



**Railtalk** Magazine *Xtra*

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## Content

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## 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 220Xtra

As we move into an ever autonomous world, are we comfortable travelling in trains that are fully automatic? And if so would you travel for a long distance knowing that the trains is being driven by computer rather than human?

The UK's Docklands Light Railway covers 38km, but in Saudi they have just inaugurated a metro system covering 176 kilometres.....

*His Majesty King Salman bin Abdulaziz Al Saud officially inaugurated the Riyadh Metro network, whose 6 fully-automated lines cover a combined length of 176 kilometres. The network, whose longest line was developed by the Webuild Group, will contribute to meeting the capital's urban mobility needs, enhancing the quality of life of residents and visitors alike, in line with the objectives of Vision 2030.*

*The Riyadh Metro's Qasr Al Hokm Downtown Metro Station stands out as the network's 4 iconic stations, located near the Riyadh Region Governor's Palace. Covering 20,000 square meters, its striking design features a large, inverted stainless steel cone, symbolizing the Kingdom's vision for development.*

*Spanning 176 kilometres and 85 stations, Riyadh's new metro network serves as the backbone of the city's public transport system. Among these lines, RATP Dev, a subsidiary of RATP Group, is proud to operate the Blue line (Line 1), leveraging their globally recognized expertise in automated metro systems for this transformative project in Saudi Arabia.*

*December 1st marked the commencement of passenger operations on the newly inaugurated Riyadh Metro, including its Blue Line, representing a game-changing moment for commuters and a groundbreaking achievement for the Kingdom. The Riyadh Metro connects key areas, business centers, and cultural sites across the capital, offering a seamless, reliable, safe, sustainable and affordable travel experience. By offering a fully automated, sustainable alternative to private cars use, the Riyadh Metro aims to*

*lower carbon emissions and reduce traffic congestion in Riyadh. With a capacity to transport 3.6 million passengers daily, at full capacity, across its six metro lines, the network promises to transform urban mobility in the capital city.*

*The Riyadh Metro is a state-of-the-art driverless public transportation system to which RATP Dev, through its subsidiary CAMCO, a joint venture with local partner SAPTCO, has made a significant contribution due to its proven track record. RATP Dev brings its world-class expertise in delivering high-quality automated metro systems, drawing on RATP Group's 120 years of global experience in cities like Paris and Doha – and in the near-future, in Lyon, Sydney, Greater Paris and Singapore. The company continuously strengthens its expertise through the ongoing launch of new rail projects, having opened or extended at least one new line each year for the past decade.*

*The Blue line, also known as "Line 1" is fully automated and runs along the Al-Olaya - Al-Batha corridor. It spans 38 km along the North-South axis and serves 25 stations, including iconic ones such as the awe-inspiring King Abdullah Financial District (KAJD) station as well as four major transfer stations connecting to the other five metro lines. It offers high-quality services including connectivity, accessibility and real-time passenger information at each station. The Blue line is seamlessly integrated with Riyadh's bus network, which includes 80 bus lines and 3 Bus Rapid Transit lines, already operated by RATP Dev's joint-venture PTC with SAPTCO.*

*To ensure a successful preparation for the launch of the Riyadh Metro's Blue line, RATP Dev has mobilized its 1,300 local CAMCO staff members (69% Saudi citizens and 36% female), trained to the best international standards of automated metro system operation and customer experience. The expert teams have worked alongside with the Royal Commission for Riyadh City (RCRC) and its partners at every stage of the process.*

Until next month...

**David**

### This Page

HŽPP Class 2044.004 catches the last rays of sunshine at Karlovac on December 7th with train No. ICN520, the 08:23 Split to Zagreb. [Andy Pratt](#)

### Front Cover

Colorado Pacific Rio Grande Railroad Nos. 303 and 209 make their way through the La Veta Pass whilst hauling the Walsenburg turn. [Laurence Sly](#)







Colorado Pacific Rio Grande Nos. 303 and 209 pass La Veta whilst hauling the Walsenburg turn.  
*Laurence Sly*

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On November 13th at the Puffing Billy Railway, No. 12A arrives at Lakeside station.  
*Mark Enderby*

On November 28th, Pacific National No. NR53 (Gonian/GE) hauls a container train through Flemington, Sydney. *Mark Enderby*











On November 28th, Transport Sydney Trains EMU No. D6346 arrives at Redfern, Sydney. *Mark Enderby*

















OBB Class 1116.181 is the only Taurus locomotive in Cityjet design, which is otherwise used on all local traffic EMU, DMU and double deck carriages. This locomotive normally runs double-decker carriages in the Vienna area, but for the past few months this locomotive has been running all kinds of services as here with train No. IC737 Wien Hbf - Villach seen on the Semmering route next to Eichberg.  
*Thomas Niederl*









# Austria

ÖBB Class 1144.040 is the last remaining ÖBB engine in classic blood orange colour. On October 29th, it is seen with train No. IC515 from Innsbruck to Graz near to Altenmarkt im Pongau. *Thomas Niederl*





# Austria

In Austria, local freight trains are still common and on October 29th, Class 1163.006 passes Eben im Pongau hauling empty wagons to Radstadt where they will be loaded with timber. This service runs three times a week. *Thomas Niederl*









# Austria

OBB Class 1144.40 returns to Linz with train No. Rex4409 and is seen here in Obertraun. One stop ahead is Hallstatt, where nowadays thousands of tourists arrive, most of them from Asia. Years ago, it was especially in winter, a very quiet place. *Thomas Niederl*









On November 16th, at the foot of the Grimming mountain, train No. IC512 with Class 1144.109 heads towards Salzburg. The train runs without a driving cab coach and so the locomotive had to run round in Selzthal and Bischofshofen. The train already started almost an hour late in Graz and due to shunting and some incorrect decisions in the dispatch, and passing here the delay had increased to 100 minutes. *Thomas Niederl*



















On December 6th at Zagreb Glavni Kolodvor, on the left stands Class 1142.014 with train No. B771, the 15:30 to Koprivnica, whilst on the right stands 1142.001 with train B745 'Cibilia', the 15:30 to Vukovar. *Andy Pratt*

















ČD Class 242.238 is ready to depart Plzeň hl.n. on December 30th with train No. R665 the 10:04 to Brno hl.n. The Class 242 will work the train as far as České Budějovice.  
*Andy Pratt*





ČD Class 754.019 brings the ecs to form train No. IC534 the 14:08 to Praha hl.n. into Český Krumlov station on December 30th. The Goggle will work the train as far as České Budějovice where a ČD Class 380 will take over. *Andy Pratt*





# Czech Republic

Having worked in from Domažlice on a morning commuter service, ČD Goggle Class 754.022 is stabled up for the day at Plzeň hl.n. before working back to Domažlice in the afternoon on December 30th. *Andy Pratt*

Colourful GW Train No. 845.413 finds some winter sun as it departs Český Krumlov station with train No. Os8107 12:09 České Budějovice - Nové Údolí on December 30th. *Andy Pratt*

ČD Class 380.011 hurries into České Budějovice station at the head of train No. EC333, the 10:20 Praha hl.n. - Linz Hbf on a gloomy December 30th. *Andy Pratt*









## €16 million investment in dualisation, millions more in seats and WiFi

### Leo Express improves comfort, can run on all electrified lines

Thanks to the investment of €16 million and the so-called dualisation, the Leo Express commercial trains will be able to use the traction system not only for direct current, but also for alternating current. Leo Express received a subsidy of about 40% from the Ministry of Transport for the conversion of the trains. The company plans to complete the installation of the dual system by mid-2028.

Leo Express is also carrying out a complete renovation of its Economy Class seats on its routes between Prague and Ostrava and on to Krakow and Košice. The carrier is investing hundreds of thousands of euros in the renovation of 865 seats, including 20 for the disabled. As a result, the comfort of the new seats will be closer to that of the higher classes on the Leo Express trains. Ticket prices on the Prague - Ostrava route will remain unchanged at €4.1. After the improvement of the WiFi network (€51,000), the planned installation of 5G repeaters (€1 million), and the ongoing installation of ETCS (€5 million), this is another significant investment by Leo Express in improving services.

