



Railtalk Magazine *Xtra*

Issue 212x
May 2024
ISSN 1756 - 5030

Contact Us

Editor

david@railtalkmagazine.co.uk

Content Submissions

entries@railtalk.net

Technical & Subscription Support

admin@railtalk.net

Content

Pg 2 - Welcome

Pg 4 - Pictures

Pg 83 - World News

Pg 89 - From the Archives

Submissions & Contributions

Railtalk Magazine Xtra, a magazine written by the Enthusiast for the Enthusiast. So why not join the team. We are always looking for talented photographers and writers to join us at Railtalk. Be it though pictorial submissions or via a written article featuring an event or railtour, we greatly appreciate any contributions to the magazine however big or small.

Photographic Contributions

All Photographic contributions should to be sent to us via email, post or via the members section page on our website. Contact addresses are provided above.

All images should be provided at a resolution of at least 2400px x 1700px at 240dpi.

Welcome to Issue 212Xtra

We start this month with some very true words from AllRail.

ALLRAIL have released this statement, calling for the ERA to have more responsibility:

As the European Union Agency for Railways (ERA) celebrated its 20th anniversary, ALLRAIL's team travelled to its home city of Valenciennes to reflect on the Agency's achievements so far.

The EU Single Market is the catalyst of our common prosperity with railways having the potential to integrate society and boost businesses.

The ERA plays a central role in harmonising a fragmented EU rail market, and now it should be given more responsibility and funding.

Railways have a low market share, especially for cross-border journeys, although they could play a critical role in fostering a more connected Europe.

But thankfully there is the ERA – which has already enabled initial steps to introduce a Single European Railway Area.

For example, it issues vehicle authorisations since 2019, such as multi-country authorisation allowing operators to operate across internal EU borders.

Now the ERA should be given more responsibilities such as: timetable data; capacity management; contingency measures (re-routing) and the sector's vocational training.

Dr Erich Forster, President of ALLRAIL, added: "Other EU transport agencies, such as those in the maritime and aviation sectors, receive 100% to 400% more budget and staff than the ERA, despite being much less sustainable.

Looking to the future, it is only the EU Agency for Railways that will ensure One Europe, One Railway, and it needs the necessary resources to do so."

And trouble for those wanting a choice of sleeper trains in Germany....

ALLRAIL have released a statement, reacting to German Railways (DB)'s refusal to sell tickets for a new night train.

The EU rail ticket sales market is dominated by the in-house ticket vendors of state-owned rail incumbents, with well over 90% market share. In their home Member States, they are the default channel for passengers looking to buy rail tickets, because they inherited a historic brand awareness.

At the same time, such ticket vendors are publicly owned. Then surely it must be in the public interest for them to sell all passenger rail options – and get more people onto trains – one of the most sustainable transport modes?

But DB is deliberately refusing to sell the tickets of the new night train operator, European Sleeper – whilst DB does sell a different night train operator serving the same city pairs. This is highly discriminatory behaviour!

ALLRAIL's Secretary General Nick Brooks has added: "More night trains will help the transport sector reduce its CO2 emissions. For the sake of Full Transparency for citizens, all rail tickets must be sold at all rail ticket vendors."

Until next month...

David



This Page

A Renfe Class 599 unit arrives at Granada on April 5th.

[Mark Enderby](#)

Front Cover

Alex Class 223.065 is seen at Zeitlarn working train No. 93197 to Munich Hbf. [Andre Pronk](#)



Terms & Conditions

Railtalk Magazine is a free monthly online digital magazine (e-mag), provided in PDF format.

Railtalk Magazine takes no responsibility for any information provided or printed in this magazine.

Best efforts are made at the point of going to publish, to effect all information is correct, however no guarantees are given or implied.

All content is © copyright either Railtalk Magazine or it's respective owners. All items are credited to their respective owners and no parts of the magazine should be reproduced without first obtaining permission. In cases where ownership is unclear, please contact the editorial team and

we will be happy to provide details of respective owners once permission has been granted to pass on such information.

Railtalk Magazine is published by HAD-PRINT a trading name of HAD-IT LIMITED.

HAD-PRINT
Unit 2-4, France Ind. Complex,
Vivars Way, Canal Road, Selby
North Yorkshire YO8 8BE

info@had-print.co.uk | 01757 600211

With Thanks

Once again many thanks to the many people who have contributed, it really makes our task of putting these magazines together a joy when we see so many great photos.

These issues wouldn't be possible without contributions from:

Ken Abram, Michael J Alderdice, John Alsop, Steve Andrews, Ray Anslow, Mark Armstrong, John Balaam, Brian Battersby, Mark Bearton, Steven Beesley, Barry Beeston, Tom Blanpain, Mark Bennett, Michael Bennett, Ben Bucki, Ian Callander, Keith Chapman, Steve Chapman, Julian Churchill, Russell Clarke, Nick Clemson, Keith Davies, Brian Dobbs,

Derek Elston, Eddie Emmott, Mark Enderby, Colin Gildersleve, Vernon Goodey, John Goodrich, Greig Gibson, Carl Grocott, Richard Hargreaves, Dave Harris, James Haywood, Brian Hewertson, Paul Hewertson, Stuart Hillis, David Hollowood, Keith Hookham, Derek Hopkins, Colin Irwin, John Johnson, Richard Jones, Anton Kendall, Colin Kennington, Ken Livermore, Mathijs Kok, David Lindsell, Barry Longson, Michael Lynam, Kevin McCormick, Phil Martin, David Mead, Chris Morrison, Ken Mumford, Alan Naylor, Gerald Nicholl, Jeff Nicholls, Dave Peel, Chris Perkins, Mark Pichowicz, Colin Pidgeon, Neil Pugh,

Andy Pratt, Andre Pronk, Alan Rigby, Charlie Robbins, Bryan Roberts, Dennis Rowland, Tim Saunders, Neil Scarlett, Paul Senior, Alan Sinclair, John Sloane, Laurence Sly, Lee Stanford, Steve Stepney, Allison Twycross, Steven Thompson, Mark Torkington, Brian Turner, Gerard van Vliet, David Wood, Leuan Wood, Shep Woolley, Erik de Zeeuw and the guys at RailUK.



Alstom successfully delivers first C-Series train into passenger service for Western Australia Railcar Program

Alstom, global leader in smart and sustainable mobility, has successfully delivered the first Electric Multiple Unit (EMU) C-Series train as part of the Western Australian Government's METRONET Railcar Program for passenger service.

The delivery of the first train into passenger service is a seminal moment for Western Australia which marked the return of train manufacturing in the State in 2019 with the award to Alstom of a €800M (AUD\$1.3 billion) contract for the design, supply, manufacturing and testing of 41 6-car electric (EMU) trains and two 3-car diesel (DMU) trains.

The C-Series train, manufactured by Alstom at METRONET's Bellevue manufacturing site in Perth, has seen the transfer of the latest railway technologies and manufacturing processes to create one of the most technologically advanced train manufacturing sites in Australia.

Prior to entering passenger service, the first EMU train has undergone vigorous testing and validation by Alstom on the Perth rail network. The C-series train is based on Alstom's service proven X'trapolis commuter train platform, featuring enhanced energy efficient technologies. It is designed to accommodate future upgrades through the train's operational life. Each train can carry 1,200 passengers and includes three double passenger doors per side of each car for enhanced passenger flow. The train can reach peak speeds of 130 km/h with a 35-year service life and will be maintained by Alstom.

Alstom employs over 165 workers at the Bellevue site. Achieving 50% local content on the C-series train, with the contribution of Bellevue site and more than 15 local Western Australian businesses. A pre-employment partnership with North Metropolitan TAFE is providing rail manufacturing experience to Aboriginal and Torres Strait Islander young people, some of them joining the Alstom team as apprentices.

Commenting on the milestone, Pascal Dupond, Managing Director of Alstom Australia and New Zealand, said: "The first train in passenger service is a special moment created through years of trusted partnership with the Western Australian Government showcasing the global expertise and local knowhow that we have here at Alstom."

"Seeing this train taking passengers today and meeting the expectations of the Western Australian Government is a source of great pride. We are manufacturing the best and most advanced train we can possibly make in Western Australia, alongside Western Australians and for the benefit of Western Australians. This is a special day in our company's history in Australia", concluded Mr Dupond.

The X'trapolis trains for Perth's growing rail network are part of Alstom's innovative Adessia commuter rail portfolio, designed to support cities and suburban areas all over the world to grow sustainably, accommodate increasing numbers of commuters and alleviate traffic congestion. More than 60 commuter systems worldwide enable 20+ million passengers to travel on commuter trains made by Alstom every day.



Sustainable waste logistics: Wastelog and RCG

In 2023, ÖBB Rail Cargo Group (RCG) transported municipal waste sustainably from Italy to Austria for Wastelog. A sustainable end-to-end logistics solution, made possible thanks to the cooperation between RCG, ÖBB TSA and Brandl Transportlogistik.

Sustainable transport of waste, raw materials and industrial products: The Austrian waste management company Wastelog Environmental Logistics GmbH – a logistics company specialising in waste – has been working towards this goal with ÖBB Rail Cargo Group (RCG) since 2020. In 2023, RCG successfully transported the first tonnes of municipal waste for Wastelog. Further projects of this kind are planned for 2024.

End-to-end: getting there together

The transport demonstrates the strength of multimodal logistics, starting with the first mile by truck to Marcanise Maddaloni, which is handled by Wastelog itself. From here, the municipal waste is transported in individual wagons or groups of RCG wagons via the TransFER Villach–Italy and later to the Combi Cargo Terminal St. Michael (CCT) in Styria. Conventional HA wagons with a capacity of 50 tonnes each are used.

RCG not only manages the entire supply chain for Wastelog, but also provides the equipment and handles the main leg and the last mile from Italy to Austria.

TSA (Terminal Service Austria) – the terminal operator of ÖBB-Infrastruktur – finally transfers the goods to trucks for the last mile, as the last mile – organised by RCG and handled by the partner Brandl Transportlogistik GmbH, a local player in the logistics world.

Together towards a clean future

The combination of rail and road minimises CO2 emissions and is a prime example of sustainable logistics in waste management. The multimodal solution, which optimally combines two modes of transport, shows how strong partnerships and innovative concepts can shape the future of waste logistics in an environmentally friendly way – for a Europe worth living in.



Multimodal track ballast logistics for ÖBB Infrastruktur

Rail Cargo Group (RCG) is using multimodal logistics to transport around 40,000 tonnes by sustainable rail for ÖBB Infrastruktur SAE Regionalleitung Ost3 / Anlagen Service Center Gloggnitz.

ÖBB Infrastruktur plans, builds and operates Austria's railway infrastructure. It plays an important role in rail passenger and freight transport with the aim of promoting efficient and sustainable transport in the country. The maintenance and development of the railway network are the core tasks of the Line Management and Asset Development Division (SAE, ÖBB INFRA). RCG is a reliable partner in this context. Every year, RCG transports around 1.3 million tonnes of track ballast, rails, machinery and sleepers for various INFRA projects and is increasingly relying on multimodal solutions. This strong partnership is particularly evident in the example of the new track construction site

between Neunkirchen, Lower Austria, and Wiener Neustadt in 2022 and 2023, where RCG delivered a total of around 40,000 tonnes of track ballast using multimodal logistics.

Overcoming logistical challenges: an overview of the construction phases

Track ballast is usually delivered by truck from the ballast plant before the track surface is ballasted, as there are no rails for trains to run on at this stage. In order to meet ÖBB's sustainability requirements, the partners carried out a trial run with a test train during the first construction phase with the main 138-kilometre section by rail and the final seven-kilometre section to the construction site by truck. This test run was successful, and from the second construction phase, all the track ballast required was transported by rail.

Two block trains shuttled back and forth,

one unloaded each working day in Wiener Neustadt and Neunkirchen and the other loaded in Ybbs an der Donau. In the first construction phase, RCG transported 1,100 tonnes by rail in an environmentally friendly manner, and around 13,000 tonnes in each of the three subsequent construction phases. To implement this logistics solution, Bernegger used 20-ft open-top containers, container stackers and trucks with tipper chassis for onward transport to the construction site.

Successful partnership and outlook

The successful partnership between ÖBB INFRA, SAE and RCG has already resulted in a follow-up order for the remodelling of the Gramatneusiedl railway station. This collaboration is a pioneering example of how sustainable railway infrastructure can be created through innovative solutions and partnership.

LX Pantos rents RCG terminal Logisztár

In the Sóstó industrial park in Székesfehérvár, ÖBB Rail Cargo Group (RCG) board member Christoph Grasl handed over the keys to the global logistics player LX Pantos. The event in Székesfehérvár, Hungary, was a complete success: 90 guests were present when RCG Board Member Christoph Grasl handed over the symbolic key for the Logisztár terminal to Jeonghwan Woo, Head of the European Business Group of the global logistics player LX Pantos. Together, RCG and LX Pantos are planning to develop business opportunities in automotive and battery transport in Eastern Europe. Both partners bring extensive logistics expertise and specialist knowledge to the table.

“This partnership will not only boost LX Pantos' production, but also freight transport in the region and thus the Hungarian economy,” emphasised RCG Board Member Christoph Grasl at the handover. “As a leading rail logistics provider in Europe, RCG has a comprehensive

network and extensive expertise in the field of automotive transport. We will thus support LX Pantos in its expansion plans in Europe.” Jeonghwan Woo from LX Pantos took over the symbolic key. He emphasised that the terminal will be a transport hub connecting Asia and Europe thanks to maritime transport and international rail routes.

A hub for economic centres

The Logisztár terminal near Székesfehérvár covers an area of 36,000 square metres – a equivalent of five football pitches – with two 360-metre-long tracks. Thanks to the facility, the extensive logistical requirements of the Hungarian electric car industry can be met in the future and Hungary's national economic aspirations can be promoted at the same time. The terminal offers an ideal geographical location, is easily accessible and therefore fulfils all the requirements for complex logistics tasks.

Siemens Mobility GmbH has received an order from Austrian Federal Railways (ÖBB) for an additional 21 Siemens Desiro ML electric trainsets. The order will increase the size of ÖBB's Desiro ML fleet to 294 trains, of which 236 are already in service throughout the country.

This order underscores the reliability of the Siemens Mobility Desiro ML fleet. Beginning in 2026, the trains will serve local routes in the eastern part of the country, in particular the main line between Vienna Meidling and Floridsdorf and outer branch lines in Lower Austria.

Albrecht Neumann, CEO Rolling Stock, Siemens Mobility, said: "The Desiro ML is an internationally proven regional train that earns the highest ratings for passenger satisfaction. The electric trainsets feature impressive state-of-the-art technology and maximum comfort. They meet the highest standards of convenience, also for passengers with reduced mobility, with further optimized entrance areas as well as reading lights and USB ports in the respective seating areas."

