

CARGO FREIGHT JOURNAL

NEWS FOR THE RAIL & TRANSPORT INDUSTRY

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NEW

RUSSIA'S WAR IN UKRAINE

RENAISSANCE OF THE RAILWAY

+++ Focus: Upheavals in the freight and logistics industry. +++ Focus: HVO – CO₂-free replacement for diesel fuel on land, in the water and in the air +++ Events: INNOTRANS, iaf. Interviews: Siemens, DB, Ermewa, Solaris, European Locomotive Leasing ELL, NEE, FDP, Plasser Robel Services, Achat. +++ Rail Baltica. VDB. PESA. DAC. +++ Greeting: Catherine Trautmann, European coordinator for the trans-European transport corridor „North Sea-Baltic Sea“, European Commission +++

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GREETINGS



Dear friends of Europe and the ecological means of transport!

In December 2020 I wrote a foreword for the book “Bahnland Europa” and referred to surveys by the “Euro-Barometer” of the European Commission and the European Parliament. Today, the editors of the book from that time are releasing a new cyclical publication – I also see that as positive.

With CARGO FREIGHT JOURNAL you want to propagate environmentally friendly forms of transport, support multimodal transport in Europe by strengthening rail, strengthen climate-neutral local public transport and rail transport in Europe in general – these are also goals of the Green Deal of the European Union! And with the multilingual edition of your social media appearances, you prove that you are real Europeans.

In the Euro Barometer for 2021, too, we learn a lot about moods in Europe. 91 percent of young Europeans aged 15–24 agree that tackling climate change can help improve their own health and well-being. 81 percent of respondents say they like living in the EU. And 68 percent of Europeans agree that the EU is a place of stability in a troubled world.

These views have certainly grown in the last few months, during which democratic Europe has had to witness in amazement how the European sister nation Ukraine is being attacked by the Russian neighbors.

Trains connect residents and countries across borders. The railway allows mobility under the most favorable possible ecological conditions. The transport corridors, one of which I coordinate, the North Sea-Baltic Sea Corridor, also serve this purpose. One of the largest European railway projects, the Rail Baltica, belongs to it. I find it particularly commendable that you provide information about and support Rail Baltica with your publication.

In these turbulent times, the importance of this European railway line shows itself in an unexpected way. With their help, citizens of Europe will soon be able to travel by train through Germany and Poland through all three Baltic States without having to change trains. This strengthens the European sense of togetherness, it is also essential for freight transport.

With this in mind, I wish you exciting insights with the new publication – in the European spirit!

Catherine Trautmann, Strasbourg

*European Coordinator for the Trans-European Transport Corridor “North Sea-Baltic Sea”,
European Commission*



Europe can be fun too! Corridor coordinator Catherine Trautmann in conversation with CFJ editor-in-chief Hermann Schmidtendorf

Credits: Hermann Schmidtendorf

Dear readers!

The freight industry lives in turbulent times – and in risky ones. The consequences of the global pandemic blockade have hardly been overcome when Russia’s war against Ukraine turns the familiar world upside down again. Already fragile supply chains have to be rethought, energy prices are rising massively. And yet climate change must also be dealt with by the transport industry in particular – dependence on traditional energy sources and fuels is, as we painfully see, a political and ecological danger at the same time.

In these difficult times we want to provide guidance with our new publication, the CARGO FREIGHT JOURNAL. With a modern layout, clear language and concise focal points, we examine key events in the industry – on water, in the air and on land. Rail transport is particularly important to us. Infrastructure, energy and logistics are also part of the subject area. Interviews with decision-makers from industry, associations and politics are important to us.

Our publishing house is based in Germany. But our focus is on the whole of Europe and global freight transport. We make this clear by choosing the English language for this publication. We are therefore extremely pleased that the EU coordinator of the North Sea-Baltic Sea transport corridor, Ms. Trautmann, supports our commitment with her own greeting.

Finally there are the big trade fairs and congresses again. We report on the iaf 2022 and invite you to visit the world’s largest trade fair for the railway and mobility industry, the INNOTRANS in Berlin. We wish you stimulating reading!

Hermann Schmidtendorf

Hermann Schmidtendorf, Editor-in-Chief



Credits: HMV

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Czech military train with ammunition unloading in the Ukraine

Credits: Armáda ČR/Twitter

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DB Schenker und Lufthansa Cargo bring goods to Frankfurt Airport with eco-fuel.

Credits: Lufthansa Cargo/Oliver Roessler/Print

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Das Karriereportal für Bahnberufe



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NEWS

HUPAC

The HUPAC Group is offering logistics service providers new, reliable intermodal solutions from September 5th. The Duisburg <=> Pordenone connection will be increased from 3 to 6 round trips per week. More departures also on the Ludwigshafen <=> Novara connection: Departures are increasing from 5 to 6 round trips per week. The Venlo <=> Busto Arsizio shuttle will also be increased: from 5 to 6 departures per week.

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Credits: Hupac



LUFTHANSA CARGO

No relaxation at Germany's premium airline: On September 2, 2022, the trade union COCKPIT (VC) largely paralysed the departures of the Lufthansa core company and Lufthansa Cargo from German airports. In addition to 5.5 percent more money, the VC demands a flat-rate inflation adjustment of 8.2 percent. There would also be a new salary table and more money for sick days, holidays and training.

The flight attendants' union UFO wants to negotiate for its members in autumn. It "expressly and unreservedly" declared its solidarity with the strike. The airline criticised the call for a strike and called on VC to return to the negotiating table. hfs

On average, rail transport with CargoBeamer already saves around 85% of CO₂ emissions compared to road transport. The remaining 15% are now fully compensated by CargoBeamer with gold standard certificates through investments in climate protection and development projects. Other greenhouse gases such as methane (CH₄) as CO₂ equivalents ("CO₂e") are also offset. Service-related emissions from the Scope 3 category, such as business trips, commutes or the operation of office space, are also offset. There are no additional costs for customers as part of climate neutrality.

tk

EURO-LEASING

Euro-Leasing is the in-house lessor of the Volkswagen Group. At the request of the news service Transport, spokesman Helge Sinn announced that the rental business for commercial vehicles would be completely discontinued by the end of 2024. This means that the rental business from MAN Truck & Bus – MAN Rental – which was only merged a year ago, will no longer apply. MAN is currently working on a solution for its customers.

hfs

HAPAG-LLOYD

The German liner shipping company Hapag-Lloyd from Hamburg has extended charter contracts with the container ship owner Global Ship Lease (GSL). A five-year charter contract for six 6,900 teu ships was concluded for this purpose. The charters are scheduled to begin between late 2023 and late 2024, the New York-listed company said. Headquartered in London, Global Ship Lease currently owns 65 container ships from 1,118 TEU to 11,040 TEU.

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CARGOBEAMER

CargoBeamer, a leading logistics service provider for the intermodal transport of semi-trailers that cannot be craned, is officially climate-neutral. The corresponding certificates were issued by the renowned service provider TÜV Nord Cert.



Credits: CargoBeamer

RAIL CARGO GROUP

The Austrian Rail Cargo Group RCG is expanding its TransFER network with the connection between Genk in Belgium and Curtici in Romania. Direct access to Turkey is offered through the combination with the existing rail freight connection Curtici-Istanbul. RCG's new Genk-Curtici service will have an intermodal profile for containers (20 to 45 feet), swap bodies and craneable semi-trailers including dangerous goods. It will run three times a week. In addition to the Benelux countries, the Genk-Curtici connection will also pass through the Ruhr area in Germany and other places such as Linz, Vienna and Budapest.

hfs

Russia's war in Ukraine:

A STRESS TEST FOR INTERNATIONAL TRANSPORT ROUTES

On February 24, 2022, Russian army units crossed the border into Ukraine. This military aggression, which continues to this day, also has a strong impact on international transport routes. CARGO FREIGHT JOURNAL highlights individual aspects of what is happening and presents statements by stakeholders and experts. Unfortunately, this topic will probably keep us busy for a long time.

It is astonishing how robust the Ukrainian state railway – Українська залізниця, abbreviated УЗ/UZ – has proven to be as a means of transport. Experts are talking about a renaissance of the railway system despite or because of the war – see our interview with an expert from the German Bundeswehr.

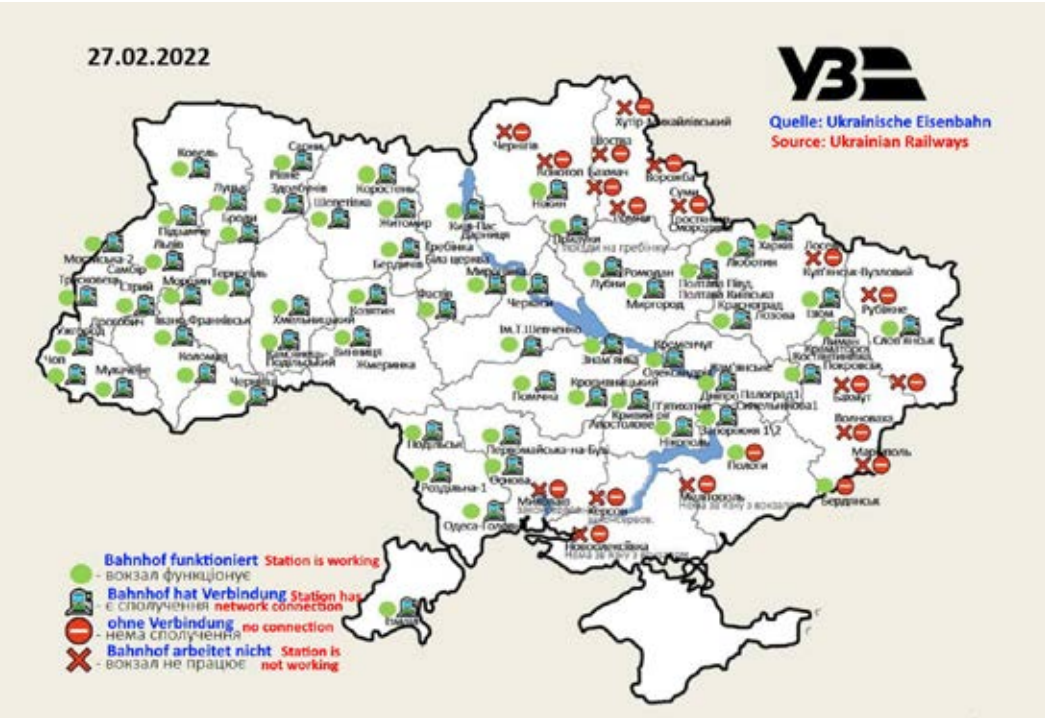
As soon as the war began, the state railways evacuated the population from areas threatened by hostilities.

We work even in war! This is the message conveyed by official route maps of the Ukrainian railways in the first days of the war on the Internet. Later, bulletins in tabular form with the trains currently in circulation in passenger transport were published, subject to short-

term changes due to the war. The signal was clear: the state railway, as an important part of the state infrastructure, is still fully intact. Freight traffic on the rails also continues, but is not made public in detail. Train stations and sub-way shafts occasionally serve as shelters against Russian attacks –

a new additional function that is practiced surprisingly quickly.

The reasons for the resilience of the Ukrainian railway system to date can certainly be seen in the fact that significant investments have been made in infrastructure and rolling stock in recent years. Also, unlike in some west- ►



Partly without connection: The Ukrainian railway network from February 27, 2022

Credits: UZ

FOCUS I
Interview

Wagon Building Factory Krjukiv: “We want to supply Western foreign markets”

Ukraine already interested our editorial staff before the country became the focus of attention due to the attack from Russia. One of the three oldest and largest companies serving the railway industry is the Krjukiv Wagon Building Factory in the southern Ukrainian city of Kremenchuk, in Ukrainian Крюківський вагонобудівний завод. On the occasion of the 150th company anniversary in 2019, we spoke to Serhij Hrudnenko, who was then head of the export department.

CARGO FREIGHT JOURNAL: Mr. Hrudnenko, what do you produce for the railway industry?

Serhij Hrudnenko: Our factory survived two wars. It has vast experience in deliveries to the railway markets both for the 1520 mm gauge and for the 1435 gauge. Now we are mastering export markets, we are very interested in exporting, in particular, to the euro zone, the European Union. We are also considering alternative meter gauge markets like Africa, Asia. In turn, we offer freight cars, passenger cars, electric trains, diesel trains and subway trains.

CARGO FREIGHT JOURNAL: How do you manage to offer such a wide range of products?

An important fact is that great specialists work for us. People who care about their business, who are masters of their craft. That is, if we have a designer, then we have a designer from God, let's say so, a great professional.

Serhij Hrudnenko during the interview.



Credits: Hermann Schmidtendorf

CARGO FREIGHT JOURNAL: Does that mean you also implement western technical standards on request?

We are ready to certify products for specific projects, either it will be a series or a one-time participation in a project. It does not matter. We are always directed towards the customer and are ready to carry out certification for any of his requirements and also supply quite responsible products to the market – not only according to GOST, that is according to the old Soviet standards, which operates on the territory of the countries of the former CIS, but also international standards like TSI. We cooperate in this regard with many certification companies. That is, in principle, all this is possible.

CARGO FREIGHT JOURNAL: Are there already negotiations with major western railway companies?

We are now negotiating with representatives and looking for common ground, where we will be useful for Deutsche Bahn. I think this may be the beginning of a big long-term cooperation. Since Deutsche Bahn needs wagons, like any carrier does, and we are ready to supply our products under responsibility, not only for the Deutsche Bahn.

CARGO FREIGHT JOURNAL: Will it also be possible to offer financial products?

We are working on many programs that can make life easier for our customers. That is, consideration of schemes of opportunities, on lease, on possible partner lending programs. Perhaps now the situation is such that the state can provide international contracts, which go for export, which are for export. Well, I think that everything will be possible soon, because, well, you can't stay on the 1520 market all the time. You need to go to Europe, not only Europe, to open new markets for yourself.

The interview was conducted by Hermann Schmidtendorf.

ern countries, “superfluous” railway tracks were not dismantled. They can now be used as fallback routes when a main route is damaged by Russian military forces.

Delivery problems with wagon wheels and rails

Even some of those involved in economic activity were unaware that Ukraine had developed into an important supplier of goods for European industry in recent years. In 2021, Ukraine was Germany’s third largest non-European Union (EU) supplier of wire harnesses and other equipment for electricity distribution, after China and Tunisia. This was recently reported by the German state agency German Trade & Invest.

As of 2020, the two Ukrainian companies Cryoin and Ingas account for up to 50 percent of global neon production. At least

seven percent of trucks in Germany alone were driven by Ukrainian drivers in 2021. These drivers are now fighting in the Ukrainian army, they are missing from western trucking companies.

The Ukrainian company Interpipe is one of the largest manufacturers of railway wheels in the world, reports industry service GMK Center. The EU imports 70 percent of the wheels it needs for freight wagons from Ukraine. However, due to the war-related lack of personnel and material, the company had to partially stop production in March 2022. The range of the remaining systems was changed, for example to the production of anti-tank traps.

Deutsche Bahn: Replacement delivery from Spain

The Deutsche Bahn subsidiary DB Regio was also affected. “On

individual regional transport connections of Deutsche Bahn with double-decker coaches, shorter trains are temporarily being used,” a DB spokesman confirmed to the CARGO FREIGHT JOURNAL in the spring. “The reason is the lack of deliveries of wheel discs from a manufacturer in Ukraine. Because of the war, the DB supplier’s production facility there is closed. In the meantime, DB has found a new manufacturer from Spain.” They began producing the required wheels in April – albeit at a higher price than the previous supplier.

At the beginning of April, Interpipe restarted wheel set production at the Dnipro, Nikopol and Novomoskovsk plants. This should primarily satisfy the demand in Europe. However, production volumes like before the war can hardly be achieved at ►

Krjukiv II: New container wagons

Despite all the burdens caused by the war situation, the Kryukiv Wagon Building Plant (KVSZ) is trying to continue production. Currently, the company is developing and testing two types of flat cars of the Sggrs 80’ and Sggmrss 90’ classes, intended for different types of containers and swap bodies.

“By mid-2022, the two prototypes of the 80’ wagon have already successfully passed the homologation tests, and the test reports and other documents have been submitted to NoBo to demonstrate compliance with TSI WAG and TSI NOISE. The next step is the type approval process at ERA and operational acceptance via the European network,” said KVSZ.

The start of series production of the 80’ wagons is planned for the first quarter of 2023. For the 90’ wagons, the homologation process should be completed in 2023.

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Credits: KVSZ



A wagon of the Sggrs 80 series on October 14, 2021 on a test drive in Serbia.

Credits: Hermann Schmidtendorf



Formerly from the Ukraine, now first from Spain: bogie wheels of a DB Regio double-deck coach.

present. Because of the war, transport capacities are limited. The company CentraVis in Nikopol, which specialises in stainless steel tubes, resumed the production of vehicle components at the end of April 2022.

Destroyed Mariupol: where now to get broad gauge rails?

Russian army troops almost completely destroyed the Azovstal Steel Plant in Mariupol. The iron and steel works “Ilyich” (Ilyich Steel) were also forced to

close down. This is a disaster for the city and its residents, but also for industrial supply chains. The two plants account for 30 to 40 percent of Ukraine’s metallurgical production in peacetime. The factory was founded in 1933. It produced around 4.3 million tons of steel in 2021. That’s one-fifth of the country’s production, according to industry service GMK Center. Its steel products are used in shipbuilding, power station and bridge construction as well as in the laying of pipelines and railway tracks. ►

NEE: GRAIN BY RAIL INSTEAD OF BY SHIP

Ludolf Kerkeling, Chairman of NEE, the network of European freight transport rail companies:

Wherever our member companies or DB Cargo or ÖBB are active, they will certainly help to carry out these transports. However, we are talking about exports from Ukraine of 25 million tons of grain by the next harvest, i.e. within two or three months. On average, Ukraine has exported 50 million tons per year in recent years. It’s going to be really difficult to figure that out at all. So far, that has been exported via the seaports. And there are fewer problems within Ukraine, because the material or this grain has already been transported there in the past, but rather from the border crossings.

So I think you’re actually going to have to use all avenues to get as much grain out as possible. And of course, that’s not in the interests of the railways at all. The rail transport should be rather short in order to reach a seaport as quickly as possible, to keep the technical resources, which are only available to a limited extent, as small as possible and to bring as much grain as possible out of the Ukraine with as little effort as possible.

Hermann Schmidtendorf wrote down this statement.

Ludolf Kerkeling.

Credits: Hermann Schmidtendorf



Almost a third of the EU's pre-war iron slab needs came from Mariupol. The plants are owned by the Metinvest group of companies owned by billionaire Rinat Akhmetov. Owner Metinvest has invested more than \$1 billion in the 11 square kilometre factory site since 2013, explains GMK Center. The falling out of the Azovstal plant is also extremely negative for the railways of Ukraine, because the steelworks is the only supplier in Ukraine of wide-gauge tracks and connecting elements for rails. These products are currently particularly needed to restore infrastructure destroyed in the war. But seemingly, so far, there are still enough rails on stock.

Rail Baltica: First Fulda Gap, now Suwałki Gap

Ever since Russia unilaterally incorporated Ukraine's Crimea into its empire in 2014, Western military officials have been concerned about other possible regions where the West is vulnerable. In NATO circles, the term "Suwałki Gap" emerged, analogous to the "Fulda Gap" of the 1970s.

The English word "gap" is not meant as a "gap" that you have to "fill" with something. It can be understood more as a "gateway" through which the military opponent could potentially most easily take over one's own terrain. A neutral term is therefore also "corridor".

In the 1070s it was about a landscape in West Germany just 150 kilometres deep, separating the then Warsaw Treaty states, including East Germany, from the vital West German region around Frankfurt/Main. The current issue is a fragile "wasp waist", a special strategic gate situation on the border between the EU and NATO member states Poland and Lithuania. There, only 65.4 kilometres as the crow flies separate the Russian enclave of Kaliningrad in the west from Russia's partner Belarus in the east. The only major city in this region is the Polish city of Suwałki, which gives the "gap" its name.

The fear: Should Russia want to attack the EU and NATO militarily, the most effective way would be to invade the Polish-Lithuanian border strip. The three Baltic NATO member states would be

cut off from Western Europe and could be taken quickly.

Land connection Baltic States – EU should be strengthened

Therefore, on July 8th and 9th,

2016, NATO decided on an assistance initiative. The NATO Enhanced Forward Presence (eFP) was created to secure the eastern flank of the allied states and to deter Russia. NATO battle groups were deployed to the Baltic states of Estonia, Latvia and Lithuania and to Poland for training and exercise purposes. Around 1,000 soldiers are stationed there in each of the countries on a rotating basis. The Lithuanian contingent is under the direction of the German Bundeswehr, with headquarters in Rukla near the Belarusian border.

The land connection to the Baltic States is also being expanded. The Via Baltica road crosses the Polish-Lithuanian border at Suwałki, an important link between Finland and the Baltic States with the rest of the European Union. It is currently being expanded in Poland as the S61 expressway. The construction of the standard-gauge railway line Rail Baltica from Poland to the Estonian Baltic Sea coast is also on schedule.

When the EU decided to finance this 870-kilometer railway line from Warsaw to Tallinn with the maximum possible subsidy rates, a purely civil railway line was intended. In the meantime, the military benefits of Rail Baltica have also been recognised. In June 2020, NATO General Jörg Vollmer highlighted that NATO's responsiveness in the region would benefit from the rail project. Lithuanian Defence Minister Raimundas Karoblis advocated that the route should also ►

The "Suwałki gap" between Poland and Lithuania is only about 65 kilometers long.



Credits: HCredits NorthWest CC BY-SA 3.0



Credits: Ukrinform

meet the standards for military rail transport.

When rotating their troops and military equipment in Lithuania, the German Bundeswehr already uses the railway for arrival and departure. The EU is now also explicitly promoting certain additional expenditure for the construction of the railway line from a financial pot to improve military mobility. Interested parties had until January 2022 to submit current proposals.

Rail transport to Kaliningrad put to the test

Lithuania's decision to stop transporting goods such as building materials, steel, metals and coal to the Russian enclave of Kaliningrad by rail from June 17, 2022 caused a lot of excitement. The Lithuanian state railway LTG referred to the fourth EU sanctions package of March 15. The measures contained therein, for example for the import of Russian steel, finally came into force on June 17th.

Kaliningrad does not have its own land connection to the Russian heartland, so transport and passenger traffic have to be carried out either via Lithuanian territory or by ship from the sea. Initially, the EU sanctions packages did not specify their own provisions for transports to and from Kaliningrad, so Lithuania applied

Ukrainian grain transport wagons in action. At the border with Poland, the goods have to be reloaded onto standard-gauge wagons. They could go straight through Belarus and Lithuania to the port of Klaipėda without transshipment.

the sanctions packages correctly. They affected about half of the previous rail transports. Russian passenger trains are still allowed to cross Lithuania in transit to Kaliningrad – without stopping in the transit country.

On July 13, 2022, following loud protests from Russia, the EU allowed Russian transit trains with embargoed goods to Kaliningrad again, but under conditions. Only transports directly from Russia are allowed, no imports from other countries. All sanctioned goods should only be brought into the exclave in the usual previous quantities. And Lithuania should be allowed to check the transports for abnormalities. Luxury goods such as expensive cars and motorcycles, thoroughbred horses, works of art, antiques, golf and billiard equipment, truffles, caviar and cigars are still held back.