“From mid-2028, Leo Express trains can operate on both alternating current and direct current, enabling us to expand our services. The Ministry of Transport has awarded us a subsidy covering approximately 40% of the €16 million investment, for which we are very grateful. Furthermore, we received the highest rating among all applications submitted in the subsidy call,” says Peter Köhler, CEO of Leo Express.

Within the framework of the Operational Programme Transport 2021-2027 (OPD3), the company received a subsidy from the Ministry of Transport of the Czech Republic for the modification of Stadler Flirt train units to operate on the alternating current traction system. The planned modifications will allow the operator to continue operations on the Prague - Ostrava route after the planned change in the power supply system. “We collaborated with the consulting company EFACZ, s.r.o. in preparing the subsidy application. Their experience and professional support were really helpful in successfully obtaining the subsidy,” adds Peter Köhler.

Stadler won the tender for the implementation of dualisation, i.e. the ability of the train to use both DC and AC traction power. The company is also the manufacturer of the Flirt trains used by Leo Express on commercial routes between Prague and Ostrava and on to Poland and Slovakia. A significant number of Czech suppliers will be involved in the realisation of the contract.

### Leo Express invests millions in renovation of Economy Class seats and WiFi

“Following the launch of the 5G WiFi network with almost 100% coverage, Leo Express is investing in further service improvements. The renovated seats will further enhance the comfort of our basic class. The seats will now have a sleek genuine leather finish, while we have also focused on modern design. Despite these investments, Leo Express will maintain Economy Class fares on the Prague - Ostrava route from €4.1. Thanks to these investments, we are maintaining the highest quality of long-distance transport in the Czech Republic that our customers are used to, but at affordable prices,” says Peter Köhler, CEO of Leo Express.

The seats will use new, higher quality, more durable materials and are finished in matt leather. The seats will meet all the latest safety standards and fire safety certificates. The renovation includes replacing the seat cushion foam with new foam, repairing the backrest foam and re-covering the seat cushions and backrests with leather in an elegant design. The seats will also be fitted with leather headrests for added comfort. The plastic seat covers will also be replaced with a higher quality material that will last longer.

The carrier is renovating a total of 865 seats, 20 of which are for wheelchair users or people with reduced mobility or orientation. All seats will now have Braille numerals to help visually impaired passengers find their way around. Passengers will be able to try out the new seats on the first train, with the replacement on other units to be completed by the end of March 2025.

### ETCS, further enhancing services and facilitating travel for all, including the disabled

Leo Express is investing in improving its services. As well as renovating its seats, the carrier has increased its on-board internet coverage from 60% to almost 100% thanks to an investment of around €51,000 in 5G WiFi. Further improvements to the WiFi network will follow the planned installation of 5G repeaters at a cost of €1 million, for which Leo Express has received a subsidy.

“The investment in 5G repeaters will give passengers a more stable internet connection while travelling by train. 5G repeaters work by receiving the signal from the nearest 5G transmitter and boosting it to cover areas where the signal is weak or non-existent, which will also improve the quality of phone calls. Overall, this will improve the travel experience and customer satisfaction. Leo Express’ extensive investment is made possible by the professional work of our excellent engineering and purchasing teams, who carry out and coordinate most of the work in-house,” explains Peter Köhler.

Next year will also see the introduction of online ordering via the on-board portal and the possibility of upgrading tickets already purchased. Customers will be able to upgrade for example from Economy to Premium Class for a fee, which includes even more comfort and free refreshments.

At the same time, Leo Express is constantly striving to improve the accessibility of its trains for all passengers. All Leo Express trains are low-floor, making it easy for passengers in orthopaedic wheelchairs or parents with a child in a baby carriage to get on and off. In addition, the Leo Express mobile app is adapted for the visually impaired, with a tailored voice navigation environment, including seat selection in the shopping process. The next step in making travel easier for everyone will be the refreshment ordering system in the on-board portal, which will make the menu fully digital.

ETCS is currently being installed on Leo Express trains at a cost of €5 million. This will help to further improve safety, which is a priority for the operator.



# CAF to supply 22 Intercités Oxygène trains to SNCF voyageurs for the Bordeaux-Marseille line

The French operator SNCF Voyageurs has once again entrusted CAF with the supply of 22 Intercités trains, branded as Oxygène, which will serve the Bordeaux-Marseille line.

These join the 28 trains previously contracted in 2019 for the Paris-Limoges-Toulouse and Paris- Clermont-Ferrand lines. The initial contract for Oxygène trains included an option to extend the supply by up to 75 additional trains. This new agreement for a further 22 trains amounts to a total value of more than 400 million euros. The purchase of new rolling stock by Intercités is financed by the State, which oversees the TET network (Trains d'Équilibre du Territoire). This network comprises medium- and long-distance trains serving major French cities that are not connected by high-speed rail.

## A new passenger experience for medium and long distance journeys

The Intercités Oxygène trains have a total capacity of 420 seats, comprising 317 in second class and 103 in first class. The vehicles offer a high level of comfort. The seats are both comfortable and ergonomic, featuring integrated backrests. They have been designed specifically for this train with an aesthetic that celebrates the design of the original Corail train seats, which were first implemented 50 years ago. Additionally, the vehicles will be equipped with LED reading lights, power sockets, USB ports, and high-speed WiFi.

The train's accessibility and ease of movement are further enhanced by a wide corridor, which provides dedicated space for bicycles as well as ample luggage space. In addition, the Intercités Oxygène train features a dedicated catering area.

## The new order consolidates the workload for the CAF plant in Reichshoffen

The 22 new trains will be manufactured entirely at CAF's facilities in Alsace, where the majority of the 28 trains comprising the initial order are already under production.



This agreement for additional trains represents a significant increase in the workload of the Reichshoffen plant through to 2029.

With a history spanning 250 years of industrial and railway operations, the Reichshoffen plant, comprising a workforce of 740 individuals, represents a prominent plant in the CAF group. This is attributable to the engineering and design department, comprising over 130 engineers and

technicians, which is capable of designing entire trains, in addition to the plant's flexible industrial capacity and vehicle testing facilities.

Validation and compliance testing underway CAF is currently conducting a series of tests at the Velim test track in the Czech Republic. These tests are intended to validate the design and performance of the Oxygène train, with evidence of the proper operation of the rolling stock being gathered and

recorded to verify compliance with the relevant national and European railway requirements. Concurrently, the Beasain and Reichshoffen plants continue manufacturing the trains in the series.

The French rail network is set to undergo a series of approval tests starting in the autumn of 2025 which are scheduled to last various months. Finally, from 2026 onward, Oxygène trains will undergo testing in real-world conditions on their designated

lines Paris-Clermont-Ferrand and Paris-Limoges-Toulouse. Once the planned stages are successfully completed, the rail safety authorities will issue the relevant Authorisation, which is indispensable for the commencement of commercial service.



# Alstom's RER NG enters commercial service on the RER D Line of the Île-de-France Mobilités network

On December 18th, Alstom, global leader in smart and sustainable mobility, welcomed the entry into commercial service of RER NG on the RER D Line of the Île-de-France Mobilités network. One year after its gradual deployment on the RER E Line, RER NG is welcoming its first passengers and has been gradually deployed on the RER D Line since December 16th. Since December 15th, RER NG has also provided a full service on the entire RER E Line.

“The deployment of RER NG on the RER D Line marks a major milestone for transport in the Île-de-France region and for Alstom. RER NG embodies the commitment of Alstom's teams to ever more sustainable mobility at the service of passengers,” said Henri Poupart-Lafarge, CEO of Alstom. “We are delighted to be able to offer Île-de-France citizen a modern, comfortable and high-performance train that will transform the quality of their travels over the long term. Our teams remain strongly mobilised alongside SNCF Voyageurs and Île-de-France Mobilités to guarantee a service that meets the expectations of local passengers”.

## About RER NG

Fully financed by Île-de-France Mobilités, the “New Generation” RER is a double-decker rolling stock designed for the RER D and E Lines, both operated by Transilien SNCF Voyageurs on behalf of Île-de-France Mobilités, in order to improve passenger comfort and regularity on these lines.