The Desiro ML trains are recognized for their advanced technology and top level of passenger comfort and convenience. They meet the highest mobility standards and enable fully barrier-free mobility. Key features of the Desiro ML trains include 217 comfortable seats, levelized, barrier-free access with extending steps at all doors, optimized high-floor areas for S-Bahn operation, and automatic heating and air conditioning to maintain pleasant interior temperatures.

They also have adjustable and ergonomic high-comfort seats with sufficient legroom, combined power sockets / USB ports in the high-floor area, fold-out laptop tables and footrests, space for baby buggies in the middle car, room for bicycles in the multi-purpose area, and optimized space for wheelchairs and persons with reduced mobility. The trains are also equipped with modern information displays, WiFi service, an on-board portal, two toilets (one barrier-free), and diaper changing tables.



Bosnia

▶ ZRS Class 661.302 lifts the covers over its exhaust ports as it leaves platform 1 at Banja Luka station to shunt the stock from the two mid morning arrivals on April 14th.

Andy Pratt

▶ ŽRS 'Kennedy' Class 661.276 arrives at the small halt of Karanovac with train No. 6602, the 10:54 Petrovo Novo to Doboj. The Class 661 and single coach was working vice the unavailable DMU.

Andy Pratt

▶ ZRS Class 441.806 shunts onto the stabling siding outside Banja Luka shed to await its next turn of duty while Kennedy No. 661.302 emerges into the daylight to shunt the stock of the two recent arrivals on April 14th.

Andy Pratt











ŽRS 'Kennedy' Class 661.276 has run round it's single coach at Petrovo Novo and is ready to return to Dobož with train No. 6604, the 14:12 departure on April 15th. Although there is very little at Petrovo Novo, it is the last station in Bosnia Republika Srpska before crossing the border into Bosnia Herzegovina. Sadly the through service ended a few years ago with no sign of it returning. ŽRS services now terminate at this little shack in the middle of nowhere. *Andy Pratt*



Bosnia

▶ A work stained ŽFBH Bo-Bo Class 441.514 is ready for departure from Doboj towards Sarajevo on April 15th. The ŽFBH loco will have taken over from the ŽRS loco at Doboj.

Andy Pratt

▶ ŽRS Class 661.276 departs Doboj just after the sun had disappeared with train No. 6609, the 19:32 to Petrovo Novo vice the booked unit on April 14th.

Andy Pratt

▶ ŽFBH Kennedy Class 661.323 works a freight through Karanovac on April 16th. The light is failing fast as a thunderstorm approaches. The Hercegovian loco has crossed the border into Republike Srpske and will work the train as far as Doboj.

Andy Pratt





Change in organizational structure of ČD Cargo

As of April 1st 2024, the organizational structure of ČD Cargo in the operations section is changing. The original six operational units will be dissolved, and three regional operations directorates (OPŘs) will be established:

- OPŘ Západ (West) (merging the existing operational units České Budějovice and Ústí nad Labem) based in Ústí nad Labem
- OPŘ Střed (Center) (merging the existing operational units Prague and Česká Třebová) based in Prague,

- OPŘ Východ (East) (merging the existing operational units Brno and Ostrava) based in Ostrava,

The structure and regional scope of the existing operational units remains unchanged. From this change, ČD Cargo expects to simplify and unify the management concept of the newly created entities together with the introduction of top-level responsibility in terms of operational and economic efficiency.

At the same time, we expect a high level of autonomy and responsibility of individual heads of the operational units.

THE MOST MODERN COMFORTJET TRAINS ARRIVING AT THE CZECH RAILWAY NETWORK. THEY COULD SERVE PASSENGERS STILL BEFORE THE SUMMER SEASON

Already before the summer season, the first passengers could ride onboard of the ComfortJet train, which is the most modern long-distance train of České dráhy. České dráhy counts on their first deployment in operation on the Prague – Bohumín and Bohumín – Prague – Františkovy Lázně lines, for the time being in a temporary eight-carriage train configuration without a control car and a dining car. Currently, steps are underway to hand over the first trainset produced by the consortium of the Siemens Mobility and Škoda Group companies to the ownership of České dráhy. A total of 180 carriages, including control cars and dining cars, will make up altogether 20 nine-carriage trainsets with a seating capacity of 555 seats and a top operating speed of 230 km/h, which are to represent the new “flagship” of the České dráhy’s long-distance rolling stock. In the upcoming years, the carrier will use them on the most important international lines to Berlin, Hamburg, Vienna or Budapest.

The ComfortJet trainset has been tested by Martin Kupka, Minister of Transport of the Czech Republic, and Michal Krapinec, Director General of České dráhy.

“The new ComfortJet trainset demonstrates what a qualitative leap the rolling stock of our national carrier has been undergoing in recent years. The increasing quality of travelling and services offered on the board of trains is something what can further increase people’s interest in travelling by train,” says Martin Kupka, Minister of Transport, after his first ride on the board of ComfortJet, continuing: “In addition, ComfortJet with its maximum speed of 230 km/h represents a modern trainset which České dráhy can operate in the future also on sections of high-speed railways, the preparation of which is progressing in our country and thanks to this development we will further improve the railway connection between our regions and between the Czech Republic and all parts of Europe in the future.”

“The ComfortJet trainsets are equipped with the most modern elements on the current European railway market and offer passengers the highest comfort for their journeys, regardless of the fact whether they are travelling for business purposes or pleasure. We will put them into service for the first time on selected connections on the Prague – Bohumín line and then Bohumín – Prague – Františkovy Lázně line. For the time being, the units will be operated in a temporary train

configuration without a control car and a dining car. However, passengers will not be without the possibility of buying refreshments onboard the train. A dining car will be coupled to the trainset and it will be a carriage of the classical construction from the existing rolling stock of České dráhy. The ComfortJet trainsets will not help only where they will run directly. In connection with the commissioning of dozens of new carriages, we will continue to gradually phase out older carriages and replace them with more modern types with air conditioning, Wi-Fi and other equipment which are to be released from the rail traffic lines newly operated by the ComfortJet units,” says Michal Krapinec, Chairman of the Board of Directors and Director General of České dráhy.

At the end of the summer, the first ComfortJet units should also be deployed in a temporary configuration of the Berliner trains heading to the German capital city. ComfortJets will gradually appear also on Vindobona or Metropolitan trains. They will use their maximum speed of 230 km/h from the beginning of their operation, for example, between Berlin and Hamburg, and in the future, they will also be able to use it on other lines, for example on the new Austrian Koralmbahn railway line or on the first sections of high-speed lines in the Czech Republic.

“Investing in a high-quality, fast and reliable rolling stock is the way of how to bring new customers to railway transport and offer a sustainable mode of travelling. That is why I am highly pleased that we are presenting the first ComfortJet trainset, which is designed for speeds of up to 230 km/h and which offers a number of comfort features. Passengers will be able to walk freely in a barrier-free way through the trainset, visit the restaurant compartment with its modern kitchen, entertain their children in the children’s cinema area or charge their electric bikes in the compartment reserved for 12 bicycles. During the journey, they can expect an improved signal quality thanks to an innovative window technology, adjustable comfortable seats, wireless charging of mobile phones in the first carriage class,



USB sockets for charging electronics and other services, such as an on-board information and reservation system. I believe that travelling by the new trains will be an enjoyable experience. We are fully focused on the production of additional trainsets, for which we have currently produced about one third of the carriage bodies and which will be coming to the tracks gradually until 2026,” says Roman Kokšal, Chief Executive Officer of Siemens Mobility CZ.

“Our group is a traditional supplier of trains not only for the Czech railway network, and we are proud to be a part of another significant milestone in the history of the Czech railway transport. For us, ComfortJets represent a significant combination of two companies from the industry which can work together to shape the mobility of the future and modernise rail transport in the Czech Republic and Europe. Thanks to this, the new vehicles can be described as through and through European – they are being built in several places in Europe, and they are able to be operated on the railways regardless of state borders. As far as the current production is concerned, there are currently 16 carriages in various stages of work in progress in our manufacturing plant in Ostrava and more will be arriving soon,” says Tomáš Ignačák,

President of the CZ&SK and Central East Regions and Vice-Chairman of the Board of Directors at Škoda Group.

The delivery of the first modern ComfortJet trainsets is a part of a record-breaking renewal of the rolling stock of České dráhy, which is to take place during this year. This year České dráhy will receive almost 140 new electric, diesel and non-traction units and electric locomotives. If you count each carriage and train unit cell separately, this means approximately 440 individual vehicles. Converted to seats, we will put into service more than 22,000 comfortable seat places in air-conditioned and wheelchair-accessible trains with on-board Wi-Fi and other handy systems forming a part of the 21st century travelling.





Vectron Dual Mode in ČD Cargo service

Locomotive number 248.082 reinforced the locomotive fleet of ČD Cargo at the beginning of April.

It is a Vectron Dual Mode locomotive manufactured by Siemens, ie the same type of locomotive that was tested in trial operation last year. During the loan, a 4,063 km run was achieved, with most of the performance being carried out with the locomotive on the right riverside line between Děčín – Mělník and Nymburk. However, it also appeared, for example, in Beroun and a matter of interest was its deployment on the non-electrified line between Děčín and Česká Lípa.

“We have leased the Vectron from North Rail for a period of one year with an option,” revealed Tomáš Tóth, Chairman of the Board of Directors of ČD Cargo, adding: “A modern vehicle fleet is a necessary precondition for expansion into foreign markets. Last year, ČD Cargo transported almost 2.3 million tonnes of goods in Germany alone.”

Operation of the locomotive is possible on lines with a 15kV/16.7 Hz supply system, so it will be deployed mainly on trains in Germany – specifically, for example, on trains with automobiles, timber, or scrap iron.



ČD Cargo grows abroad and responds to structural changes in transported commodities on the domestic market

ČD Cargo, the largest domestic rail freight carrier which also transports goods by rail through its branches and subsidiaries abroad, achieved a gross profit before tax according to the International Accounting Standards (IFRS) of CZK 733 million for 2023. The freight segment contributed a net profit of CZK 326 million to the consolidated result of the ČD Group.

The ČD Cargo Group increased its profit by CZK 117 million year-on-year. Better results were achieved mainly due to the continued growth of performances abroad and the growth of realization prices, which compensated for the increase of most cost inputs. “We are very successfully continuing our long-term expansion strategy to foreign markets, where ČD Cargo’s performance is growing by tens of percent,” says the Chairman of the Board of Directors of ČD Cargo Tomáš Tóth. Transport performance increased at both branch offices in Austria and Germany; traditionally higher performances were recorded by the

subsidiaries CD Cargo Poland and CD Cargo Slovakia.

“Expansion abroad is, among other things, a response to the growing demands of our customers for the provision of international transport and to the increasing pressure on its quality and reliability. Already more than 60% of our transports are international. This means that they either originate, end, transit or do not pass through the Czech Republic at all,” adds Tomáš Tóth.

In total, ČD Cargo transported more than 59.4 million tons of goods in 2023, which represents a year-on-year decrease of 4.8 million tons. Performance on the domestic transport market was mainly marked by a sharp decline in the transport of fossil fuels to power plants and heating stations. “While in 2022 we transported 12 million tons of power coal, last year it was only less than eight million and the decline in connection with the decarbonization of the industry continues very

quickly,” Tomáš Tóth comments on the market situation and notes: “The structure of goods transported by rail gradually begins to change. Therefore, in addition to traditional commodities, we are now also focusing on the slowly developing transportation of biomass, solid alternative fuels, waste and other products of the circular economy, which could partially replace the absence of transportation of power coal in the future.” Due to the receding bark beetle calamity, production of the wood mass associated with a reduction in the volume of rail transport has also gradually slowed down. “In general, it can be stated that the entire year was significantly marked by the economic recession and was thus very difficult for all railway carriers not only in the Czech Republic, but throughout Europe. The more I appreciate the fact that, together with our subsidiaries, we realized a profit after tax of CZK 326 million which we can invest in the necessary renewal and modernization of our vehicle fleet,” concludes Tomáš Tóth.

The ČD Cargo Group invested a total of CZK 3 billion in 2023. Two locomotives with the last mile Diesel Power Module (DPM) have newly appeared in its rolling stock. The project of implementation of the European Train Control Safety system (ETCS) continued very intensively so that we will be ready for the start of the exclusive ETCS operation on selected lines. The company has also focused on increasing the reliability of the fleet of driving vehicles by purchasing older locomotives from the parent company ČD. These locomotives have already lost their potential for passenger transport, but after partial modernization they can operate in freight transport for many more years and replace the oldest locomotives operating in the ČD Cargo fleet. The wagon fleet was expanded to include additional large-capacity tanks for the transport of fuel, and the fleet of foreign subsidiaries was also strengthened in capacity. Necessary investments in the renewal of the rolling stock will continue in the coming period.

PASSENGERS IN THE SOUTH MORAVIAN REGION WILL TRAVEL ON MODERNISED TRAINS OPERATED BY ARRIVA BY THE END OF THE YEAR

A total of 13 Stadler GTW trains will carry passengers in the Znojmo, Břeclav and Hodonín regions from mid-December. Similar to the Moravia units, the trains will offer, for example, comfortable wheelchair-accessible boarding, a clear information system, air conditioning, Wi-Fi connection or a closed-circuit toilet.

The modernisation of the trains is the result of the contract between the South Moravian Region and the railway carrier ARRIVA from last year, when ARRIVA undertook to deploy the corresponding carriages in addition to operating lines in the south of the region. The contract with ARRIVA for the operation of the mentioned routes is for ten years. “Our long-term goal is to attract people to travel by train. The modernised trains offer all-round comfort, from air conditioning and internet access to space for transporting bicycles for cyclists. We pay CZK 231 million annually for 1.4 million kilometres travelled,” said Jiří Crha, Deputy Governor of the South Moravian Region.

The units of the Swiss manufacturer Stadler GTW were purchased by the carrier in Germany and will be deployed on IDS JMK trains on three lines:

- S8 Znojmo – Mikulov – Břeclav
- S52 Zaječí – Kobyly (- Hodonín)
- S91 Hodonín – Veselí nad Moravou – Velká nad Veličkou – Vrbovce (- Myjava)

“The trains will be running in an area where there are a lot of cyclists, so during the modernization we had the seating arrangement increased to provide more space for transporting bikes and strollers,” says Daniel Adamka, Managing Director of Arriva Česká Republika. The trains are low-floor and promise easier boarding and disembarking. Inside the cars, passengers will also find a vending machine for purchasing IDS JMK tickets and OneTicket national tickets.

As part of the technical modifications to the vehicles, the units will be equipped for operation in the Czech Republic, and from December 2025 they will also be retrofitted with the ETCS system – a unified European train protection system.



The units will set off on the line in the colours of the South Moravian Region, which passengers know from Moravia trains. “I drive around stations or tracks across the region all the time and it always makes me happy when I meet one of our trains. I firmly believe that we will gradually manage to get beautiful and modern trains on most of the lines, which people in southern Moravia deserve,” said Jan Grolich, the Governor of South Moravian Region.