The EU's concession is understandable. Finally, the Kaliningrad enclave has strategic importance as a military base for Russia. It should be avoided that Russia with an artificial conflict in an alleged "Kaliningrad blockade" distracts from its own war against Ukraine.

The Lithuanian railway company Lietuvos Geležinkeliai LTG says it transported around 11.5 million tons of freight to and from Kaliningrad in transit via Lithuania last year, including almost 2 million tons from the exclave to mainland Russia. About 1.3 million tons of this was food, other goods were

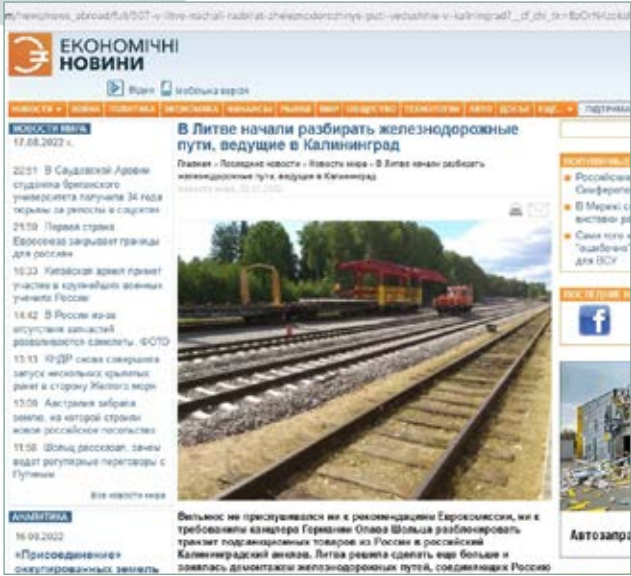
transported on a small scale.

Even without this conflict, Kaliningrad is currently suffering economically. Hardly any Silk Road transports are handled via the enclave, just as rail transport from China to Western Europe via Russia has generally declined sharply. The EU sanctions because of the Russian war do not generally prohibit the transit of goods through Russia. But insurance companies shy away from the greater risk of such shipments, and payment for Russian shipments is also subject to sanctions limitations. That is why both China and Western trading partners are looking for alternative transport routes.

Will Lithuania's railways to Kaliningrad be dismantled?

The nerves are raw. This was experienced by the Russian-language Internet satirical magazine PANORAMA. "Boris Johnson will take Prince Harry's place in the royal family", "The International Monetary Fund has recommended that Russia lower the country's literacy rate". Such headlines usually signal to the readership: Caution: a humour attack!

But now even reputable Ukrainian economic bulletins unchecked reprinted the following joke: Lithuania has decided to dismantle all railway tracks to Kaliningrad! After all, they are now useless for the local population and represent valuable raw materials. Ukrainian refugees could take over the dismantling – they are cheap, and they could at ►



Attention satire: fake news about railway tracks to Kaliningrad allegedly dismantled in Lithuania.

licitly on July 2 under this “sensational” message: “All texts on this site are grotesque parodies of reality!” But not all consumers of this message read it to the end, even journalists and politicians.

On the other hand, suggestions that Ukraine should transport its grain by rail

via Belarus to the Lithuanian port of Klaipėda are meant to be taken seriously. There are broad gauge tracks everywhere, so that the blockade of the Ukrainian port of Odessa by Russian warships can efficiently be circumvented. But Belarus is making its approval of such transit shipments conditional on EU sanctions against Belarus being lifted beforehand – a classic standoff.

Hermann Schmidtdorf,
Editor-in-Chief

last do something useful there... The satire magazine wrote ex-

hand, suggestions that Ukraine should transport its grain by rail

Ukraine war:

WILL RUSSIAN POLITICAL HACKERS ATTACK NOW?

The war in Ukraine is also taking place digitally. A pro-democracy artist group called TODS has launched a website called wasterussiantime.today. Pressing the dial button activates a hidden algorithm. From a list of 5,000 people, high-ranking Russian military, secret service people and politicians are randomly called – always two people for a personal conference call. The users of the website can then listen in unnoticed as the unwanted interlocutors explain who they are and that they are not actually making the call themselves. This should create uncertainty among the Russian attackers, says the artist group. The activists received the secret telephone numbers from a leak.

In this form, a cyber attack sounds like a game. But western experts warn: The longer the Russian war drags on, the greater the danger that Russian military authorities will use cyber warfare meth- ▶



Credits: wasterussiantime.today

ods against western infrastructure. CARGO FREIGHT JOURNAL asked the CEO of Deutsche Bahn AG Dr. Richard Lutz and ÖBB Andreas Matthä whether they are preparing for such dangers and what the traffic on the Silk Road is like at the moment. Here are the answers.

hfs

DB-Lutz: We are prepared

Of course, we are a critical infrastructure for Germany and we pay a lot of attention to it, also when it comes to cyber security and possible attacks on our IT systems. I think it's quite understandable that I won't go into detail here about everything we're doing there. But that there is of course a need to protect this infrastructure, including the IT infrastructure that controls railway operations, is undisputed, and at least that's what you can say. We are paying close attention to this in close coordination with the federal government and, as far as one can say in these times, we also feel very certain at the moment that this railway operation can be carried out reliably.



Credits: Hermann Schmidtdorf



Credits: Hermann Schmidtdorf

ÖBB-Matthä: New connections

We say nothing publicly about Ukraine. I think it's understandable that we don't spread information that not everyone needs to have. Regarding the Silk Road traffic: At the beginning there was a drop of about 20 percent in east-west traffic for all traffic. The relation via Ukraine is closed, everything goes via Belarus, and trains also go via a southern axis – via Kazakhstan, the Caspian Sea, Azerbaijan, Turkey. I also advocate reopening the axis via Iran and then via the existing routes. However, we can now see from the ship jams off Shanghai that individual shippers with particularly important goods are going back to the rails because they simply need the goods here in Europe and they cannot get any further with ships at the moment. Incidentally, this also hurts us as a railway, because we have to wait for the ships to arrive and have to keep the container wagons in stock for a long time in vain. So now we need more rolling stock. That was difficult even before the Ukraine situation. But now it's completely messed up because China has massively reduced the capacity of the most important ports for corona protection reasons.

Bundeswehr expert: “A renaissance of the railways”

CARGO FREIGHT JOURNAL spoke to the expert of the German Bundeswehr, Lieutenant Colonel Dr. Harald Potempa.

? **CARGO FREIGHT JOURNAL:** Lieutenant Colonel, in the reports on the war in the Ukraine, one often hears reports about the railways. In today's times of conflict, isn't the railway an obsolete means of transport?

Lieutenant Colonel Dr. Harald Potempa: Not at all. People are still heavily dependent on the railroad. Anyone who looks at US Air Force target planning from the 1950s and 1960s and who thinks that there were armoured command platoons on both sides

during the Cold War, including the possibility of firing missiles from them, will say that they are completely behind the railway did not get.

? What is the relationship between the railroad and the military like?

The connection between the railway and the military can be seen since the beginning of the railway system. During the First World War, an average speed of between 22.5 and 25 kilometres per hour was expected for mobilisation by rail. That's a lot faster than a column of infantry marching at four miles an hour. But above all, of course, it is important to transport material.

Because the alternative at that time was road transport by carriage on roads that are in a pitiful condition by today's standards, or, which was even the fastest at that time, with a ship transport. Of course, the train drives away from the rest. And it was always a requirement during the build-up of the air force in particular: all airfields must have a railway connection in order to transport material. And if that happens in the field, then a field railway is laid. In particular, air bases that have to do with logistics must have a rail connection. ►



Lieutenant Colonel Dr. Harald Potempa in front of his place of work.

The doctorate in history (Ludwig Maximilian University in Munich) Lieutenant Colonel Dr. Harald Potempa is a researcher in the media project area at the Bundeswehr Center for Military History and Social Sciences. At the same time, he is press staff officer for the ZMSBw Center for Military History and Social Sciences of the German Armed Forces and editor of "Military History. Journal of Historical Education". During his military career, he was deployed, among other things, with the Army's communications force in Cologne and at the headquarters of NATO's Central Army Group (CENTAG) in Heidelberg. He is also trained as an Air Force Intelligence Officer.

Credits: Hermann Schmidtendorf

WARTIME FACT CHECK:

This hack really existed

As early as January 24, 2022, pro-democracy hackers attacked the central computers of the Belarusian state railway BelŽD (БелЖД) in order to delay the transport of Russian military equipment to the Belarusian-Ukrainian border.

The online service InformNapalm Community reported that on the Russian news service Telegram, a group called Cyber Partisans claimed responsibility for the attack: “As part of the cyber campaign “Peklo” (translated: hell, the editors), we have a large part of the servers, databases and workstations of the BelŽD encrypted in order to slow down and disrupt the operation of the railway. The backups were destroyed. Automation and security systems were deliberately NOT affected by a cyber attack to avoid emergency situations.”

In the short message service Twitter, the “hacktivists” demanded the release of 50 political prisoners in Belarus and “prevention of the presence of Russian troops on the territory of Belarus” as a condition for freeing the blocked railway data. The hackers published screenshots of their deletion and captured BelŽD documents.

Screenshots of BelŽD's official website at the same time carried the message that “due to technical reasons” reference web resources of the state railway “and services for issuing electronic travel documents are temporarily unavailable”. A few days later, the same official website showed the following entry: “Due to technical reasons, the return of electronic travel documents processed on the web resources of the Belarusian Railway is not available until January 24, 2022. For the return of travel documents, we ask that you contact the ticket office. We apologize for the inconvenience caused.”

Apparently, the BelŽD was in fact unable to recover any data about events before January 24th. And the data packets encrypted by the hackers are not available because the Belarusian leadership is not responding to the hackers' political demands. It can therefore be assumed that the hackers' claims correspond to reality. hfs

“Services unavailable...” Message from the Belarusian State Railways after a hack against their central computer.



? Of course, the other side knows that too. It's going to want to disrupt this mode of transport?

There is extensive discussion in the military weekly of the 19th and early 20th centuries: How do I disrupt or paralyze railroads? The classic idea of blowing up the rails is usually of little use, because the rails are patched up very quickly. Back then, if I really wanted to shut down railroads, I had to disrupt the water supply, because steam locomotives need water. I don't have to say that to railroad experts. Depending on the locomotive, 16,000 liters in a short

period of time in good quality. That is, if I disrupt the water supply or also disrupt the points, disrupt the stations, then I have disrupted railroads much more effectively than I can do by simply blasting rails.

? An effective opponent of the railroad is the Air Force?

Of course, fighter-bombers try to destroy tracks by dropping bombs. But what is ultimately much more effective: These rails lead somewhere, usually to train stations, where I can unload and load. ►

And if I hit the train stations, if I hit the points, then I definitely disturbed the train much more sustainably. To cite a number: From around 1944 onwards, the number of locomotives and wagons destroyed by air raids in south-eastern Europe is significantly higher than that blown up by partisans, be they Tito partisans or Greek partisans.

? So, air sovereignty is becoming more important there. How does this problem manifest itself today?

Railways today, it's not just about diesel locomotives, it's also about trains that are electrified with a highly complex system. And they can certainly be disturbed more lastingly than was the case with

steam locomotives or diesel locomotives. That's why, in case of doubt, diesel locomotives are still the most likely to be used today, even if overhead lines are destroyed or the power system somewhere isn't working. Of course, if the electrics or electronics fail today, then I can no longer operate the switches. But it is certainly true that, depending on the situation, the diesel locomotives are actually operational in case of doubt.

? Is the Ukrainian railway so efficient in the war because it is a state railway?

We have seen an unbelievable wave of privatisations over the past few decades. Our ancestors knew very well why the railways and the post ►

The Czech Ministry of Defense published this photo of a military train unloading in Ukraine.



Credits: Armáda ČR/Twitter

were subordinate to the state: for national defence, for mobilisation, for the delivery of the relevant orders. At least in the Federal Republic of Germany this is no longer the case. In some states, of course, you also have the option of accessing personnel much more quickly, which is then assigned by order. In the case of private companies, you might do some persuasion.

This was also the case in both world wars, that of course there were special railway battalions. In case of doubt, the members of the railways, who were already state employees, were recruited accordingly. And who should be able to repair locomotives that no longer run or rolling stock that no longer works or even rails better than the people who had to do with them before?

? We have brought some current reports, films and photos of the events in Ukraine. Can you please comment on these for us?

With pleasure! First, a general statement, not specific to the war in Ukraine. I warn against the seductive power of images that are supposedly self-explanatory at first glance. As early as 1914, at the outbreak of World War I, there was manipulation through photographs.

There is a famous film sequence from Munich during the German mobilization in 1914 in front of the Odeonsplatz. The film gave the impression that Odeonsplatz was packed with cheering people. But there is a film sequence that was cut out at the time. The tram drove by behind, and at the moment when the tram drove past, the Odeonsplatz couldn't really have been that black with people, otherwise the tram wouldn't have got through. You simply have to check everything, which of course is often difficult in times of war.

? A good hint! Consider these maps from the early days of the war. They explain which stations are closed, which are not connected to the rail network and which continue to function normally. Or this video clip. It is supposed to show a Ukrainian railway bridge that was destroyed by Russian attack-

ers and over which a first train is running again after repairs.

These are important messages. In terms of source criticism, it is a publication of the Ukrainian State Railways. The Ukrainian State Railways tries to present a certain picture of their functioning. The motto: a part no longer works, but a large part still works in this huge country of Ukraine.

Regarding the railway bridge: We cannot see how badly this bridge was destroyed. I think it is part of the task of information work / press and public relations work / propaganda to make it clear to one's own population that we are able to repair something like this. Don't worry, don't be shy. Our trains continue. And possibly also with regard to the real potential opponent: You can't get us down whatever you try to destroy – we'll manage to patch it up again in no time at all.

? On February 26, 2022, at 10:05 p.m., Advisor to the Minister of Interior of Ukraine Anton Gerašchenko published a photo in the short message service Telegram. It shows a message that an anonymous observer apparently sent via cell phone. It reports that a Russian train with 56 tank wagons was sighted at a Ukrainian railway station. Apparently, the occupying Russian army wanted to transfer the fuel from the train wagons to their road vehicles. The government advisor reported that thanks to this message from the population, the entire train with 3,000 tons of fuel could have been blown up. After that, Ukraine destroyed rail connections to Russia.

Of course, these so-called social networks also play a role in modern conflicts. What used to be reported with scouts, with carrier pigeons, is now happening very quickly. Of course, this also increases the speed of disinformation incredibly.

? At the same time, this is certainly an appeal to the Ukrainian population: Report if you see anything suspicious! How do you classify these photos, which the Ministry of Defence of the Czech Republic published on its Twitter account on February 27? You see a train with boxcars full of boxes ►

Credits: Jesco Denzel/Bundesregierung



Civilians on June 16 on the Ukrainian government train from Poland to Kiev: Mario Draghi (left), Prime Minister of Italy, Germany's Federal Chancellor Olaf Scholz and Emmanuel Macron, President of France.

with an "explosive" sticker. This is supposed to be ammunition for the Ukrainian army. The Czech Army even released a film purporting to show a night military train bound for Ukraine.

It may be that the intention is to consciously show: we support Ukraine. This can of course also be a ruse if there is no ammunition in the boxes. Possibly an opponent should also be deterred under the motto: Our material supplies are running for Ukraine.

? What do you say to the German opposition leader who is travelling by train and is travelling safely to Kyiv? After him, French President Emanuel Macron, Germany's Chancellor Olaf Scholz and Italy's Prime Minister Mario Draghi also took the night train to Ukraine. Poland's state representatives and Romanian President Klaus Iohannis also visited Ukraine by train.

This is basically a kind of renaissance of the railways. The fact that opposition leaders, heads of state or heads of government travel by train to official political meetings seems to have almost gone out of fashion these days. Normally, a government plane is always shown today, at most a car convoy. The leader of the opposition even got in touch with his followers while on the move. He might want to say: We dare, the situation is under control.

The second is, the train is safer in times of conflict. You certainly have to know the course book very

well, to speak in an old-fashioned way, and have insider knowledge in order to know which compartment, which train, the politicians are really sitting in. If someone uses a government plane – it needs an airfield and in turn may be identified as a target. But of course it's certainly nice in general that everyone is actually travelling there by train at the moment.

? How do you classify this film, which the German foreign television broadcaster Deutsche Welle released? It shows a Ukrainian train attendant on duty on a long-distance Ukrainian train, now in wartime. The man explains that the shifts are now particularly long and heavy. He also regards his rail service as service in war.

I can very well imagine that this service is now a burden for him. Of course, it is not possible to verify exactly which routes these are, which stations the train travels over. But that might not be the aim of the film. Why Ukraine declassified the film? Maybe also to say: Dear people, please stick to your functions, because we can need a lot of people for the army, but if the train doesn't run, the army is of little use to us. If the baker doesn't bake anything, the army doesn't get anything to eat either. Maybe that's one of the reasons why it was released.

? So civilians shouldn't be ashamed of not serving at the front?

We often have the notion that war in the age of conscription would mean all men at arms serving. But if all men at arms and in the first line serve, then nobody is left behind. In other words: The number of soldiers who are actually at the front in a war is a minority. I need a lot of people at the back for everyone who is at the front. I need them for supplies. And I need a lot of civilians.

When I think of my grandfather, who was just too young for the First World War, he was never drafted into the Second World War. Why? He was with the Technical Emergency Aid, as a Siemens Engineer. And in case of doubt, he should ensure that the power supply does not collapse. I need an incredible number of people to maintain a country's infra- ►

structure during war and in the event of a conflict. And that's why they don't all wear uniforms.

? What geostrategic challenges does Ukraine pose to an attacker?

Ukraine is a direct neighbour of the Russian Federation. There you can see what is already closed, to the Crimea and in the south. Then I have Belarus in the north and possible attempts to attack over water. Ukraine is a huge country. If you want to occupy this country sustainably, you first have to conquer it and therefore need a lot of troops in order to actually be able to rule it. When in doubt, tunnels and bridges, so-called artificial structures, are always sticking points. If necessary, they can be disturbed and blown up. But overall, if you look at this country, it's huge. I certainly have some road conditions or terrain conditions for tanks that aren't exactly fun.

This photo of a railway bridge near Bacunivka / Vasylivka destroyed by Russians was published by the head of the Saporizhja district on March 1, 2022 on the Telegram channel.



Credits: Oleksandr Staruch

The German Wehrmacht had already noticed back then that both winter and the corresponding rainy and muddy periods are major obstacles. In any case, I need a huge effort to actually conquer and dominate this country in the long term. And the more confusing a country is, the easier it is for the forces of the small war, commonly known as partisans. I can't control everything at all, and when in doubt, these are exactly the weak points where the appropriate forces, be it special troops, lone fighters or even partisans, can start.

? Do you have a general explanation as to why the Russian side has apparently not achieved its war aims so far?

There is good old wisdom about how wars are won or lost. Five factors are decisive: first, logistics, second, logistics, third, logistics, fourth, logistics, and fifth, replenishment. Without machines, fuel, ammunition and people, it is extremely difficult to carry out such operations.

! Lieutenant Colonel, thank you for this informative interview!

The interview was conducted by Hermann Schmidtendorf

InnoTrans 2022: Huge variety of products for sustainable mobility

A CARGO FREIGHT JOURNAL interview with the director of the world's largest trade fair for rail technology and mobility, InnoTrans in Berlin.



Photo Kerstin Schulz

Credits InnoTrans

? **CARGO FREIGHT JOURNAL:** InnoTrans had to take a pandemic break for four years. Ms. Schulz, how is the railway industry reacting to the opportunity to finally be able to visit a trade fair again with real personal encounters and presentations?

Kerstin Schulz: Everyone is looking forward to it. Almost four years have passed since the last InnoTrans. The joy of seeing you again can be felt throughout the mobility industry. Online conferences, virtual events, webinars, online trade fairs are certainly an adequate add-on service, but such formats will not be able to replace the “real” trade fair, personal exchange and random encounters.

Just being able to experience the huge variety of products live and see them with your own eyes, possibly even test them or touch them, is unique. We look forward to welcoming international delegations here in Berlin again. Delegations from Switzerland, Saudi Arabia, Dubai, Italy, Abu Dhabi, Spain, America, Finland, Australia and Korea, among others, have announced themselves.

? The industry likes to present its latest developments at trade fairs. Four years without world novelties that attracted the public at InnoTrans – is there now a “presentation backlog”?

The industry has always been geared towards InnoTrans, which means that innovations and world premieres have always been shown first to the experts at InnoTrans. This year we actually have the highest number of world premieres to report. Over 250 world firsts in four years is quite a number.

Those who are interested are welcome to take part in the World Innovation Tours, which lead directly to the exhibitors presenting these innovations.

? According to the current status, are there any special rules of conduct regarding pandemic protection?

We generally recommend: keep your distance and wear a mask, but no, there are currently no explicit measures, so there are no special rules of conduct. What are the key data of this year's InnoTrans – registered exhibitors number of exhibited vehicles... ►

To date, over 2,770 exhibitors from 56 countries have registered. The entire exhibition center with around 200,000 m² is occupied. More than 100 exhibits can be admired outside on the open-air and track area, and more than a dozen buses will be presented on the bus display in the summer garden, which will also be shown in live operation. Over 250 world firsts have been submitted, which can be visited on the World Innovation Tours.

? The wheel of technology has not stood still in the last four years. How is this reflected at this year's InnoTrans?

The exhibitors will show us this at their stands. An overview of the products and highlights can already be found on InnoTrans Plus, the new digital platform: <https://www.innotrans.de/de/innotrans-plus/ausstellerverzeichnis> <https://www.innotrans.de/en/innotrans-plus/exhibitor-directory/>

Sustainability, climate protection, digitization, networking, hydrogen and battery drives, electric buses or additional mobility services are just a few of the buzzwords.

? Are other topics now being added to the traditional core areas of InnoTrans?

With the new small exhibition area “Mobility+” within the Public Transport segment, for example, we are taking up the continuing important development

towards networked and cross-modal mobility. 29 companies present offers and solutions for supplementary mobility services. Here everything revolves around shared mobility, mobility apps and the first and last mile to the destination.

The topic of cyber security is gaining in importance. In addition, there will be a lecture in the Mobility+ Corner by the cyber security specialist and CEO of asvin GmbH, Mirko Ross, on security challenges in intermodal mobility. “How are we going to travel tomorrow?” also comes to the fore again.

Comfort, service, good food and much more are shown in the special area Travel Catering and Comfort Services. Possibilities and ideas of how trains could make traveling even more attractive and comfortable in the future are literally shown on an idea train at the south entrance to the exhibition center.

There will be a lot to discover at InnoTrans 2022 – from 20 to 23 September 2022 in Berlin.

! Ms. Schulz, thank you very much for the interview!

The conversation was conducted by Hermann Schmidtendorf.

A crowd puller is traditionally the outdoor area with the rail vehicles exhibited there – here is a scene from InnoTrans 2018.



Credits: Hermann Schmidtendorf

Digital railways, Stockholm Nov 9th, 2022:

CONGRESS “SCANDINAVIAN RAIL OPTIMISATION”

In recent years, the conferences of the British agency rotaia media have become the most important sources of information about IoT and Big Data in the railway industry. The next specialist conference will take place in Stockholm – under the motto “Scandinavian Rail Optimisation”.