## A train adapted to the challenges of capacity, accessibility and fluidity in Île-de-France

This train has been designed, both in terms of architecture and interior design, to optimise capacity and passenger flow. Thanks to its entirely open architecture (“boa” architecture) and wide doors, it allows passengers to enter and leave the train with ease. It offers distinct travel areas designed to meet the needs of all types of journeys made by the people of Île-de-France and adapted to their travel times: spacious vestibules for standing passengers on short journeys, upper-deck lounges with more seats for longer journeys and lower-deck rooms that are mixed (standing and seated), designed for journeys of less than 20 minutes.

## A more comfortable train

RER NG offers a high level of comfort, with air-conditioning, LED lighting adapted to the different times



of the journey (day/night/station stops), USB sockets and numerous screens giving passengers rapid access to various transport information. Particular attention has also been paid to the ergonomics of the seats.

## A more reliable and efficient train

Based on Alstom's urban and suburban rolling stock solutions, RER NG has been designed to guarantee the highest levels of availability, reliability and safety. RER NG has eight motor bogies, providing higher acceleration and deceleration performance than previous generations of rolling stock, which is an undeniable advantage for operations.

## An industrial and a human adventure

RER NG is the result of close collaboration between Alstom, SNCF Voyageurs and Île-de-France Mobilités

teams throughout the project.

This latest inauguration is a significant milestone for all 900 Alstom employees involved on a daily basis, and a demonstration of their know-how. At the start of the project, there were more than 2,000 of them. RER NG was designed and is assembled at Alstom's Valenciennes-Petite Forêt and Crespins sites, with the participation of various French component manufacturing sites (Ornans, Tarbes, Le Creusot, Petit-Quevilly, Villeurbanne) and the Saint-Ouen site for the design.

## Key figures for RER NG :

- 166 RER NG trains ordered, including 130 for RER E and 36 for RER D
- A maximum speed of 140 km/h
- 8 motor bogies per trainset

## RER NG for RER Line D (per train) :

- 130 m long
- a 7-car train set
- 1,861 places, including 606 seats
- More than 320 km of cables
- More than 310 USB ports
- 54 information screens
- 54 surveillance cameras.

[1] Réseau Express Régional (which means Regional Express Network)

Photo: RER NG ©Alstom



## Alstom to supply 35 additional RER NG trains for the RER E line on the Île-de-France Mobilités network

Alstom, global leader in smart and sustainable mobility, will supply SNCF Voyageurs with 35 additional RER NG trains for the RER E line on the Île-de-France Mobilités network. Worth almost 520 million euros, this new order was awarded to Alstom by SNCF Voyageurs on behalf of Île-de-France Mobilités. It follows on from the financing voted for by the organising authority last April.

Financed 100% by Île-de-France Mobilités, this order is part of the framework agreement signed in 2017 between SNCF Voyageurs and Alstom. The firm tranche of the RER NG contract included the delivery of 71 trains. A further 60 trains were ordered in 2023. To date, 166 RER NGs have been ordered, including 130 for RER E and 36 for RER D.

“Alstom is delighted with this announcement, which reflects the renewed confidence of Île-de-France Mobilités and SNCF Voyageurs in this new-generation equipment. Specially designed for the Île-de-France region and manufactured by nine of our sites in France, RER NG is a real asset for modernising the network and improving the passenger

experience”, said Frédéric Wiscart, President of Alstom France.

Since November 2023, the first RER NGs have been gradually brought into service on the RER E line. They are due to be deployed on the RER D line by the end of 2024.

Photo RER NG © SNCF Guillaume Blanchon



## Alstom's new-generation Citadis tram welcomes its first passengers on line T1 of the Île-de-France

Alstom, global leader in smart and sustainable mobility, welcomes the entry into service of the new-generation Citadis tram on line T1 of the Île-de-France Mobilités network, which runs between Asnières-sur-Seine and Noisy-le-Sec station. This modern, comfortable tram, known as TW20, is gradually replacing the oldest trams on the network, some of which being in service since 1992.

“The entry into service of the TW20 on the T1 line represents a major step forward for mobility in the Île-de-France region,” said Frédéric Wiscart, President of Alstom France, adding: “This resolutely modern, state-of-the-art tram will transform travel conditions for thousands of Parisians who use it daily. This achievement testifies to the commitment of Alstom’s teams, who continue to innovate to meet the needs of passengers while contributing to a more sustainable mobility”.

### A concentration of innovations for the well-being of travellers

With a length of 33 metres and a width of 2.40 m, the new trams can accommodate up to 200 passengers, 15% more than the rolling stock currently in service on line T1. They have six 1.30 m double doors on each side, including at the ends, which makes it easier for passengers to get on and off. The new trains are also 100% accessible to all passengers. A new pivoting bogie under the driver’s cab minimises the space between the doors and the platforms and improves on-board accessibility for people with reduced mobility at all stations, particularly at the ends of the tram.

To enhance passenger comfort, the trams are air-conditioned and equipped with a high-performance passenger information system with 20 screens spread throughout the tram, representing a level of passenger

information never seen before on a tram. The dynamic information system will be complemented by interior and exterior lighting and audio information. With 32 USB sockets, the trams will also be able to recharge mobile devices. Finally, a video protection system will ensure passenger safety.

### Trams that consume less energy and are more environmentally friendly

While offering more services such as air conditioning and dynamic passenger information, these trams will also reduce energy consumption of the traction system by at least 30% compared with current rolling stock, thanks to a new engine providing greater efficiency.

Energy consumption is also optimised by effective management of climatic comfort and 100% LED lighting. These trams are eco-designed (recyclability up to 95%

and recoverability up to 99%).

### Trams offering optimum availability

The innovative features of the Citadis trams for the T1 line also benefit the operator and make maintenance easier. Maintainability requirements have been considered, with a reduced number of spare part references, improved accessibility of components, and sensors distributed throughout the tram to enable real-time diagnosis of the equipment, making it possible to anticipate and optimise downtime and offer optimum availability.



Long road and bridge closures occur time and again in Germany and Europe - with a major impact on transport and logistics chains. A current example from South Tyrol is the Lueg Bridge:

Due to the renovation of the bridge along the A13 motorway from January 2025, traffic will be reduced to one lane in each direction. The effects will be far-reaching, especially for the heavily frequented connection to and from Italy. Driving bans, block clearance and departure bans threaten to massively delay supply chains by road. DB Cargo Full Load Solutions (FLS) offers an answer to this: intermodal connections that enable flexible and plannable transport - door-to-door without traffic jams, roadworks or additional environmental pollution.

#### The Brenner problem

The Brenner route is one of the most important connections for European freight transport. The construction work on the Lueg Bridge, which will last until 2027, will result in far-reaching restrictions:

- Single lane traffic guidance in both directions.
- Block clearance and daily driving bans.
- Significant delays and cost increases for road transport.

These obstacles pose a serious problem for companies that depend on reliable supply chains. The bridge is just one of many current examples in Germany and Europe. In Germany alone, 55% of all bridges have reached or exceeded their average service life of around 70 years and need to be replaced. According to the Federal Ministry of Transport, up to 400 bridges are to be renovated every year. This almost always means significant restrictions for road traffic, such as the now demolished Rahmede Bridge on the Sauerlandlinie motorway (A45).

#### The solution: Intermodal connections from DB Cargo FLS

DB Cargo FLS offers a flexible full truckload solution that successfully combines rail and road. The intermodal connections ensure high planning reliability and flexibility thanks to multiple daily departures. Customers benefit from fast, reliable transport operations that operate independently of traffic disruptions on the Brenner route or other connections.

## DB Cargo FLS offers flexible and environmentally friendly solutions for transport operations to Italy



“Our network of intermodal connections is not only a solution for the current challenges, but also a viable and sustainable alternative for the entire logistics industry,” emphasises DB Cargo FLS.

#### Technical details and advantages

DB Cargo FLS offers a variety of solutions with different loading space options, such as

- Standard and MEGA tautliners with a payload of up to 28 tonnes.
- Plannable capacities thanks to high availability.
- Environmentally friendly transport with reduced CO<sub>2</sub> emissions.