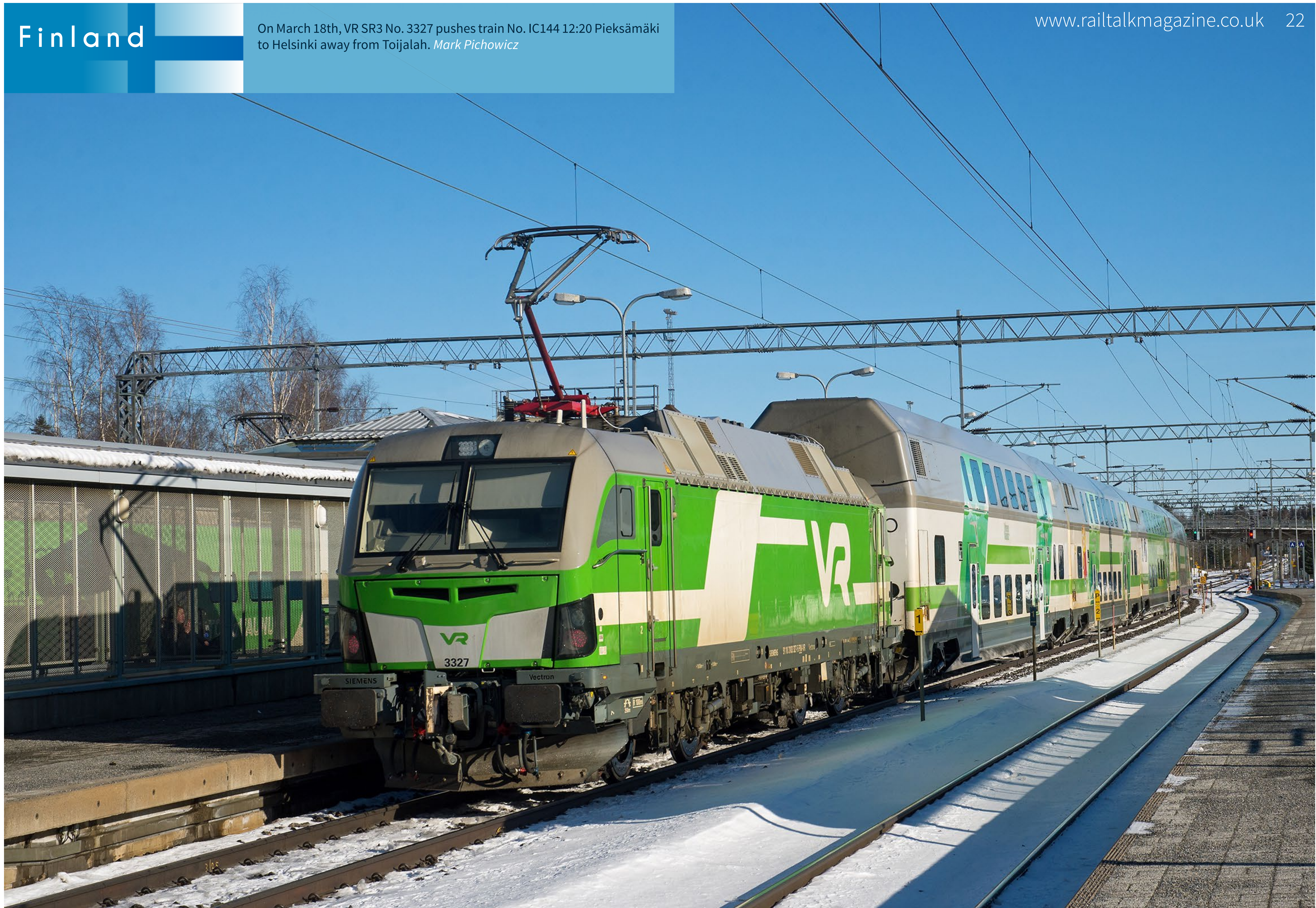
In order to modernise the deployed units, ARRIVA has concluded a contract with Škoda Group. The company has completed the modernisation of the first two units at its site in Šumperk on the expected date – at the end of March – and the others will follow at regular intervals. “We are adapting the units for operation on the lines in the Czech Republic, and at the same time the interior is being modernised and revitalised.

The trains meet the current standards of transport safety, including the installation of a train protection system, speedometer, radio station, modification of the driver’s station and the installation of a guidance system for the blind,” says Aleš Měrka, Vice President Service CZ&SK and East at Škoda Group.

On March 16th, Dr16s Nos. 2817 and 2815 wait to depart Kolari in the Arctic circle with train No. P262 15:00 to Helsinki which they will haul to Oulu before being replaced by electric traction for the overnight run south. *Mark Pichowicz*











Eurocity train No. EC9 06:29 Hamburg Altona to Zürich HB arrives at Koblenz Hbf behind DB Class 101.145 on April 11th. The train is formed of Swiss stock and was running 40 mins late. *Andy Pratt*



Germany

DB Regio Class 143.326 stands on the blocks at platform 3, Frankfurt (Main) Hbf, ready to propel train No. RB15264 the 15:15 to Limburg (Lahn). The loco is carrying an advertising livery for DB's used loco sale and rental business, DB Gebrauchtzug. *Andy Pratt*



Ihr Zug, unsere Lok

Miete mich!

www.db-gebrauchtzug.de

Mieten oder Kaufen von Fahrzeugen

120 DB 9180 6 143 326-7 0-DB



Already 55,000! Why more and more women are working at Deutsche Bahn

There are more and more - and there should be many more: women at Deutsche Bahn! Whether train driver, train attendant or maintenance worker, the proportion of female employees has continued to rise across the job profiles. More than 55,000 women now work nationwide at DB in Germany, which corresponds to 24.1 percent (previous year: 23.6 percent). In March, International Women's Month, around 800 women were hired at DB and around 11,000 applied. For decades the railway industry was almost entirely a male domain, but there are now more and more female DB colleagues in the workforce.

The proportion of female managers at DB has also increased - by more than two percentage points to 29.4 percent within a year. This means that the goal of "30 percent" by the end of the year is within reach. In the long term, DB strives for equal participation.

DB Human Resources Director Martin Seiler: "We are not only committed to attracting

more women to the railway and into management positions, but we also greatly value the female railway workers who already work in the company. We are proud of our progress so far, but still see room for improvement. We attach great importance to diversity and rely on committed employees. Deutsche Bahn not only offers attractive careers and employment conditions, but also invests specifically in the qualifications of its employees. Last March, we once again successfully used special events to strengthen DB as an employer and to emphasize our commitment to supporting women in the company."

Deutsche Bahn celebrated International Women's Month for the fifth time. Throughout March there were nationwide events under the motto "55,000 role models. And you." a social media campaign, special recruiting events and panel discussions. Several hundred women registered for the events and the so-called "Woman's Talks". The focus was on technical railway professions

from the MINT sector.

DB was also able to defend its title as the most women-friendly company in 2023. On March 7th, she was honoured by the FKi Diversity for Success (FKi) initiative for the second time in a row. FKi honors companies that have made a special contribution to diversity and inclusion projects nationally and internationally.

In order to increase the proportion of women in the group and those in management positions, DB is implementing a whole package of measures, particularly in the areas of personnel recruitment, personnel development and employment conditions. This also includes a targeted women's recruiting strategy with 30 measures, including: B. Part-time offers in the tenders.



In addition, flexible working time models (choice between more pay, vacation or less working hours as well as sabbaticals) offer a life-phase-oriented arrangement of paid work.

At the same time, the Group's qualification opportunities also include special formats for women, including individual career advice as well as networking events and development programs. Structured succession planning also ensures transparency and development opportunities when it comes to appointments.

Deutsche Bahn is convinced that equal participation is not only a task for society as a whole, but also a key to a successful and innovative corporate culture. That's why she has been a supporting member of "FidAR eV", the initiative for more women on supervisory boards, since last year.

Three EuroDuals for Rail Cargo Group – and this is just the beginning!

European Loc Pool (ELP), a leading provider of innovative locomotive leasing services, is pleased to announce the new partnership with Rail Cargo Group (RCG). RCG is the freight transport division of the Austrian Federal Railways (ÖBB) and ranks among the top 3 rail logistics companies in Europe with a revenue of 1.94 billion euros in 2022.

Cenk Seringölge, Managing Director of Rail Cargo Logistics – Germany, explains the strategic decision: "The EuroDuals provide us with the necessary flexibility to efficiently respond to the high costs of the first and last mile. Their hybrid capability allows for continuous traction, which significantly enhances our competitiveness and enables us to offer customized logistics solutions."

The EuroDual, a six-axle hybrid locomotive, represents a significant innovation in European rail freight transport. With a tractive force of 500 kN and capabilities of up

to 2.8 MW in diesel mode and 6.2 MW in electric mode, the EuroDual offers up to 40% higher loading capacity compared to conventional models. The EuroDuals are a sustainable addition to the RCG fleet, and their areas of operation include the German-Austrian axes.

Willem Goosen, CEO of European Loc Pool, comments on the cooperation: "It is an honor to support Rail Cargo Group in their pursuit of long-term flexibility and to make a difference in the competition with the flexibility of the EuroDual. Hybrid locomotives are the future."

Cenk Seringölge further emphasizes: "The cooperation with European Loc Pool offers many advantages for our operations. Investing in the EuroDuals provides us with long-term cost efficiency and thus a competitive advantage in the German market and beyond."

The delivery of the three EuroDuals is scheduled for the end of 2024 and the first half of 2025.

More about Hybrid Locomotives

European Loc Pool (ELP) focuses on innovative six-axle hybrid locomotives from Stadler, thereby setting new standards in European rail freight transport. The EuroDual and Euro9000 locomotives revolutionize European Rail Freight with their combination of electric and diesel operation, also enabling seamless last-mile and shunting operations. The EuroDual, as a forerunner in the portfolio of European Loc Pool, is a game-changer in rail freight. With its tractive effort of 500 kN and a performance of up to 2.8 MW in diesel and 6.2 MW in electric operation, it offers up to 40% higher loading capacity. The EuroDual is already successfully in operation in Germany, Austria, France, and Scandinavia and was recently approved in Serbia. Slovenia and Croatia will follow in the first quarter of 2024.

EuroDual Locomotive | European Loc Pool

The Euro9000, the 'next generation' locomotive, stands

for peak performance in the European rail industry. With a tractive effort of 500 kN and a performance of up to 1.9 MW in diesel and 9 MW in electric operation, it enables up to 40% higher loading capacity. As a hybrid multi-system electric locomotive, the Euro9000 expands the geographical deployment and efficiency on the European Rail Network. In addition to the advantages in last-mile and shunting operations, the Euro9000 distinguishes itself on 3kV DC tracks with a special capability: it features a 'boost' capability, enabling it to combine its electric power with the diesel engines, leading to an impressive total performance of 7.7 MW at the wheels.

As the 'launching customer', European Loc Pool ordered the first ten Euro9000 locomotives from Stadler already in May 2019, and since mid-2023, the 'next generation' locomotive has been operating in Europe. The Euro9000 is approved in Germany, Austria, Switzerland, the Netherlands, and Belgium. Italy will follow in 2024.

Innovative technology along with even more climate protection and greater comfort and convenience for passengers – regional rail transport on Network 8 (“Ortenau”) is rising to a new level on April 8th, 2024. This is the day the first four battery-powered trains from Siemens Mobility begin regular service, marking a premiere in Germany. The official start was celebrated by an exclusive inaugural trip from Offenburg to Oberkirch and back, and was accompanied by Winfried Hermann, Minister of Transport for the state of Baden-Württemberg, together with numerous invited guests. “We are writing a new chapter in railway history with this opening trip,” commented Minister Hermann. “Thanks to the battery hybrid drive of the Mireo Plus B, trains operating in the Ortenau region as of today are more climate-friendly than those using diesel. Baden-Württemberg is a pioneer with innovative train technology. All trains should be climate-friendly. We are relying on alternative, climate-friendly solutions wherever there are still no overhead power lines.”

SWEG CEO Tobias Harms said: “SWEG not only stands for quality, but also for innovation. We are especially pleased to now be able to make these innovative trains available to our passengers and will be demonstrating our role as a reliable partner to both the state of Baden-Württemberg and Siemens Mobility.”

Albrecht Neumann, CEO Rolling Stock at Siemens Mobility, said: “We are proud that our first fleet of Mireo Plus B battery trains is now going into passenger service. We would like to thank the state of Baden-Württemberg and SWEG for their trust and confidence in our innovative and environmentally friendly technology. By expanding rail transport, we can make an active contribution to climate protection. The introduction of these highly advanced trains, which can operate up to 120 kilometers on battery power, marks an important step towards a sustainable future.”

Where the new trains are running

The hybrid trains will initially be used on the routes from Offenburg to Bad Griesbach and from Offenburg to Hornberg. They replace the diesel-powered Regio Shuttle RS1. Plans call for gradually extending hybrid service on other routes in the network. In preparation for introducing the Siemens Mobility trains, the network timetable was adjusted in mid-December 2023. Since then, trains in the Kinzig valley, for example, have been running straight through from Offenburg via Hausach to Hornberg without requiring changes. And passengers traveling to Freudenstadt usually have to change trains in Hausach, since the battery trains can serve the Freudenstadt station on the regular schedule only when an additional switch connection has been installed there. As a result of the timetable change in December 2023, passenger service has been improved by closing previous gaps in the schedule. Trains now operate at least on an hourly basis on all routes from early morning to evening. “With the new network and the new trains, we are increasing the service frequency and providing higher capacity. Passengers now have more comfortable and attractive options for changing trains and boarding – whether in the cities or country,” noted Minister of Transport



Hermann.

Innovative train: the Siemens Mireo Plus B

Powered by green electricity, the Mireo Plus B battery-electric multiple-unit trains produce no emissions and are extremely quiet. Thanks to their battery hybrid drive, they can be used on routes with and without overhead power lines. In the future, when they operate throughout the entire network and replace the diesel-powered Regio Shuttle, they will slash consumption of diesel by around 1.8 million liters per year. In battery operation and under real conditions, the Mireo Plus B has a range of up to 120 kilometers. Its batteries can be recharged from the overhead line and with braking energy. The battery system, installed beneath the car floor, includes two battery containers holding lithium-ion batteries with a long service life. The trainsets have 120 seats and are equipped with a toilet, air conditioning and spacious special use areas.