“Following the tremendous success of the recent The Rise of IoT & Big Data in Rail sell-out conference, I am pleased to present you with our next high-level event – Scandinavian Rail Optimisation”, Ben Holliday, the event’s managing director, tells CARGO FREIGHT JOURNAL. “This first class event will provide an exclusive stage to bring together the leading rail experts from the Swedish, Norwegian, Danish, Finnish and Baltic Railways to discuss how they are optimising the latest digital trends to increase capacity, improve reliability, enhance availability and drive down maintenance costs in the Scandinavian region.”

The conference is supported by the leading digital innovators – Nexxiot, Siemens Mobility, CAF Digital Services, AVEVA, VR FleetCare, Copperleaf Technologies, EY Technology Solutions, Talgo, MOST Tech by Nexxiot, Plasser & Theurer Export von Bahnbaumaschinen G.m.b.H., InstaDeep Ltd, Cervello, Predge AB & Rhomberg Sersa Rail Group.

Please view the impressive programme here – <https://lnkd.in/guSk-pA> and <https://scandinavianrail.co.uk/> The conference will not only address the concepts and lessons learned for digital success, but the importance of how data is optimised to develop an intelligent infrastructure, as well as to enhance fleet management efficiency and the availability of

rolling stock assets in the Scandinavian region, explains the organiser: “This first class event offers the perfect stage on which to bring together those with the questions, and those with the answers. It’s an opportunity to share experiences – and for vital collaboration.”

And this is what is going to be discussed by prominent speakers:

- Trafikverket’s investment in new mainlines as well as their perspective on our asset information
- Greencargo’s strategy to accelerate innovation with composable technologies in a data driven culture
- Banedanmark’s methods to optimise interoperability, technical standardisation whilst also enhancing digitalisation through radio based signalling
- CargoNet’s approach to digitalisation of freight trains and freight operations through their use of trackside sensors
- Bane NOR’s digitalisation journey to implement ERTMS in Norway
- Vayla’s asset management and maintenance strategy in Finnish Railways
- DB Cargo Scandinavia methods of maintaining locomotives more digitally from reactive to predictive maintenance
- Shift2Rail’s presentation of Europe’s Rail Programme and its impact for the Scandinavian network
- Rail Baltica’s optimum models for delivering commercially viable railway and logistics services in a greenfield environment
- SJ’s remote diagnostics and condition based maintenance methods

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Conference manager
Ben Holliday.

Credits: Hermann Schmidtendorf



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ACHAT: “Complex solutions for all of Europe”



Przemysław Bresch

Credits: Hermann Schmidtendorf

? **CARGO FREIGHT JOURNAL:** Mr. Bresch, your company Achat Infrastructure is once again exhibiting at the world's largest railway trade fair, InnoTrans. What do you expect from this trade fair appearance?

Przemysław Bresch: It's not the first time at InnoTrans. The idea is always the same – the constant further development and presentation of the company on the German market. We show our experience, our completed plants in Poland and Germany, and win new contracts and potential customers.

? How can a company that has only been active in a new market for a few years, in this case Germany, expand its profile in the industry and thus get more orders? Is whisper propaganda the best way to get a good word from satisfied customers?

A good word from the clients you have worked with is certainly of great importance. Our latest project was a washing facility for trains on the Berlin S-Bahn in Grünau. When implementing it, the approach to solving everyday problems was certainly our advantage. I'm also certain that if a potential new customer wanted to know what working with us in Grünau was like, we would receive a positive reference from the client.

? Maybe also from cooperating companies? Because you were the general contractor. That is a specific responsibility for the whole job.

Exactly. The partner companies came from Poland and Germany, from the Berlin area – railway companies, but also typical electrical companies. Certainly this daily cooperation has proven to be very good for us. And certainly the people we worked with on the project, the presidents of these companies, should also tell other companies well about us in the future. We have positive contacts and are looking forward to the visit of our project partners at InnoTrans.

? You also deal with commonly understood energy. There can hardly be a better mark of quality than your work as a subcontractor for Siemens on the first section of an electrified highway for trucks. ►



Credits: DB

Certainly, because it is a technology that is still being researched. There may be follow-up orders. We are closely monitoring this segment. Up to 4,000 kilometers of such electrified cargo sections are to be built in Germany. We are talking to Siemens about further projects and hope to be considered as a subcontractor again later.



Autobahn A5 Darmstadt – Frankfurt am Main

Credits: Achat

? In Poland you have a lot of experience with the electrification of larger sections of railway lines, which speaks for your qualitative and personal competence. Can you also use this competence in other projects?

We are currently realising an investment in Hamburg. We are laying a power cable on the site of one of the factories near the city centre. We are looking for new topics, we are active in this direction, we are holding various talks with Deutsche Bahn.

? In Poland, the railways run on a direct current system. This is also the case with neighbors in

western Germany, in the Netherlands. Are you also looking for jobs outside of Germany?

Of course we want to be active throughout Europe. We don't just limit ourselves to Poland, not just to Germany. We are looking for different topics, also abroad, all over Europe.

! Mr. Bresch, thank you for the interview!

The interview was conducted by Hermann Schmidtendorf.

ABOUT ACHAT

The Berlin-based company Achat Infrastructure GmbH is a subsidiary of the Polish company AGAT SA. The business areas include projects in railway technology, energetics, telecommunications, project planning, industrial buildings, automation and ecology. Both companies are exhibiting at the **InnoTrans in Berlin: City Cube Hall B Stand 220 (entrance from Jaffestrasse)**. CARGO FREIGHT JOURNAL spoke to Achat Managing Director Przemysław Bresch. Achat's successful projects in Germany include the electric autobahn built under Siemens management and the train washing facility in Berlin-Grünau.

Career Ambassadors prove:

THE RAIL INDUSTRY – THESE ARE REAL PEOPLE



Railway is great! say these members of the „Rail Embassy“.

One reads and hears a lot about the shortage of skilled workers at the moment. Recruiting suitable personnel is also a major issue for the rail industry. According to a study by the German Center for Rail Transport Research on the economic importance of the rail sector in Germany, it currently secures more than half a million jobs (full-time equivalents). But – according to another finding of the study: There is an acute shortage of skilled workers at Deutsche Bahn. Depending on the sector, around 50 to 75 percent of the companies surveyed stated that they had problems recruiting skilled workers. A central tool for remedying this situation is effective personnel marketing.

A new approach in HR marketing and employer branding

With the appointment of 30 career ambassadors for the rail industry, the Pro-Rail Alliance is pursuing a completely new approach. 30 people who have already successfully mastered their career start in the world of railways are available as contacts for potential career starters, the media and the interested public. This offers the rare opportunity to get in direct contact with specialists from individual professions and professional fields. The people selected from more than 150 applications are presented on the website <https://www.bahnenjobs.de/berufsbotschafter> and can be reached by email.

With the professions presented, the Pro-Rail Alliance covers a wide spectrum from different sectors of the industry: vehicle construction and maintenance, freight and passenger transport, infrastructure, science and other services are represented as important industry fields. Diversity was also taken into account in the professions represented. Of course, classics such as train drivers and train attendants are represented. However, the selection also includes professions that are less in the public eye, such as: warranty expert at a rail vehicle manufacturer, head of legal department at a railway company, planning engineer for overhead line systems at an infrastructure company or team leader for ►

heavy maintenance at a rail vehicle rental company.

Insights into various rail jobs

At a press conference with the Federal Ministry for Digital Affairs and Transport, which funded the project, five of the 30 skilled workers were presented as examples in the spring: Peter Wuschansky, engine driver at DB Regio AG, sees it as his task to ensure movement. He loves working with technology and heavy vehicles. "I especially like that I'm always on the go. It never feels like I'm going to work, it's like I'm traveling." Important to consider: "You have to be able to get up early." Not so with Dana Hempel. The clerk at DB Netz AG ensures that everyone involved travels and works safely during construction work. She creates the „instruction leaflets“, i.e. comprehensive instructions, so that operation and construction are coordinated.

Kristina Sittig, project manager for locomotive maintenance at Siemens Mobility GmbH in Munich, loves it when she sees the repaired locomotives roll off

the yard. Before that, she coordinated everything from a small inspection to repairs lasting several months, involved numerous service providers, created offers, and spoke to employees, customers and suppliers. Robin Göhring, Team Leader Fleet Management at Railpool GmbH, a rail vehicle leasing company, ensures that the fleet is optimally distributed and in use throughout Europe. Angela Strehlow, administrator in research funding at the Federal Railway Authority, takes care of the administrative support of projects in the Federal Program for the Future of Rail Freight Transport.

The ensemble paints a clear picture: there are many attractive jobs with good employers in the industry. Interested parties can contact the specialists directly via the website. With this possibility, the project goes far beyond the usual measures and campaigns of personnel marketing.

Best prospects

„Being able to be reached personally means that we lower

applicants' inhibition threshold," emphasizes Dirk Flege, Managing Director of the non-profit Pro-Rail Alliance. „Anyone who writes to the career ambassadors can hope for a call back and a personal exchange," Flege continues, and: „Even the small selection of career ambassadors shows how diverse and exciting the rail industry is." And it also shows that the career ambassadors are not only aimed at young professionals: "Experienced specialists and managers from other areas are in particularly high demand in the railway industry and have excellent prospects." Lateral entry is also considered.

If you work as a journalist and are looking for stories from the world of work or if you work in vocational training and further education, you now have 30 top specialists to choose from who are happy to answer questions about their jobs.

Djubin Pejouhandeh, Communications Officer, Allianz pro Schiene

INNOTRANS 2022:

CAREER AMBASSADORS REPRESENT THEIR PROFESSIONS TO THE PUBLIC

The Pro-Rail Alliance is also represented at the InnoTrans 2022 trade fair with career ambassadors. There, on Wednesday, September 21, from 4:30 p.m. to 5:15 p.m., there will be a panel discussion between career ambassadors with engineering training and the Deputy Prime Minister and Minister for Mobility and Public Works of the Grand Duchy of Luxembourg, François Bausch (Hall 15.2).

Further information:

<https://www.bahnenjobs.de/berufsbotschafter>
<https://www.allianz-pro-schiene.de/innotrans>

“HVO – the best currently available immediate climate protection measure”

? **CARGO FREIGHT JOURNAL:** Dr. Fischer, back then there were problems in achieving consistent fuel quality with the waste materials and vegetable oils, and the diesel engines also had to have their seals modified, for example?

Dr Tobias Fischer: The issues you mentioned arose in the past when first-generation biodiesel or fatty acid methyl ester (FAME) was used. In particular, fuel-carrying hoses and seals decomposed due to the slightly aggressive fuel, with damage to seals in the injection system and cylinder head gaskets causing engine damage. Another problem was the entry of biodiesel into the engine oil, which led to a deterioration in the lubricating properties and thus to increased engine wear. In addition, the high proportion of biomass during storage favored the formation of diesel plague, which led to a loss of quality in the fuel and, in the worst case, to damage to the material on the tank walls, pipes and filter elements. You see, the list is long.

PEG: IT SMELLED LIKE A CHIP SHOP

In 1999, the private “Prignitzer Eisenbahn” PEG converted its diesel locomotives and diesel rail buses of class VT 98 to burning used French fries fat and pure vegetable oil (rapeseed) – worldwide for the first time, as it was said at the time. In the year 2000 alone, the vehicles covered 1.1 million kilometers on B100 fuel made exclusively from renewable raw materials.

These experiments were followed by Dr. Tobias Fischer with interest. Today he is an expert at Deutsche Bahn and explains the potential of alternative eco-fuels to the CARGO FREIGHT JOURNAL.

The Doctor of Social and Economic Sciences (Vienna University of Economics and Business) Dr. Tobias Fischer has been Head of Technology TecLab for Deutsche Bahn AG since 2017 and deals specifically with alternative drives, ETCS vehicle integration and sensors in rail vehicles. For testing in innovative technologies in rail transport, he created the advanced TrainLab. Before that, he worked for the S-Bahn Berlin as head of maintenance at the S-Bahn Berlin, plant manager in Schöneweide and Friedrichsfelde/Erkner and performed other tasks at DB.



That is why in Germany, as in almost all of Europe, only up to 7% by volume of FAME is added to fossil diesel fuel. One therefore also speaks of B7. This meets all the requirements of the diesel fuel standard DIN EN 590.

? Today you advocate so-called hydrotreated vegetable oil, HVO, as a fuel for diesel locomotives. What’s the difference to the French fries fat from back then?

HVO is a paraffinic fuel based on hydrogen-treated biogenic oils or fats. Biogenic waste and residues are used for the production of HVO. This can also be used chip fat, among other things. This means that even if the raw material basis of HVO is biogenic, as is the case with biodiesel, a different manufacturing process ensures that the disadvantages of first-generation biodiesel, such as slight aggressiveness towards plastic parts and engine seals, no longer occur. ►

FOCUS II: Alternative fuels and drives

In other words: As far as engine compatibility is concerned, I have no qualms about using HVO. Based on the experience from our own tests and in exchange with external partners, we were not able to identify any restrictions with regard to engine compatibility. Incidentally, HVO has been used as a green diesel substitute in shipping for years.

? On which Deutsche Bahn tractive vehicles have you already been able to test this HVO in action, what were the results?

I assume that all current DB diesel locomotives, diesel railcars and engine series can be easily converted from conventional diesel fuel to HVO fuel in accordance with DIN 15940. This is proven by internal practical tests and test bench trials at our advanced TrainLab, but also at DB Cargo, DB Fernverkehr and DB Regio. Within the scope of the tests carried out with HVO so far, in addition to the very good engine compatibility, significant reductions in local emissions could also be determined. Depending on the engine type, reductions in carbon (up to 54%), nitrogen oxide (up to 42%), hydrocarbons (up to 61%) and dust mass (up to 79%) were measured. It has also been shown that the odor and noise pollution during operation with HVO is greatly reduced.

Credits DB/Oliver Lang



Convincing in the test: HVO (left) burns without soot, in contrast to diesel on the right.



Credits: Hermann Schmidtendorf

A colourful mix of vehicles stored at the PEG site in 2004: a steam locomotive, an old diesel locomotive – and a rail bus with a sunflower painted on it, being the proud signal: I’m running on vegetable oil.

? This HVO will probably not be completely climate-neutral?

That’s true, but by using HVO a balance sheet greenhouse gas (GHG) saving of up to 90% can be achieved compared to conventional diesel. Depending on the raw material used to produce HVO, however, there can be fluctuations in terms of CO₂ savings. At DB, we have very high ecological requirements with regard to the production of such fuels. We make sure that no cultivated biomass or palm oil is used. Specifically, it is the procurement guidelines of DB Energie for biofuels, which are in line with the requirements of the EU’s Renewable Energy Sources Directive (REDII, 2018/2001) and the Federal Republic of Germany’s Biofuel Sustainability Ordinance (Biokraft-NachV). At DB, we actually achieve 90% CO₂ savings with HVO compared to diesel.

? What about the availability of HVO. Are larger quantities available if required? And what about the costs? The question is certainly also ►



They don't put a tiger in the tank, but biofuel: The boss of DB Cargo Dr. Sigrid Nikutta and the State Secretary in the German Federal Ministry of Transport Michael Theurer publicly promote HVO.

interesting: Are there taxes on HVO?

According to the current assessment of our supplier DB Energie, a supply with HVO can be presented without any problems. It should be mentioned here that the HVO fuel procured by DB Energie is currently being imported from other European countries. HVO currently costs around 30 cents more than fossil diesel. The energy tax of currently 47 cents per liter applies to both fuels, but the CO₂ tax of 7.57 cents per liter is almost non-existent for HVO. In my view, it would make sense for HVO to reduce energy taxation. A check according to the EU Energy Tax Directive is required here. This could result in a maximum reduction in the sales price of up to 47 cents/liter.

? And how are the vehicles refueled? Do you have to build separate gas stations and fuel bunkers?

In principle, the requirements for the system components of the tank infrastructure for an HVO fuel do not differ significantly from those for conventional diesel. The diesel filling stations can therefore also be used to deliver HVO. This is also proven by ongoing operational tests with this fuel. However, there are also regulatory challenges that we need to address. The principle of non-discrimination applies. Accordingly, diesel must also be provided for everyone who fills up at this filling station, unless otherwise agreed. For the conversion to HVO, this means that either everyone agrees to fill ►

up with HVO or, in case of doubt, that additional tanks and dispensers have to be installed.

? The use of corresponding fuels made from organic waste is also currently being discussed for airplanes and ships. Are these exactly the same HVO as for diesel trains, or are there technical differences?

When it comes to the comparison with ship traffic, it is about the same fuel. As already mentioned, HVO has long been used as a substitute for diesel in shipping. Above all, the long shelf life compared to diesel is seen as an advantage in addition to the CO₂ savings. It's a bit more complicated in air travel, since airplanes don't fly with diesel, but with kerosene. The industry relies on the so-called SAF (Sustainable

Aviation Fuels). Various processes can be used to produce SAF, such as the "Power-to-Liquid" (PtL), the "Hydroprocesses Esters and Fatty Acids" (HEFA) or the "Power-to-Gas" (PtG) process. Like HVO, SAF is counted among the "second generation" biofuels.

? So you would say that with HVO, existing diesel vehicles can still be used with benefits for the climate until there are perhaps even better solutions?

Exactly. I see HVO very clearly as a bridging technology or immediate climate protection measure to substitute fossil diesel in the rail sector. After all, we cannot immediately replace all existing vehicles with alternative drive systems. That would not be feasible from a financial point of view and also not necessarily resource-saving. In addition, alternative fuels such as HVO represent an important supplement to alternative drives such as batteries and hydrogen. Technical solutions for greening the fleet (e.g. heavy goods traffic) do not yet exist for all applications at DB. The alternative fuels form an important bridge here in order to save CO₂ in the ecological balance.

The main advantages of HVO can therefore be summarised as follows:

- Continued operation of the diesel fleets without costly conversions.
- Solution for areas of application in which battery or fuel cell technology are not an alternative.
- Alternative fuels in the target largely climate-neutral in the overall balance including production.
- Migration of tank infrastructure comparatively simple and inexpensive.
- Short-term switch from fossil diesel to alternative fuels possible. HVO is the best immediate climate protection measure currently available, which we consistently apply at Deutsche Bahn. When it comes to climate protection, we must not wait, we must do something now.

! Thank you for this informative interview!

The interview was conducted by Hermann Schmidtendorf.

Ecofuel II:

LUFTHANSA CARGO AND DB SCHENKER – CLIMATE-NEUTRAL THROUGH THE AIR

CO₂-neutral cargo flights, is that even possible? DB Schenker and Lufthansa Cargo say yes! On March 25, 2022, the partners completed their 100th joint greenhouse gas-neutral flight.

On January 11, 2022, they welcomed Lenovo, the global provider of hardware technology, as a new major customer. Lenovo is now flying 20 tons of freight a week from Shanghai (PVG) to Frankfurt am Main (FRA) – an important step towards greener supply chains. The magic term is Sustainable Aviation Fuel, abbreviated SAF.

SAF is obtained from organic waste, for example from used cooking oils. The CO₂ emitted by the engines is exclusively that which the plants, which are used to produce edible oil, have extracted from the atmosphere during their photosynthesis. The SAF is refined from the resulting organic waste, for example from used frying fat.

In April 2021, DB Schenker and Lufthansa Cargo launched the world's first regular full charter connection between Frankfurt and Shanghai covered by SAF. So far, the weekly flight rotation remains the only regular full charter in the world to be fully covered by SAF. By opting for the SAF flights offered by DB Schenker in cooperation with Lufthansa Cargo, Lenovo saves around 20 tons of conventional kerosene per flight per week and thus 62 tons of greenhouse gases (CO₂ e well-to-wheel). In addition, the approximately 16 tons of CO₂ e that occur during the manufacture and transport of the SAF, the so-called upstream emissions, are offset by compensation measures. Overall, complete climate neutrality is achieved, the companies explain.

According to DB Schenker, the new partners are pleased to be able to reduce greenhouse gases by 78 tons per week thanks to the alternative aviation fuel. The CO₂-neutral cargo flight is the only regular full charter connection in the world that is 100 percent covered by SAF. The transported products are laptops, notebooks and PCs for private and corporate customers.

Thorsten Meincke, Board Member for Air and Sea Freight at DB Schenker, was correspondingly enthusiastic: "Our unique SAF full charter flights help companies to make their shipments more sustainable. ►

The SAF covered flight after the arrival in Frankfurt.



Picture credit: Lufthansa Cargo/Oliver Roesler



Credit: Lufthansa Cargo/Oliver Roesler

Refueling a B777-F.

Lenovo is a key customer for this groundbreaking initiative and is an example of shippers embracing and realizing a real shift towards greener transportation. We look forward to more pioneers who want to decarbonise their transport with us."

It is also important for Lufthansa to show with the new major customer that its own strategy is the right one. Ashwin Bhat, Board Member for Product and Sales at Lufthansa Cargo, puts it this way: "Our alliance with DB Schenker to avoid CO₂ emissions is gaining more supporters. A growing number of

customers recognise that we need to work together across industries to achieve our common goal. Only together can we make a difference. We are doing pioneering work with our SAF flights."

Other first-year customers included a number of well-known global brands such as Siemens Healthineers, Mercedes-Benz, ZF, Merck and Nokia. For each round trip of cargo from Frankfurt to Shanghai and back, the need for 174 tons of conventional kerosene is covered by the purchase of SAF, which is then fed into Frankfurt Airport's fueling system. This corresponds to 217,500 liters of SAF per week, which DB Schenker will use during the summer flight schedule. Around 520 tons of CO₂e emissions are saved every week just by using SAF.

In addition, DB Schenker offsets a further 150 tons of CO₂e emissions that arise during the transport and processing of SAF through certified climate protection projects. This classifies the cargo flights as completely CO₂-neutral. DB Schenker and its customers can show the CO₂ emissions saved by using SAF in a certified form in their own CO₂ balance sheet.

The joint offer for more environmentally friendly logistics will be extended until at least October 2022. It is gratifying that major players in air freight are committed to ecological transport, this example should set a precedent!

hfs

ROLLS-ROYCE - MTU AND VOLVO PENTA RELY ON HVO FUEL

Most ships are still powered by combustion engines. How can these quickly become environmentally friendly? In May 2022, the *mtu* – Rolls-Royce Group from Friedrichshafen gave the “green signal” for a replacement for classic diesel fuel. With immediate effect, *mtu* diesel gensets of the 4000 and 1600 series can be operated with synthetic paraffinic diesel fuel, also known as hydrogenated vegetable oil or HVO (hydrotreated vegetable oil), with the full support of their manufacturer.

To do this, the company carried out system tests in field tests using mobile measurement technology and pure engine tests on a test bench. The test results confirm the efficiency of HVO as a drop-in fuel for **mtu** diesel engines, explains the manufacturer with satisfaction: "A comparison of the performance criteria of diesel and HVO fuel revealed no significant effects on the general performance." Tests even revealed some positive factors in using HVO.

According to information from *mtu* – Rolls-Royce, the test with HVO resulted in a reduction in emissions of NO_x, CO₂ and particulate matter (PM), improved load acceptance behaviour, full performance and a reduction in fuel consumption. A significant reduction in fine dust emissions could be observed specifically when operating with HVO fuel: The fine dust emissions fell in the order of 50 % – 80 %.

As of now: 4000 and 1600 engines use HVO

The actual CO₂ benefit of HVO and why it is considered a renewable fuel is not reflected in the data but lies in the raw materials and the overall well-to-wheel CO₂ reduction justified. The manufacturer points out that while coal does not absorb CO₂ before it is converted into diesel fuel, the feedstocks used for HVO (such as sunflower) absorb CO₂. This results in a very small increase in total CO₂ emissions when using HVO. ►



The Volvo Penta Krossholmen Test Facility. All tests with new engines and fuels are carried out here.