An additional advantage: using rail for longer sections of the route makes it possible to reduce toll charges and optimise transport costs in the long term.

Local experts on site develop customised concepts for intelligent door-to-door solutions on this basis.

Intermodal connections between economic centres in Germany and Europe

The DB Cargo FLS network currently comprises ten main routes and connects many countries and regions in circulation:

- Scandinavia, Germany, Belgium and the Netherlands (BENE) to Italy v.v.
- Sweden to Germany and BENE v.v.
- Germany and BENE to South-East Europe v.v.
- Germany to Turkey v.v.

Some of these routes guarantee a reliable connection between southern Germany and Italy - an ideal solution

for companies that want to proactively meet the challenges on the Brenner route.

#### Future prospects

The construction work on the Brenner motorway underlines the urgency of sustainable and robust logistics solutions. Intermodal transport is not just an alternative for the current challenges, but a future-proof strategy for making supply chains more resilient and environmentally friendly. DB Cargo FLS is setting new standards for reliable and sustainable transport - now and in the future.



# First Mireo Plus H hydrogen trains from Siemens Mobility in passenger service

Siemens Mobility has announced that the first Mireo Plus H hydrogen trains have received authorization for passenger operation in time for the scheduled timetable change on December 15th, and are ready to inaugurate passenger service. Their approval marks another significant milestone for emission-free mobility in the Berlin-Brandenburg and Bavarian regions, where hydrogen-powered trains will be used for the first time.

Andre Rodenbeck, CEO Rolling Stock, Siemens Mobility: “We offer electric, battery, and hydrogen trains based on the ultra-modern Mireo platform and have completed the development of our innovative and environmentally friendly Mireo Plus H hydrogen trains right on schedule.

The first of these trains will now be entering passenger service and we are delighted to be a driving force behind the phasing out of diesel trains. This transition will reduce CO2 emissions and provide passengers in Germany with climate-friendly, powerful, and comfortable trains.”

Niederbarnimer Eisenbahn Betriebsgesellschaft will operate seven Mireo Plus H hydrogen trains on the Heidekrautbahn line in Berlin-Brandenburg. These trains will save 1.1 million litres of diesel fuel per year and reduce CO2 emissions by 3,000 tons.

Locally produced hydrogen will be used in the trains’ fuel cells, and water vapour will be the only emitted by-product. In addition, recovered braking energy will be used to further increase the trains’ energy efficiency.

The Mireo Plus H, named “Freistaat Bayern”, will replace diesel trains at Bayrische Regiobahn (BRB) for two and a half years as of Monday, December 16th, 2024. Test operations will begin in stages, starting with selected runs in the East Allgäu-Lechfeld network. Operations will later be expanded and the train will then also run on the Ammersee-Altühltal network.

The new Mireo Plus H provides an environmentally friendly, quiet and efficient alternative to diesel propulsion, which is scheduled to be fully phased out in Bavaria’s regional rail system by 2040.

The Mireo Plus H combines innovation with sustainability. The train has a long operating range of up to 1,200 kilometre, is powered by an H2 traction system with a high drive power of 1.7 MW for accelerating up to 1.1 m/s<sup>2</sup>, and has a top speed of 160 km/h. Employing state-of-the-art technology, the Mireo Plus H sets new standards in emission-free passenger transportation. We are especially pleased about this openness to new and innovative rail technology and that this climate-friendly and comfortable train will now be available to passengers in Bavaria and Berlin-Brandenburg.

## Battery trains in the East Brandenburg network

In the state of Brandenburg, Niederbarnimer Eisenbahn Betriebsgesellschaft is launching a large fleet of Mireo Plus B battery trains on its East Brandenburg network. The 31 battery trains will enter service in phases by the summer of 2025. The two-car trainset has a range of more than 120 kilometres on batteries alone. Operation of the battery-electric Mireo Plus B trains will reduce consumption of diesel fuel by around 4.4 million litres a year on the East Brandenburg network.

The new trains will completely eliminate local CO2 emissions and, depending on the electricity mix, reduce broader regional emissions by around 11,500 tons per year. At the same time, the trains will significantly reduce particulate emissions. The new railcars are equipped with three doors on each side to ease access for passengers in wheelchairs or with strollers, also from lower station platforms. Each of the new trains will provide passengers with 127 seats and twelve spaces for bicycles, wheelchairs and strollers.



Passengers will also have free WiFi service, a dynamic passenger information system, and a specially designated family area. In addition, around 60 power sockets and USB charging ports are conveniently distributed throughout the train.

## New trains for the Danube-Isar network

In December 2020, Deutsche Bahn ordered 25 Desiro HC trains and six Mireo trains for service on the Danube-Isar network. The six Mireo trains were delivered in a 4-car configuration with 264 seats, including 14 seats in a first-class section, for the Airport Express operating from Nuremberg to Munich via Regensburg. All trains are equipped with duplex sliding steps to ease access for passengers with reduced mobility from different platform heights. In addition, an on-board lift enables wheelchair users to board and alight at low station platforms. A generous number of luggage racks makes it convenient for passengers to stow their

baggage.

Some of the 25 four-car Desiro HC trains have already been operating on the Danube-Isar network since August 2024. Positive customer feedback shows a high level of satisfaction with the new double-decker trains. The trains have multi-purpose open areas equipped with innovative supports for bicycles. High-frequency window glass specially developed to substantially improve mobile reception and free WiFi service ensure seamless communication. Up to three Desiro HC trains can run coupled between Munich and Landshut to provide great flexibility in meeting capacity needs.

## New Mireo trains for the Regensburg-Danube Valley network

In addition, 21 Mireo trains will inaugurate service for rail operator agilis on the Regensburg-Danube Valley network with the scheduled timetable change: They will

run on RE line 50 (Nuremberg – Regensburg – Plattling) and RE line 51 (Neumarkt – Regensburg – Plattling).

These trains will also be used for the Airport Express operating from Nuremberg to Munich. The high-performance trains offer more seating capacity and modern equipment and features, including WiFi service and high-frequency window glass for optimal mobile reception.

A total of 23 four-car Mireo trains will be delivered to rail operator agilis.



## First battery trains for North Rhine-Westphalia enter service in 2026

Beginning in the summer of 2026, three Mireo Plus B battery trains will bring emission-free mobility of the future for the operator Regiobahn on its RE 47 route over a period of 5.5 years. On this route, the trains will pass over Germany's highest railway bridge. The battery trains will be made available to Regiobahn by Smart Train Lease in record time and will replace outdated diesel trains. This switch will save over 2,500 tons of CO<sub>2</sub> per year, making a significant contribution to combating climate change.

Sascha M. Zuk, CEO of Regiobahn Fahrbetriebsgesellschaft: "The new trains will enable us to again offer our customers a continuous train connection between Remscheid and Düsseldorf beginning in the summer of 2026 – this time with state-of-the-art, environmentally friendly trains. By

deploying the first battery-powered trains in North Rhine-Westphalia, Regiobahn will be building on its previous successes and again presenting itself as a reliable and innovative company."

"We are delighted to be able to offer Regiobahn these environmentally friendly and modern Mireo Plus B battery trains at short notice. Our aim is to make train rentals as easy and uncomplicated as car rentals, and thus make our contribution to accelerating the mobility transition," commented Benjamin Dobernecker, CEO of Smart Train Lease GmbH.

### The new trains

The two-car battery-powered trains have a range of up to 120 kilometres and can reach a top speed of 140 km/h in both overhead

line and battery operation. They offer a total of 122 seats, spacious multi-purpose areas, modern passenger information systems, and a separate first-class section with eight seats. Passenger comfort and convenience is enhanced by WLAN service, barrier-free boarding, and very quiet operation.

A well-thought-out design with a wide connection between the cars ensures a high subjective feeling of safety for passengers. Numerous sockets and USB charging ports enable passengers to keep their devices fully charged during the journey. The trains feature a special high-frequency window glass solution developed by Siemens Mobility that significantly improves mobile phone reception in trains. The trains will be serviced by Siemens in Dortmund.