About the new technology

Manufacturer Siemens Mobility won Baden-Württemberg’s open-technology call for tenders for Network 8 with its Mireo Plus B design. This led to Baden-Württemberg’s State Agency for Rail Vehicles (SFBW) ordering 27 Mireo Plus B two-car, battery trainsets from Siemens Mobility. The trains will be serviced

and maintained by Siemens Mobility for SWEG for about 30 years in the newly built rail maintenance depot in Offenburg that opened in June 2023. Condition-based, predictive maintenance of the trains is made possible by the use of the cloud-based Siemens Mobility Railigent X Suite application. Thanks to advanced algorithms and data analytics, train operations are optimized and potential disruptions are detected and handled before they lead to breakdowns. This ensures 100 percent availability of the fleet. The charging infrastructure for the new trains was installed by SWEG Schienenwege GmbH at the Achern and Biberach (Baden) train stations.

About Network 8

Following the timetable change made in mid-December 2023, Network 8 (“Ortenau”) includes the following routes: Offenburg – Hornberg/Freudenstadt; Offenburg – Bad Griesbach; Offenburg – Achern – Ottenhöfen; and Biberach (Baden) – Oberharmersbach-Riersbach. In addition, the reactivated Hermann Hesse line between Calw and Renningen is planned to become part of the network as of 2025. All in all, Network 8 handles around two-and-a-half million train kilometers per year. The state of Baden-Württemberg awarded operation of the network to SWEG until December 2038.

New cars and their parts: DB Cargo is ready for the transformation in the automotive industry

We've all seen them: long freight trains loaded with brand-new cars. They're what comes to mind when people think of car transport by train. Cars have been transported by rail like this for decades. Around 250 freight trains travel across Europe every day in DB Cargo's network, carrying both finished vehicles and components. This now also includes e-cars and their components, as the automotive industry is in the midst of change and DB Cargo is supporting the transformation as a logistics partner.

The backbone of automotive logistics: the Automotive RailNet

What do you do when there is an enormously high demand for transport in an industry, but the shipment structure means that it cannot be mapped in its own block trains and single wagonload transport is not fast enough? You set up an industry-specific rail system, making it easier to get started and continuously develop it further in the interests of the customer. That system is the Automotive RailNet and it has been providing efficient rail transport for the entire European automotive industry (both vehicle manufacturers and suppliers) for over 20 years.

Europe-wide network from a single source

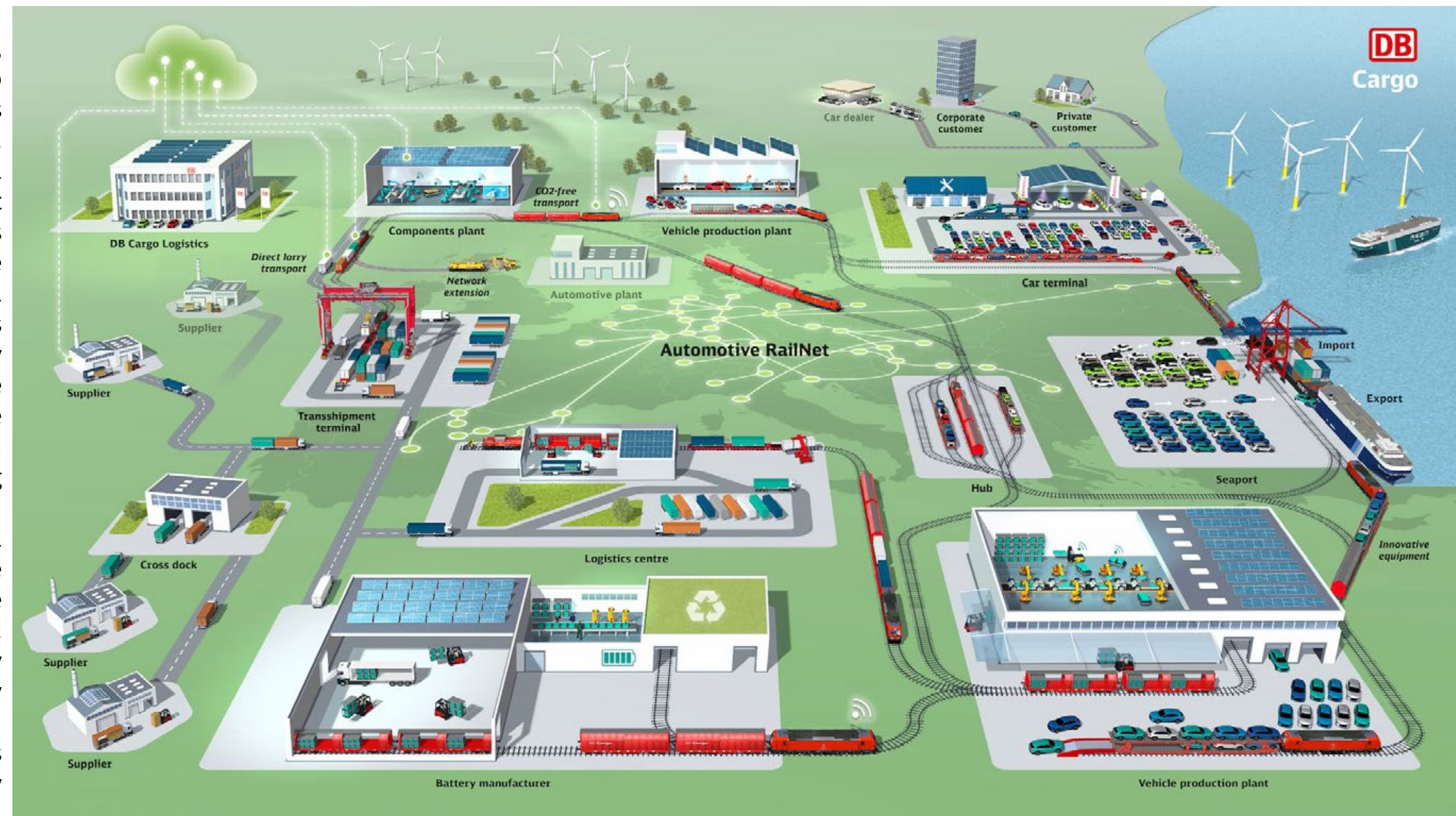
The Automotive RailNet from DB Cargo Logistics, a subsidiary of DB Cargo, offers customers the best of both worlds: the speed and efficiency of block train transport and the flexibility and scalability of single wagonload transport. "Rail freight transport and automotive logistics weren't an ideal match before, so a lot of things were transported by lorry," recalls Kai Birnstein, Head of Automotive. "After connecting private sidings in the first step, later we connected multimodal rail access points such as logistics centres, railports and transshipment terminals. We also integrated formation yards, which we call hubs, into the network. They're smaller and faster than the big marshalling yards. We added strong partners for the last mile to this rail network and developed door-to-door solutions, with rail making up the main part and lorries taking care of the first and last mile. We've increasingly taken on the role of lead logistics provider." This approach links automotive clusters together and also connects the major seaports for import and export. Automotive industry in its biggest disruption ever

The automotive industry is at an unprecedented turning point. The transformation to electric cars is causing far-reaching changes that are also affecting logistics. "Vehicle production is going to change drastically," says

Birnstein. "With around 80%, combustion engines still make up a clear majority, but that figure is expected to fall below 30% by 2030. The gearboxes still in use today will be history then, and the market will be dominated by components like batteries." And since they're large and heavy, weighing several hundred kilograms, those batteries are predestined for transport by rail. Transport by lorry is not the first choice, especially given the quantities needed; a freight train replaces up to 52 lorries while cutting CO2 emissions by around 80%. So in terms of eco-friendliness alone, rail freight transport is therefore the more suitable option, and it minimises the carbon footprint of every electric car. Safety considerations also clearly favour freight trains, which is why well-known manufacturers and suppliers already rely on DB Cargo's expertise when it comes to battery logistics.

Plug-and-play battery transport

With the transformation, new manufacturers are entering the market and new components such as batteries and battery modules need to be transported. Most batteries still come from Asia, but that will change in the future. Battery production facilities for electric vehicles manufactured in Europe will also be sited here, and DB Cargo Logistics is already at work integrating these new facilities into the Automotive RailNet. This is where the network's strengths pay off. "With our plug-and-play approach, we can keep the network open to new manufacturers and suppliers and react to new trends, cargo streams and sites at any time. You could say it's a breathing system," says Dr Jan Daniel, Head of Product Management. "By using a wide range of rail access points and our hubs, where we efficiently assemble and route individual trains, additional companies can attach themselves to our highly integrated network between the automotive clusters at any time, even without a private siding. Our network makes us able to take action in this volatile, changing industry at all times. We are and always will be the 'conductors' of the overall 'orchestra'."



Even car manufacturers and suppliers without their own private sidings can get a multimodal connection to the Automotive RailNet.

The work starts long before the first trip

As the "conductor", DB Cargo Logistics takes an active role at an early stage, helping customers consider rail connections while planning their factories because infrastructure is designed at the beginning and is difficult to change later. "Having your own private siding is still the most efficient solution," says Birnstein. "If customers decide not to pursue that option, we look for other options that enable efficient and flexible logistics close to the facility. For example, we have our own logistics centres for transporting components and compounds for distributing finished vehicles." This kind of full-service consulting will remain an important task in the future as both suppliers and the car manufacturers themselves are looking to move from Asia to Europe.

The automotive industry's transformation is leading to new requirements in logistics.

Taller, heavier, wider: new equipment for new vehicles. The transformation is also exciting in terms of the equipment it calls for. For example, batteries can be transported safely and quickly by rail on special racks in sliding-wall wagons, and there are special car carrier wagons for finished vehicles. But the market's needs are changing. Cars have been getting ever wider and heavier since SUVs became the most popular models, and electric cars are also playing a part in the modernisation of DB Cargo's freight wagon fleet: their batteries make them heavier than traditional cars. "We're constantly converting existing equipment and expanding our fleet with new flexible double-deck wagons so that we're prepared to transport the cars of tomorrow," Birnstein says.

In addition to procuring new wagons and converting existing ones, new strategies with more efficient round trips and reloading are needed, and they're being implemented in the Automotive RailNet. Goods flows are being analysed, new logistics strategies are being developed, and the network is being adapted accordingly.

Digital automatic coupling ready to enter service

The next milestone in the digitalisation of rail freight transport

Digital automatic coupling (DAC) is a game changer for the future of freight transport. It automates coupling processes, relieves railway workers of heavy physical labour, and enables the continuous connection of power, data and compressed air lines along the entire length of the train. That makes it an important building block in the automation and digitalisation of rail freight transport.

DAC takes the next step towards series production after positive tests

The test phase for developing a digital freight train with DAC has been ongoing since 2020. During this test period, the train has travelled over 15,000 kilometres through ten European countries and stopped at

33 locations. “The digital freight train has successfully completed its first field tests,” said Dr Sigrid Nikutta, Member of the DB Management Board for Freight Transport and CEO of DB Cargo, as the train was presented to the European Commission and the transport ministers of Belgium, Germany and Latvia in Brussels. “Now, this new technology is ready, and the first customers in rail freight transport are set to benefit. Our joint experiences will then flow into series production.” After all, achieving the goal of transferring more goods from road to rail will require rail freight transport to automate and go digital: “This is the crucial lever. Europe needs green supply chains if it is to achieve its climate targets,” continued

Dr Nikutta.

For this reason, Deutsche Bahn is working with other European freight operating companies and numerous other industry stakeholders to develop and deploy DAC throughout Europe. High on the agenda at the European Commission’s “Connecting Europe Days” event in Brussels was the presentation of a digital freight train, fitted of course with DAC. Politicians, rail operators and representatives from industry used the event to discuss the continued development of European transport systems. These discussions focused on expanding the eleven trans-European transport corridors and strengthening climate-neutral supply

chains. Another major focus topic was the financing of digital automatic coupling as a new system standard.

DAC is a game changer for the entire rail system

This is because, as freight transport goes digital, customers stand to be among the main beneficiaries. The combination of DAC and continuous power and data lines promises significantly shorter journey times, partly because the brakes can be controlled electronically just like on passenger trains. Freight trains are currently limited to a top speed of 120 km/h. DAC will allow them to fit much better around fast and frequent passenger transport, creating

greater capacity throughout the network. By enabling the continuous transfer of information, the data lines open up new markets and customers for rail freight transport. This makes digital automatic coupling a real game changer for the entire rail system.

The Deutschland Ticket has turned the entire regional transport market upside down

With the 9 euro ticket, the starting signal for a turnaround in regional transport was given in the summer of 2022. Millions of additional travellers have flocked to public transport - a feat that Team DB has successfully mastered. With the Deutschland Ticket, passengers have been able to board any bus and train nationwide on regional transport since May 2023. On the first anniversary, Evelyn Palla, board member for regional transport, takes stock.

Ms. Palla, how has the Deutschland Ticket changed regional transport?

The Deutschland Ticket has turned the entire regional transport market upside down – in the most positive sense. Fare limits, honeycombs and zones have become unimportant for travellers. You can travel with the ticket when, where and how often you want. Public transport has to be so simple and flexible so that more people can get on. And that’s exactly what we found: Since the Deutschland Ticket was introduced in May 2023, 28 percent more travellers have been traveling on our regional trains. In total, almost two thirds of our passengers travel with the Deutschland Ticket. It is by far our most popular ticket. The Deutschland Ticket has also brought about a significant change for our employees. More travellers also mean more responsibility for our teams. The Deutschland Ticket owes its success to our employees. That’s why I would also like to thank all of our colleagues who work every day to get our passengers from A to B.

How, where and when do people use the Deutschland Ticket?

Our finding is that passengers with a Deutschland Ticket use public transport more intensively. Not only do they travel more often, they also travel further - on average by 20 percent on our regional trains. The Deutschland Ticket is therefore not just an inner-city public transport flat rate, but also makes an important contribution to better connecting city and country.

Is the Germany Ticket an excursion ticket, as some criticize?

One thing is certain: the Deutschland Ticket is most often used for work commuting. Every second trip with the ticket goes to the office or school or from there back home. The ticket is therefore primarily an everyday companion for millions of employees and students.

Our passengers are increasingly using the Deutschland Ticket in their free time and on weekends. They travel more often to popular tourist regions such as the foothills of the Alps or the Baltic Sea. So people go on trips with the Deutschland Ticket - but on climate-friendly regional transport. Leave your car parked during this time. We use this to get traffic off the road and onto the rails. This is active climate protection – in line with our Strong Rail strategy. That’s why we at DB are big fans of the Deutschland Ticket!

In local transport, many people have often taken paper tickets. The Germany Ticket is only available digitally. What changed that?

The Deutschland Ticket really got digitalization in local transport rolling. We see this clearly in the usage behaviour of our customers. Today we already sell 78 percent of all regional and local transport tickets digitally in DB Navigator or on bahn.de. That’s more than twice as many as before the Germany Ticket was introduced! Just ten years ago, our passengers bought less than ten percent of all local transport tickets digitally. At the same time, the status of vending machines has changed with the Deutschland Ticket. Today we only sell half as many paper local transport tickets as before. However, we still want to offer travellers the opportunity to buy their tickets at the machine.

Where do you see room for improvement with the Germany ticket?