Credits: Volvo Penta

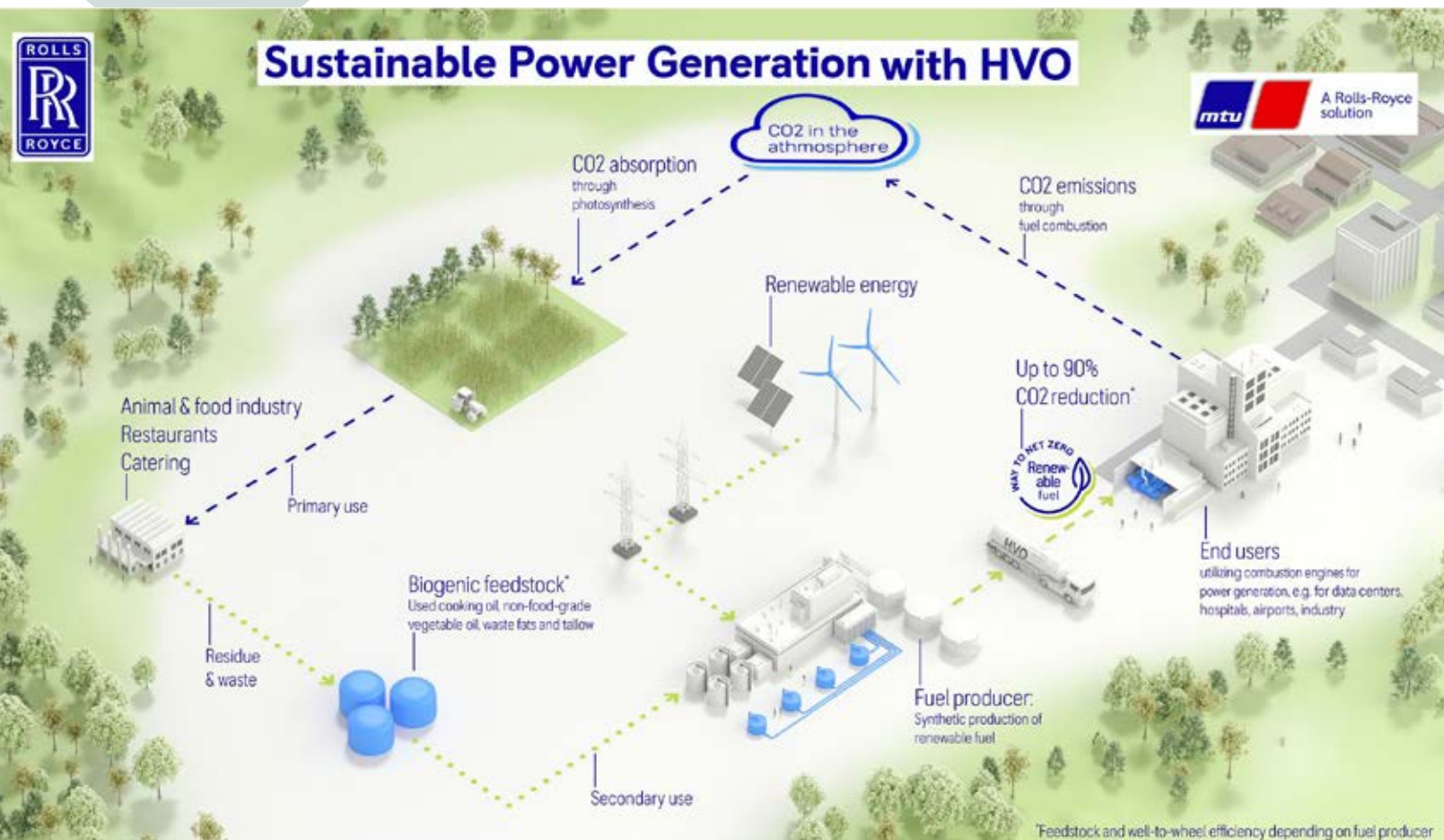


Achat Infrastruktur GmbH

Westhafenstr. 1
D-13353 Berlin
Tel. (030) 21 96 60 38
Fax (030) 21 96 61 74
office@achat-infrastruktur.de

www.achat-infrastruktur.de

ACHAT^{GmbH}
Infrastruktur



The test was carried out using a 20V 4000 G94S mtu engine and a 20V 4000 DS3000 mtu power unit. Comparative testing of power unit performance was performed using distilled diesel fuel and HVO. The diesel fuel used conformed to DIN 51603 (B0) and the HVO fuel conformed to EN15940 Class A. In the USA pure Engine testing took place using Extra Low Sulfur Diesel (ULSD) fuel and HVO per ASTM 975.

In 2021, RR-mtu looked back on 25 years with the 2000 and 4000 series. At that time 117,000 such engines had been sold and had more than 320 million operating hours. This makes the 2000 and 4000 engines the best-selling engine series – a real success story. The British Royal Navy's six Type 45 ships were also modernised with 18 Series 4000 diesel engines. These 152 meter long destroyers with a generator output of 47,000 kW could soon be operated with ecological fuel.

Test center Krossholmen: a leader in sustainability at sea

The Swedish company Volvo Penta has also been researching renewable fuels for several years. The Krossholmen Marine Test and Demo Center in Gothenburg is used for this purpose. "This is one of the largest and most advanced boat testing facilities in the world," said company expert Jennifer Humphrey. "Up to 30 test and demonstration boats ranging in length from 7 to 23 meters are on call at all times and testing at Krossholmen is almost continuously active in all seasons, including the harsh and demanding Swedish winter months."

In a typical year, our Krossholmen test center accumulates over 5,000 hours of testing time, the company says. The test and demonstration boats usually cover around 40,000 nautical miles at sea. In the past, Krossholmen's demo boats consumed more than 116,000 liters of diesel per year. "But from 2020 our fleet started to convert to HVO and since 2021 all our boats are running on HVO 100." ►

Volvo Penta aims to be "a leader in sustainable solutions at sea". That's why intensive research is being carried out into changes "that can be implemented today" – such as the use of renewable fuels in boats powered by conventional internal combustion engines. Jennifer Humphrey: "In 2016 we approved the use of hydrotreated vegetable oil (HVO) – neat or blended with conventional diesel – in all of our Volvo Penta engines worldwide. This was a big step for the company as using HVO 100 fuel can help reduce CO₂ emissions by up to 90 percent."

Performance remains, no changes to the engine

"We learnt that switching is as easy as simply filling up with HVO 100 instead of diesel," says Torbjörn Tössberg, head of the Krossholmen test center. "We have not noticed any loss of performance or range. The only challenge HVO 100 poses is availability – it's not read-

ily available in all regions – and the cost can be higher than diesel fuel. However, the benefits mean you can reduce CO₂ emissions by up to 90 percent."

The company values the fact that HVO is "specifically sourced from 100 percent sustainable plants that do not compete with edible plants. Not only does this fuel significantly reduce CO₂ emissions, it also results in a significant reduction in soot and is sulphur-free compared to most conventional diesel fuels."

Modifications to the engines, approvals or certifications are not necessary. However, the fuel tank should be surface treated or replaced with a plastic tank to avoid "biological growth". Maintenance intervals and warranty conditions also remain the same as before. The HVO fuel should conform to CEN interim standard EN15940 for paraffinic fuels for use in diesel engines.

hfs

Credits: Brian Burnell CC BY-SA 3.0



The HMS Daring of the 45 class. This destroyer can now also use ecological fuel.

PESA:

READY FOR INTERNATIONAL COMPETITION WITH A HYDROGEN LOCOMOTIVE

Traditionally, the most important railway fair in Poland, the TRAKO in Gdańsk, takes place in the “InnoTrans-free” years. At the 14th edition of this “InnoTrans of Eastern Europe” in September 2021, the most important premieres of the trade fair took place in a festive setting.

The star of last year’s fair was a hydrogen shunting locomotive presented by the manufacturer Pesa Bydgoszcz, operating as the SM42-6Dn series. This is an extensive conversion of the Polish diesel locomotive SM42. The railway company Orlen Koltrans uses the locomotive to provide valuable practical experience before series production.

In this locomotive, the hydrogen is taken from tanks with a total capacity of 175 kilograms. According to PESA, the locomotive can run all day on one tank of fuel. Other project partners are ABB and TSA Traction Systems Austria. The fuel cell comes from Canada. The locomotive has four traction motors with an output of 180 kW each. New elements are two liq-

uid-cooled traction converters, two fuel cells with a capacity of 85 kW each and a lithium titanate traction battery LTO with a capacity of 167.6 kWh. The locomotive is also equipped with an electrodynamic regenerative brake. The vehicle can be controlled with a shunting radio remote control.

“We started the first work on the hydrogen locomotive in 2019,” PESA Vice Director for Technology Jacek Konop told CARGO FREIGHT JOURNAL. “We chose this locomotive because of its limited range of use. This greatly simplifies the initial phase and reduces the risks associated with the certification and approval process.” In Poland there are currently no dedicated regulations for the approval of a hydrogen rail vehicle for operation. For this reason, the UTK railway authority and the Warsaw development and testing institute Instytut Kolejowy are involved ►

The PESA hydrogen locomotive is now being tested by Orlen Koltrans in tough everyday railway use.



Credits: Hermann Schmidtendorf



Credits: Hermann Schmidtendorf

in the development from the outset.

Based on the experience with the hydrogen locomotive, a passenger traction vehicle with hydrogen operation is then to be designed. This is to be based on the new “Regio 160” vehicle platform, on which both vehicles with combustion engines and variants with battery power and hydrogen cells are to be built. “Our start-up currents are quite high,” explains Konop. “Therefore, we have to stabilize this peak of high consumption at the beginning. We stabilize and secure with a battery. So the

hydrogen vehicle is always an electric battery plus a hydrogen cell.”

In order to get the hydrogen locomotive ready for the market, the manufacturer is conducting an intensive dialogue with the current user Orlen Koltrans about the design of the drive and others, adapting details as precisely as possible to the real needs of everyday railway use. In the future, Konop emphasises, the hydrogen drive should also be suitable for InterRegio vehicles with a maximum speed of 200 km/h and for high-speed vehicles with 250 kilometers per hour.

The rail vehicles on display at the Trako trade fair aroused great interest, including the hydrogen locomotive from PESA in the back left.

Whether that can succeed? “We didn’t start the pilot project from scratch,” emphasises the Polish technical director. Because the agency that was previously involved in the approval of a competition vehicle in Germany – meaning the iLint from Alstom – is also involved in the design and approval process. A “Polish variant” of the certification process should also be created. European regulations and still existing typically Polish regulations are to be harmonized.

To date, Poland has exported DC vehicles to Italy and diesel trains to Germany. Pesa is now hoping to be able to compete internationally with a hydrogen rail vehicle in the near future. *hfs*

PESA BRINGS HYDROGEN LOCOMOTIVE TO INNOTRANS

The innovative locomotive will also be presented at this year’s InnoTrans in Berlin, on the exhibition track in the outdoor area T02/018-19. PESA also has a stand in the hall area – in Hall 4.2/420.

DB Schenker:

CLIMATE-FRIENDLY URBAN TRANSPORT WITH VOLTA ZERO TRUCKS

It looks sleek, the Volta Zero – more like a bus with no passenger windows than a truck. Now the vehicle is to support the logistics company DB Schenker in its environmentally friendly climate strategy.

At the end of November 2021, DB Schenker ordered 1,470 of the world's first all-electric 16-ton commercial vehicle, which was specially developed for inner-city goods transport. In the spring and summer of this year, DB Schenker intends to use the first prototype of the Volta Zero under real distributor conditions. The test experiences then flow into series production.

The young startup Volta Trucks was founded in Sweden in 2017 by Carl-Magnus Norden and Kjell Waloen. The focus is on the development and construction of trucks, which are used primarily in distribution traffic over the "last mile" and make these transports climate-friendly with battery drives. By 2025, the company has announced four electric truck models for 7.5 to 12 and 16 to 19 tons. This offer would then also enable to handle heavy overland traffic. Lithium-iron-phos-



Credits: DB Schenker/Christian Huhn

Something special, if only because of the all-round glass cabin: the Volta Zero truck.

phate batteries with a capacity of 150 to 200 kilowatt hours are currently being used, enabling ranges of between 150 and 200 kilometers.

With Volta to the CO₂-free last mile

The contact between the Swedish developers and the German, globally active logistics company came about in June 2021. At that time, a demonstration model made stops during a road show with potential customers in France, Spain, Great Britain and Germany – also at DB Schenker. "It was absolutely amazing to see the

Volta Truck live. The vehicle was designed with the idea of really focusing on what's best for truck drivers," enthused Christian Drenthen, DB Schenker Board Member for Land Transport. This allows the logistician to reduce its own CO₂ footprint. The logistics service provider had already become a member of the Climate Group's EV100 initiative. This requires its members to convert all owned or used vehicles with a payload of up to 7.5 t to electric drive, i.e. to battery or fuel cell operation, by 2030. A corresponding charging infrastructure for employees and customers should also be set up by 2030. ►

DB Schenker had been testing trucks with electric drives in Berlin since 2018. In 2020, the logistics company ordered eleven Volvo FL electric trucks with electric drive for its Oslo City Hub, which had been founded a year earlier. The 16-ton trucks are fed with electricity from renewable hydroelectric power and thus allow completely emission-neutral operation. In the same year, the company increased its fleet of 7.49-ton Fuso eCanter trucks with a range of at least 100 kilometers to 41 vehicles. However, the blanket order for up to 1,470 vehicles that has now been placed is by far the largest electric truck order in the history of both the buyer and the designer.

Win-win for Steyr Automotive

Even if a specific delivery schedule with quantities and data has not yet been communicated, it was clear to the development startup Volta: Building an own new factory for production is too time-consuming and expensive and involves risks. That's why Volta Trucks launched a Europe-wide tender for potential suppliers. The winner was Steyr Automotive. This is the former company MAN Steyr (MAN Truck & Bus GesmbH), which continued the traditional truck production at the Steyr site and only came to MAN in 1990. The Austrian entrepreneur and former CEO of Magna International Siegfried Wolf became the owner of the plant through his WSA Beteiligungs GmbH.

It was decided that trucks would be built in Steyr for or on behalf of MAN until 2023. The group would then relocate its pro-



Credits: Steyr Automotive

The Volta Zero is to be built on this Steyr Automotive site.

duction from Steyr to Kraków in Poland. The award of the contract by Volta to Steyr Automotive is a win-win case. The Upper Austrians have a follow-up order for the period after MAN production. Volta Trucks benefits from the enormous experience at Steyr in commercial vehicle construction and the existing production infrastructure. This should enable the e-trucks to be launched quickly on the market. Series production is scheduled to start as early as the end of 2022. It is hoped that up to 500 jobs will be created in the region and an estimated 2000 additional jobs in the supply chain.

A special design

"The special thing about the Volta Truck is the design," emphasise the developers. That's correct. The front cab glass reaches on the sides almost to the vehicle floor, just like on a road bus. This gives drivers a wide 220-degree field of vision and no fear of blind spots – without any additional side mirrors. You sit in a middle

driving position with a much lower seat height than conventional commercial vehicles. This should also contribute to safety. This constructive extravagance is made possible because – as emphasized by those responsible at Volta Trucks – the vehicles were designed for electric drive from the outset. The engine and transmission sit on the rear axle. Volta also points to the low operating costs of their vehicles compared to conventional diesel trucks: A Volta Zero has 90 percent fewer mechanical parts than a comparable vehicle with a combustion engine.

DB Schenker explained without details that the new electric trucks should initially be used at ten locations in five countries. Volta CEO Essa Al-Saleh is looking forward to the future: "Working with DB Schenker on Europe's largest all-electric truck order shows the confidence of major freight distributors in our ability to deliver a world-class zero-emission vehicle on time and of the highest quality." hfs

Solaris: Used e-batteries as a stabilizer of the energy system

Solaris Director of Development Mateusz Figaszewski (left) in conversation with CARGO FREIGHT JOURNAL Editor-in-Chief Hermann Schmidtendorf.



Credits: Frank Sonk

? **CARGO FREIGHT JOURNAL:** Mr. Figaszewski, Solaris has been building electric buses since 2011. So there should be enough old batteries to carry out a Second Life project with them?

Mateusz Figaszewski: Yes. Our project is called "Second Life ESS". Partners of Solaris Bus & Coach sp. z o.o. are the big energy company TAURON Energia and Impact Clean Power Technologies S.A., our supplier of battery solutions. Our consortium receives financial support from the Polish National Center for Research and Development (NCBiR). For this project, used lithium-ion batteries from a Solaris e-bus that runs at the bus operator PKM Jaworzno in Silesia are used.

The total capacity of this battery is technically 160 kilowatt hours, it consists of four packs of 40 kilowatt hours each. First of all, this is a test operation based on this one type of battery. But we want to be able to use different battery types in this program that have been in use for five years or six years. Of course, they could run longer, but then they already meet the criteria of a used battery for the tests. A battery in the e-bus is considered worn out when the capacity falls to 80 percent of its initial capacity.

? So in the long term your project could also handle other batteries?

Exactly. We want to create a solution that can combine batteries with different capacities and different technologies. Keep in mind that these batteries also have different degrees of wear. After all, it will be dif-

ficult to find only batteries that have worn out in the same way. Therefore, this project aims to be about universal solutions, both in terms of hardware and software, in order to control it in such a way that it uses the maximum potential of each battery, regardless of the technology in which it is used and regardless of which still usable capacity it represents.

? Is it about "bundling", i.e. combining several batteries into a new whole?

This is a R&D project to develop an energy storage prototype based on used batteries, used mobile applications. The company Impact is in the process of developing this new type of software, called BMS or Battery Management System, so that these batteries can work in a completely different mode than on the bus. It has to be programmed differently, because in this stationary energy store, they have to work very differently.

Even within such a bus, we need to ensure that each battery wears out fairly evenly. For this reason there is a battery management system that controls this process of charging and discharging the battery. And we have something called battery balancing. Remember that the battery is made up of modules, and these modules are made up of battery cells, and in order for each individual cell to have the same wear, we need to have what is called the balancing process.

Compared to water, we have to sort of balance these water levels in each small reservoir so that they ►



Credits: Solaris

wear out evenly. And also in this energy store there will be a similar task, so to balance the level of these batteries and use the maximum potential of each of them to provide some total power for a stationary application. The first prototype is of course small with 160 kilowatt hours. But the ultimate plan is to combine these batteries in sea containers of 40 feet, in 1 FEU containers. These standard containers are supposed to fit these batteries and all the equipment that is needed, and such storage could have a capacity of around 1 megawatt hour.

The exact parameters would of course depend on what kind of container that will be and what types of batteries will be in it. We say that it can be a stabilizer of the energy system in a certain place.

? Would a connection with ecological electricity be ideal?

Yes! The vision is that such energy storage can also be combined with renewable energy sources, e.g. photovoltaics. This means that energy storage should not only be charged with electricity from the grid, but should also be able to supplement it with energy from photovoltaic or wind farms, for example, and use this electricity later when we need it most urgently, when there is the greatest demand for this electricity .

The greatest treasure is at the top: electric batteries on a Solaris E-Bus.

? After how many years of operation are such new stationary energy storage systems worn out? So, by how many years will such second life-re-use shift the need for the batteries to be ultimately recycled?

We are already working on a method to verify batteries for the second life, to know exactly what the condition of the battery is, what the resistances are to determine its status and predict how long a battery will last, how much energy it still can store and for how long. This is of course very important and we will try to develop such solutions.

First of all the software, I would say. Because today the battery is of course a physical device, but in fact the corresponding software is responsible for the entire control. Those are the relevant programs that control the lifetime parameters of that component, the battery.

? Research with great potential – thank you for the interview and good luck!

The conversation was conducted by Hermann Schmidtendorf.



The automated block storage facility at Container Terminal Altenwerder is part of the HHLA facilities

the Hamburg-Altenwerder terminal by around 8,000 TEU. She describes the current situation as a “stress test for global logistics”, so the challenges require the commitment of everyone involved in the supply chain.

In the port logistics subgroup, HHLA achieved sales of EUR 1.43 billion (previous year: EUR 1.26 billion) and an operating result (EBIT) of EUR 212 million. In the previous year it was 110 million, whereby the result was characterised by additions to provisions. The strong increase in container transport volumes at the rail freight subsidiary Metrans also contributed to the positive result.

The listed company HHLA is 69 percent owned by the city of Hamburg. The Russian attack also affects the Hanseatic city, said the head of the Hamburg liberal party FDP Michael Kruse in WirtschaftsWoche. According to HHLA, it has invested more than 170 million dollars in the Odessa container terminal (CTO). The port has continued to grow in importance since Russia annexed Crimea in 2014. Odessa is 300 kilometers northwest of Crimea and has long been relatively accessible to ships from Europe. The HHLA terminal in Odessa handles around 300,000 standard containers (TEU) annually. Bulk and liquid cargo is also loaded in Odessa.

Odessa employees were partially evacuated to Hamburg

Grain exports are particularly important for the Ukraine,

said Philip Sweets, Managing Director of HHLA's international operations. “Odessa is Ukraine's largest port and Ukraine's main supply point by sea, especially since Crimea and the Sea of Azov have become difficult to navigate.” The approximately 480 HHLA employees in the now closed Odessa terminal had to be sent home until further notice. But the wages would continue to be paid. In addition, an HHLA crisis team brought 120 members of the company to Hamburg and even accommodated some of them with helpful HHLA colleagues, Titzrath explained. In total, HHLA takes care of 250 refugees. Now ways are being sought to secure their stay in the long term – “it can be assumed that many refugees will not be able to return so quickly.” HHLA donated one million euros to a Ukraine aid fund. The aid fund supplements an employee donation that was initiated by the Management Board at the request of the employees. So far, more than 60,000 euros have been collected to support specific aid projects for local employees. In addition, as of March 1, 2022, measures to implement the sanctions imposed on Russia by the European Union (EU) also took effect at HHLA's container terminals in Hamburg. Since March 1, 2022, no more containers coming from or going to Russia have been handled here. This also applies to cargo transported by train, barge or truck. ►

HHLA:

POSITIVE BALANCE SHEET FOR 2021. **CONCERN ABOUT THE ODESSA CONTAINER TERMINAL**

HHLA achieved sales of EUR 1.46 billion in 2021, 12.7 percent more than in 2020. HHLA CEO Angela Titzrath described Russia's attack on Ukraine on February 24 as a “bitter day for all peace-loving people worldwide”. On that day, the port of Odessa, the most important in Ukraine, also had to close. HHLA has operated a container terminal there since 2001.

HHLA ist the abbreviation of Hamburger Hafen und Logistik, the Hamburg Port company. HHLA's EBIT for 2021 was EUR 228 million and improved by 84.7 percent compared to the previous year. As a reason for these successful figures, CFO Dr. Roland Lappin, among other things, mentioned the “temporarily high storage fee income” that arose due to the ship delays. CEO Angela Titzrath explained that the systems are very much challenged by the massive ship delays of currently three to four weeks. For this reason, the storage capacities have generally been increased by a quarter, at

Credits: Thies Rätzke



Credits: Thies Rätzke

Transport volume + 10 percent, rail transport + 12.8 percent

In 2020, container handling at the Hamburg container terminals with the Russia trade accounted for a total of 229,000 TEU (around 3 percent of HHLA's total container handling). A significant decrease occurred in 2014 as a result of the sanctions imposed on Russia at the time in response to the annexation of Crimea. Rail freight transport via

the new Silk Road is also affected, and the search for alternative routes has already begun. The closure of Russian airspace increases flight times, which results in rising prices for many goods, but above all for energy.