### Accessibility

The Mireo Plus B trains will have a 76 cm entry height to ensure easy platform accessibility along the route. The trains will also be equipped with a barrier-free toilet.

### Energy savings

The Mireo Plus B makes optimal use of the existing infrastructure and enables its batteries to be charged while running and when stationary. No additional charging infrastructure needs to be installed for the Düsseldorf-Wupper Express. Thanks to its silicon carbide (SiC) technology, the train's energy consumption is extremely low, ensuring high energy efficiency and reduced operating costs.

The trains will operate on the RE 47 route beginning in the summer of 2026.

## Important milestone reached in video expansion: 11,000 cameras in use at train stations

Federal Police and Deutsche Bahn keep to schedule  
Successful implementation of the 180 million euro expansion program for video technology at train stations by the end of 2024  
Number of cameras almost doubled since 2012  
Number of crimes solved by the Federal Police tripled  
Deutsche Bahn AG (DB) and the Federal Ministry of the Interior and Home Affairs (BMI) are continuing to invest to increase security at train stations.

An important step will be completed by the end of the year: A total of 11,000 cameras are in use at around 750 train stations, which is more video cameras at train stations than ever before. The number of video cameras has almost doubled since 2012. All major train stations in Germany are now equipped with modern video technology.

Around 180 million euros from the federal government went into the program implemented by the Federal Ministry of the Interior and Home Affairs (BMI), the Federal Police and DB. In addition, DB invests more than 200 million euros annually in the safety of its passengers. In the area of crime prevention, the Federal Police has recorded very good successes thanks to modern camera technology: thanks to new video technology and associated workstations for evaluation, they were able to triple the number of cases solved compared to 2019.

Berthold Huber, DB Infrastructure Director: "Railway stations must be safe places. 11,000 video cameras at our stations improve the sense of security

of travellers and help to combat crime. The modern cameras provide an overview of the stations from over 30,000 different angles and effectively support the federal police in combating crime."

Federal Minister of the Interior Nancy Faeser: "We want the many millions of travellers and commuters to travel safely every day. With the strong expansion of video surveillance, we have created more security at our train stations. And modern video technology is crucial for solving crimes. This technology is now in use at all major train stations in Germany. This has a very concrete effect: today the Federal Police can solve three times more crimes using video technology than in 2019. This increases the protection of travellers and the protection of the critical railway infrastructure. This is a joint success for which I am very grateful to the Federal Police and Deutsche Bahn."

### Deutsche Bahn expands video technology: Multisensor camera in Halle (Saale) Hbf

In 2020, the Federal Ministry of the Interior and Home Affairs, the Federal Ministry for Digital and Transport, Deutsche Bahn AG and the Federal Police launched the program to expand video technology. The approximately 750 expanded stations are now mostly equipped with multi-sensor cameras in full HD. The new, modern cameras, among others, monitor the security situation at the station from thousands of angles, making travel even safer.



Around 20 million travellers and visitors use our 5,700 stations every day. Only the Federal Police have access to the recorded video images from stations.

The use of video technology at train stations is an important component in continually increasing security. In addition, DB and the Federal Police rely on the personal presence of security guards, close cooperation between DB Security and the Federal Police, as well as new technology and concepts. The Federal Police and DB are testing these together in the Security Station research project.



## Balance sheet 2024: DB InfraGO invests almost 17 billion euros in better infrastructure

In the first year of its existence, DB InfraGO can report a large construction workload with numerous renovated routes, modernized stations and extensively renewed signal box technology. In 2024, around 16.9 billion euros were available for this purpose in Deutsche Bahn's public welfare-oriented infrastructure division. One of the largest projects is the general renovation of the Riedbahn between Frankfurt/Main and Mannheim, which marks the start of 40 further corridor renovations in the coming years.

Other projects throughout Germany include the completion of the four-track expansion in the Forchheim-Eggolsheim section on the Nuremberg-Bamberg route - a milestone for the overall completion of the German Unity 8 transport project (Munich-Berlin) and the expansion on the Gäubahn (Stuttgart-Singen). DB InfraGO also increased its personnel nationwide in 2024: 5,500 employees were added to the operational areas, including in maintenance and at the signal boxes.

Dr. Philipp Nagl, CEO of DB InfraGO AG: "We are consistently driving forward the renovation of our rail infrastructure. We have made good progress: We will completely use up the funds for maintenance and investments in 2024 and thus stop the aging of our existing facilities for the first time in many years. For the first time, there will be no deterioration in the average condition ratings for our infrastructure in the new network condition report - despite the ongoing burden of increasing traffic volumes. This is an important result of our modernization offensive launched at the beginning of the year with a clear focus on an efficient existing network. Now we need the certainty that we can carry this momentum and pace into the new year and vigorously continue the renovation of the infrastructure under a new government."

At the end of the year, it can be predicted that the volumes of investments in the existing network will increase in almost all areas compared to the previous year. At the stations, too, the volume of modernization and commissioning will be higher than in 2023.

Preliminary balance in numbers

- In 2024, the focus was on replacing switches, as faults in switches have a significant impact. All 1,851 switches planned to be replaced have been installed - that's an increase of a good 30 percent.

- In the case of railway bridges, the completed structures totaled around 40,000 square meters in area, a fifth more than in 2023.

- The amount of track construction, at 1,940 km, was roughly at the previous year's level (1,989 km).

- Of the 190 km of overhead lines renewed, 140 km are on the Riedbahn's account. In 2023, 124 km of overhead lines were replaced.

- With 3,741 renewed signalling units, the increase in the modernisation of signalling technology was 72 percent.



- In 2024, around 870 stations in the country underwent classic construction. This means that platforms were renewed, elevators and weather protection roofs were built. In 2023, there were 650 stations, each of which received an investment of at least 50,000 euros.

Over 100 stations have been expanded to new standards - into holistically designed stations of the future.

By the end of 2024, around 5,500 new employees will have been hired in the important main professional groups of construction project supervisors and track maintenance. In the case of train

traffic controllers, the staffing of the signal boxes has been improved in most regions. However, DB narrowly missed the target of an average coverage rate of over 98 percent. Nagl: "Over 1,200 new train traffic controllers are strengthening our workforce in this important area. Since the beginning of the year, two new colleagues have started work every working day."

## Young talent is the future: DB will hire around 5,700 trainees and students in 2025

High number of new hires even during the S3 restructuring program  
DB Human Resources Director Seiler: "We continue to invest consistently in our young talent in the operational area."

Application possible in four minutes using voice input – 50 apprenticeships and 25 dual study programs

Collective agreement guarantee of employment after successful examination

Even during the S3 restructuring program, Deutsche Bahn (DB) is again hiring thousands of school graduates: around 5,700 trainees and students are expected to start working at DB in autumn 2025. That is the same number for the railway in Germany as last year. The number of apprenticeships remains high, especially in operational professions:

- Railway workers in train traffic control: 970
- Railway worker in operation/train driver: 860
- Electronics technician in industrial engineering: 820
- Mechatronics engineer: 385
- Merchant for transport services: 270

This year, around 6,000 young professionals started working at DB. Next year, there will be fewer due to the completion of the sale of DB Schenker.

DB Human Resources Director Martin Seiler: "Even as we restructure, we will continue to invest consistently in our young talent. In the operational area, we will continue to hire without restriction. The persistently high demand in the direct rail business - especially for train drivers, maintenance staff, train traffic controllers and service staff - requires this. Anyone who is needed for operations, quality and safety will be hired."

Seiler continued: "And despite the current challenge of making DB competitive again, the collective agreement guarantees that all young employees will be taken on after they have successfully completed their initial training."

In the fall, the group launched the S3 program to structurally restructure the group over the next three years. By the end of 2027, DB will restructure the group in three areas of action - infrastructure, railway operations and profitability. To this end, the overall personnel requirements will be reduced,

but the level of recruitment for railway professions will remain very high. This will make DB more punctual, reliable and profitable. This year, DB has also introduced new measures in its recruitment process to remain attractive to young talent: Anyone interested in one of the 50 apprenticeships or 25 degree programs at DB can immerse themselves in a newly developed virtual 3D world at [experience.db.jobs](https://experience.db.jobs). In interactively designed rooms, there are various jobs to discover, for example as a vehicle maintenance technician in the virtual ICE factory to repair a display or replace the air conditioning system. Potential applicants can thus get a better feel for which job suits them best in a playful way.