An important lever for attracting even more people to the Deutschland Ticket

is the offer as a job ticket. DB wants to make this possible for all companies in Germany – no matter how big or small. Our customers already include hundreds of companies, including large DAX companies such as Siemens and Porsche. But for us, every single Germany ticket is important. That’s why the DB - unlike other providers - has no minimum purchase number for Germany tickets as a job ticket. With us, every medical practice and every medium-sized company can offer the Germany Ticket to its employees. This means we can convince thousands of employees to take climate-friendly buses and trains with the Deutschland Ticket. We want to use this potential with other companies of all sizes in the future - including us! Over 40,000 colleagues at DB have now chosen the Germany Ticket as their job ticket. You can get it at a reduced price of 34.30 euros and always have it with you as a mobile phone ticket in the DB Navigator on your work or private smartphone.

And a guessing question at the end: How many more birthdays will the Deutschland Ticket celebrate?

The ticket is here to stay. It is impossible to imagine life without it. But the truth is of course that the Germany ticket must be financially secure. This is the only way our passengers and the industry can plan. The transport ministers’ conference in Münster in mid-April produced the first results. In order to further advance the mobility transition, all partners must pull together. We have impressively shown that this is possible with the introduction of the revolutionary Germany Ticket. That’s why I would like to use the first birthday as an opportunity to say THANK YOU. Thanks to everyone who helped make the ticket a success. As an industry, we have shown that we want and can innovate! Together we will celebrate many more birthdays of the Deutschland Ticket!

ICE in football livery now in use



The ICE “Fan Capital Hamburg” is traveling through Germany from April 30th. For the first time, Deutsche Bahn (DB) redesigned an entire ICE train inside and out on the occasion of the UEFA European Football Championship. The train is a rolling fan zone with football motifs from the 24 participating nations. The 7-part ICE 4 was launched by Dr. Michael Peterson, DB board member for long-distance passenger transport, Andreas Schaer, managing director of EURO 2024 GmbH, Michael Otremba, managing director of Hamburg Tourismus and of course Albärt, the mascot of UEFA EURO 2024™, were presented at Frankfurt Central Station and named “Fan Capital Hamburg”. baptized. This was preceded by a vote on the DB Instagram channels to find the most football-crazy city in Germany, which can now be used as the name of the EM-ICE.

Around 26,000 fans took part and the Hanseatic city won.

Dr. Michael Peterson, DB board member for long-distance passenger transport: “Our EM-ICE is a unique fan zone. We bring the stadium atmosphere into the train. We are looking forward to a big football festival with many millions of guests visiting Germany. Major climate-friendly events can only take place by train. The largest and most modern ICE fleet of all time is available this summer with over 400 trains.”

Andreas Mex Schaer, Managing Director UEFA EURO 2024™: “We welcome the support of the fans and Hamburg has special meaning for us because the final draw there heralded the hot phase of UEFA EURO 2024™. By naming the ICE in Frankfurt, our motto is

‘United by football. United in the heart of Europe.’ filled with life. Because this is where the teams’ sporting journey began with the qualifying draw in October 2022. And finally, the increasingly visible communication of the EURO is also a good addition to Deutsche Bahn’s offerings. We’re looking forward to a fantastic summer of football!”

Michael Otremba, Managing Director of Hamburg Tourism: “The fan train turns the journey into a real experience and increases the anticipation for the UEFA EURO games. The fans’ vote for Hamburg motivates us immensely to celebrate an exciting football festival in our city. We look forward to numerous guests who want to experience the atmosphere in Hamburg before, during and after the UEFA EURO.”

From large-scale stickers on the walls to small fun facts about ball sports at the tables: travellers can expect many big and small surprises from the world of football in the EM-ICE. The train will be in use in the coming months as a rolling ambassador for UEFA EURO 2024™, primarily between North Rhine-Westphalia and Berlin.

The DB is the official national partner of the 2024 UEFA European Football Championship and enables climate-friendly arrival and departure with special offers and more trains around the European Championship games. Around match days, DB will offer almost 10,000 additional seats per day on the ICE and Intercity trains. 14 EM special trains alone will be on the road every day. The largest and most modern ICE fleet of all time, with over 400 trains, is available for this purpose. The expansion and

modernization of the long-distance transport fleet is a central component of DB’s “Strong Rail” corporate strategy. And so that traveling to the games is not only climate-friendly but also inexpensive, the DB is offering a special DB Ticket EURO 2024. Anyone who has a ticket to a game and is traveling within Germany can purchase this. It costs 29.90 euros per trip and can be booked via [bahn.de/db-fussball-ticket](https://www.bahn.de/db-fussball-ticket). People from over 150 nations work at DB. This makes DB as diverse as Europe. The DB Stars, who also took part in the naming ceremony in Frankfurt, are intended to demonstrate the diversity and internationality of the DB workforce. From among its employees, DB has formed a team from all the nations that are also competing in the European Football Championship: the DB Stars. 24 colleagues are DB ambassadors for a friendly host country.

Comprehensive infrastructure program: DB will renew thousands of switches, kilometers of track and modernize stations in 2024

The new, public interest-oriented DB InfraGO AG is launching a comprehensive infrastructure program in 2024. The focus is on the existing network and the stations: the DB is expanding, modernizing and renewing over 2,000 kilometers of tracks, 2,000 switches, 150 bridges and 1,000 stations this year. This program, as part of the Group’s Strong Rail strategy, will make the existing infrastructure more efficient and robust and create more capacity in the rail network.

In addition, the first general renovation of a highly polluted corridor will begin on the Riedbahn between Frankfurt/Main and Mannheim in July, with a further 39 general renovations to follow in the coming years. Investments by DB, the federal government and the states in rail infrastructure will total around 16.4 billion euros in 2024 alone. With 5,500 new employees for maintenance and expansion, the team for an efficient rail network will continue to grow in 2024.

Dr. Philipp Nagl, CEO of DB InfraGO AG: “We are making the railway better - project by project, construction phase by construction phase. For us, orientation towards the common good means that people and the economy in Germany should feel rapid and sustainable improvements in the rail network. To this end, we are renovating many sections throughout Germany - on main routes and in the regional network. In 2024, for the first time in many years, we will succeed in stopping the aging of the railway infrastructure. DB

InfraGO is faster, more efficient and more powerful.”

The investment offensive is largely based on the central areas of action of DB InfraGO AG:

- The DB is renovating the highly stressed network from the ground up by 2030, bundling it into 40 high-performance corridors. The first general renovation will start on July 15th, 2024 on the Riedbahn between Frankfurt/Main and Mannheim.
- The area network also benefits from the preparations for this. DB InfraGO AG is renewing diversion routes for corridor renovations in advance to ensure robust train traffic. In February and March, the construction teams carried out a large number of necessary maintenance work on switches, tracks, technology and overhead lines on the Alsenz and Ludwigsbahn as well as on the Main-Neckar Railway. Further routes nationwide are already being planned.
- Modernization and new construction measures will be carried out at around 1,000 train stations and stops in 2024, including the main stations in Duisburg, Dresden, Hanover, Ulm and Munich. The DB is also investing in numerous smaller and medium-sized stations, for example in barrier-free access, weather protection and passenger information.
- By the end of 2030, 355 small and medium-sized measures will improve the quality of the existing network. The projects include infrastructural measures such as additional crossing options, additional signals and track

changing operations or new platforms. For example, the DB is expanding and renewing the signal box and signalling technology around Aschaffenburg to enable track changing operations. By the end of 2025, around 40 percent of these measures will have been implemented.

- The DB is building additional modern signal boxes for digital rail operations. In Donauwörth, the first digital signal box on a main line successfully went into operation in March. It will officially open this summer.
- DB InfraGO also tackles the service facilities where every train journey begins and ends. 145 locations are to be modernized and expanded by 2030. In Recklinghausen Ost, for example, moving a signal creates space for 740 meter long freight trains.
- By expanding and building new routes as well as electrifying routes, DB InfraGO is creating new capacities in order to implement the German cycle step by step. The second track of the Weddel loop between Braunschweig and Wolfsburg was put into operation in the first quarter. The groundbreaking ceremony recently took place for the four-track expansion of the Hanau-Gelnhausen line.

The aim of all of these measures is to ensure high availability of the infrastructure and stable operations. Dr. Nagl continues: “We are measured against these goals. We will keep our promise at the end of the year: the Riedbahn has been completely renovated and we have modernized thousands of our systems.”

1.6 billion euros for strong rail in Hesse: Deutsche Bahn starts four-track expansion of the Hanau-Gelnhausen line

To ensure strong rail in Hesse, Deutsche Bahn (DB) is expanding the 23-kilometer-long Hanau–Gelnhausen line to four tracks.

At an on-site meeting in Gelnhausen, representatives of Deutsche Bahn, politics and the region gave the official starting signal for the implementation of this project, which is part of the urgent need of the Federal Transport Infrastructure Plan and financed by the federal government. In the future, passenger and freight trains will be able to run separately from each other much more reliably. To ensure greater comfort, the DB is also modernizing all six transport stations along the route and making them barrier-free. Residents benefit from new noise barriers over a length of around 30 kilometres. The important railway project also takes nature into account - for example with protective measures and replacement habitats for white storks and sand lizards.

Berthold Huber, DB Infrastructure Director: “With the four-track expansion of the line between Hanau and Gelnhausen, we are solving a bottleneck in the rail network that has existed for many years. In keeping with our Strong Rail strategy, we are creating the conditions for greater reliability and punctuality in train traffic across the entire network. The expansion will have an impact far beyond the region. My express thanks go to everyone involved who supported the project from the start and pushed it forward with a lot of passion and commitment for a better railway.”

Michael Theurer, Parliamentary State Secretary to the Federal Minister for Digital Affairs and Transport and Federal Government Commissioner for Rail Transport: “The four-track Hanau-Gelnhausen expansion is part of the Mannheim-Frankfurt-Fulda-Erfurt long-distance railway tunnel axis, which is central to the German cycle. In order to make rail transport attractive, it is necessary, in addition to the essential general renovation of the high-performance corridors, to continue to create additional capacity and reduce journey times through the new construction and expansion of the rail network in line with the German rhythm. There are currently only two tracks in Kinzigtal, which in the long term will no longer be able to accommodate the ever-increasing demand for rail transport. I would like to thank those involved in the project at DB InfraGO AG for the dialogue-oriented planning, which involves the people of the region for a better result and uses the most modern digital technologies.”

Kawah Mansoori, Minister for Economic Affairs and Transport, State of Hesse: “Today’s start of construction on another major rail infrastructure project in Hesse is a big and important step for the urgently needed transport transition in our state! We are hereby laying another foundation for a better train service, especially in cooperation with other projects such as the Frankfurt long-distance railway tunnel, the North Main S-Bahn and the subsequent new and expanded routes, the basis for additional trains with sometimes significantly shorter journey times. In this way, we are ensuring future-oriented and environmentally friendly mobility in Hesse and helping to ensure that our state remains a vital and livable location.”



Thorsten Stolz, district administrator of the Main-Kinzig district: “We have waited a long time for the urgently needed expansion of the rail network, now it is really starting. This is great news for the people in the Main-Kinzig district. The prospect of traveling by train without constant traffic jams on the rails, modern and barrier-free railway tracks and noise protection along the route – our commuters in particular breathe a sigh of relief.”

Prof. Knut Ringat, Managing Director and Chairman of the Rhein-Main-Verkehrsverbund GmbH: “The rail infrastructure in the RMV area is currently and will be growing enormously in the coming years: We are even breaking records this year when it comes to expansion and new lines. With the expansion between Hanau and Gelnhausen and the subsequent planned new line from Gelnhausen to Fulda, we are making local transport in East Hesse highly attractive and setting the course for greater quality and punctuality through tracks that are separate from freight and long-distance transport - for our currently more than 20,000 passengers on the route and for many people in the region who will then come along and ride with us.”

Once the route expansion has been completed, long-distance and freight trains will run on the two inner tracks, while local transport will use the two outer tracks. The DB will provide timely information about the traffic concepts during the construction phase. The line is scheduled to be fully commissioned in 2036.

Constructive dialogue with the region

From the very beginning, the project was accompanied by early public participation, which the DB initiated together with the state of Hesse. Representatives from the state, district, municipalities, environmental and passenger associations and many other institutions regularly exchange information about planning progress and contribute ideas and suggestions. Since 2014, 23 Dialogue Forum meetings have taken place. The working group on the Hanau-Gelnhausen section has met 14 times to date.

For example, in a constructive dialogue, everyone involved worked out the arrangement of the tracks (fast tracks on the inside, slow tracks on the outside) and ensured that the route was planned in such a way that the maximum speed was increased to 230 km/h (the original maximum speed was 200 km/h planned).

Furthermore, the dialogue forum prepared the parliamentary discussion of the project through intensive exchange and ensured that the Bundestag approved the financing of the region’s core supra-legal demands in June 2020 and pledged 29 million euros. In addition, noise protection along the entire expansion route can be designed uniformly according to the latest noise prevention criteria and can be designed by cities and municipalities. In addition, the federal government is funding the barrier-free expansion of all stations along the expansion route.

Continuation of the route expansion from Gelnhausen to Fulda

Parallel to the four-track expansion of the line between Hanau and Gelnhausen, the railway is pushing ahead with the construction of two new, additional tracks on the further route between Gelnhausen and Fulda. Here too, the aim is to resolve the bottleneck at this central point in the German rail network and thus ensure more reliable train traffic. The DB developed the route for the new line in a transparent process together with the region. Last year, the necessary spatial planning process was completed and in-depth technical planning began.

The four-track expansion of the Hanau–Gelnhausen line is part of the Frankfurt RheinMain plus infrastructure development program, which is being promoted jointly by the federal government, the state of Hesse, the city of Frankfurt am Main, the Rhein-Main-Verkehrsverbund and DB AG. It ensures more capacity and quality in rail transport and thus contributes to the transport transition in favour of climate-friendly rail.