CEO Titzrath was all the more pleased about the positive business results for 2021: "We are also operationally stable enough to meet the requirements of our

Railway connection is obligatory: The container terminal in Odessa.

customers both at our terminals in Hamburg, Tallinn and Trieste as well as by rail. Logistics always means managing volatility. We face this challenge. Because we are aware of our responsibility as a service provider for the industrial nation of Germany."

While container throughput increased by 2.5 percent year-on-year to 6.9 million standard containers (TEU), the transport volume increased by 10 percent to 1.69 million TEU. Compared to the previous year, rail transport increased by 12.8 percent to 1.37 million TEU. In a persistently difficult market environment, road transport was at the previous year's level with a transport volume of 312,000 TEU.

*Hermann Schmidtendorf,
Editor-in-Chief*

EUROPEAN SILK ROAD SUMMIT

7 - 8 DECEMBER 2022

DUISBURG

INFORMATION: Railfreight.com,
www.silkroadsummit.eu

Partners 2022:

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36th German Shipping Day 2022:

SUSTAINABLE, TOGETHER, CLEAR, CLEAN

From September 29 to October 2, 2022, the 36th German Shipping Day 2022 will take place at the maritime locations of Bremen and Bremerhaven. Patron of the event is Germany's Federal President Dr. Frank-Walter Steinmeier. In his greeting, Steinmeier underscores "the fundamental importance of maritime shipping as a carrier of world trade for employment and prosperity here and around the world."



Credits: Bundesanstalt für Wasserbau CC BY 4.0

The entire event is a national part of the World Shipping Day, which is taking place at the same time and is dedicated to the leitmotif "New technologies for greener shipping" in 2022. The activities include several specialist congresses that deal with central future topics in shipping: the preservation and further development of maritime know-how, the reduction of emissions and the safety of sea routes. There are also campaigns for students, pupils and the general public.

These topics will already be held on September 29 at three parallel specialist events in Bre-

men. As a maritime highlight, a ship and boat parade will take place on September 30, 2022 on the Weser from Bremen to Bremerhaven. A large number of impressive ships have registered for this, covering the entire maritime spectrum: from the most modern and environmentally friendly ship flying the German flag to a wide range of official and work vehicles to commercial units, traditional ships and pleasure boats. It is said to be the largest parade of ships and boats on the Weser in decades.

The German Nautical Association keeps up with the times

when it comes to planning and relies more than ever on cooperation and cooperation. In addition to the joint orientation in Bremen and Bremerhaven, this is expressed above all by a partnership with the Federal Association of German Inland Shipping (BDB) and the German Marine Association (DMB) as equal partners. hfs

Government and work ships such as the Atair – see above – will also take part in the ship parade. The Atair is a survey, wreck search and research ship of the Federal Maritime and Hydrographic Agency (BSH) and was put into service in April 2021. It is the world's first seagoing government ship for special tasks with a propulsion system for low-emission liquid gas.

Information and registration at: Oliver Bretag, Bremen office, 0381 4031-771, oliver.bretag@maritimes-cluster.de <https://deutscher-schiffahrtstag.de>



Credits: Hermann Schmidtendorf (4)

Final whistle – and departure! DB Cargo boss Dr. Sigrig Nikutta and Germany's Federal Transport Minister Volker Wissing love the railways and the DAC...

Digital Automatic Coupler DAC:

DEMONSTRATOR TRAIN ROLLS THROUGH EUROPE

With springy steps the CEO of DB Cargo, Dr. Sigrig Nikutta, and Deutsche Bahn CTO Dr. Daniela Gerd tom Markot-ten marched ahead. Dr. Nikutta cheekily called out to the men following her: "Today, women are in charge here!" If something during the DAC demonstration didn't work out quickly enough, the DB Cargo boss frowned impatiently. No doubt: Dr. Nikutta demands speed – also with the introduction of the DAC.

The Digital Automatic Coupling DAC is the key technology for making Europe's rail freight transport more efficient and thus enabling the desired increase in volume. To do this, the type of clutch currently used in Europe must be replaced. "In addition to Europe, only North Korea and North Africa currently use the inefficient screw coupling," emphasizes the Rail Cargo Group RCG, which belongs to the Austrian Federal Railways ÖBB. Together with Deutsche Bahn/DB Cargo, the SBB and the wagon rental companies ermewa, VTG and GATX, they formed a consortium to test various possible new DAC designs. ►

Four designs had applied for testing: two Scharfenberg coupling heads from the manufacturers Dellner and Voith, an SA-3 coupling head from Dellner / CAF and a Schwab coupling head from Faiveley / Wabtec. All presented types provide for a mechanical coupling as well as the implementation of air, power and data lines. After more than 500 tests on a proving ground in Görlitz and in a cold chamber in Munich, the Dellner / CAF variant of the DAC was sorted out: It was "not testable".

At the European level, the EDDP European DAC Delivery Program coordinates the decision-making process for the future DAC standard. It is part of the Shift2Rail sector initiative. On September 21, 2021, based on the test results provided, the EDDP selected the Scharfenberg/Latch-Type design as the future European DAC standard coupling head. As a result, only the DAC prototypes from the manufacturers Voith and Dellner were used in the further test phases.

... and then there were two

On January 19, 2022, a demonstrator train was ready to depart from Berlin's Westhafen. It consisted of four wagon groups, each with three freight wagons of the same wagon type. Germany's Federal Transport Minister Dr. Volker Wissing repeated the German government's commitment to the DAC, including financial support for its introduction as part of a European initiative. The German Federal Ministry for Digital and Transport BMDV is financing the project with around 13 million euros until the end of 2022.

Each wagon group of the demonstrator train consisted of a four-axle open hopper wagon (Eanos x-059), a two-axle sliding wall wagon (Hbbins 306) and a four-axle gas tank wagon (Zags 119). "The aim of this wagon configuration is to test the couplings on freight wagons that are frequently used in European freight transport and can therefore be considered representative," explained the project experts. The selected wagon types represent around a ►



third of all freight wagons registered in the European vehicle register ECVVR.

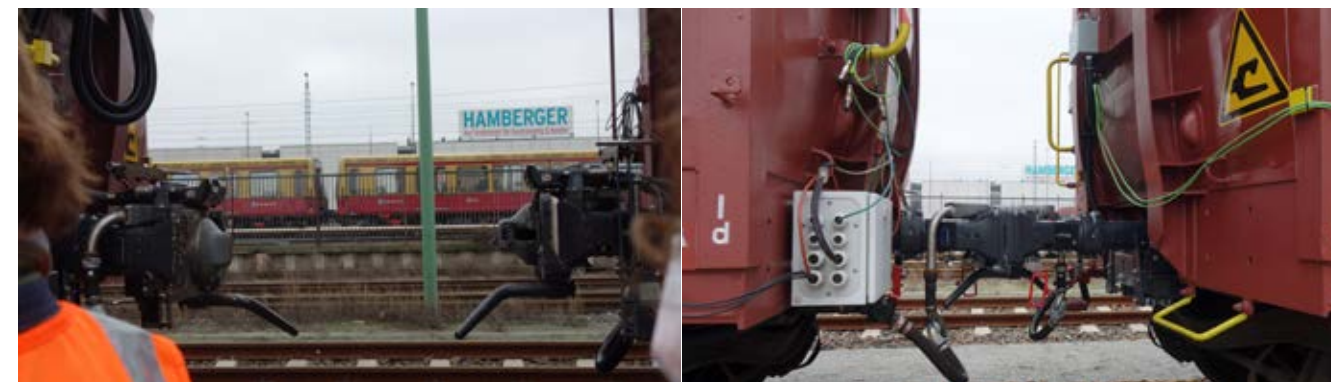
By using freight wagons of different lengths for the tests, automatic coupling can also be better tested in tight curves. The couplings are still in the prototype stage. Ready for series production is only achieved after all tests have been completed and the test winner has been finally selected. For this reason, a concept consisting of three separate connection boxes was designed for the demonstrator train. This means that uniform interfaces can be used. For the duration of the test execution, these connection boxes act as carriers of the measurement technology.

The practical tests include extensive investigations into behaviour when shunting at ground level and shunting at humps. Mechanical and pneumatic tests, proof of the functionality of the energy supply and the reliability of data communication are carried

out. The journey of the demonstrator train so far has gone according to plan. The interest of the specialist groups in demonstrations in the countries passed through was great.

In September 2020, the EU transport ministers pledged their support for the DAC in the "Berlin Declaration". Jens Engelmann, program manager in the EDDP, and Matthias Knüpling, member of the program board and WP 5 in the EDDP, reported at the general meeting of the German Association of Freight Wagon Keepers VPI on June 22, 2022: The migration study and the cost-benefit analysis have now been completed. Two important milestones have thus been reached, on which further work in Europe can be based. The operational testing of the DAC should be completed in December 2022. From 2026 to 2030, it is to gradually completely replace the conventional screw coupling in Europe. *hfs*

Let's (re)invent
the railway
together!



It only takes seconds: coupling wagons with the DAC.

Credits: Hermann Schmidtendorf

Poland:

WORKING GROUP DISCUSSES DAC

For the success of the DAC on Europe's railway tracks, it is important that as many railway companies as possible adopt the system. CARGO FREIGHT JOURNAL asked the press officer of the Polish Railway Authority UTK for information on plans in Poland.

Currently, about 80,000 vehicles are registered in the register of railway freight wagons in Poland. However, it should be emphasised that we cannot directly associate this number with the number of wagons owned by Polish carriers, because the vehicle should be registered in one of the Member States for which it has a permit (in the case of freight wagons, many of them may be operated throughout the entire territory of the European Union). Additionally, in line with accepted practice, freight wagons do not change the country of registration due to a change of keeper or owner.

Based on the interoperability code of the wagons (the first two digits of the EVN number), it can be concluded that 61,000 freight wagons may be used in international traffic. However, we cannot verify whether these wagons are actually used outside Poland.

The President of the Office of Rail Transport monitors the works related to the implementation of the digital automatic coupler on an ongoing basis. Work on the requirements in this area is still ongoing and their final shape has not yet been determined.

The President of UTK always supports all initiatives aimed at improving safety, but all issues related to the implementation of new solutions must be taken into account. That is why the President of UTK has appointed a group that includes representatives of the Polish railway market. The task of this group is to exchange knowledge about DAC and to undertake joint activities aimed at taking care of the interests of Polish carriers (e.g. by looking for sources of funding). Final decisions have not yet been made regarding the obligation to install a DAC on all vehicles in use.

Preliminary estimates of the cost of DAC assembly have already been prepared, i.e. approx. 25,000 Euro for a locomotive and 12,000 Euro for a freight wagon. Therefore, within the appointed group, discussions on the optimal solution are ongoing. However, no specific decisions can be made until the final wording of the requirements is known.

*Tomasz Frankowski
Head of the Department of Social Communication,
President's office
Railway Transport Office, Warsaw*

Poland:

WITH ULTRASOUND AND AI AGAINST THE BLIND SPOT



Mirrors are good, but ultrasound is better.

Credits: Harlette Bond

Due to their sheer size and construction, trucks make it impossible for the driver to have a 360-degree view. Cyclists, motorcyclists and pedestrians in particular are at risk of “disappearing” in a vehicle’s blind spot. The consequences can be devastating.

Research in the UK has shown that trucks have a much higher risk of fatal accidents per kilometer driven than other vehicles. The risk is increased by the stress and fatigue of the drivers. Even speed limits can only partially prevent this. The Federal Association of Road Haulage, Logistics and Disposal (BGL) in Germany therefore welcomed the federal government’s plans to make aid systems mandatory.

The association criticised the fact that no truck manufacturer offers turning assistants that brake automatically in the event of danger. Only one manufacturer produces radar-based systems that, in the event of danger, at least automatically warn the driver acoustically. All institutions and companies involved in the approval and development of the systems must increase their efforts so that practical and reliable solutions can be found.

What can be done to avoid dangerous blind spots? Additional mirrors are a traditional solution. However, they are often impractical or even potentially risky. The long process of checking multiple mirrors on each side of the cab can result in dangerous split-second delays. Special technical developments are considered more suitable. Vehicle surveillance cameras offer wider viewing angles, while radar detection and ultrasonic sensors can warn drivers of obstacles even in rain, fog or snow.

Another important security system is the reversing alarm. Modern versions such as Brigade Electronics’ award-winning White Sound series offer instant location alerts that are less loud as they can only be

heard in hazardous areas. Such safety upgrades can be installed in vehicles in just a few hours and can significantly improve road safety.

Warned in time with ultrasound

The latest ultrasonic obstacle detection systems offered by Brigade Electronics uses artificial intelligence (AI) and was developed with support from the Knowledge Transfer Partnership with the University of Cambridge. It’s called Sidescan®Predict, was extensively tested in 2020 and, according to the manufacturer, delivers impressive results.

Ultrasonic obstacle detection systems alert the driver to both moving and stationary obstacles in the vicinity of the vehicle. An acoustic and/or visual warning is activated in the driver’s cab. External voice alerts can be added to warn nearby cyclists and pedestrians. The Sidescan®Predict sensor uses AI to constantly collect detection data such as the speed and distance of a cyclist or pedestrian in close proximity to the vehicle. This data is fed into an algorithm developed by Brigade to accurately calculate collision risk. If danger is detected, the driver is immediately warned to avoid a collision.

Sidescan®Predict is always active, even at speeds below 30 km/h. Another crucial point is that the collision protection is also active when no direction indicators are used. This is particularly important, Brigade says, because not all drivers set the indicators according to the rules and on time.

hfs

MAERSK NEW HUB

In the German town of Duisburg, A.P. Moller – Maersk will begin the construction of a new Warehouse, one of the largest inland logistics hubs in all of Europe. All modes of transport come together here – inland barges on the central Rhine waterway (connecting to the ports of Antwerp and Rotterdam), major railway lines (to the ports of Northern Germany), and trucks via the main road axes of some of Western Europe’s largest economies.

In addition, the air freight hubs of Frankfurt, Amsterdam, Cologne/Bonn and Düsseldorf can be quickly reached from Duisburg which is also a key European logistics hub connecting Mediterranean and Adriatic gateways.

“The services Maersk will offer in the 43,000 sqm warehouse include cross dock, pallet storage and all value-added services along the supply chain – from customs clearance to consolidation and deconsolidation”, explains Jens-Ole Krenzien, Maersk North Europe Continent Managing Director. “The Maersk Warehouse offers direct water access and trimodal connections. For our customers it will be a value-adding decoupling point optimising transport modes and creating flexibility in their product flows. We will be able to increase the speed to market significantly



Computer visualisation of the new Maersk warehouse.

Credits: Goldbeck

for our customers by enabling them to by-pass their European gateway or stock-keeping warehouses.”

In Q2 2022, Maersk opened five new warehouses globally, equal to 178,000 sqm, adding to a total active capacity of 226 warehouses and 3.4m sqm across the world. Several additional Maersk warehouses are planned to go into operation in Europe in the coming months. As a general contractor, the experienced German developer Goldbeck International will complete the Warehouse in Duisburg-Walsum for Maersk by the third quarter of 2023. The warehouse’s 84 dock levellers will handle up to 32,000 40-foot containers of customer cargo each year. The property, which has a total area of 110,000 sqm, is part of the port of Duisburg (Duisport) and has a direct water connection to the Rhine. It offers an expansion reserve in addition to the already-planned 50,000 sqm of open space.

ma/hfs

YOUR DIGITAL RAILWAY PLATFORM - SAVE THE DATE!



SCANDINAVIAN RAIL

BY ROTAIA MEDIA OPTIMISATION

STOCKHOLM - 9 NOVEMBER 2022

ELL: “Cross-border freight train journeys are the future”

The Austro-German ELL Group is a major European player in the rental of locomotives. CARGO FREIGHT JOURNAL spoke to the CEO about the rental, training and workshop business and about the fascination of the railway.

? CARGO FREIGHT JOURNAL: Mr. Katzensteiner, how did your company get through the last difficult period?

Christoph Katzensteiner: Ultimately, we did not experience a catastrophe during the pandemic. At the beginning of the crisis it was not clear how long it would last and how deep it would go. That was the biggest problem, the insecurity. But you have to say: Of course we and many others suffered bruises and learned a lot from it. But the most important thing is that we have maintained good customer relationships even in these difficult times and have mastered the difficult times in discussions and dialogue. Every individual was challenged, everyone had to approach the other a little bit. And that is what characterizes partnerships. That's why such

a crisis, if you survive it, also has something good. It welds together. This puts us in an even stronger, even better position for the future in the long term.

? The focus of your company is Europe's number one rail horse, the Vectron locomotive from Siemens. Some time ago you decorated one of your locomotives with a beautiful inscription, number 150. Hence my obligatory question: How far are you now with the number of available locomotives?

Of course, we kept the ball low during the crisis and did not reorder in large quantities. In the meantime, the situation has changed again and we have also placed additional orders, including some Smartron and Dual locomotives from the Vectron platform. So in the foreseeable future we will soon have a two in front of the two zeros. This number will be reached over the next year.

? With your concept, you create an incredibly good relationship between the availability of the locomotives for your customers and the linking of leasing and service. How did that go during these last difficult months?

In difficult times, the big problem is: Do we all have the right locomotives together so that we can use them to capacity? Utilisation is first of all the compulsory exercise that has to be fulfilled. And that's where our platform has proven itself, even during the crisis and now again in a much stronger, more dynamic time. Then the subject of availability plays a major role, and that brings us back to our service concept. That works extremely well. In the meantime, we have developed this further with ►



Fascinated by the railway: Christoph Katzensteiner.

Christoph Katzensteiner has been CEO of European Locomotive Leasing ELL based in Vienna since 2013. The trained finance manager (WU Vienna, College of Europe, LIMAK, IMD) previously held management positions at railpool, gatx and Opel, among others.

our own data analysis, competence, our own maintenance, cycles, our own maintenance concepts. This is now in demand again and makes us very positive for the future.

? In spring 2020 you started a completely new project, namely ETL Service Lokservice GmbH. In October 2020 you then started work on a service station base for locomotives with ÖBB Technische Services GmbH and the company LTE Logistik und Transport GmbH as partners. How is this project going?

The project had a very long start-up phase. Intensive preparations took almost ten years, and the official approvals and approvals were obtained. But then it happened very quickly. We are very happy that the three of us have now set up a very important infrastructure project in partnership with ÖBB TS, LTE and ourselves. This not only helps us as a company, it also helps the entire industry. It is important to understand that modern workshop capacities are required. We need well-equipped modern hubs for a functioning, efficient freight transport system and, of course, passenger transport as well. And with Locmasta “Locomotive Maintenance Station” ETL Lokservice we're doing that very well.

? I don't know all the towns in Austria, so I looked on the map and found that the base is in Gramatneusiedl, about 25 kilometers south-east of Vienna. This is also the headquarters of your partner LTE, so from their point of view an optimal choice of location. What else speaks for Gramatneusiedl?

It is a junction of two traffic corridors, the Danube corridor for all traffic from the east to the west, towards Germany, towards the Netherlands, and on the other hand north-south, i.e. traffic from the Czech Republic and Poland also passes along this route. In this way, both competences can be mapped. Here in Gramatneusiedl you can also deal with all the rail security systems on these corridors and thus offer very high-quality services.

? So your partner, Mr. Andreas Mandl, the CEO of LTE, put his companies in the right place. You and Mr. Mandl also have a long-standing profes-

sional and private friendship. Surely that helped you get excited about this project?

Mr. Mandl is of course a veteran of the Austrian, even European railway industry. I have a long history with him. We went through similar training. You know that people who have experienced similar “suffering” when they were at school always know what they are talking about. That helps a lot if you have a common worldview. We are both trained technicians, we both went into business and both have the urge to advance the railway system as a whole. With a complex project like the workshop in Gramatneusiedl you need staying power, you need a common perspective. Otherwise it would probably be nothing.

? How is the division of labour between these three partners? And what about services for third parties?

The workshop is open to all third parties. Every market participant can and should use this service. We want and have to earn money with the workshop. This is not a hobby for the three shareholders, we actually want to support the market. The division of labour is something like this: We are a large locomotive rental company, have a large fleet, obviously we first drive our locomotives to our own joint venture workshop and can thus ensure basic capacity utilisation. Second, this ÖBB TS is a well-known major maintainer. This means that there is concentrated maintenance competence here, which is so important, especially during construction, in order to be able to offer the necessary quality and seriousness right from the start. And thirdly: Mr. Mandl, who had the brilliant idea and the staying power in the preparation of the project, is with LTE a railway, logistics and transport company operating throughout Europe and is therefore able to operate his own transports here with the joint venture to support.

? Mr. Mandl is also spokesman for the freight transport committee at the Austrian Chamber of Commerce. As such, he spoke out in favour of converting all freight wagons in Europe to the digital automatic coupling, the DAC. If this is to make sense, the locomotives in front of such ►



Credits: Hermann Schmidtendorf

To be seen every day at the Berlin-Spandau station: a train of the Czech state railway ČD with a loan locomotive from ELL.

trains would certainly have to be fitted with such a suitable coupler. If the time comes, would you also convert your locomotives to the DAC?

Of course, we support everything that is good for the rail system. Wherever we can bring about increases in efficiency, we are there. We are of course talking about many thousands of freight wagons, tank wagons that have to be converted. Our own fleet appears to be a minor problem. But we're in. However, there are also a number of other measures that would be much more capital-friendly, but are still very important to us in order to strengthen the rail system throughout Europe.

We have been fighting for quite some time to move away from statehood, where each country speaks its own language, towards a common English. This has worked extremely well in aviation for many years, and we should try to do the same in the railway sector. We are in the process of formulating these measures in the Chamber of Commerce Committee and introducing them to the discussion.

? There have been attempts with a multilingual computer, which then automatically communicates with the control centers on the railway line at border crossings. What do you make of it?

As soon as we have the security aspect under control, that's also an approach, no question about it. Of course, it's all about security in our business.

? A plus point of your business concept is the ELL Academy for training employees of customers. This teaching has recently also developed in the area of engine drivers. Did you have to offer special online lessons because of the pandemic?

You are absolutely right, our training for our own locomotive drivers was heavily influenced by the pandemic. If we usually have about a year of training, it has now taken almost twice as long – with a corresponding cost factor. It was also a difficult time for the trainees, the candidates. In fact, we also had to switch to online and leave our colleagues completely isolated for a few weeks, months.

Basically, the training is variable, which means that we can take up different topics here in our academy. On the one hand, this is the training for train drivers, on the other hand, it can be our customers' service technicians, to whom we offer training, for example, in safety systems or certain maintenance levels, or training in the administrative area, where we then talk about scheduling and administrative activities. We take that very broadly, also including language training, also including personal development modules, which we offer to meet the great needs to comply with further training.

We are currently seeing from the lack of qualified specialists how important it is to have one's own training and skills. I can say that it was the right decision to invest in training and further education very early in our company's history. And it's great fun to see where my colleagues are headed. Of course, ►

LOGISTICS, SERVICES

not everyone stays with the company. You have to live with that. But what is important is that the quality is right and that we as a whole, as a society, have made a contribution in order to move forward.

? We can also see it in this conversation: you are a great advocate of rail transport. They speak in favor of shifting freight traffic to rail and also for rail passenger transport. Has it always been like this since you were young, or has this conviction developed in you over the years, perhaps also as a result of the well-known climate debate?