In order to make even more students aware of the full range of opportunities at DB, it has further expanded its cooperation with schools nationwide and is now starting the new year with around 700 school collaborations. There are now also around 20 so-called community recruiters working across Germany. Their job is to develop rural regions in particular and to inspire local schools and clubs about the DB Group. DB has also intensively increased its presence at universities and is active regionally as a personal contact for students and professors at over 100 universities nationwide.



## “Bon voyage” for the first direct ICE from Berlin to Paris

From December 16th, Berlin and Paris are directly connected by ICE for the first time. Richard Lutz, CEO of Deutsche Bahn (DB), François Delattre, French Ambassador to Germany, Federal Transport Minister Volker Wissing, Berlin's Governing Mayor Kai Wegner and Jean-Baptiste Guenot, Head of the European Markets & International Development Department SNCF Voyageurs, ceremoniously sent the first ICE from Berlin Central Station on its journey to the French capital.

The journey time from city center to city center is around eight hours. The trains, operated in cooperation by DB and SNCF Voyageurs, travel via Frankfurt South, Karlsruhe and Strasbourg. This also means that for the first time there is a direct connection during the day between Berlin and the Alsatian metropolis, the headquarters of the European Parliament.

Richard Lutz, CEO of Deutsche Bahn: “The good German-French cooperation is the backbone of a united Europe. The new ICE direct connection between Berlin and Paris is a symbol of this. We are thus offering our passengers another highlight in international long-distance transport. This is because it is booming: more and more people are choosing to travel by rail when travelling through Europe thanks to attractive offers. In this way, we are also strengthening our profitability in line with the S3 restructuring programme.”

François Delattre, French Ambassador to Germany: “Germany and France are mutually indispensable economic partners. Rail traffic between the two countries is constantly increasing, in a context in which environmental issues are becoming increasingly important.

One year after the launch of the night train between Paris and Berlin, the inauguration of this line is a strong signal. It underlines the excellent relations between Deutsche Bahn and SNCF, the strong cooperation between France and Germany and brings our peoples closer together.”

Volker Wissing, Federal Minister for Digital and Transport: “A direct connection between Berlin and Paris - this is not just a new, additional rail service. It is about much more. It is about encounters, exchanges, growing together and mutual understanding. It is about living friendship. As a new study by my department shows, we still have a lot of potential here to attract as many people as possible to take longer journeys within Europe by rail with attractive offers and to live this friendship. People want to travel

by rail - across borders, during the day or by night train.” Kai Wegner, Governing Mayor of Berlin: “With the new direct connection, Berlin and its twin city Paris are now even more closely connected. This ICE connection is also a beautiful symbol of German-French friendship. Travellers can now use an attractive and ecologically sustainable service from Berlin. With the new ICE connection, we are succeeding in getting more people to switch to rail and further advancing the transport transition.”

Jean-Baptiste Guenot, Head of European Markets & International Development SNCF Voyageurs: “The high-speed connection between Paris and Berlin is a milestone in the 17-year-long cooperation between DB and SNCF.

It contributes to a common goal of our two countries: more CO<sub>2</sub>-free mobility. We are very pleased to be able to offer our mutual customers this new, high-quality service.”

Tickets including seat reservation for the journey from Berlin to Paris are available from 59.99 euros in 2nd class and 69.99 euros in 1st class via bahn.de, the DB Navigator app, and in DB travel centers and DB agencies. DB and SNCF are very satisfied with the demand so far for the new direct connection. Almost three-quarters of the bookings cover the entire route between the two capitals. This underlines the attractiveness of this new European connection



## Better surfing at train stations: Deutsche Bahn brings Wi-Fi to another 820 stations

Expansion in cooperation with Europe's largest WLAN provider The Cloud Networks • By 2028, the number of train stations with WLAN coverage will double • 80 percent of travelers will then benefit from the fast and free “Wifi@DB” and “mycloud” services

Deutsche Bahn (DB) is intensively expanding the Wi-Fi offering at its stations by 2028. Travellers and station visitors will then be able to surf for free at over 820 additional stations. The expansion is taking place in cooperation with the largest European provider of Wi-Fi solutions, The Cloud Networks.

The number of stations with Wi-Fi coverage will thus grow from just over 600 to over 1,400. After the expansion, 80 percent of station visitors will benefit from the fast and free “Wifi@DB” and “mycloud” network. Currently, the figure is 50 percent. By expanding Wi-Fi, DB is responding to the wishes expressed in customer surveys, which repeatedly emphasize fast and free Internet access. For this reason, Wi-Fi expansion is also an important part of the stations of the future.

The future station Stockdorf in Bavaria is one of the first stations to benefit from the WLAN expansion: In recent years, DB has initially concentrated on expanding its Wi-Fi network at the busiest main and hub stations in order to

reach the largest number of travellers. The expansion in the coming years will now also focus on medium-sized and smaller stations, some of which will be the stations of the future. Around 5,000 routers and 800 kilometres of cable will be installed for the expansion. The area covered by the additional Wi-Fi network is the size of 75 football fields. Every day, around 20 million travellers and station visitors nationwide use DB's 5,400 stations. Around a third use the Wi-Fi on site.

The Cloud Networks was selected as a partner for the expansion of Wi-Fi at train stations as part of an EU tendering process. The Cloud Networks is a German company and one of Europe's leading providers for the

provision, operation and maintenance of professional Wi-Fi networks. The subsidiary of freenet AG has many years of expertise in the hotel, airport and retail sectors. Many users are familiar with The Cloud's offering from numerous cities as part of public city Wi-Fi.















India



YDM4 No. 6565 runs round its train from Amreli to Junagadh at Visavadar Junction on November 8th. *Mark Torkington*

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# Netherlands

Since December 15th there are new timetable's in the Netherlands and the new trains from Alstom, the ICNG, have gone fully into service. Not all have been delivered and that will change during 2025, but for now the trains are running Intercity services between Den Haag and Eindhoven, Intercity Direct services over the high speed line between Schiphol and Rotterdam, Lelystad Centrum - Rotterdam and Amersfoort, Schothorst - Breda, and an international service called Eurocity Direct between Amsterdam Zuid and Brussels with stops at Schiphol, Rotterdam, Antwerpen (B) and Bruxelles Zuid. From Amsterdam Zuid the train will go to Almere Centrum and Lelystad. All service are operated with the new ICNG units except the Eurocity Direct who combined services with the Belgium Railways who are using I11 carriages with leased locomotives. The ICNG trains have the NS-Flow livery and are 8 carriages suitable for use in the Netherlands and Belgium, No. 3316 seen here at Rotterdam Centraal on December 27th. *Andre Pronk*





# Netherlands

On December 27th, SNCB Class E186.196 is seen at Rotterdam Centraal with the newly branded EuroCity service between Bruxelles and Amsterdam. *Andre Pronk*





# Thailand

On November 30th, GE No. 4016 and Thai Sprinter No. 2503 (similar to a BR Class 158 and also built in Derby) are seen at Bangkok Hualamphong. *Mark Enderby*









# Thailand

On November 30th, Alstom built No. 4214 arrives into Bangkok Hulamphong with a service from Nakhon Sawan.  
*Mark Enderby*









U.S.A.