Germany

Alex Class 223.068 stands at Schwandorf Hbf working a service from Munich Hbf to Praha hl.n. *Andre Pronk*

On the left Harz dampflok No. 99.6001 awaits departure time at Eisfelder Tahmule with the evening train to Quedlinburg whilst on the right 99.7237 pauses with the train to Nordhausen, March 12th. *Mark Torkington*

RheinCargo TRAXX Class 185.585 passes Vechelde with a Köln-Niehl to Stendell tanker train on March 27th. *Erik de Zeeuw*







Germany

Still an everyday scene in 2024.... On March 12th, No. 99.236 pulls in next to 99.7232 at Drei Annen Hohne with services to and from Brocken.
Mark Torkington



Germany

On March 13th, No. 99.7240 snakes its way alongside the Stilles Wasser footpath in suburban Wernigerode with a morning train up to Brocken.
Mark Torkington













On April 8th, DB Cargo Class 193.348 passes Hillegom and the bulb fields working 18 Shimmns, loaded with cold steel coils, from Beverwijk to Köln Gremberg (Germany). *Erik de Zeeuw*



On April 6th, HSL LOGISTIK Class 186.365 is seen in Groenekan working intermodal No. 42326 from Rail Terminal Rzepin Spolka (PL) to GVT in Tilburg. *Erik de Zeeuw*













On April 4th, No. 66.1002 pauses at Titu with a Bucuresti commuter train heading towards Tragoviste.
Mark Torkington







▶ On April 9th, CFR No. 66.1133 hauling single coach train No. R8389 arrives at Eforie Sud. *Thomas Niederl*

▶ On April 12th, No. 477.821 working train No. IR-N347 is seen at Azuga. *Thomas Niederl*

▶ Tram No. STB188 working a line 36 service to Platforma Industriala Pipera is seen at București Faur on April 10th. *Thomas Niederl*





Romania

On April 11th, No. 40.0734 hauling train No. R3030 is seen at Predeal. *Thomas Niederl*











▶ No. 41.0242 hauling train No. IR1634 is seen at Timișu de Sus Hm on April 11th. *Thomas Niederl*

▶ On April 11th, No. 41.0804 with service No. RE3002 departs Brașov. *Thomas Niederl*

▶ On April 10th, No. 41.0731 working train No. IC571 stands at București Nord. *Thomas Niederl*



Romania

CFR No. 41.0004 working train No. IR1634 crosses the river at Sinaial on April 12th. *Thomas Niederl*











RENFE clearly have had a serious problem with graffiti as exemplified by Class 250-003 out of use at Fuente San Luis on April 19th. *John Sloane*





RENFE Class 252-074 sits in Valencia Nord station after arriving with a service from Barcelona on April 19th. *John Sloane*

RENFE Mercancías Class 333-351 could be found stabled beneath a road bridge at Fuente San Luis depot on April 19th. *John Sloane*

A pair of electric multiple units Nos. 440-025 and 447-009 stand in Valencia Nord station on April 19th. *John Sloane*



Spain



▶ A Class 592 DMU arrives at Fuente San Luis station on April 19th. *John Sloane*

▶ RENFE Class 252-061 and 252-065 stand outside Valencia Nord station on April 19th. *John Sloane*

▶ ADIF shunter Class 310-005 sits outside at Fuente San Luis depot on April 19th. *John Sloane*



Spain



Renfe EMU Class 464-719 is seen on arrival at Valencia Nord on April 19th. *John Sloane*

On April 20th, Valencia Metro tram No. 3817 traverses the loop at Pont de Fusta station which had previously been the old CTFV Madera station. *John Sloane*

Valencia Metro tram No. 4225 is seen near Valencia University on April 20th. *John Sloane*







Spain



Renfe AVE Class 102 (Set 02) is seen at Madrid Atocha station on February 8th.

Mark Enderby

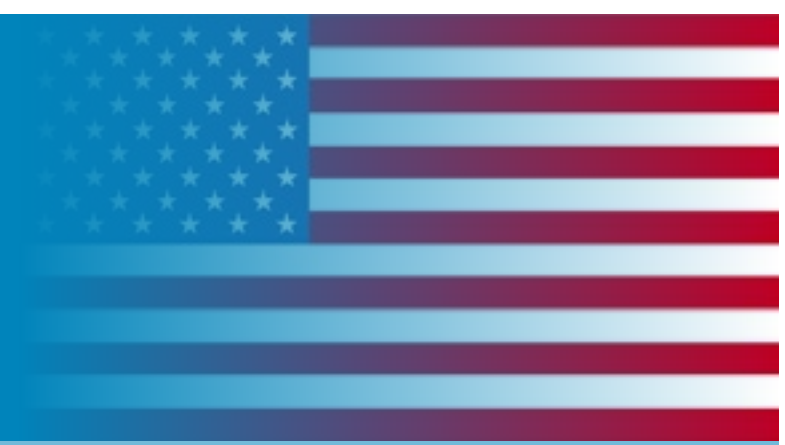
Renfe diesel unit Class 592-139 waits to depart from Valencia Nord station on April 22nd.

John Sloane

Former Renfe 141F No. 2295 is preserved in very authentic condition within the Polytechnic University campus and is seen on April 21st.

John Sloane





Florida East Coast No. 422 passes St. Augustine whilst hauling local freight No. 905 from Jacksonville Bowden to Dorena.

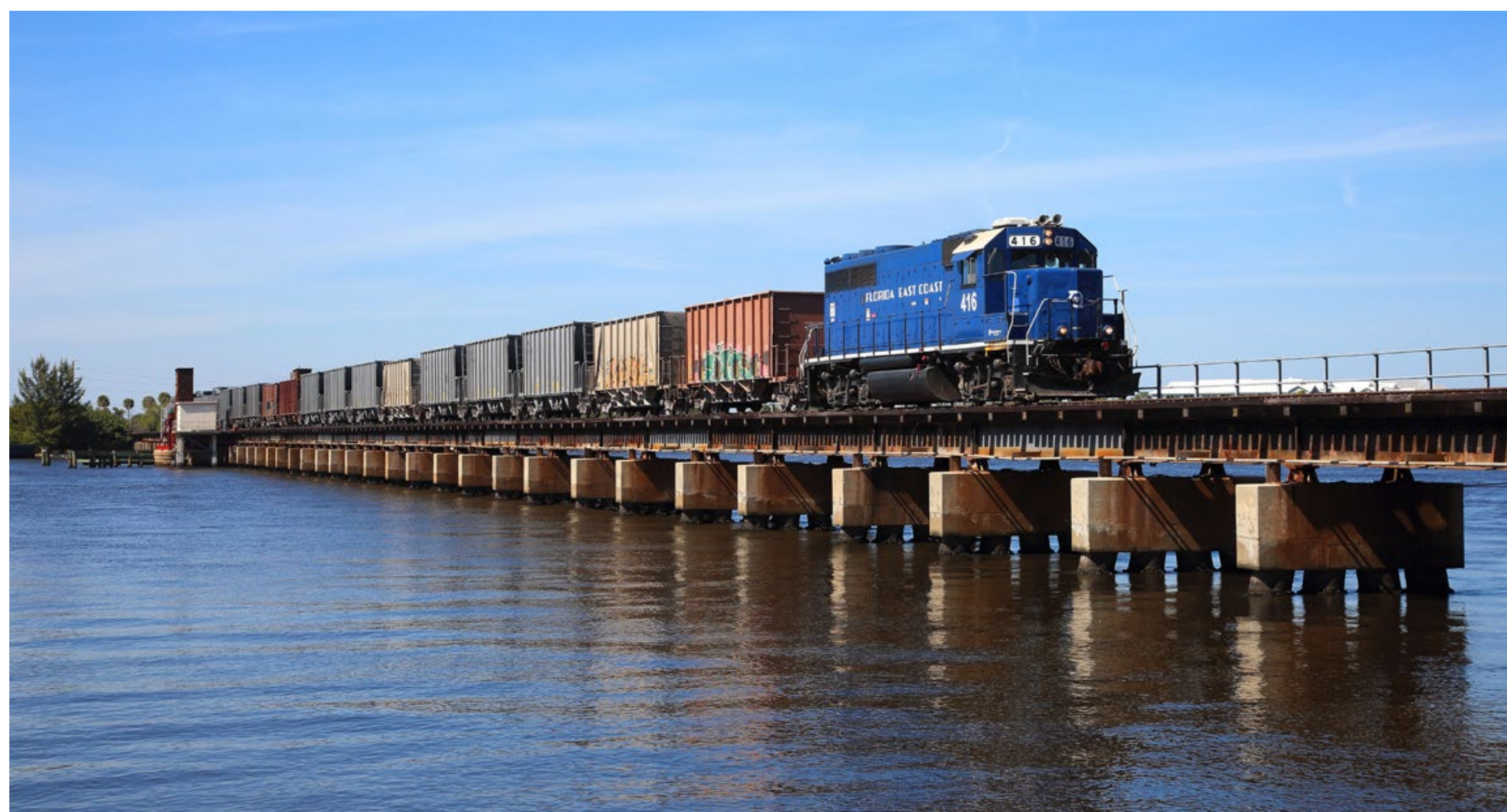
Laurence Sly

Florida East Coast Nos. 821 and 804 pass Lake Worth whilst hauling train No. 101 from Jacksonville to Miami.

Laurence Sly

Florida East Coast No. 416 approaches Stuart whilst hauling local train No. 920 to Port Sewall.

Laurence Sly

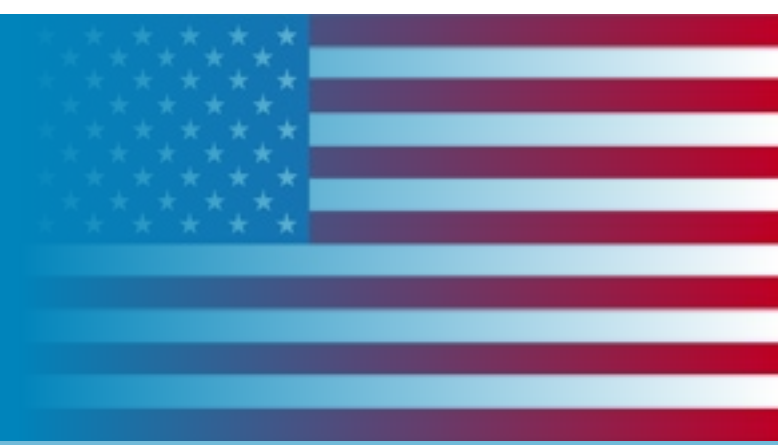




U.S.A.

Florida East Coast Nos. 713 and 433 approach the Fort Pierce Yard with train No. 103 from Jacksonville Bowden.
Laurence Sly

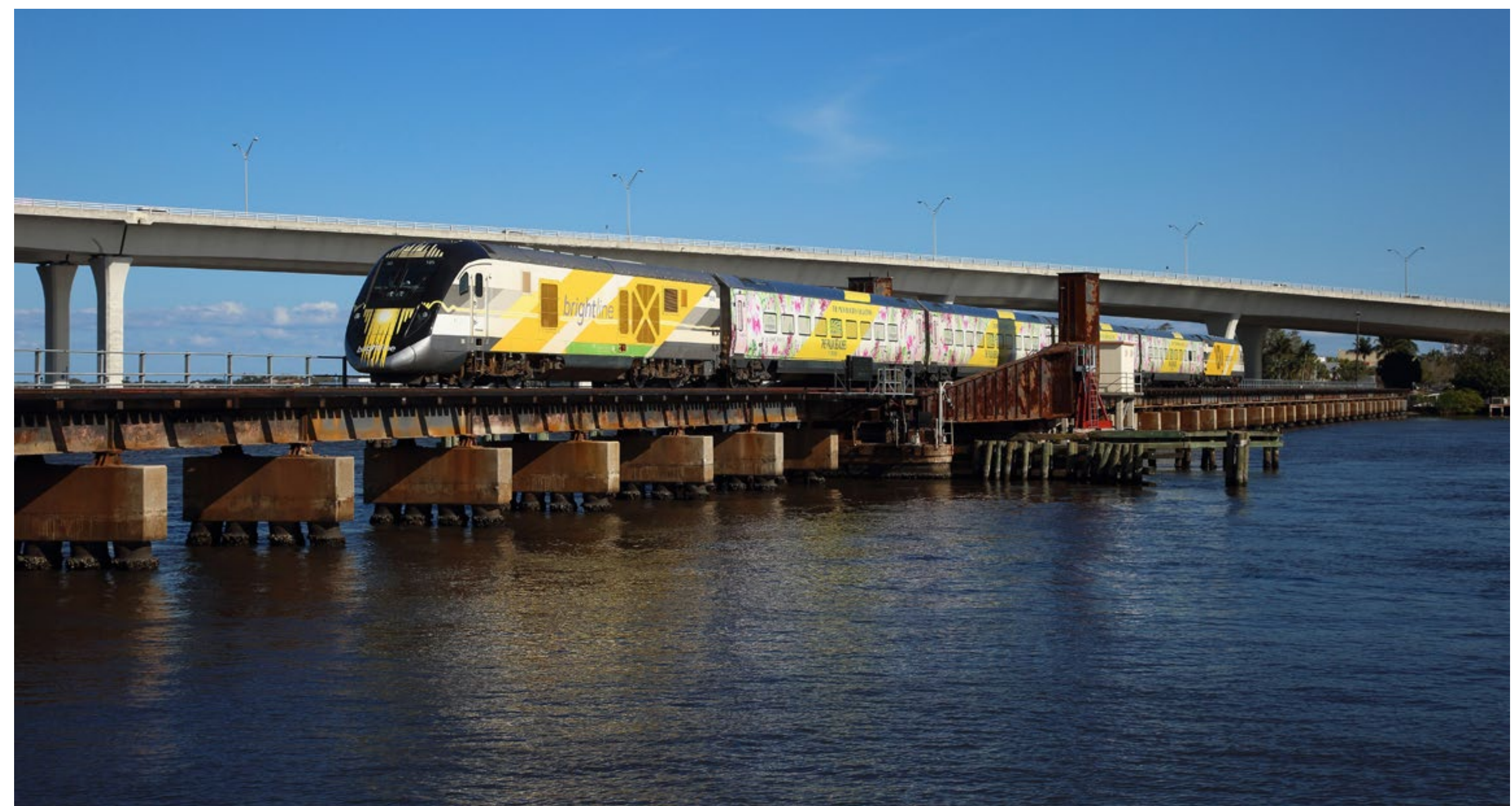




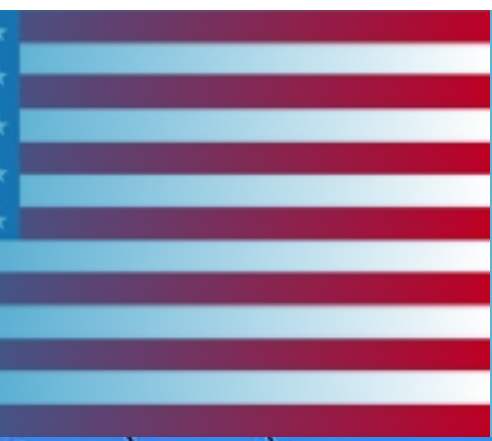
▶ Florida East Coast Nos. 802, 822 and 421 cross the St. Lucie river in Stuart whilst hauling train No. 202 from Miami to Jacksonville. *Laurence Sly*

▶ Brightline Charger No. 105 crosses the St. Lucie river in Stuart whilst working a Brightline train from Miami to Orlando. *Laurence Sly*

▶ Amtrak Nos. 77 and 332 depart West Palm Beach whilst hauling Amtrak train No. 97 from New York to Miami. *Laurence Sly*



U.S.A.



Brightline Charger No. 121 departs West Palm Beach whilst working the 13:50 Orlando - Miami service, No. 120 is the rear Charger. *Laurence Sly*



U.S.A.