It would be presumptuous to say that I somehow felt it. But I'm already a big admirer of infrastructure projects. On the one hand, these can be storage power plants in the Alps, which are extremely interesting, on the other hand, they can be rail projects. And thirdly, these can also be locomotives.

You are absolutely right: this topic has accompanied me since my youth. I am an electrical engineer by training. My heart just beats faster when I see a transformer or a power converter. I think you have to bring this interest with you, then you are in good hands here and can develop. The fact that this is now leading to a climate debate, that we are spot on with our business model and that the railways as a whole can make an important contribution is obviously very gratifying. We are very happy and motivated every day. And of course we emphasise that.

Personally, I couldn't work anywhere else because I'm so fascinated by how we do good things here every day and are allowed to talk about them. I think there are few examples where this is as easy as it is for us. Because with every kilometer that we wind down with a locomotive, CO₂ is saved again. The storage power plants that we just talked about are also playing a huge role right now. Where does our electricity come from if, for example, the gas-fired power plants had problems due to the political situation. Then other resources are left over. And this also includes, for example, the traction current power plants of ÖBB Infra.

These are examples in which the infrastructure plays a large and very important role and makes us positive about the future. We're just now seeing what that can mean, if you backed the right horse at the right time, then that's very good and important.

? How should trucks position themselves in freight transport in the future because they currently do not have a clean drive? Do you have an opinion?

I mean, there will always be an application for truck traffic. This will generally affect the last mile and no longer long distances. It will probably go in the direction of battery operation. I drive an electric car myself. There is still a range limitation that we have to deal with, but this will certainly be improved significantly in the years to come. For the long-distance, the transport should take place by rail. So we have to do everything we can to ensure that, above all, we strengthen capacities and also increase efficiency so that we can get to where truck traffic is today.

? Finally, a light-hearted question. Looking at some of your locomotives gave me nostalgic thoughts. It used to be common, especially among the British, for steam locomotives to have a name, such as the Evening Star or Queen Mary. In our matter-of-fact times, that is probably less often the case. But you and your friend Mr. Mandl came up with some nice, almost mystical names for freight locomotives. What's up with these names?

At the beginning of our platform history, the multi-system variants were not yet so widespread on the market, and international cross-border traffic was something new in this form and variety. That's why we tried to combine individual multisystem country packs in such a way that we could depict certain historical, mystical figures. For example, there is the Flying Dutchman, which can travel from Rotterdam to Constanza. We have Neptune covering the Mediterranean sector. We have the Lorelei, which drives along the Rhine, we have the Hannibal, which crosses the Alps. There is a suitable figure for every package. With this we want to point out that cross-border multi-system journeys are the future.

! That sounds extremely pleasant! I am pleased that you are bringing a little imagination into this business, which is certainly not an easy one. Thank you very much for the interview, good luck and continue to enjoy what you are doing!

The interview was conducted by Hermann Schmidtendorf.

Webasto and DB Cargo:

ROAD TRANSPORT **DISCOVERS** **THE RAILROAD**

Between October and December 2021, the automotive supplier Webasto tested the delivery and shipping of components and goods by rail at its Neubrandenburg site. The evaluation of the pilot project is now available: The use of freight trains instead of trucks will reduce carbon dioxide emissions during transport to and from the Neubrandenburg site by at least three quarters without additional costs.

"Sustainability is an important criterion for the future design of our service and supply chains," explains Andreas Dikow, Plant Manager at Webasto Neubrandenburg. "At the same time, the automotive industry in particular requires maximum reliability and economy. Our test run was convincing in all respects. We have therefore decided to expand the project to other partners." The performance over time was also convincing for the company based in Gauting-Stockdorf. During the test phase, all wagons arrived punctually at the respective loading and unloading stations in Germany and abroad.

Partners in the test project "from road to rail" were DB Cargo Logistics and Spedition Gertner as well as two Webasto suppliers from southern Germany and the Czech Republic. Within six weeks, Webasto sent around 1,400 empty transport containers to be filled and returned. The volumes involved were regular and therefore plannable and large enough for a single wagon. According to the company, around 15 percent of the components purchased reached production in Neubrandenburg almost exclusively by rail by the turn of the year.

The components are installed in the factory in electrical heating systems. Previously, these supplier parts had been transported completely by truck over 1,200 or 1,400 kilometers. Since the suppliers – unlike the Webasto location in Mecklenburg-Western Pomerania – are not in the immediate vicinity of train stations, vans still took on about five percent of the routes, reports the supplier. The Webasto factory is directly adjacent to the Neubrandenburg freight depot, so that the company could in future load railway

wagons directly from the company premises.

By switching to rail, the company expects to reduce the carbon footprint of transport by more than half while costs remain the same. Webasto says it is now planning to involve other suppliers from Germany, the Czech Republic, Hungary and Romania in the logistics project. In the medium term, more than 50 percent of all heating components for the Neubrandenburg plant can be delivered by rail. At the same time, the automotive supplier is working together with DB Cargo on a rail-based freight connection between the Webasto sites in Neubrandenburg and Wuhan (China).

The experiences from the project will flow into the global sustainability initiative of the Webasto Group – possibly as a best practice example in the area of supply chain for other Webasto Group locations. *hfs*

By train instead of by road: goods transport for Webasto



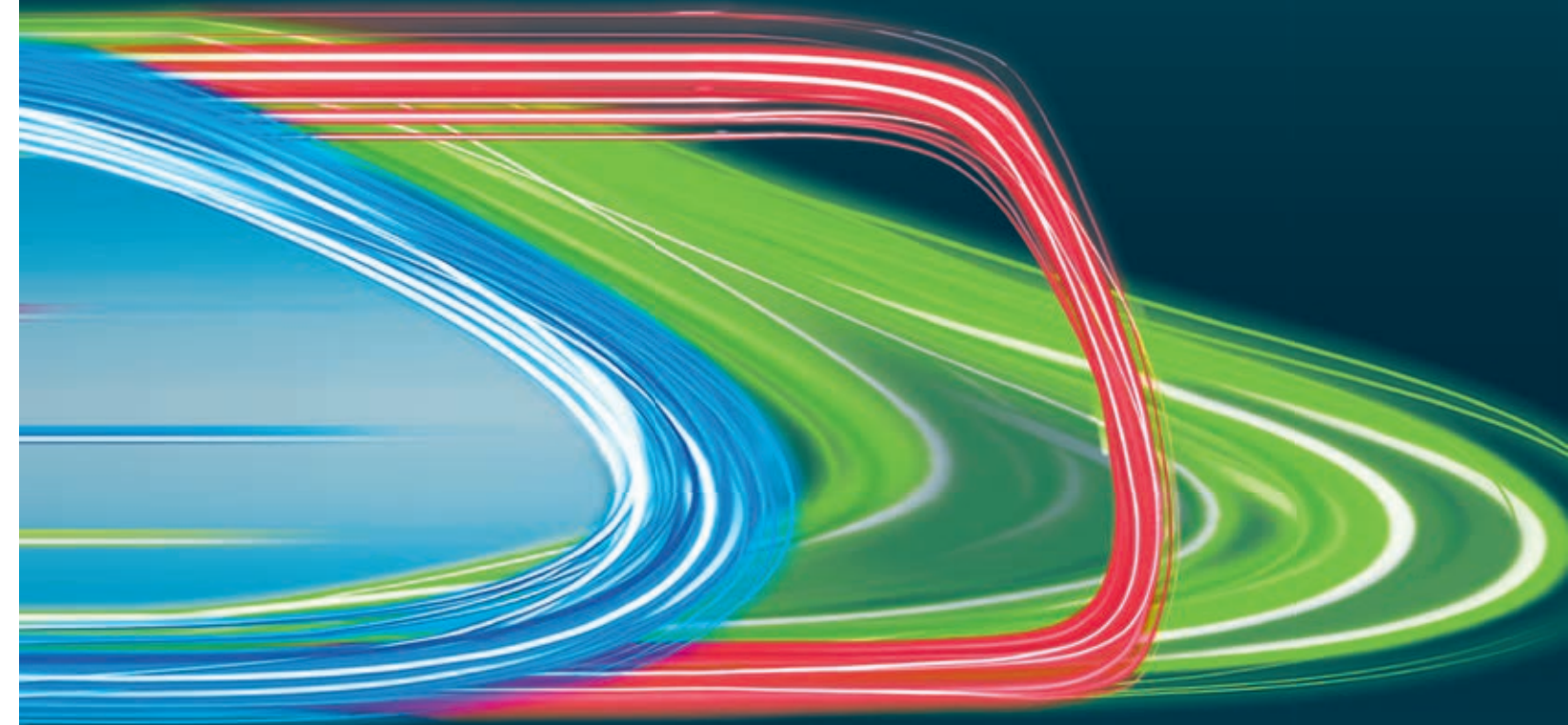
Credits: Webasto



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Messe Berlin GmbH
Messedamm 22 · 14055 Berlin
T +49 30 3038 2376 · innotrans@messe-berlin.de

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NEE: „Create incentives for more network capacity“

On May 20, 2022, the European Railways Network NEE invited to an unusual press conference on platform 4 of Berlin's Friedrichstrasse station. An HVLE railway locomotive with advertising for rail freight transport was presented.

Around 100 private, regional and international companies related to rail freight transport are represented in the NEE. The freight companies of the NEE handle about half of the rail freight traffic in Germany. CARGO FREIGHT JOURNAL took the opportunity to talk to the NEE chairman.

CARGO FREIGHT JOURNAL: Mr. Kerkeling, a freight locomotive advertises the freight railways. What do you hope to gain from the initiative of having a locomotive with such lettering drive through German lands?

Ludolf Kerkeling: First of all, the message is that we, the freight railways, are ready to really achieve the turnaround in transport. The political goal is a 25% market share in 2030. We, the European Railway Network, have checked and verified that. We would also achieve a 35% market share in 2035 if we all tackled together. The goods wagons are ready for this. Of course, the framework conditions must be designed by politicians so that the infrastructure and the competitive conditions allow the goal to be achieved.

CARGO FREIGHT JOURNAL: Recently, your network has repeatedly complained about the German railway infrastructure managed by the Deutsche Bahn subsidiary. If there was a suspected undervoltage in the traction ►

Credits: Hermann Schmidtendorf



Ludolf Kerkeling, who has a degree in civil engineering and transport (RWTH Aachen University) and economist (Fernuniversität Hagen), has held various positions in port operations and railways. He has been a board member of HVLE Havelländische Eisenbahn Aktiengesellschaft since 2014. He has been Chairman of the Board of the European Railway Network NEE since 2013.

Together for rail freight transport: from left to right, the chairman of the German train drivers' union GDL Claus Weselsky, state secretary Susanne Henckel, the transport minister of the state of Bremen Maike Schaefer, Ludolf Kerkeling and NEE managing director Peter Westenberger.

current network, only the freight trains suddenly had to come to a standstill. What happened there?

That has not been finally clarified. But we are further along. It was actually the case that all over Germany the freight wagons stopped because there were problems with network fluctuations. It has not yet been possible to explain to us satisfactorily what was actually the cause and how one wants to rule out that it will happen again and, in particular, according to which criteria it was decided that only the freight trains stopped. A limit for passenger traffic could also have been set.

? What hopes do you have that the current government will push for better reliability and better permeability of the infrastructure? You must have had bad experiences with construction site management and winter clearing services.

Yes, overall we are actually extremely dissatisfied with the performance of the infrastructure service provider DB Netz. This has gotten progressively worse over the years. From our point of view, this must be fundamentally changed, both in terms of structure and financing. Incentives must be created for the infrastructure operator to actually create additional capacity so that as many trains as possible can run through the network so that the traffic turnaround can actually succeed in both freight and passenger transport.

? Could a customer advisory board in which your railways are prominently represented help, or should there be seats on the supervisory board?

The most important thing from our point of view is that the incentives for DB Netz are set differently. In the past it was the case that only new construction measures were financed by the federal government. The maintenance was financed by DB Netz, and at the same time DB Netz, as a natural monopoly, had to generate profits. That was also the political expectation, that's not a reproach to the colleagues at DB Netz. And that has to change fundamentally. And then, of course, the customer's wishes have to be taken more into account. From our point of view,

only one customer advisory board is not enough. We already have a network advisory board, but it can achieve comparatively little because it only acts in an advisory capacity. Our wish is actually that the incentives for DB Netz be changed, that the incentives are to create more capacity, and that the customers are actually represented on DB Netz's supervisory board.

? Do you think that Deutsche Bahn AG is now becoming more aware of the problem? I was a bit confused at the last balance sheet conference, to put it mildly, because DB boss Mr. Lutz and his CFO Mr. Holle negated that DB infrastructure would transfer any profits to the government because they didn't deserve any. I read that differently in your press release.

After all, DB Netz is not as homogeneous as it is often made out to be. What we notice is that the companies within the DB Group that use rail are just as dissatisfied with the infrastructure operator as we are. A video is currently circulating on the Internet from the DB Cargo board of directors, who tells his employees that it is already a catastrophe at the moment. But it tends to get worse. There are notifications from DB Cargo to customers that they will be on certain times at certain times European corridors will no longer be efficient.

In this respect, I believe that there is already consensus in the entire industry that something urgently needs to be done in the area of infrastructure if more traffic is actually to be brought onto the rails. We are already almost unable to get the traffic through the rail network that is occurring today.

? So you also see yourself as a spokesman for the interests of the state owned DB Cargo?

I would actually claim, completely unreservedly, that our network naturally also represents the interests of DB Cargo, because the interests are identical.

! Many thanks for this interview!

The interview was conducted by Hermann Schmidtendorf.

“Strengthening rail freight transport”

? **CARGO FREIGHT JOURNAL:** Dr. Schäfer, why are you committed to rail freight transport as Minister of Transport for the State of Bremen?

Dr. Maike Schaefer: As a Bremen resident, I can say that freight transport is very important to us. We are a seaport, therefore also a railway port. Hinterland traffic has long been an issue for me as a Bremen resident. But it's also about the traffic turnaround. In other words, we want to move more goods from road to rail. This is a contribution to climate protection. That's why we transport ministers are of course very interested in this.

? Do you have opportunities, even as a federal state, to intervene with a push or support?

Yes of course. We are in close contact with the federal government. It is also a matter of eliminating the competitive situation between freight transport and

local passenger transport or even long-distance passenger transport. This also requires the railway lines to be strengthened, i.e. partly electrified, but also the expansion of sections of line. And that's what we're working towards at the federal level. That also has to be financed.

? Are there meetings between the state ministers and the federal minister on these issues?

That's exactly what it is. The next transport ministers' conference will take place on October 12th and 13th, and we will once again be making the topic of rail transport very prominent. Precisely because we can see that there are targets that 25 percent of freight traffic should go by rail. This is an ambitious goal and we all have to pull together.

? State Secretary Theurer has announced that there will be a rail festival in September, a „rail day“. Would you also organise a super event?

I don't know if we'll do that in Bremen too. I think it's more important than an event like this to really promote rail freight traffic on a day-to-day basis. That's actually more important to me than big events and celebrations.

Hermann Schmidtendorf asked the questions.



Passionate about rail freight transport: Minister of Transport Dr. Maike Schaefer (left) and Federal State Secretary Susanne Henckel.

Credits: Hermann Schmidtendorf

Ermewa: “We need innovations that will revolutionise the entire sector”

The CARGO FREIGHT JOURNAL spoke to the CEO of Ermewa, Peter Reinshagen, about freight railways of the future, digitisation and back-to-back contracts.

? **CARGO FREIGHT JOURNAL:** Mr. Reinshagen, you started 2022 with an impressive new acquisition. You entered into a partnership with Lineas, taking over about 4,000 of the freight company's freight cars and leasing them back directly. Is sale-and-lease-back becoming more of a trend?

Peter Reinshagen: Yes, a real cultural change is underway, especially with the state railways. Instead of keeping wagons, they are increasingly opting for

need-based leasing or “back-to-back” contracts. It is about more than a short-term cash injection for the company. The advantages of fleet outsourcing are convincing in the long term: less capital investment, lower risk, more flexibility and therefore sufficient scope for the upcoming modernization tasks in rail freight transport.

? Your company has announced that it will work with Lineas on new wagon concepts, innovations and forward-looking technologies in order to strengthen rail freight transport. What are you thinking of here?

For example, we could imagine to jointly develop modular freight car concepts that will make it easier for customers to shift freight from road to rail. But it's about more than rethinking the individual car. We need innovations that will revolutionize the entire sector, and that's where we come to the Digital Automatic Coupling (DAC). It is the lever for automation, digitization and Europe-wide standardization of operational processes in rail freight transport.

In preparation for the DAC, we at Ermewa are already working on predictive and usage-dependent maintenance of the freight wagons and their components. We start with the use of telematics to reliably locate the transported goods and to determine the kilometers driven in charged and empty states. ►



Credit: Ermewa

Peter Reinshagen has been Managing Director of the wagon rental company Ermewa SA based in Levallois near Paris since July 2016. He has been at home in the logistics industry since 2002. Before joining Ermewa, Reinshagen worked as Managing Director of a joint venture between Thales and Geodis, specialist in aviation logistics services, and in automotive logistics (inbound and outbound) at GEFCO.

Credits: Hermann Schmidendorf



Popular on Europe's railway lines: freight wagons from Ermewa.

? Are you electrified by the opportunities that arise with the DAC? Or do you also have respect for the task of converting such a large number of wagons without temporarily taking transport volume away from rail traffic in large quantities?

Clearly both – and that is also necessary. We need a vision for rail freight so that it can fulfill its role as the mode of transport of the future. Essentially, we need to significantly increase the productivity of rail freight transport and integrate it into logistics chains 4.0. The DAC is the key technology for this. It opens the window to a new era for European rail freight transport.

At the same time, I have great respect for the task. After all, this is nothing less than a complete system change. All 450,000 European freight wagons have to be converted. But I'm optimistic that we can do it. The progress we have already made as a sector in the European DAC Delivery Program (EDDP) on important issues is encouraging. We agreed on a standard coupling head in a very short time. That's a giant step.

The migration itself is highly complex and remains a major challenge. But here, too, the working groups of the EDDP are making great progress and are developing innovative concepts. In the end, however, everything stands and falls with the financing. This must largely come from public funds – be it from EU or national funds. We are talking about investment costs of up to 10 billion euros. The holders cannot shoulder that. But even the RWU will not be able to cope with the complex conversion phase, in which two systems are operated side by side, without support.

? How do you see the need and opportunities for freight wagons to become more digital? Big data and freight wagons – can that be, does it have to be?

No question, it has to be. The availability of real-time data is a prerequisite for integrating the freight wagon into digital logistics chains. In our capacity as Entity in Charge of Maintenance (ECM), we as keepers also need reliable production, usage and maintenance data in order to fulfill our responsibility for safe rail freight traffic in the best possible way. ►

Collecting this data in the non-digital space via contracts, invoices, reports from customers, workshops and the RWU is a tedious, expensive and error-prone procedure. Digital data exchange will ensure more speed and more security here. At sector level, standardization of data, data transmission and data evaluation are therefore a priority task. A solution would be corresponding specifications in the VPI maintenance guide VPI-EMG.

? For the anticipatory maintenance of the wagons, your company has developed tools with which workshops can maintain the wagons at a high level better than before, and that across national borders, saving time and money. What's your philosophy here?

We want to move away from the maintenance of our wagons based on time intervals towards a forward-looking one. The first and most important step is to record the qualified mileage of the freight wagon, i.e. in kilometres loaded and empty. The second step involves recording the data on how often and how intensively the vehicle brakes.

Both together would allow us a usage-dependent and then, via calculations, predictive and more cost-effective maintenance than the current system. Disturbances in the normal production process

would be reduced. As a result, the car can be used better, i.e. more consistently. This also improves the performance of rail freight transport.

? With a company as large as yours, there are bound to be wishes for policy makers in the EU as well as national governments. What are your wishes for the near future?

At the top of my list: the support of the EDDP on a European level, but also on a national level. In particular, I wish for an early, comprehensive and binding financing commitment for the DAC, which gives the manufacturers, RUs and wagon keepers planning security.

If I have one more wish: Europe-wide cooperation between infrastructure operators. It would be better to create a uniform European infrastructure operator right away. And because all good things come in threes, there is still equal competitive conditions between the modes of transport, but also within the modes of transport throughout Europe.

! Mr. Reinshagen, thank you very much for the interview!

The conversation was conducted by Hermann Schmidtendorf.

LINEAS, ERMEWA AND BEACON RAIL FORM A PARTNERSHIP

Increased flexibility for the future and additional financial resources for investments – these are the goals of a long-term partnership established by Lineas, according to own claims the largest private company in European rail freight transport.

The partnership with Beacon Rail and the Ermewa Group concerns a sale-and-lease-back agreement for part of the Lineas fleet. The transaction will allow Lineas to fully repay its senior credit lines and further expand its financial reserves. The agreement reached by the parties includes the phased sale and lease-back of 109 T77 diesel locomotives over the period 2021-2023 and around 4,000 freight cars in 2021.

Jan De Raeymaeker, CFO of Lineas, emphasised with satisfaction: „This sale-and-lease-back Business is an important step towards becoming an ‚asset light‘ company that maintains long-term access to strategic assets while increasing the flexibility to scale up and down in an ever-changing market environment. The transaction allows us to strengthen our financial buffers and fully repay our outstanding bank debt.“

Rob Dee, CCO of Beacon, is „very happy“ to „support Lineas in its mission to drive the modal shift on the European rail network by optimising these assets and future growth opportunities.“ And David Zindo, President of the Ermewa Group, stated: “We are honoured and proud to have been selected by Lineas for this sale-and-lease-back transaction, which enables the company to pursue growth and transformation projects. As important players in European rail freight transport, Lineas and Ermewa are jointly responsible for making the transfer of transports to rail in rail freight transport as attractive as possible. We look forward to working with Lineas on new wagon

concepts, innovations and forward-looking technologies to live up to this responsibility.”

Under the terms of the agreement, Lineas will continue to use the assets on a day-to-day basis and remain responsible for their maintenance. Lineas was advised on this transaction by Apex Rail and Allen & Overy LLP. T 77 is a class of four-axle diesel-hydraulic locomotives for shunting and mainline operations, used in Belgium, Germany and the Netherlands. Between 1999 and 2005, MaK (Siemens/Vossloh) built a total of 170 of this class. Lineas employs over 2,100 people and has its own fleet of 250 and 7,000 wagons. The company's majority shareholders are the independent private equity group Argos Wityu and the Lineas management. *hfs*

Lease-back: Lineas sold trains like these, with a T77 locomotive in traction, to Ermewa and Beacon Rail.



Credits: Ermewa

Spedition Haalboom:

MASTERING THE CRISIS SITUATION IN SOLIDARITY

In a letter to its business partners, the international freight forwarder OTTO HAALBOOM from Hamburg called on the industry to continue to carry out transport tasks as best as possible despite the ongoing crisis caused by global politics. CARGO FREIGHT JOURNAL documents the letter.

"There were already enough reasons for insecurity before Corona: climate change, digitization, political unrest. The pandemic in particular has presented the logistics industry with unprecedented challenges – which we have, however, mastered with the obligatory rolled-up sleeves and perseverance. At the beginning of the year, the mood in the economy finally picked up again, albeit subdued."

This is how forwarder Haalboom begins his letter. He further says:

"Until February 24th. Then the smoldering situation in Ukraine escalated into an actual, intolerable war. Once again we realized that our world will never be the same again. Every day we are reminded only too painfully of how fragile our lives are."

