the beginning of 2019, heavy load transport services were provided for Amprion, a transmission network operator based in Dortmund. Two transformers needed transporting from Krefeld, a city in

Germany's lower Rhine region, to a new traction substation in Bacharach, some 200 km to the south. Planning for the two transports had been completed many months in advance. To comply with requirements, a special permit was applied for and the railway route was inspected. Specialists measured the height and width of all rail platforms on the route. Their calcula-

tions took into account specifications for overhead lines, points, signals and cabinets adjacent to the tracks. The angles of the curves and the tilt of the track were examined to determine the feasibility of this "exceptional consignment", as this outsized transport is known in DB parlance.

Starting in Krefeld, the train proceeded along the Rhine river, then toward Mainz and onward in the direction of Langenlonsheim. There, the train turned onto an old, defunct route known as the Hunsrückbahn. This route was reactivated specifically to accommodate this transport effort. Four thousand tonnes of ballast were laid down and numerous bridges were reinforced or renovated along the route. The transformers arrived on time at Stromberg station. A lowboy trailer stood waiting there to carry each transformer the last few kilometres to the traction substation.



**"Transporting heavy loads is the greatest feat of the logistics industry. Safety is our number one priority when handling these loads."**

**THOMAS MÜLLER**  
Project manager for heavy load transport,  
DB Cargo

### Transport with a deadline

Each transformer, weighing 300 tonnes and measuring 11 metres in length, was transported on a Schnabel wagon, which runs on 32 axles. The transformers were suspended between two lifting arms. Using hydraulics, the two arms move the transformer vertically and horizontally to lift it over obstacles such as railway platforms.

Whereas transporting transformers by road means closing entire lengths of highway, transport by rail is practically invisible. It takes place at



— The average transformer is 11.5 m long, 3.3 m wide and 4.5 m tall.

## CHECKING THE BOXES

Special requirements for heavy load transport:

1. Inspect routes
2. Obtain specific transport permits
3. Deploy team to accompany transport
4. Take special measures to secure load

As the transition to sustainable power progresses, the need for transformer transports is expected to rise. More and more electricity generated by wind farms in the northern reaches of Germany is being funnelled long distances to supply industry in the southern and western regions of the country. Energy companies therefore need to invest in higher-performance transformers. “DB Cargo is a reliable partner for safe and on-time transformer transport,” says Thomas Müller. “We will help to continue the transition to sustainable power.” ●

# 2–3 weeks

is the average duration of heavy load transports since the trains are permitted to run only at night and on weekends.

night or at other times when the network has a great deal of free capacity. At peak times, the wagons being used for transport are parked in a safe location. “Heavy load transport is not about speed, but about meeting a deadline. This means we aren’t concerned with how fast we can get there, but instead about reaching the destination at the scheduled time.” Only then is the complete transport chain working. Another advantage of rail transport is that it produces an average of 75% less carbon dioxide than lorry transport. Safety is yet another benefit – rail is the safest mode of land transport.



Thomas Müller, project manager for heavy load transport, DB Cargo AG  
[thomas.c.mueller@deutschebahn.com](mailto:thomas.c.mueller@deutschebahn.com)





— The Bacharach electrical substation steps up power from wind turbines to the necessary voltage of 380 kV and feeds this into the grid.





# ...SALES MANAGER AT DB INTERMODAL SERVICES?



**With 635,000 handling operations every year, the transport chain for intermodal ocean freight is often a race against time. Norbert Schuh is well used to this contest.**

**W**e are a company that provides supplementary services for intermodal transport. What does that entail? If, for example, a loaded container arrives by rail for delivery but the customer doesn't need the container yet, that's where our first service area comes in: we provide buffer storage for freight containers.

Customers normally want their containers to be delivered as well, and our trucking service takes care of this. Using our own dispatching and two-shift system, we can handle up to 150 transport runs every day for a given site. As one of Germany's largest companies in this field, we operate service centres with container depots on behalf of all major international container shippers. If necessary, we repair

**“No two orders are alike.”**

**NORBERT SCHUH**

Norbert Schuh, Head of Sales, Transport and Freight Forwarding at DB Intermodal Services GmbH

## 200

vehicles around Germany are at the disposal of the delivery service.

or wash the containers at these depots following transport on board a ship and unloading.

Today, we handle between 2,000 and 6,000 TEUs for each site, meaning we require a lot of space, and we use cross-positioning to take care of demand peaks across shipping companies' premises. Our preferred option is to offer services as a package. This means that different customers – in the automotive sector, for example – use different combinations. If a consignor wants to buy containers because units are tied up for a long time abroad, we can offer them our container trading solutions. No two orders are alike, and we have to do a lot of customisation. Increasing digitalisation and automation also have an important role to play.

My working day often begins with a meeting to decide the day's priorities. This can be either in my team or a larger group. Aside from set bid deadlines, negotiations, and costing- and contract-related work, these priorities

largely determine what happens on a given day.

In my job, you need to have a business mindset and a certain degree of negotiating skill, but you also need customer focus. Because we often work at different locations and have to deal with different issues, you need flexibility – and of course experience too. Within the team, we like to be open with one another, as this helps identify problems early. How do I switch off after work? I often go running, but frequently not until late in the evening. I've always got my running shoes with me. I'm always racing against the clock both at work and in my leisure time! •



Norbert Schuh, Head of Sales, Transport and Freight Forwarding, DB Intermodal Services GmbH  
[norbert.schuh@db-intermodal-services.de](mailto:norbert.schuh@db-intermodal-services.de)

## WHAT DB INTERMODAL SERVICES OFFERS:

- Providing depots for loaded and empty containers in Germany
- Operating transshipment terminals
- Holdings in terminal operations companies
- Repairing, cleaning and maintenance of containers
- Trading containers
- Delivery services
- Transport services for plant logistics



— Always part of a dialogue with customers.

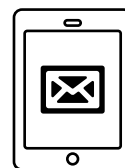
// Looking ahead

## FROM A TO Z

The “four pillars” in DB Cargo’s portfolio of services.

Consulting, transport, customer assistance and additional services – the next edition of railways will show you just what DB Cargo does for its customers. We’ll be taking a look at a real supply chain, in detail and drawn from our day-to-day work. Getting freight securely from A to B is growing steadily harder in a highly competitive logistics market. The business has long ceased to be a purely about transport services. Having a comprehensive portfolio is therefore more important than ever. Consulting – is operating a given connection realistic, and what is the best tailor-made solution? Transport – limited resources and restricted capacities require thorough planning so everything runs perfectly. Customer assistance – demand is growing for the option of using online tools to place even the most basic order or monitoring a delivery via track and trace. Additional services – order picking or delivery to end customers, often in tandem with well-established service providers.

These all have one thing in common: the focus is always squarely on the customer. We’ll use the next issue to show you how staff at our Duisburg lab work together on tailor-made solutions.



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