Brightline Charger No. 121 leads the 06:50 Orlando - Miami past Deerfield Beach. *Laurence Sly*



U.S.A.

USSC No. 6324 departs Clewiston at sunset with a train of empty sugarcane wagons. *Laurence Sly*



U.S.A.

United States Sugar Corporation Nos. 409 and 6323 approach Clewiston whilst returning from the CSX interchange in Sebring. The Sebring Turn is operated by the South Central Florida Express Railroad which is owned by the US Sugar Corporation. SCFE and the USSC railroad share motive power but work under different conditions. *Laurence Sly*



U.S.A.

Brightline Charger No. 118 crosses the St. Lucie river in Stuart whilst working the 11:50 Orlando - Miami service. No. 108 is the Charger on the rear. *Laurence Sly*





Portugal

The European project FCH2Rail which developed a bimodal demonstrator train with hydrogen fuel cells, has successfully completed testing in Portugal. Between April 3rd and 6th, the H2 train travelled on the Minho Line, making it the first hydrogen train in Portugal. With these tests, the FCH2Rail project achieved a great milestone, having obtained the authorization to run the train demonstrator in a second European country.

The tests performed in Portugal are part of the extended testing campaign initiated in May 2023 on the Spanish railway network.

Now after the testing in Portugal, the train has already travelled more than 8500km in hydrogen mode. The objective of the tests is to evaluate the behaviour and reliability of the entire hydrogen and battery system, as well as the energy management system developed. By conducting tests on different lines and routes, the goal is to demonstrate the potential of this technology as an alternative to diesel trains, thus contributing to a cleaner and more sustainable rail transport system.

The success in the development of this project confirms and reinforces the commitment of the FCH2Rail consortium to the development of hydrogen trains as

environmentally friendly mobility solution. Besides Infrastructures of Portugal (IP) the project consortium includes CAF, Adif, Renfe, German Aerospace Center (DLR), Toyota Motor Europe, the Spanish National Hydrogen Centre (CNH2), and Stemmann Technik. The project is funded by the European Clean Hydrogen Partnership.

In this stage of the tests the project was supported by other companies such as STELLANTIS, which has ceded the use of its facilities in Porriño (Pontevedra) to refuel the train during the testing stage in Portugal, MEDWAY, which has provided train drivers for the operation of the

train during the tests, and IBERDROLA, for the supply of green hydrogen for the trail tests.



Finland

‘Digirail’ project to modernize Finland’s train control system

Siemens Mobility selected to equip first phase with European Train Control System Level 2 and Hybrid Train Detection

Finland’s first implementation of the European Train Control System drives rail digitalization

Siemens Mobility will upgrade the first section of Finland’s rail network under the Finnish government’s “Digirail project”, which involves renewing the country’s train control system. The contract was recently awarded and includes the installation of the European Train Control System Levels 2 [ETCS L2] and the Hybrid Train Detection [HTD] for the first time in Finland on the 191-kilometre stretch between Lielähti and Rauma-Pori. This marks another milestone in the implementation of Siemens Mobility’s latest interlocking and radio block center technology on the new DS3 platform, which is entirely based on commercial-off-the-shelf [COTS] hardware. The new train control system aims to increase the network’s capacity, improve punctuality, minimize disruptions, and enhance the safety of operation. It will pave the way for a more sustainable, efficient, and safe railway network and is expected to be in commercial service by 2027.

Siemens Mobility to introduce state-of-the-art train control system ETCS Level 2 for Finland

Andre Rodenbeck, CEO of Rail Infrastructure at Siemens Mobility: “We are honored to be chosen by Fintraffic Railway and the Digirail program as their prime partner for implementing the first ETCS line in Finland. With our DS3 technology, we will be implementing our best-in-technology solutions. Together, we are shaping the future of rail transportation. This upgrade promises increased capacity, improved punctuality, minimized disruptions, enhanced safety, and a greener, more efficient railway network. We are excited about this partnership and the enhanced rail connectivity it will bring to Finland.”

Sanna Järvenpää, CEO of Fintraffic Railway Ltd.: “Fintraffic is driving transformation in the railway sector. Digirail Project represents a crucial investment for maintaining service level, increasing capacity, and improving punctuality and safety. The contract with Siemens Mobility marks a significant step in technological change of Finnish railways. Fintraffic, along with all Digirailians and other partners, is eager to collaborate with the experts at Siemens Mobility to shape the future of railways.”

The first phase of Finland’s Digirail project, set to be implemented on the Lielähti-Rauma/Pori line, will cover 191 kilometres of track and introduce a modern radio-based ETCS, solely using virtual signals and including Hybrid Train Detection [HTD] based on virtual track sections.

HTD enables a higher train density, thus creating higher capacity through virtual track sections. This groundbreaking initiative will make it the first commercial track in Finland to feature this advanced technology. Construction is scheduled to commence in 2024, with testing and commissioning expected to be completed by 2027. Siemens Mobility was selected as the prime partner for this ETCS implementation under the Digirail government project, working alongside Fintraffic Railway to shape the future of rail transportation.

Digirail: Transforming Finland’s Train Control System for Enhanced Efficiency

Finland’s Digirail project aims to transform the country’s train control system, adopting ETCS for enhanced interoperability. Led by the Ministry of Transport and Communication, Digirail brings together government agencies and stakeholders to implement ETCS nationwide. This comprehensive program includes upgrading existing tracks and developing future sections in collaboration with suppliers. The ultimate goal is to revolutionize Finland’s transportation system with a radio-based ETCS implementation without visible signals, closely integrated with the Future Railway Mobile Communication System [FRMCS] network.

Siemens Mobility Upgrades Finnish Trains for Testing Recently, Siemens Mobility partnered with Finnish rolling stock owner company Pääkaupunkiseudun Junakalusto Oy to conduct initial testing of ETCS in Finland as part of the Finnish DigiRail project. This collaboration equips two multiple-unit trainsets with Trainguard OBU and Automated Train Operation [ATO] over ETCS, marking the first ETCS testing in Finland according to the latest European technical specification TSI 2023, aiming to enhance rail transport efficiency and economy by offering benefits such as energy savings, environmental protection, and increased route capacity.



VR FleetCare secures maintenance contract with Danish train operator

VR FleetCare has entered into a large maintenance agreement for components with the Danish train operator Nordjyske Jernbaner A/S. The contract covers maintenance of bogies and pneumatic components of the Alstom Coradia LINT series trains during the years 2024–2029.

“We are pleased to take over this contract with VR FleetCare in a new market for us in Denmark. The agreement with Nordjyske Jernbaner is strategically significant for us as we seek growth in the maintenance business, particularly in the component services area. I am glad that Nordjyske Jernbaner has selected us as their partner for this essential maintenance package, which is crucial for maintaining the fleet’s value,” says Wilhelm Schevelew, Head of Sales and Development at VR FleetCare.

“VR FleetCare provided the best overall bid in the tender. This agreement for the maintenance of major components is an essential part of the lifecycle management of our

rolling stock. VR FleetCare’s expertise and experience in rail vehicle maintenance give us confidence that our Coradia LINT trains will receive the best possible service,” says Morten Muff Jensen, Technical Manager at Nordjyske Jernbaner.

The maintenance is carried out at VR FleetCare’s Component Services locations in Helsinki and Pieksämäki that specialise in the restoration of train bogies and other rail components. The agreement includes the restoration of bogies as well as pneumatic components. The first 14 train sets will be maintained between 2024–2026, and the following 5 train sets in 2029. “The prospects in the international market for component maintenance are good, as sustainability and the circular economy are gaining more foothold in the rail sector as well. The partnership with Nordjyske Jernbaner is especially important for us. It not only secures our operational prerequisites but also offers the opportunity to expand our expertise with new rolling stock. This agreement represents a substantial

step in our growth path, while ensuring the professional development and employment of our staff,” reminds Juha Lintula, Director of Component Services at VR FleetCare.

VR FleetCare has extensive expertise in the lifecycle management of trains and components, along with effective processes, enabling us to offer high-quality and competitive maintenance services. Component workshop in Pieksämäki has new production lines and extensive expertise in various bogie types. Under the same roof, bogies for electric and diesel locomotives, electric trains, and passenger carriages are being repaired. The production unit in Helsinki instead has versatile skills and testing capabilities for various small and large valves, enabling the professional takeover of new rolling stock for maintenance. The bogie is the most

significant component of rolling stock in terms of safety and lifecycle costs. Generally, the bogie’s share of the lifecycle costs of the rolling stock is about one-fifth.



Eurostar pledges to power trains with 100% renewable energy by 2030

Eurostar, the high-speed rail network linking France, Belgium, the Netherlands, Germany and the UK, announces its goal of enabling 30 million passengers to travel sustainably while lowering carbon emissions by 2030.

Detailed in its first sustainability report, Eurostar’s sustainability strategy focuses on three main areas.

- Reducing its impact by sourcing renewable energies for its traction needs and reducing its energy requirements. For example, through its Memorandum of Understanding signed with Infrabel in February 2024 to study the installation of novel solar projects to power trains.
- Integrating circularity throughout the value chain, i.e. from production to end-of-life, to minimize waste and use resources more efficiently. For instance, every on-board dish is thoughtfully curated with sustainable

sourcing and environmentally friendly options in mind. These efforts have already been rewarded as Eurostar received a three-star rating from the Food Made Good Awards for its on-board catering offer.

• Attracting more passengers to its low-carbon service by continuing to develop “open hubs”, to connect Eurostar services to domestic networks or long-haul flights, for example through its air-rail partnership with KLM.

Ambition: 100% renewable energy by 2030
One of Eurostar’s primary objectives is to work with partners and regulators in its quest to power its trains using 100% renewable energy by 2030.

“This is a deliberately ambitious target, Eurostar wants to use its brand and commitment to accelerate change across the sector,” explains Eurostar CEO Gwendoline Cazenave. “To achieve our goal, we work closely together with our partners in each of our markets, we encourage

regulatory support for the rapid deployment of new renewable energy projects.”

To facilitate this work, Eurostar recently joined the RE100 alliance with companies committed to sourcing 100% of their energy from renewable sources. “We’re proud to be the first rail company to join,” continues Gwendoline Cazenave. “Today, the transport sector accounts for 25% of European greenhouse gas emissions, making sustainable high-speed rail a key solution to a quarter of Europe’s climate problem”.

Ollie Wilson, Head of RE100, Climate Group: “We’re delighted to welcome Eurostar to RE100, the first rail firm to join. Eurostar is setting a global example and leading the way on renewables powering our rail networks. Eurostar now has the opportunity to draw on a global network of over 400 companies as it works towards 30 million journeys a year powered by 100% renewable electricity by 2030. We encourage other businesses in

the rail sector to follow Eurostar’s lead and commit to 100% renewable electricity.”

Currently, in the Netherlands, Eurostar trains have been running on 100% wind power since 2017, and this figure has reached 40% in the UK since 2023. In Belgium, a Memorandum of Understanding was signed with Infrabel in February 2024 to study the installation of novel solar projects to power trains. Eurostar takes responsibility for reducing its own emissions and environmental footprint to ensure that every one of its passengers is transported at the lowest possible environmental cost. “We’re building the backbone of sustainable travel in Europe, with a target of 30 million passengers by 2030, at the same time we’re also committed to building the mode of international transport that has the least negative impact on the planet, reducing emissions even as we grow.”



Wabtec Secures Systems and Software Deal with ARTC to Support the Interoperability of Australia's National Rail Network

On April 17th, Wabtec Corporation announced a digital solutions agreement with Australian Rail Track Corporation (ARTC). The two companies will collaborate on developing one of the few approaches being considered to address interoperability of rail systems in Australia.

The company will investigate the capabilities of ARTC's Advanced Train Management System (ATMS) solution. Wabtec will develop the interoperability standard between ATMS and European Rail Traffic Management System (ETCS) Level 2. ARTC and Wabtec will work together with the relevant stakeholders to outline the concept of operations and define the standards to realize the interoperability solution.

"ARTC recognizes the complex challenge of solving interoperability, and we are pursuing multiple pathways to find a feasible solution that will help to make rail safer and more competitive across Australia. We are excited to partner with Wabtec to actively pursue one of the options," said Wayne Johnson, CEO and Managing Director of ARTC. "Wabtec was selected to support this project as a rail industry leader with a proven track record of implementing a safety critical train control solution for the entire freight network in the United States spanning over 100,000kms and 21,000+ locomotives. The Australian Government recognizes the importance of rail interoperability as a priority, and we will continue to work with government and other key stakeholders to deliver systems and software solutions that enhance the nation's rail system."

"This project will be a key building block that enables ARTC to transform Australia's freight rail network," said Nalin Jain, President of Digital Intelligence at Wabtec. The proposed solution will provide software, systems, and services for ARTC to unlock productivity, advance sustainability, and enhance the safety of ARTC's operations network spanning approximately 8,500km. "Furthermore, the system's interoperability provides the option of integrating with locomotive digital solutions like the energy management and scheduling optimization technologies that Australian railroads use in their operations."

Wendy McMillan, Wabtec's Senior Regional Vice President, South East Asia, Australia and New Zealand, added: "ARTC is taking a progressive and innovative approach with its ATMS to advance Australia's freight

rail industry. With Wabtec's robust expertise and portfolio of digital technologies, ARTC will further explore the capabilities of the ATMS as an option, which will benefit the entire country's supply chain."

ATMS is part of the next generation of train management and safe working systems using Global Positioning Systems (GPS) and public cellular networks to connect track infrastructure, locomotives, and network control. It enables autonomous train-based location determination, authority and speed supervision, and increased driver situational awareness.



Stadler KISS enters new market: first contract awarded in Bulgaria

In order to implement the sustainable mobility goals and modernise rail transport in Bulgaria, the Ministry of Transport and Communications of the Republic of Bulgaria and Stadler have signed a contract for the delivery of seven zero-emission KISS double-decker vehicles. The contract signed today in Sofia also includes an option for three additional vehicles, 15 years of fleet maintenance and training for the operator's staff. This is Stadler's first order in Bulgaria and another significant sales success in the Balkans. With this contract, Stadler vehicles will be operating in 48 countries. To date, a total of around 630 KISS double-decker vehicles have been sold worldwide.

The contract includes the basic order of seven vehicles and an option for a further three units. The four-car trains will reach a speed of 160 km/h and have a capacity of at least 300 seats. The first vehicle is to be delivered to the operator within 26 months of the contract being signed. The Minister of Transport and Communications of the Republic of Bulgaria, Georgi Gvozdeykov, explained that the procurement of new trains is the answer to the need to replace the existing rolling stock and is related to the realisation of the country's sustainable mobility goals: "The contract we are signing is the first order for new

trains in Bulgaria in 20 years. With the procurement of state-of-the-art zero-emission double-decker vehicles from Stadler, we will not only significantly improve the comfort of rail transport for our passengers, but above all make a significant contribution to the realisation of current sustainable mobility goals. This is currently an extremely important challenge for European countries. Together with the manufacturer that won the public tender, we will ensure the efficient operation of new vehicles for many years to come."