"But no matter what comes: You can rely on us even in these difficult times. We do everything in our power to meet deadlines and process your orders with the (rightly) accustomed precision. Even if there are market constraints that keep throwing massive boulders

in our way. The blatant lack of drivers and vehicles is trying our patience – we ask for your understanding. So if something gets in the way: Please do not hesitate to contact us personally."

Dramatically increased costs due to various factors in the supply chain, for example exploding raw material and energy prices, unfortunately force us to adjust freight prices to the situation in the medium term. Of course, this only happens after prior consultation with you – because Putin's war will not change anything about the cornerstones of our trusting and partnership-based cooperation."

Challenging, intense months are behind us, we all desperately need a breather. And it is currently not even clear what damage will be done in the coming months. How are you supposed to keep your balance on such an unsteady ground? The best way is to focus on what counts, but unfortunately has been forgotten far too often: on solidarity, cohesion, loyalty. We are here for you. Sincerely yours, Otto Haalboom"



Forwarder Otto Haalboom:
Transports by rail, road, ship
and air.

Credits: Hermann Schmidtendorf



RailFreight on Tour:

THE HUNGARIAN EDITION MEETS DEBRECEN OCTOBER 19-20, 2022

In the past few years, Hungary has made a huge leap forward, in terms of infrastructure, facilities and services. Hungary should be placed on the international rail freight map once again, is the consensus, and there is no time to waste. Technology plays a key role in this: state-of-the-art terminals are built and digitalisation will lead the way. Budapest is no longer the only hub in the country.

At The Hungarian Edition of the RailFreight on Tour, the potential of Hungary on the international rail freight map will be explored. It is already the third edition of this successful travelling event concept and should equally attract logistics providers, operators, shippers, carriers, academics, policymakers, lawyers and consultants, says Business Development Manager Rob Vos: "At this Debrecen conference, you may promote your services to a dedicated audience and meet your new business partners."

The event is organised by the Dutch ProMedia group.nl and RailFreight.com. Detailed information on the programme, cooperation possibilities and registering at <https://events.railfreight.com/railfreight-on-tour/hungary/programme/> CARGO FREIGHT JOURNAL is one of the media partners of the event.

The programme is due to start with a special site tour programme to the Fényeslitke East-West Gate

Terminal. During this visit you will experience the 3D terminal operating system, 5D network, crane operation and much more. The day will end with a dinner at terminal. The second day will concentrate on lessons and debates. Session I will deal with Chances, Opportunities & Regional focus. "In this session we will look at the regional chances and opportunities of Hungary and how the country has developed itself on the international rail freight map", the organisers explain. Topics to be discussed are: Infrastructure plans/upgrades, Track Access Charges, Public vs private investment.

Session II: Hungary on the New Silk Road. In the second session we will dive into the position of Hungary on the New Silk Road. Topics to be discussed are: Connection to Ukraine, the Position in Europe/TENT-T corridors and the visibility in China. Session III: Hubs and cargo – Technology plays a key role in the development of Hungary as a rail freight hub: state-of-the-art terminals are built and digitalisation will lead the way. During the final session we will dive into the following topics: 5G technology, Important industrial customers/regions, The East-West Gate.

Debrecen is a good place to settle such an event. Already some years ago, the city of Debrecen had rail freight traffic of 220,000 tonnes a year. The Debrecen airport has a direct rail cargo connection and innovation centre at the airport.

hfs

A container train on the Hungarian Gyékényes-Sorút-line.



Credits: DTVB

iaf 2022 in Münster:

GREAT REUNION OF THE TRACK CONSTRUCTION FAMILY

"Track to the Future" was the leitmotif of the 28th International Exhibition of Track Technology (iaf) in Münster, Westphalia, Germany. "I am delighted that so many of you have remained loyal to the trade fair and are contributing to the success of the iaf by participating," said VDEI President Dr. Thomas Mainka. "It also fills me with pride that there are many impressive world premieres to be seen at the trade fair again this time."

The VDEI Service GmbH of the Association of German Railway Engineers (VDEI) is the organiser of the largest exhibition in the field of track technology and railway construction. Every four years, the iaf offers a representative overview of the industry on 15,000 m² of hall space in the "Messe und Congress Centrum Halle Münsterland", 6,000 m² of open space and more than 3,000 m of track at the Münster Ost station of the WLE railway company. Again this year, more than 140 international exhibitors were presenting new and innovative products and services to thousands of visitors from over 60 countries.

At the iaf, the major companies in the sector presented examples of the rail boom in Poland, the special guest country of the trade fair. The leading Austrian company, Plasser & Theurer, lovingly attached a bouquet of flowers with the number 17,000. Because the 17,000th machine of their production went to the north-east of Poland, to the construction company Gór-Tor. It was a Plassermatic 08-275 ZW. With its split-head tamping units, it is suitable both for track maintenance and for use in switch areas.

The Swiss company Matisa, on the other hand, exhibited a C 75 ballast cleaning machine for the Polish track construction company PNUIK. The company, based in Kraków, belongs to the PKP PLK group, Poland's state infrastructure division. According to Matisa, the C 75 is a compact, high-performance machine whose short set-up times, even during short track possessions, allow it to be used with high propulsion.

A family reunion with many big machines – the 28th iaf.

The high-performance machine control ensures excellent – without compromising safety, the clearance profile can also be fully utilized when threading in the machine.

In cooperation with the Polish partner KZN Bieżanów Group, Geismar presented a combination of tipping wagon and PWP gantry crane, which enables the safe transport and handling of pre-assembled switch panels. With this system, large switches can be transported, unloaded and laid with pinpoint accuracy.

The VDEI sponsorship prize went to Dr. Chongjie Kang for his doctoral thesis on "Verification of rail resistance taking into account track-structure interaction". There were specialist lectures and expert rounds, but also a career point at the VDEI booth. There, experienced engineers, all members of the association, reported on their professional career and their specialist area. At the same time, it was shown how the VDEI can positively influence an engineer's career. **The 29th iaf will take place from May 20th to 22nd, 2025 – again in Münster, of course.** hfs



Credits: Hermann Schmidendorf

Polish traffic engineers: leveraging synergies

At the 22nd iaf in Munster/Westf. Poland was a special guest country. An intensification of the partnership between the Polish Association of Transport and Traffic Engineers SITK and the Association of Railway Engineers VDEI was agreed. CARGO FREIGHT JOURNAL asked the former and the current chairmen of SITK to explain their association. hfs

Prof Jacek Paś,
SITK, chairman
since May 2022:

"There are more than 5100 members of our association, and we are also a member of the wider engineers platform.

We belong to the Federation of Scientific and Technical Associations, and we are cooperating close with the Polish Chamber of Civil Engineers. Additionally, SITK is the owner of three railway related magazines.

And from the last several weeks we can see the very important value of our association, of our partner railways, how important friendship is now. We can see than more than 3 million Ukrainian refugees crossed the Polish borders, fleeing from Putin's war. This creates for the Polish railways, the PKP group, new challenges of an unbelievable scale, a completely new situation in Poland.

The latest challenge is the necessity to transport grain from the Ukraine by train. It's not an easy task, especially where the track gauges in both countries are different."



Prof Janusz Dyduch,
SITK, Honorary Chairman, chairman 2014–2022:

"This is a long-term cooperation that will allow us to cooperate for the benefit of the Polish and German railways. As a result, today's fair shows what a good synergy effect is. We give the Polish industry the opportunity to participate, not only in Poland. In the end, both sides have a benefit.

In Poland in our organisation, we have had a generational change. We have taken steps to ensure that the younger generation takes action. It gives the opportunity to expand activities in the field of business, exchange of experience, and substantial cooperation. Before that, there were organisational activities. Today we are moving to practical activities, to implementations, to research, to joint action in business. This is what I would like to emphasise that the new generation of today wants to do more than organisational activities, the so-called statutory training.

We switch to business activities. The heads of our current association are young people, they are the presidents of large companies that do research, act and advise. We switch to the specifics of the business and implementation.

It doesn't matter that our association deals with all means of transport, and VDEI only with rail. This only strengthens our cooperation in rail operations, because there are connections. We also want to work on better Polish-German rail connections. The cooperation between SITK Szczecin and VDEI Berlin-Brandenburg already gives good examples on border-crossing cooperation. We want to expand this, to our mutual benefit."

Plasser Robel Services: “Further quality improvement with all-round offers”

At the iaf 2022 trade fair in Münster/Westphalia, CARGO FREIGHT JOURNAL spoke to the CEO of the newly formed Plasser Robel Services GmbH about current challenges in the service business for track construction machines.

Karl Oberreiter worked in various positions for the Palfinger company after completing his training at the HTBLA Salzburg Mechanical Engineering (1987-1992). 2018-2019 Head of Global Service at Emco GmbH. 2019 - 2021 Head of the Service & Customer Service business unit at Robel Bahnbaumaschinen GmbH and from August 2021 also Managing Director at Deutsche Plasser Bahnbaumaschinen GmbH and Robel Service & Support (S&S). Oberreiter has been Managing Director of Plasser Robel Services GmbH (PRS) since January 1, 2022.



Credits: Hermann Schmidendorf

? **CARGO FREIGHT JOURNAL:** Mr. Oberreiter, what are the tasks for the new company?

Karl Oberreiter: Together with our owner, we decided to set up a strong service company for the Plasser & Theurer brand and for the Robel brand. With the difference that we are responsible for the Plasser & Theurer brand for the German, Swiss and Dutch market and for the Robel brand worldwide. So the idea was to merge the former Deutsche Plasser, which had been active for decades, with the Robel company's Service and Customer Service business unit to form a new, strong unit.

The company has now been active since the first of January 2022. We work at our three locations: the headquarters in Munich, a location in Freilassing and our third location in Opladen near Leverkusen. We're talking about 250 employees spread over these three locations, and our service portfolio primarily deals with six business areas.

First of all, this is the classic spare parts sales. Then we have customer service, that is everything that needs to be done somewhere in the field, with warranties, small repairs, retrofits, upgrades. With our more than 32 service technicians, we are very well positioned. The third pillar is the issue of refurbishing tamping units, which takes place at the Munich location. The fourth business area is the refurbishment of wheel sets and bogies. At our location in Freilassing, this has been done very professionally for about 15 years. You always have to make sure that you are the normative pioneer. That's why we've invested a great deal there in particular, and we want to expand that further.

Pillar number five is the area of machine service. This includes all repairs in our workshops, especially in the two halls in Opladen and in Freilassing, where we carry out all revisions, accident repairs, but also, which is becoming more and more important, the topic of retrofitting. That means we give the machine a second life. We dismantle the machine down to the ►

bottom. The components are sand-blasted, checked for cracks, and then we completely rebuild the machine.

Here at the iaf 2022, we exhibited, among other things, a tamping unit for a Unimat 09-32/45 from Plasser & Theurer, which was retrofitted in our company. A lot of customers said: I can't really tell the difference, is this a new machine or is it a refurbished one? What's the benefit? It lies in the significantly lower costs compared to a new machine and the faster throughput time. And I no longer have admissions issues.

? That means you exchange parts one for one, but there are no redesigns?

Right. We deliberately do not want to touch the existing rail permission. We completely replace components that are no longer suitable for refurbishing with new ones. High-quality components that can be completely reworked are reworked. At the end of the day, all the components on the machine are new.

And last but not least, pillar number six: That is the subject of uptime service. In this newest business field we are in the process of building up a pool of machines. We want to make machines available to our customers while they have their machines in our hall for revision or retrofitting or, if someone needs them at short notice, to bridge the gap at a construction site. To this end, we are also expanding the area of used machines. That means we buy machines from the market, rework them and then sell them back on the market. ►

Erreichbar. Fachkundig. Zertifiziert. **Plasser ROBEL SERVICES**

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- Fachkundige Ansprechpartner mit Hersteller-Know-how
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- Kurze Prozesszeiten dank
 - vollständigem Aufarbeitungsprozess für Lauf/Triebradsätze und Drehgestelle
 - abgestimmten Maschinenpark für die Aufarbeitung und Neuanfertigung
 - hoher Ersatzteilverfügbarkeit und -Beschaffung verschiedener Marken

NEU AB 06/2022: DREHGESTELL-PRÜFSTAND

- Normkonforme Prüfung nach DIN 25043-7 von Drehgestellen bei der Aufarbeitung sowie Neuanfertigung
- Statische Prüfung der Aufstandskräfte
- Prüfung von Höhen und Abmessungen
- Geometrievermessung des Achsabstandes, Parallelität der Radsätze

Drehgestell von Plasser & Theurer revisioniert von Plasser Robel Services

Infos zu den Zertifizierungen von Plasser Robel Services

Poster at the iaf 2022.

This is how we are currently set up, this is our service portfolio with the country breakdown mentioned at the beginning. Something else is important: we want to focus more on the topic of multi-branding. For example, we have been doing this intensively in the wheel sets and bogies business area over the last few years, where we also work on other brands. And we want to adopt this for other services in the future. That is the company's clear strategy and the reason why we are pooling our strengths here in order to reposition ourselves there. And yes, it is now up to us to implement it.

? How is the response from customers, from the industry?

The talks we have had with our customers to date, and now of course at the iaf, have been consistently positive. Expectations are of course high when customers say that now you have to deliver even faster and better quality. But that is also our promise and also our claim. We received very positive feedback because we are sending out a very clear signal: we are pooling our strengths, we are building up our skills in order to be even better at supporting the customer.

? Both brands offer very complex machines. So I imagine that the reliable availability of spare parts over many years is a difficult task?

This is certainly one of our most important issues. You are absolutely right. We have many machines in the market. And we know that before, documentation wasn't as important as it is today. Therefore there are also parts that are not extensively documented. In these cases we work with existing parts lists and drawings. We have our own production, for example at the Freilassing location, but also in our manufacturing plant in Linz, where we manufacture new components at short notice, be they steel components or cylinders. For other components, it is important to find alternatives, e.g. for valves, hydraulics or electrics.

Of course, the availability of spare parts is essential. And there are two important things that we are tackling. A central warehouse for spare parts is set

up in Linz for the Plasser & Theurer brand, where the most common parts will be in stock. This helps our customers to have parts available at short notice. And we are also optimising our own warehouse to keep availability as high as possible.

? This gives the machines a very long life cycle, because you can guarantee that the delivery of spare parts will not come to a standstill even after many years?

Yes, these are two streams right now. First of all we try to keep the availability of the machines for the first life as high as possible, I say this quite consciously. And if you then want to give the machine a second life, i.e. carry out a retrofit, we install all new components anyway, and they are then well documented and on stock.

? Do you now also feel these problems with suppliers failing because of the Ukraine war, with volatile supply chains?

I believe there is now no industry that has not been affected by these events. Yes, we too have occasional problems with suppliers. In principle, however, we always rely on two or even more suppliers to better cushion such eventualities. So far we have everything under control. But delivery times have sometimes been greatly extended, that has to be said very clearly.

? Several countries in Europe and beyond are currently investing heavily in rail infrastructure. Do you notice that with the customer demand? Customers might certainly want their machines to be in use without a break.

Yes, of course, we notice that. What does our customer want? There is a lot to do. He actually always needs the machine and actually has no time to switch it off briefly for necessary work.

? It used to be said that during the winter break we could give away such machines for a few months in peace. Is that over now? ►

As you can see, the winters aren't what they used to be for a long time. That means you work all year round. Of course that makes it difficult. With our Uptime Service we want to counteract exactly these problems by providing the customer with a replacement device so that he can work without interruption. So we want to counteract exactly these problems. Our capacities are now designed for year-round operation. Therefore we can accommodate the customer and say: Send us the machine, we'll do it, and you'll get a replacement from us in the meantime.

? You just said that as a service company you are responsible for the Robel brand worldwide. Does that mean that you will also look after this wonderful Robel machine Romill Urban E³, which was presented at the iaf, in the USA when Plasser American will be using it there?

Of course, we have our service organization in America, our own service technicians who we train so that they can provide first-level service on site in America. When it comes to really complex things, we send service technicians from Germany to America to provide second level service on site. That is our clear strategy: We work together with partners worldwide, some from our own group, but also with independent service partners.

? So you could say in summary: This is an all-round carefree package?

That's the big goal. Exactly!

! Many thanks for this Conversation

The interview was conducted by CFJ editor-in-chief Hermann Schmidendorf.

A brilliant performance at the iaf 2022: A Bavarian brass band also played when the new Robel milling train was handed over to Plasser America.



Credits: Hermann Schmidendorf

Siemens: “We have **big plans** for digitalising the railway infrastructure”

? **CARGO FREIGHT JOURNAL:** Mrs. Scherer, we are at a construction site. A S-Bahn goes right behind us, but above all it is a fairly empty field here. What’s planned?

Eva Scherer: Siemens Mobility is moving its development and production site from Berlin Treptow to Berlin Adlershof. A modern, new building is being constructed here in Adlershof at Germany’s biggest science and technology park. This strategic decision is based not least on the business prospects offered by Germany’s major infrastructure project Digital Rail. The new building will give us the ideal conditions in which to develop and produce the innovative rail technology required to digitalise rail both in Germany and around the globe.

? Do you think the Rail Infrastructure division will continue to grow?

Yes, because digitalising the rail network is key to meet the growing demand for sustainable rail transport which is the best contribution to overcome the climate crisis. With ATO over ETCS, for example, we achieve up to 30% more capacity on the same tracks while saving up to 30% energy consumption. Such key performance indicators show that investments in digitalization and automation of local, regional, and long-distance public transport pays off. We at Siemens Mobility are well-positioned and ready to digitalise the rail systems.

? Is it possible to create synergies through the proximity to the research facilities here in Berlin-Adlershof? Siemens is often interested in cooperating with start-ups.

That is certainly one of the reasons why we decided to relocate the Berlin site to Adlershof. In future, some 1,200 Siemens Mobility employees will be working in the immediate vicinity of various innovative high-tech companies and scientific institutions such as Berlin Space Technologies and the Helmholtz Center Berlin. We really look forward to exploiting the synergies the relocation will bring.

? Aren’t you afraid that the physical proximity of the new Tesla factory will make it more difficult for you to find good skilled workers? ►



Still a model, but soon reality: photo session at the construction site. The project partners Eva Scherer and Berlin’s Governing Mayor Franziska Giffey (both next to each other in the middle).

There is no need to be afraid. We are well positioned. We have a sustainable business model, we are working towards the green mobility of the future, and rail business is a growing international high-tech business. These are all good arguments that will help us getting the best talents and employees on board – in Berlin and worldwide.

! Thank you very much for the conversation.

The conversation was conducted by Hermann Schmidtendorf.



Eva Scherer (Master of Business Administration, University of Bradford, UK) has held various positions for the Siemens Group for 19 years. She currently serves as the CFO of the Rail Infrastructure and Mobility Software businesses at Siemens Mobility.

SIEMENS: 175TH ANNIVERSARY, BIG INVESTMENTS

Siemens was founded in Berlin 175 years ago and from there established trade contacts all over the world. Siemens’ presence in Berlin is and will remain strong. The new building in Berlin Adlershof will provide attractive space for offices, as well as production and storage facilities. A 65-year leasehold has been agreed between BEOS AG and the State of Berlin for the 26,420 m² site. BEOS AG will assume responsibility for the entire construction project. The move from Treptow to Adlershof is planned for the year 2025.

REINVENTING MOBILITY:

FUTURE MOBILITY “MADE IN EUROPE”

At the beginning there is the mission: zero emissions with maximum travel experience and sustainable economic growth. Blue skies over the big cities. Free travel across borders. Green, quiet logistics around the globe. This is what the mobility of tomorrow should look like. Mobility that inspires, that connects – and protects the climate in the long term.

InnoTrans represents the future of mobility like no other trade fair. In September, railway industries around the world will once again be presenting groundbreaking innovations in Berlin. InnoTrans is the showcase for future mobility – and the excellent climate-protecting industries that implement it.

The first climate-neutral continent is Europe’s goal by 2050. To achieve this, the climate-polluting traffic must also become cleaner. Because it has hardly been able to reduce its greenhouse gas emissions since 1990. Not so the rail. Rail traffic already accounts for less than one percent of the pollutant emissions in the transport sector. In concrete terms, more rail traffic means more climate protection.

So how do you get more people boarding and transferring? Green mobility simply has to be convincing. In order to be convincing in the competition with other modes of transport, rail must become

even more climate-friendly, more powerful and even more attractive.

More climate protection. Electric mobility has been a reality on the rails for over 140 years. Where overhead lines are not economical, battery, hydrogen and hybrid technologies “Made in Germany” come into play. Today, battery trains can travel up to 200 km, while hydrogen trains cover distances of up to 1,000 km without a contact wire. Innovative components such as state-of-the-art air conditioning enable double-digit increases in energy efficiency.

Rail consumes only 2-3% of the world’s transport energy requirements, making it the most energy-efficient mode of passenger transport. Rail 4.0 ensures more mobility with zero emissions.

More capacity. The freight transport of the 21st century is emission-free, intelligent, interoperable, disruptively more efficient. Digitisation is causing

a quantum leap: who arrives where and when and what free capacity is there? – Information on position, utilisation and driving time forecast is available in real time and enables intelligent networking with road, sea and air traffic.

In connection with the digital European Train Control System (ETCS), the Digital Automatic Coupling (DAK) paves the way to fully intelligent, emission-free logistics across borders. Because the DAC increases the capacity in (automated) shunting operations by up to 40 percent, significantly reduces process costs and relieves employees for more occupational safety. The increase in the market share of rail freight transport in the EU from around 19% today to around 30% by 2030, as rightly demanded by the EU Commission, makes it possible to reduce the equivalent of around 10 million tonnes of CO₂ emissions by 2030 in Germany alone.

More customer convenience. Digitisation is a game changer for the railways of the future. Digital train protection systems and automation enable trains to be run more frequently, which means that

more trains are used on the same route. Modern trams and autonomous subways reduce waiting times and increase their reliability. Train stations are becoming intermodal transport hubs. High-speed trains connect metropolises as quickly as airplanes with a significantly smaller CO₂ footprint.

ETCS enables up to 25 percent more capacity and translates over 20 different national systems into a uniform European language. For passengers, this means higher punctuality, shorter travel times and more connections across borders. Get on the train in Berlin in the morning and get off on time in Rome in the evening. Rail 4.0 “Made in Germany” makes it possible.

Pauline Maître, VDB Head of Public Affairs | association spokeswoman



Foto: Credits: VDB

ASSOCIATION OF THE RAILWAY INDUSTRY IN GERMANY (VDB)

The Association of the Railway Industry in Germany (VDB) is the umbrella organisation for the industry and brings together the manufacturers of all products for railway operations under its roof, both system houses and medium-sized suppliers. The industry produces rail vehicles such as high-speed trains, locomotives and regional multiple units, metros, light rail vehicles and trams, freight cars. More than 53,700 employees work for the success of the railway industry in Germany. The turnover of the railway industry in Germany was 12 billion euros in 2020.



FDP rail expert Herbst: “Accelerate the expansion of rail infrastructure and digitisation”

A CARGO FREIGHT JOURNAL interview with the proven German liberal railway and transport expert Torsten Herbst.

? **CARGO FREIGHT JOURNAL:** Mr. Herbst, I am pleased that we can once again talk about transport policy – and this time you are even a representative of a governing party. The first question concerns rail freight transport, and here a demand from the freight railways, which compete with the state-owned DB Cargo. These non-DB freight railways want to be on the DB supervisory board, especially when it comes to infrastructure. Do you agree?