A Union Pacific local working powered by No. 688 passes through an industrial part of Denver.  
*Laurence Sly*

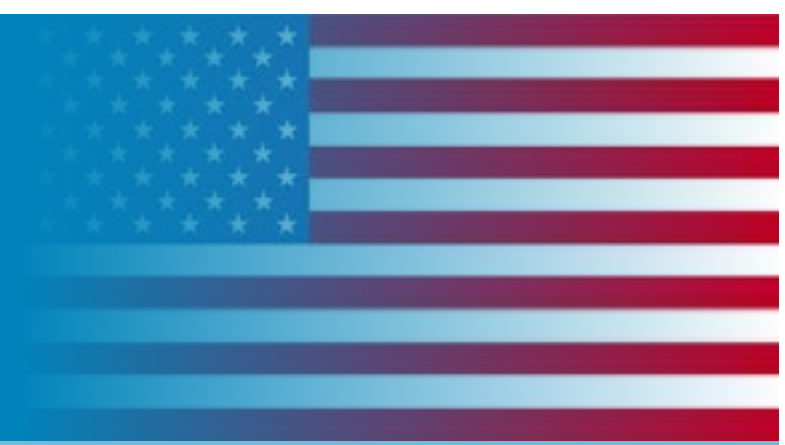
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Colorado Pacific Rio Grande Nos. 303 and 209 approach La Veta whilst hauling the Walsenburg turn from Alamosa. *Laurence Sly*

Colorado Pacific Rio Grande Nos. 209 and 303 make their way through the La Veta pass while returning to Alamosa from Walsenburg. *Laurence Sly*

Colorado Pacific Rio Grande No. 631 passes Bountiful whilst hauling the Antonito turn from Alamosa. *Laurence Sly*





U.S.A.

Union Pacific Nos. 5868 and 8360 climb Logan Hill whilst hauling an eastbound coal train.  
*Laurence Sly*

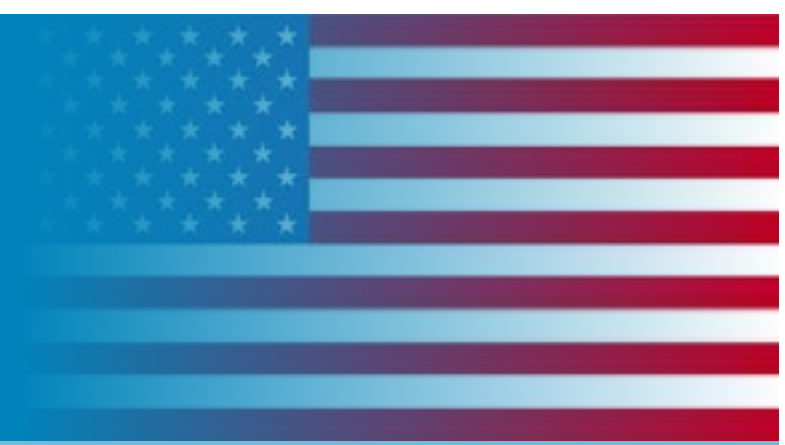
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▶ Rapid City Pierre & Eastern Railroad Nos. 3482, 3438 and 3467 pass Tilford whilst hauling the 'Belle' turn from Belle Fourche to Rapid City.

*Laurence Sly*

▶ Rapid City Pierre & Eastern Railroad Nos. 3467, 3428 and 3482 pass St. Onge whilst returning to Belle Fourche from Rapid City.

*Laurence Sly*

▶ Rapid City Pierre & Eastern Railroad Nos. 3482, 3438 and 3467 pass Piedmont whilst hauling the 'Belle' turn to Rapid City. *Laurence Sly*





U.S.A.

BNSF Nos. 7876, 4302 and 7402 pass Sanbourne  
whilst hauling an empty grain train.  
*Laurence Sly*

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U.S.A.

BNSF Nos. 1603 and 3001 pass Sanbourne whilst hauling the JY local from Jamestown to Dilworth. *Laurence Sly*

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U.S.A.

Dakota Missouri Valley & Western Railroad Nos. 6911 and 6949 pass Putney whilst hauling a grain train to Aberdeen. *Laurence Sly*

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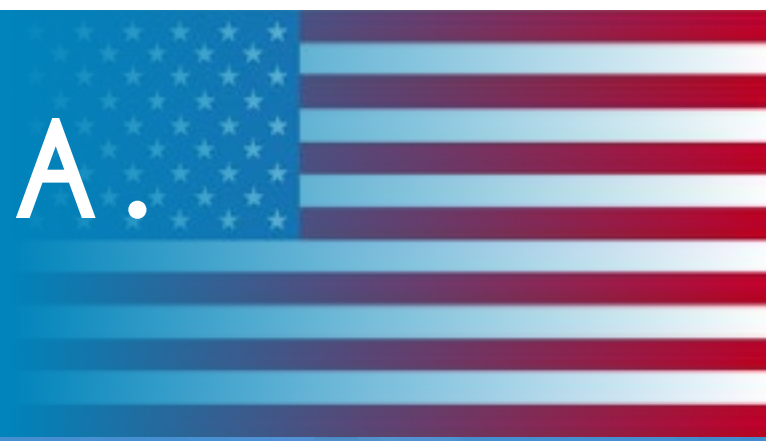








U.S.A.



Colorado Pacific Rio Grande No. 631 is seen working an industry train at Alamosa. *Laurence Sly*





U.S.A.

Colorado Pacific Rio Grande Nos. 209 and 303 approach Fort Garland whilst returning to Alamosa from Walsenburg. *Laurence Sly*

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U.S.A.

Alstom, global leader in smart and sustainable mobility, has announced that it has been awarded a contract by the Southern California Regional Rail Authority (Metrolink) to operate, service, and maintain their regional passenger rail system.

The contract has a base term of five years, valued at approximately \$515 million USD (€490 million EUR) and will run from January 1, 2025, to June 30, 2030, employing more than 400 Alstom team members in Southern California. The contract allows for a potential three-year extension, which would carry the total value of the base contract to approximately \$860 million USD (€817 million EUR).

This contract award is an extension of the successful partnership that Alstom has built with Metrolink, dating back to the delivery of the first Bilevel coaches for Metrolink more than 30 years ago. Alstom has been serving as the maintenance provider for Metrolink's fleet since 1998.

“We are grateful for the trust the Southern California Regional Rail Authority and their Board of Directors has placed in Alstom as we expand our role to support their operations and maintenance needs,” said Michael Keroullé, President of Alstom Americas. “Metrolink customers are doing their part to reduce traffic congestion and pollution, and we are committed to bringing them our experience and dedication to deliver world class service and to help Metrolink prepare to accommodate visitors from around the world during the upcoming global sporting events in Southern California.”

Alstom employees will continue to provide maintenance services for Metrolink and will now provide full operations services across the Metrolink system, totalling more than 545 service line miles. The Alstom team will mobilize more than 200 employees for the operation of Metrolink services beginning July 1, 2025.

The contract scope encompasses train operations and maintenance services, including train crewing and customer service, maintenance of the rolling stock fleet, and facilities maintenance, with an option for materials management. With this contract, Alstom consolidates its position as the leading private provider of Operations and Maintenance services in North America.

#### **A safe, convenient alternative to driving**

Metrolink regional passenger rail service offers reliable, safe, affordable, and environmentally sustainable transportation throughout an interconnected six-county network. Metrolink has 545.6 total service line miles and 67 stations across Los Angeles, Orange, Riverside, San Bernardino, Ventura, and San Diego counties, connecting people, communities, and businesses and serving as an essential link in the region's mobility landscape. The Metrolink service fleet consists of 258 passenger rail cars, including 57 cab cars and 201 coaches, and 60 locomotives.

The Metrolink transportation network also includes Arrow service, a nine-mile operation in San Bernardino County linking the cities of San Bernardino and Redlands powered by three Diesel Multiple Units (DMUs). In 2025, Metrolink will welcome North America's first hydrogen-powered train, also known as a ZEMU (Zero Emission Multiple Unit) as part of its Arrow service. Alstom will not be responsible for DMU/ZEMU maintenance but will provide the operating crews and management for Arrow service.

“We are excited to continue our transition from a traditional commuter railroad to

# Alstom to provide operations and maintenance services for Metrolink in Southern California



becoming a true regional passenger rail operator with the expanded responsibilities awarded to a world-class organization such as Alstom,” Metrolink CEO Darren Kettle said. “We are grateful for the efforts and dedication of the Amtrak crews who have been operating our Metrolink trains since 2010 and the TransitAmerica Services Inc. team members who have been operating Arrow since that service began in 2022. We know Alstom will work collaboratively over the next several months to ensure a seamless transition and a continued outstanding customer experience.”