"We are proud that we were able to sign the contract for the delivery of our KISS trains with the Bulgarian Ministry today. The vehicles set new standards in terms of performance, reliability, safety, comfort and state-of-the-art technology. We are convinced that they will make a significant contribution to improving public transport in Bulgaria. We also hope to continue the partnership we have started with further rail vehicle replacement projects in Bulgaria", said Philipp Brunner, Member of the Executive Board of Stadler, Vice President of Division Central Europe.

The modern double-decker trains are designed for operation with a track gauge of 1435 mm and are

equipped with a 25 kV/50 Hz power supply system. At least 10 % of the seats in each unit and in each class will be prioritised for use by people with reduced mobility. The zero-emission electric vehicles will comply with the TSI requirements for conventional trains, the European standards and the regulations and standards for the movement and operation of railway vehicles on the territory of the Republic of Bulgaria and the regulations of the International Union of Railways (UIC). The KISS vehicles for Bulgaria are produced at the Stadler Polska plant in Siedlce, which belongs to the Central Europe division within the Stadler Group.

The plant in Siedlce has been in operation since 2006 and employs over 1,000 people. To date, around 950 vehicles have been produced for operators from 17 European countries. These include, in particular, the Balkan countries such as Slovenia, Serbia and Bosnia and Herzegovina. Stadler Polska has already successfully introduced KISS trains in Slovenia and Slovakia.

Photo: ©Ministry of Transport and Communications, Bulgaria





After completing the driver training process and the final on-track tests.

Almost 300,000km have been accumulated over the last year to check the full compatibility of the rolling stock with all types of railway lines in Spain.

Avril is Talgo's most advanced train and will become a quality benchmark of the very high-speed rail segment.

Talgo has started delivering the new Avril trains to Renfe, following the completion of driver training and the reliability and run-in track tests. With almost 300,000 km of running in the last year, half of which in 2024 alone, the tests ensure the full compatibility of the rolling stock with all types of railway

lines in Spain, including those linking Galicia, Asturias, Catalonia and Valencia.

Some 200 Talgo employees have been working over the last few months to meet the technical challenges associated with a train that incorporates a number of technologies that are completely new and unique in the world, in teams that include Commissioning, Verification and Validation, Engineering and Maintenance.

The tests have also required the participation and coordination of teams from more than ten companies in the railway sector in Spain and two universities. The technical intensity of the process, which is now coming to an end, is reflected in the 700 train track-gauge changes made and the volumes of data

recorded by the on-board sensor systems, with extensive files from around 500 journeys thoroughly analysed.

A technological and industrial commitment Avril is Talgo's most advanced train and will become a benchmark of quality in the very high-speed rail segment. Thanks to their high capacity, up to 581 passengers in a single train, and reduced weight, Avril trains minimise energy consumption and multiply efficiency. As a result, they reduce per capita greenhouse gas emissions and further strengthen rail's position as the most sustainable mode of transport.

One of the outstanding features of this latest generation trains is that their 12-coach, 200-metre-long, single-deck units are 100%

low-floor, at the same height as the platform, allowing passengers to easily access the train and move throughout its interior without steps or ramps.

This is a unique Talgo capability that not only facilitates access for people with reduced mobility, but also offers an easy journey for all passengers, from parents with prams to passengers with bulky luggage or bicycles.

New routes, new markets

Talgo Avril is part of a highly flexible technological platform that allows each delivery to be adapted to the increasingly complex needs of the European rail market, with different blocks available depending on their internal commercial configuration, their ability to automatically change track

gauges (Iberian and International), and their equipment to operate also north of the Pyrenees.

Thanks to these capacities, they can be used on almost the entire electrified rail network, bringing even closer the destinations not yet served by the new high-speed rail infrastructures and, in the future, also on international connections between Spain and France. Talgo Avril holds the world speed record on Iberian track-gauge: 360 km/h, reached on September 7th 2022 on the Ourense-Santiago de Compostela high-speed line in Galicia.

Driverless train operations: Siemens Mobility upgrades signalling for entire S-bane network in Copenhagen, Denmark

Siemens Mobility will upgrade the entire 170 kilometres long S-bane network in Copenhagen to the highest grade of automation (GoA4 technology) to enable unattended train operations starting with the first phase in 2030. Respective contracts have been signed with Banedanmark (BDK) and DSB recently including the necessary signalling equipment for trains and wayside. GoA4 will allow the operator to run more trains in the entire system, enhance the level of passenger experience, secure the current punctuality rate and will future-proof the network. The new contracts have a total volume of about 270m Euros and build on the original contract from 2011 to equip the Copenhagen S-train network with the Communications-Based Train Control System [CBTC].

Michael Peter, CEO of Siemens Mobility, said: “We are very proud to continue and enhance our successful collaboration with Banedanmark and DSB to position the thriving city of Copenhagen as a model for modern rail infrastructure among European capitals. By implementing our best-in-class signalling technology by 2033, trains will be capable of operating automatically and driverless. This will make the new S-bane the world’s largest automatic urban railway.”

Jürgen Müller, Director Strategy & Train Equipment at DSB, said: “We are happy to conclude this contract for the CBTC GoA4 upgrade which is a very important element of our programme “Future S-bane”. The Copenhagen S-bane is already today a well performing railway system serving the greater Copenhagen area and with implementation of the “Future S-bane” programme it will evolve into one of the world’s largest and most complex fully automated mass transit systems which will provide an even better service to our passengers. This comes not only via higher frequency for increased capacity and improved train services during off-peak operations, but also faster recovery from disturbances and better possibilities to adapt the traffic services to the demand on short term. DSB looks forward to continuing the successful relationship with Siemens Mobility which has been developed over the last twelve years to make the Copenhagen S-Bane CBTC GoA4 upgrade as successful as the original CBTC deployment.”

Peter Jonasson, Director of Construction at Banedanmark, said: “We are pleased about the prospect of Banedanmark and DSB continuing our work with Siemens to improve Copenhagen’s S-bane network. The CBTC system has already shown its merits and we hope that this project can lift the S-bane even further.”

The CBTC GoA4 technology upgrade will be carried out in five phases with very limited downtimes of the operation, ensuring that train services in Copenhagen are not interrupted. The first phase will cover the F-Line between stations København Syd and Hellerup, with the trial run scheduled for mid-2030 leading to the start of passenger operations by the end of 2030. Throughout this phased approach, a mix of existing GoA2 trains and new driverless GoA4 trains will operate until 2038. By then, the last new driverless GoA4 train will be delivered and supported by hybrid wayside technology



capable of accommodating both GoA2 and GoA4.

Additionally, the new agreements involve equipping the two depots in Hundige and Høje Taastrup with radio-based communication systems, thereby extending the reachability of all trains. Furthermore, the train management system will be expanded to include new flexible disposition functions, ensuring an even more smooth operation in the future.

The S-bane’s core network has the capacity to handle up to 84 trains per hour, transporting over 100 million passengers annually across a total of 88 stations on seven lines. Copenhagen’s S-bane system plays a crucial role in the city’s public transportation network, serving around 350,000 daily commuters. This number is steadily increasing as the metropolitan area around the Danish capital expands, now housing over one fifth of Denmark’s population. Upgrading the network to support unattended train operations

will effectively cater to this growing trend.

Siemens Mobility’s Rail Infrastructure business unit is market leader offering intelligent mobility solutions and a diverse product portfolio for various markets, including mainline, mass transit, and freight railways. Siemens Mobility’s CBTC solution Trainguard MT enables 50 operators across five continents, spanning 25 countries and serving a total of 47 cities, to optimize their metro systems and operate them more efficiently, sustainably, and economically. The CBTC solution is the most widely deployed train control system globally, currently being utilized on 93 metro lines with a daily passenger volume of more than 30 million people. This demonstrates the capability to maximize performance in both new and existing systems, ultimately leading to fully automated train operation.

Switzerland

SBB launches “SBB on air” – the new radio station on the trains

SBB is pleased to announce the launch of its own radio station “SBB on air”. From April 22nd, 2024, passengers on trains will have the opportunity to enjoy the new radio program and at the same time stay informed about the current situation on the rail network.

Radio is dead? Not at all. With “SBB on air”, SBB offers its passengers an entertaining and informative radio program – during the train journey, while waiting at the station or whenever there is a need for a special listening experience. The station, which can be streamed via DAB+, presents the best

railway songs, useful information about public transport and interesting facts about the history and development of the railway system. In this way, SBB is making a further contribution to increasing awareness of sustainable mobility.

The idea behind “SBB on air” arose from a representative survey which found that many passengers wear headphones to listen to music during their train journey.

This means that they sometimes miss important train announcements about their

train journey. In these cases, the radio station also provides a solution: Thanks to the latest news from rail transport, travellers are guaranteed to stay well informed without having to forego their musical enjoyment.

The radio station will initially be rolled out in three languages in a test phase. If the concept proves successful, SBB will consider adding route-related special content to the program.



“SBB on air” will be available on SBB trains via QR code and DAB+. With “SBB on air”, SBB is taking another step towards an improved travel experience. Combining music,

knowledge and up-to-date information about rail transport, the new radio station will provide rail passengers with a pleasant and entertaining experience.

Sweden

Slowness creates uncertainty for freight train operators

Sweden shares the EU’s ambitious climate goals, and to achieve them a transition to more energy-efficient means of transport is required. Ambitions to increase capacity and introduce more efficient systems for freight transport by rail have existed for a long time, but the industry is still waiting to see any major effects. “It could go much faster. We believe that relatively small investments and initiatives are required to make a big difference”, says Claes Scheibe, CEO of Hector Rail.

Society’s logistics needs are constantly growing and every year the number of freight transports increases. The EU strives to minimize emissions in order to reach high climate targets and highlights the need to invest in energy-efficient means of transport. Sweden shares the goals and our politicians have long said they want to create the conditions to increase the proportion of goods transported via rail, but so far the work has been slow and has had little effect, says Claes Scheibe.

Limitations in the infrastructure still create bottlenecks, while increased track charges make the railway an increasingly expensive option for freight transport. Next year, small margins are already being squeezed when the so-called traffic fee that operators pay to use the railway is expected to increase by 37 percent.

“A much larger proportion of today’s transport could

and should be via rail, but then the conditions need to change. In this context, it is about relatively cheap investments that had a great effect. By removing restrictions, for example through longer gauge tracks or a reinforced bridge, and prioritizing maintenance higher, volumes could have increased quickly. This would have meant that more people would choose the railway over other transport options. Instead, costs are increasing while the bottlenecks remain and it doesn’t quite match the climate investment”, says Claes Scheibe and continues: “At the same time, we understand that the Swedish Transport Administration has many wishes and factors to deal with. In shipping there is a co-ordinator appointed by the government and we believe that a similar function for rail freight would have enabled the overview required to make the right, and faster, decisions.”

Smart systems take time

In addition to challenges linked to the infrastructure, the last year of the freight train industry has been marked by the uncertainty surrounding new digital systems. The systems require large investments from individual companies, but implementation has taken time. Among other things, it is about the Swedish Transport Administration’s new train planning system MPK (Market Adapted Capacity Planning), which should facilitate the overview and increase flexibility through successive

planning instead of fixed timetables. The system was introduced last spring, but the introduction has been marred by problems and increased administration.

“Once it works, it will be good, but the introduction has messed up enormously. Although the planning has been going on for several years, it has appeared that there has been a lack of a clear plan for the implementation and this has hit private operators hard. In 2023 it was very difficult to get the timetables together and the whole year was characterized by inefficiency, poor progress and delays. In terms of revenue, it was a lost year for many in the industry”, says Claes Scheibe, who wishes that industry organizations and freight train operators had become involved to a greater extent.

“We sought dialogue and wanted to contribute, but did not get there. It was frustrating when we consider that much could have been done better. In the end, it affects our customers and makes the railway less attractive as a means of transport.”

Expensive hardware can become irrelevant

Even the delayed implementation of the on-board system ETCS (European Train Control System), which is to replace the previous ACT2 system, creates uncertainty. The system, which is part of the European Railway Traffic Management System (ERTMS), is intended to be

introduced throughout Europe and thereby facilitate cross-border freight traffic. The original plan was that Sweden would be one of the first countries with the system and already in 2010 ETCS was introduced for the Bothnia Railway in Norrland, but since then the rollout has stopped and it is said that it may take until 2070 before it will be used throughout the country. The rescheduling creates difficulties for Sweden’s freight train operators who, in recent years, have made large investments to equip their locomotives with the hardware required to manage the system.

“We want to be as flexible as possible with our customers and need to have many locomotives that can handle both the old and the new system. Then the costs quickly add up. Now that the new system has barely been used, it has so far been an unnecessary investment and with the extended schedule the risk increases that it may remain so; a lot has time to happen until 2070”, says Claes Scheibe before concluding: “Fundamentally, we are positive about the new systems and believe they can improve the industry, but like the work to address the capacity gap, it is progressing far too slowly. It’s sad because it doesn’t just affect us and our customers - the railway can play a much bigger role than it does in climate change right now.”

From the Archives

CIE Bo-Bo No. 153 stands at Limerick on
April 5th 1996. *John Sloane*

Eire



From the Archives

France

A view of the important and busy depot yard at Dijon Perrigny on May 13th 2017. *John Sloane*



From the Archives

Jugoslavia

A JZ 342 Class diesel pilots a Class 22 2-6-2 over the River Drava bridge at Varazdin with a train from the Hungarian border on August 21st 1975. *John Sloane*



From the Archives

Vulcan Foundry built YD 2-8-2 No. 964 storms out of Mandalay with a charter train on January 31st 2006.
John Sloane

Myanmar



From the
Archives

Netherlands

DB Class 189.027 and another member of the class head through Utrecht with an ore train bound for Germany on July 9th 2013. *John Sloane*



From the Archives

Paraguay

Ex Argentinian 4-6-0 No. 230 is seen being turned at Asuncion shed on December 2nd 1981. *John Sloane*



From the Archives

CP2-8-4T No. 0183 rides the turntable at Contumil roundhouse in Porto on July 20th 1970. *John Sloane*

Portugal



From the Archives

CP4-6-0 No. 282 working an eastbound freight is seen near Pocinho on August 22nd 1974. *John Sloane*

Portugal



From the Archives

English Electric 2-Co-Co-2 No. 1232 is seen on arrival at Bulawayo with a train from Mafeking on October 27th 1973.

John Sloane

Rhodesia



From the
Archives

SAR Co-Co diesel No. 33026 passes
New Brighton bound for Port Elizabeth
on October 23rd 1973. *John Sloane*

South
Africa



From the Archives

SBB Ae4/7 No. 10951 is seen at Lausanne shed on August 10th 1994.
John Sloane

Switzerland