Torsten Herbst: That shows exactly the problem of an integrated group that on the one hand is supposed to provide infrastructure for all market participants, but on the other hand is also on the move itself, with its own offers in competition with others.

? The Federal Court of Auditors also criticises that there is sometimes a personal union, that people sit on the supervisory bodies of infrastructure companies and at the same time with the

Torsten Herbst

Born in Dresden and with a degree in business administration, Torsten Herbst has been a member of the German Bundestag since 2017. He is parliamentary manager of the FDP parliamentary group, member of the Federal Executive Committee of the FDP, State Treasurer of the FDP Saxony, deputy member for the FDP in the Bundestag Transport Committee.



Credits: Hermann Schmidtendorf

transport companies in the group. I think you really have to look at that.

It is clear to me that there should be people on the Deutsche Bahn Supervisory Board who have the relevant expertise and, in my opinion, bring more entrepreneurial expertise back into it. You will look at the entire cast and the organisation of the committees, also in perspective the question: does the railway company always have to trade as a joint-stock company, or are there other forms?

In terms of infrastructure, that will probably not be an option, but rather going in the direction of an Ltd. But we will see. You have to look at this very fundamentally, because it's about getting sensible supervisory bodies and making sure that there are clean regulations when it comes to competition, also from a compliance point of view, that there are no conflicts of interest.

? The coalition agreement of the current federal government stipulates in writing for the first time what has been a requirement for a long time, but not in the same rank as a coalition agreement: 25 percent of German freight transport must go by rail. That's 18 percent now. What would have to happen for this to actually be possible?

This depends on two essential points. One is that we have to upgrade the network so that we can handle more freight traffic. That applies to things like overtaking tracks, as well as the expansion of capacity in front of bottlenecks, bottlenecks in front of the major railway junctions that are currently ►

LAW & POLITICS

in place. The other: Of course we have to create attractive loading options, and both must go hand in hand, otherwise it won't work. I would also say that if we have long-distance freight traffic through Germany, where a truck goes from Poland to France, we should aim to get some of this freight traffic onto the rails.

We need an ambitious expansion here. We will no longer be able to handle the predicted increase in freight volume via our roads. It has to be on the rails at times.

And if we can guarantee reliability there, if we know that trains will arrive within a certain time slot and that the costs are competitive, then I think there is also a good reason to consider to go more by rail and not to deliver everything by road.

? And the infrastructure, as you say, must of course be upgraded. That also means being digitised so that more trains can fit in per unit of time. There were individual lighthouse projects in the last legislature, but much more is needed. How can this work?

It's a mammoth project. Of course we have to get into digitisation. We have a lot of interlockings that are unique. And as far as performance is concerned, we definitely have potential through digitisation, although not in all areas. If you're honest, with the existing train protection system we already have a very, very high capacity on some routes, where you don't necessarily get much more out of digitisation. But

Torsten Herbst in conversation with CARGO FREIGHT JOURNAL Editor-in-Chief Hermann Schmidtendorf.



Credits: Frank Sonk

definitely in other areas. I think you have to think in terms of corridors, similar to what we did with VDE 8 Berlin – Munich, and so you have to look at European cross-border connections, so that we can digitise the main routes as quickly as possible and the secondary routes it will take a little longer then.

If I had one wish, I would say that we would have to invest more money and also increase construction a bit so that we can achieve better digitization faster. Which also means that interlocking technology is technically more compatible, that we can hopefully reduce the issue of disruptions and that there will be more capacity and better service for the railway companies overall.

? Some also hope that there will be financial support for those who invest in installing these ETCS devices in their tractive rail vehicles.

Yes, that is a crucial point, part of the infrastructure that is currently located next to the track is then part of the vehicles. New routes' equipment only makes sense if I can switch off the old technology, so to speak, then the condition is that I have compatibility for ETCS and the corresponding units on board of the vehicles. And this must now be pushed forward at full speed. That's why you have to think about which routes or areas it makes sense to do? Because then we have to get the railways to make the investments themselves. And that's where the state has to help, at least in the start-up phase it will be necessary for the state to also provide support.

? But in the end we also have a success for the stability of the industry in Germany if transport works well, without traffic jams...

... the railway technology industry is also an important location factor. If we show that we can do it here, that it works in Germany – many other Europeans are facing similar challenges as we are. This is also very interesting in terms of industrial policy.

! Mr. Herbst, many thanks for the interview!

The interview was conducted by Editor-in-Chief Hermann Schmidtendorf.

Funding opportunities are not used enough

SYSTEMATIC FUNDING MANAGEMENT

The energy transition is intended to reduce dependence on fossil fuels and thus also on Russian imports. A particularly effective solution is the shifting of traffic to the energy-efficient rail, which is supported by the legislator with numerous funding programs. Nevertheless, only a fraction of these funds have been used in recent years – for very different reasons. A systematization of subsidy management can help companies to make the most of their opportunities.

The state demands and encourages

The environmental policy goals are ambitious: To combat climate change, Germany is to achieve climate neutrality by 2045. In addition, due to the Russian invasion of Ukraine, dependence on fossil fuels must be reduced as quickly and as much as possible. The transport sector in particular, as one of the largest energy consumers, can make a significant contribution here. The modal shift to rail can be seen as a particularly effective measure, as this represents the most environmentally friendly alternative in an inter-modal comparison for both passenger and freight transport.

In order to further strengthen the energy efficiency and thus the sustainability of rail transport, the state has launched an increasing number of subsidy programs. In the past few years, the “Guideline for promoting energy efficiency in electric rail transport” has been considered an attractive funding program. However, this program will now be discontinued on December 31, 2022 – one year earlier than planned. With the early cessation, long-term investment plans of many railway transport companies (RTC), which had already planned appropriate subsidies, are thwarted.

The Federal Government’s decision must be assessed against the background of short-term changes in the geostrategic framework and a re-prioritization of budget funds, as well as the criticisms of the funding program published in the comments of the

Federal Audit Office in 2021. It should not be forgotten that premature cessation also damages the funding landscape as a whole. Because many RTC that have already made the necessary investments and now have to manage them without subsidies will initially be more critical of new programs. The take-up of subsidies is already mediocre at best – although many programs are extremely attractive for most energy supply companies.

Subsidy pots are only incompletely exhausted

A look at two funding programs that are essential for the rail transport industry makes this contradiction clear:

- Since 2018, the previously mentioned “**Funding guideline for energy efficiency in electric rail transport**” has provided RTC with up to 100 million euros annually. After the program was discontinued early, applications were last possible on June 30, 2022. RTC with a German license were eligible to apply, provided they could demonstrate an improvement in specific energy consumption of at least 2.0 percent compared to the previous year. Funding was provided for “the increase in energy efficiency through the use of more efficient technologies and techniques and through better exploitation of operational optimization potential”. Despite this quite broadly defined subject of funding and an extremely attractive ►

funding rate of up to 50 percent of expenditure, only **just under EUR 134 million** of the theoretically available **EUR 300 million** was accessed in the funding years 2018-2020 ($\approx$ 44.6 percent). The publication of the funding rate for applications for the funding year 2021 is imminent.

- The “**Funding guideline for alternative drives in rail transport**” aims to cushion additional costs for investments in modern alternatives to diesel vehicles (e.g. two-engine, battery or hydrogen vehicles). Depending on the size of the company, up to 60 percent of the additional expenses compared to a conventional vehicle are subsidised. And although such vehicles are currently on the wish list of many RUs, only **just under EUR 115 million** of the total available funding of **EUR 227 million** was paid out in the first call in 2021 ($\approx$ 50.6 percent). On July 1st, 2022, the second call for funding guidelines for alternative drives was published – the funding volume is **141 million euros**.

“Too complex, not enough time”: Reasons for underutilization

Experience has shown that the hesitant exhaustion of funding can be attributed to a variety of reasons.

- **Low transparency and insufficient know-how:** Especially smaller companies without a dedicated agency for the acquisition of funding find it difficult to keep track of all potential programs. Even if sponsors and associations want to remedy this, we always ask w Everybody finds that incomplete knowledge about funding opportunities reduces the corresponding chances.
- **A lack of accuracy and limited planning:** In funding programs, the subject of the funding, the recipient of the grant and often other conditions are precisely defined as prerequisites for eligibility for funding. Due to such detailed regulations, the eligibility of a specific measure is not guaranteed. In addition, subsidies are often awarded in competition – they cannot therefore be fully planned.
- **Demanding verification:** Especially the verification of the “(special) funding requirements” in funding guidelines poses great challenges for

potential funding recipients. In our experience, this often affects the availability of source data that is not available in the required level of detail or quality. As a result, extensive processing work has to be carried out, which some companies shy away from.

- **Challenging formal funding conditions:** A large number of funding applications fail due to non-compliance with the formal funding conditions – in particular the requirements of public procurement law. These are described in the general ancillary provisions on project funding (ANBest-P) and specified in the sub-threshold procurement regulations (UVgO) and sector procurement regulations (SektVO). When it comes to subsidies from public funds, the legislator understandably attaches great importance to this.
- **Limited availability of resources:** The actual application for funding, with the preparation of project outlines and factual reports, the quantitative verification and the collection and filling of forms, requires considerable resources – usually in a limited time window. This presents many companies with a challenge that is difficult to master during ongoing operations due to capacity and experience.

With systematic funding management to success

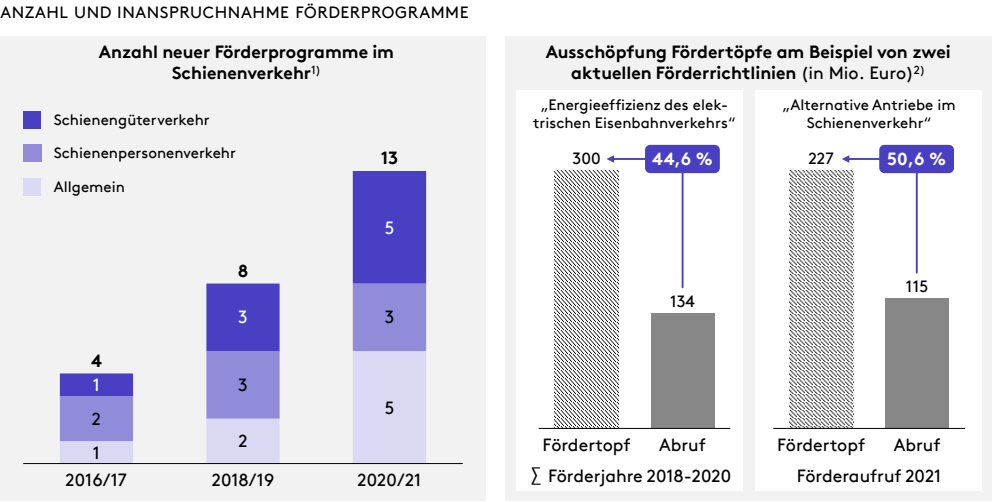
Despite the existing challenges, companies should carefully examine and make optimal use of the funding opportunities available, especially in rail transport. A financial subsidy can lead to noticeable cost savings for larger projects and thus to real competitive advantages. At the same time, RUs with a (subsidized) modern fleet or more efficient processes are in a better position to meet the increasing customer demand for “green” transport solutions and to participate in sales growth.

We recommend a systematic approach to this four key phases:

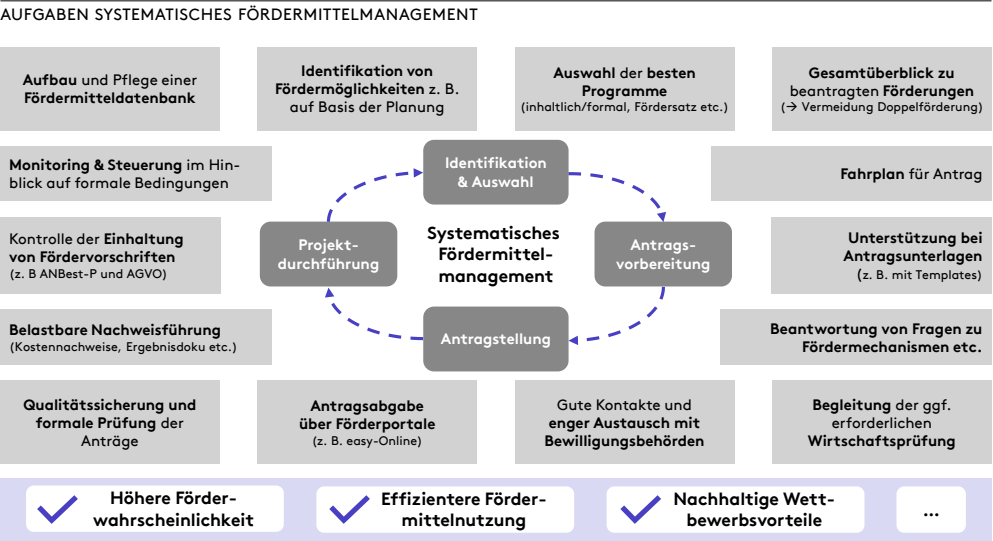
1) Identification & Selection

The search for suitable funding programs should always include comparing existing project ideas with the corresponding funding opportunities. If a promising project is identified, to query existing funding programs, e.g. B. the offer of the BMWK available ►

Die Anzahl an Förderprogrammen nimmt kontinuierlich zu – aber vorhandene Fördertöpfe werden nur unzureichend ausgeschöpft



Mit einem systematischen Vorgehen lassen sich Fördertöpfe gezielt identifizieren und besser ausschöpfen



under www.foerderdatenbank.de can be used as a starting point. It lists European, national and regional funding programs based on keywords. It is not uncommon for a project to have several funding opportunities at the same time. Then the probability of funding, the expected funding rate and the effort involved in submitting the application should be used to select a specific program. In order to avoid double

funding, requested and approved funding should be recorded at a central point in the company.

2) Application preparation
The preparation of the application typically begins with the marking of a critical path up to the submission of the application in order to be able to counter potential resource bottlenecks at an early stage. ►

Even in this phase, application documents can be viewed, templates filled out and the collection of required documents initiated (e.g. annual financial statements, bank information or certificates from the tax office). Questions about the funding program should also be sent to the funding provider at an early stage in order to avoid misunderstandings and unnecessary work.

3) Application
When the application is actually submitted, some of the required evidence (e.g. the determination of CO₂ savings through the use of alternative drives) must be certified by auditors. Experience has shown that their early commissioning and intensive project preparation and support pay off. Data should be reliably checked at least randomly before it is handed over to the auditors in order to avoid unpleasant surprises in the course of the actual check. Even if the actual application is submitted digitally, certain documents still have to be submitted in physical form – postal times and the time required for large-volume print jobs must be taken into account. Overall, we often observe a clear underestimation of the time required for a funding application.

4) Project implementation
Depending on the funding program, submitting the application is not enough. In most cases, interim reports in the form of evidence of use (factual reports, numerical evidence, lists of receipts, etc.) and a final report must be submitted at regular intervals in order to maintain the entitlement to funding. At the same time, when commissioning external service providers, attention must be paid to compliance with public procurement law according to ANBest-P.

In our experience, many funding applications fail due to improper awarding and corresponding gaps in documentation. If compliance with key figures can be (continuously) proven, a corresponding monitoring should also be set up in good time for control purposes and anchored accordingly in the company.

Win-win-win situation for companies, the state and the environment

By systematically dealing with the topic of funding management, funding opportunities can be identified at an early stage, the probability of a commitment can be increased and existing funding pots can be used more consistently. The associated cost savings pay off in the long term for companies and lead to real competitive advantages.

Sensibly designed support programs can also be a worthwhile investment for the state – their incentive effect can even achieve indirect effects beyond direct subsidies. When designing support programs, however, lessons should be learned from the mistakes of the past and the basis for an incentive-compatible and permanently reliable support framework should be created.

Last but not least, *the environment* also benefits from effective funding programs, because without financial support, rail will not achieve the goals set by the federal government for passenger or freight transport (doubling the number of passengers or 25 percent share by 2030). In this way, the turnaround in traffic can be accelerated in a targeted manner through suitable funding programs in combination with systematic funding management.

dr Martin Bernhardt, Daniel Blum



dr Martin Bernhardt and Daniel Blum are partners and senior managers at the consulting firm Berg Lund & Company (BLC, www.berg-lund.de). The consultants accompany numerous companies in the rail transport industry in the context of funding programs, energy efficiency measures and quantitative corporate management (e.g. KPI development, monitoring systems).

With systematic funding management there is a lot to consider.

Graphics: BLC

Pro Bahn: “Eliminate delays in rail- way projects”

FREIGHT MANAGER spoke to the honorary chairman of the German rail passenger association Pro Bahn about necessary improvements when planning construction projects for the railway infrastructure.

? **CARGO FREIGHT JOURNAL:** Mr. Naumann, more rail traffic. What does that mean from Pro Bahn's point of view?

Karl-Peter Naumann: We expect decision makers to think about planning law. I think we have a very chaotic planning law today. At the beginning there has to be a political yes-no decision as to whether you want a certain infrastructure project, whether you need it. And then you have to discuss rough corridors with the citizens. We know this from the planning now between Frankfurt and Fulda, where you spoke very intensively with citizens beforehand and where you then jointly defined one or more corridors. You have to fix that, and then these corridors will also be fixed.

There must certainly be an opportunity to complain about something like this again. But once the decision has been made, then it has been made and you have to stick to it. Now there's the discussion, a little further to the right, a little further to the left, a little higher, a little lower – we always get confused today, and that makes it difficult. This is delaying all rail construction projects. And that must not be.

? And that a renovation or replacement of an existing bridge structure does not create completely new building law constraints, for example?

The second point is that you have to work in a more sensible and practical way. This also applies to the topic of electrification. On the German motorway, no one was upset about it. It was electrified to conduct tests with electric trucks without plan approval procedures. But for the railways, this is a huge riot. Though a railway line becomes quieter when it is electrified.

In Berlin we have the example of the inner southern ring, where noisy diesel locomotives drive the freight trains today. That is allowed. If these sections were to be electrified, quieter freight locomotives would then run there. But according to the current law, there must then be huge investments in noise barriers. Something is wrong there. It requires reasonable coordination with the people who live on site.

? So if these walls aren't needed, they shouldn't have to be built?

You will see. But another point in citizen participation is also important. Today, as we have just seen with the projects between Hamburg, Bremen and Hanover, we have involved many potential residents. But those who use the train have hardly been involved at all. And I think both sides have to be there.

Because whether a route is built, expanded or not, affects not only the residents, but also the commuters who use this route every day. And if I can only make a bad offer for commuters when their trains are constantly delayed, then that is certainly not right either. And on the other hand: If I want a turnaround in transport, then I have to be willing to make room somewhere for new rail routes.

The conversation was conducted by Hermann Schmidtdorf.



Credits: Hermann Schmidtdorf

The graduate chemist Karl-Peter Naumann has been working in various functions for the users of the railway since 1981. From 1996 to 2012 he was federal chairman of the passenger association Pro Bahn, today he is honorary chairman.

European Silk Road Summit:

7./8. DECEMBER 2022 IN DUISBURG

The “European Silk Road Summit” congress has become the most important source of information on freight transport between China and Europe. The 6th edition of the event will take place this time in Duisburg/Germany, on 7th/8th. December 2022.

Rail transport along the Silk Road railway had survived the pandemic well, and its volume had even increased. The cost of rail transport remained significantly better than air transport. The time required continued to improve – also compared to ship transport, which is still suffering from restrictions in Chinese ports due to the pandemic. “The transports on the trans-Eurasian corridor are faster than with the container ship and only cost a tenth of comparable air freight,” says DB Cargo about the rail transports China-Europe. Most rail transport runs from China via Russia and Belarus to the border with Poland.

There, the wagons are reloaded from broad-gauge to standard-gauge wagons at the Polish border terminal in Małaszewicze. Since Małaszewicze has developed into an eye of the needle with increasing transport volumes, DB Cargo Eurasia has been offering a new intermodal solution on the “Rostock-Kaliningrad short-sea route” since April 2020. The shipments went by rail to the Russian enclave of Kaliningrad, from there by ship to Germany and then to the destination – including the port of Duisburg – by rail again.

Transport volumes collapsed as a result of the Russian war in Ukraine at the end of February 2022. It is true that transit transports through Russia are not subject to EU sanctions. But insurers shy away from the risk, especially when it comes to transport via Kaliningrad. So far, China has remained neutral regarding the Ukraine war, but cannot be happy about its consequences for the expansion of Silk Road transport. The rail freight route to Kaliningrad should also facilitate transports on the Chengdu-Rotterdam and Kalinin-

grad-Rostock-Verona routes. How's that going now?

China is currently developing transport routes that bypass Russia via the Kyrgyzstan-Uzbekistan railway. The alternative transport route via Turkey is also being used more frequently. However, this route is not prepared for larger transport volumes. Some experts are already asking: is the Caspian Sea the new Małaszewicze? The Polish government announced on June 24, 2022 that the European Union has refused to finance the expansion of Małaszewicze. Therefore, the government intends to carry out this investment with its own funds. But will it be worth it in the foreseeable future? Could a Scandinavia-Western Europe corridor work? Can Ukraine's rail connections to the west be expanded?

Experts will present the latest facts on these and other questions at the European Silk Road Summit in Duisburg. There will also be many counterpoints for networking in the transport industry. The organiser of the congress is the Dutch ProMedia Group from Rotterdam. CARGO FREIGHT JOURNAL is one of the media partners. Information and registration via www.silkroadsummit.eu and Railfreight.com

First of all, the program manager Majorie van Leijen spread optimistic tones: “The number of China-Europe freight train trips in 2022 hit the 10,000 mark on Sunday, 21 August. Last year, this milestone was reached ten days later, according to the China State Railway Group. Although growth has slowed down on the Eurasian corridor, this indicates that it has not stagnated. It is not unlikely that traffic on the New Silk Road is slowly picking up.” *hfs*

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Authors and correspondents

Caterine Trautmann, Kerstin Schulz, Djubin Pejouhandeh, Pauline Maitre, Otto Haalboom, dr Martin Bernhardt, Daniel Blum, Franz Sonk, Tomasz Frankowski, Hermann Schmidtendorf (hfs), Tim Krause (tk)

Interview partners

Peter Reinshagen, Serhij Hrudnenko, OTL dr Harald Potempa, Mateusz Figaszewski, Przemysław Bresch, dr Tobias Fischer, Andreas Katzensteiner, Ludolf Kerkeling, dr Maike Schaefer, Peter Reinshagen, Karl Oberreiter, Eva Schaefer, Torsten Herbst, Karl-Peter Naumann, prof dr Jacek Paś, prof dr Janusz Dyduch

Interlok Bahnconsulting Hermann Schmidtendorf

Bruchsaler Str. 3
10715 Berlin
Phone (+49) (0)1520-6839 235
www.interlok.info

TAX NUMBER – UST (VAT) ID
DE167943604

EDITOR IN CHIEF / V.I.S.D.P.:

Hermann Schmidtendorf
Bruchsaler Straße 3
10715 Berlin
Phone (+49)(0)157 8653 9357
E-Mail redaktion@bahn-business.eu

ONLINE BLOG
www.cargo-journal.eu

ADS AND SUBSCRIPTION MANAGEMENT
Franz Sonk
E-Mail editor@cargo-journal.eu

GRAPHICS/DESIGN
Britta Ruge
buero-im-norden.de

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www.rail-mobility.eu * editeur@rail-mobility.eu

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