#### **The number one private operator in North America**

Alstom is the market leader in rail services, supporting customers over the entire asset lifecycle with the broadest portfolio of services solutions. Alstom's FlexCare Operate solutions cover the full spectrum

of customer needs, including operations for all types of fleets, maintenance for the full transit system, as well as turnkey and public-private partnership solutions. Our customers benefit from reduced operating costs and increased operational efficiencies through technologies and best practices based on more than 40 years of experience operating and maintaining trains and systems. With more than 25 active operations and maintenance projects worldwide, we are a trusted partner in helping transit authorities and communities achieve their mobility goals.

As the number one private operator in North America, Alstom offers a wide range of best-in-class scalable train operation solutions for both passengers and asset owners: from driver support to ticketing, scheduling, and time-table optimization. The Group operates all types of fleets for

Alstom and non-Alstom rolling stock, and offers both fully automated and manual train operations, with train crew and station staff optimization. North America references include more than a dozen transit systems across the United States and Canada, on 35 sites, through its more than 3,800 dedicated Services experts. Its comprehensive services portfolio also includes modernization, parts, repairs, overhauls, and digital and support services.

Photo: ©Metrolink



Sweden

## Alstom signs a 10-year maintenance contract for Norrtåg's fleet in Sweden

Alstom, global leader in smart and sustainable mobility, has signed a 10-year contract with operator VR for maintenance of the fleet of Norrtåg, provider of passenger train services in the four northernmost regions of Sweden. The maintenance will start in December 2025 and will be carried out in Umeå and Luleå, increasing the presence of Alstom's operations in the north of Sweden.

The contract includes preventive and corrective maintenance, wheelturning, de-icing, as well as overhauls and repairs to ensure the Norrtåg fleet continues to run safely and reliably. The fleet's 12 Coradia Nordic trains will be modified to enable condition monitoring with

HealthHub, Alstom's digital solution for condition-based and predictive maintenance. Under this agreement, Alstom will also be responsible for training more staff in Luleå to meet the customer's maintenance needs.

"Northern Sweden will see significant development in the coming years as part of the green industrialisation, and here, efficient maintenance of the trains plays a crucial role for both private travel and freight traffic," says Maria Signal Martebo, Managing Director of Alstom in Sweden.

Alstom is the largest supplier to the Swedish train

market, with over a thousand trains delivered to the Swedish railways and several major maintenance contracts. Alstom also leads the implementation of the ERTMS[1] signalling system in Sweden, both onboard and along the tracks, and is delivering the new national traffic management system for the Swedish Transport Administration.

Alstom is the market leader in rail services, supporting customers over the entire asset lifecycle with the broadest portfolio of services solutions. Alstom's FlexCare Perform maintenance services are tailored to customer needs and operational requirements, from technical support

with spares to fully outsourced maintenance solutions. Alstom maintains over 35,500 vehicles worldwide and is a trusted partner for servicing both Alstom and non-Alstom rail assets.

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[1] European Rail Traffic Management System

Chile

## CAF to supply metro units in Colombia and Chile

Colombia

CAF has secured two new contracts to supply metro units based on its INNEO platform. The company will manufacture 13 units for the Medellín Metro and 6 units for the Santiago de Chile metro. The combined value of the contracts exceeds €200 million. These contracts further consolidate CAF's foothold in the Latin American market, where it continues to undertake major projects involving the supply and maintenance of railway units, as well as rolling stock concessions, in countries including Brazil, Mexico, Argentina, Venezuela and Ecuador, besides the aforementioned projects in Colombia and Chile.

### The Supply of 13 units for the Medellín Metro

The operator of the Medellín Metro, Empresa de Transporte Masivo del Valle de Aburrá Limitada - Metro de Medellín LTDA., has awarded CAF a contract for the design and supply of 13 metro trains for its metropolitan network. The contract provides for the final assembly and testing to be conducted at the Metro facilities, as specified by the Colombian authorities in the tender documents. The new units will be similar to those previously supplied by CAF, consisting of 3 cars each and fully compatible with the fleet currently in operation. They will be used on lines A and B to meet the expected increase in passenger demand in the coming years.

Home to over 2.5 million inhabitants, Medellín is the second most densely populated city in Colombia and a

renowned pioneer in sustainable urban transportation solutions. Inaugurated in 1995, Colombia's only metro network carries over 1 million passengers daily, making it the country's primary public transit system and one of the most prestigious metro systems in Latin America. CAF's long-standing relationship with Metro Medellín reflects the customer's continued satisfaction with the stock previously supplied by CAF. It is also worth noting that between 2009 and 2018, CAF has delivered 38 units to Metro Medellín. More recently, CAF has also completed the comprehensive refurbishment of another 42 units making up the MAN fleet with which Metro Medellín began operating the system in the 1990s.

### Santiago de Chile to get another 6 Metro Units

In addition, the Chilean state-owned company, Empresa de Transporte de Pasajeros Metro S.A. - Metro Santiago, has once again selected CAF to supply and maintain its metro units. This marks the latest in a series of orders for CAF, which has already supplied nearly 80 units for lines 1, 3 and 6 of the Chilean capital's metro system.

This time, CAF will design, supply and maintain 6 new 5-car units for the Line 6 extensions. The new units will be equipped with the GoA4 automatic driving system, as were the 41 trains previously supplied by CAF for Lines 3 and 6. This railway system operates at the highest level of automation, with all functions - including driving, door opening and closing, safety, and overall train operation

- fully automated and controlled remotely from a central command centre. There are no crew members on board the trains.

As the leading public transport operator in the Chilean capital city, Metro de Santiago is committed to providing

comprehensive services. The company is currently undertaking the challenge of extending Line 6 both eastward and westward using cutting-edge technology. For all these reasons, Metro de Santiago is an invaluable customer for CAF, as it is one of the most technology advanced operators, both locally and internationally.





U.K.



Alstom, global leader in smart and sustainable mobility, has completed a £25 million upgrade of the Class 458 electric multiple unit (EMU) fleet for South Western Railway (SWR).

The refurbishment has been financed by Porterbrook, a leading UK rolling stock financier and asset management company, which owns the Class 458 fleet. Twenty-eight four-car units have been refurbished at the Alstom Transport Technology Centre in Widnes, taking two weeks to complete each set. Each unit has 234 seats in a two-by-two formation – all with seat back tables and charging points – as well as space for two wheelchair users. All carriages also have two tables fitted with wireless charging points, while their exteriors carry the updated SWR livery. Work by Alstom at its train modernisation facility in Widnes has also seen the reconfiguration of the vehicles to enable faster acceleration and new carpets laid throughout. Meanwhile, additional work at Alstom’s historic Crewe Works has seen the Class 458’s powered wheelsets overhauled. This has enabled the trains to operate at a top speed of 100mph – up from 75mph.

“This refurbishment demonstrates Alstom’s commitment to delivering smarter, more sustainable and passenger-focused mobility solutions. The work completed at Widnes and Crewe not only enhances the passenger experience on the Class 458 fleet, but also showcases the value of British engineering and our investment in local expertise,” said Peter Broadley, Services Managing Director UK and Ireland at Alstom.

He added: “We are proud to have supported South Western Railway and Porterbrook in this significant programme, ensuring that these trains are ready to provide better journeys for customers across London and the South East of England.”

The final unit – 458414 – departed Widnes after an event at the facility on Thursday 12 December to mark the successful completion of the project. The milestone also inspired Widnes Industrial Engineer, Hannah Temple, who created a drawing of the refurbishment that was revealed at the celebration event. The EMU will enter service in the spring, operating eight-car services across SWR’s suburban network.

“We’re excited to welcome our newly refurbished Class 458 fleet back to the network. These upgraded trains provide a significantly enhanced customer experience, with improved seating and tables, new charging points, as well as space for two wheelchair users,” said Neil Drury, Engineering and Infrastructure Director at South Western Railway.

He added: “We are grateful to Alstom and Porterbrook for partnering with us on this successful project, and to SWR colleagues for their hard work getting the trains back into service, which will strengthen capacity on our busy suburban network.”

## Alstom completes £25 million refurbishment of South Western Railway’s Class 458 fleet



The 28, four-car Class 458 trains will be designated as Class 458/4. The eight remaining five-car units will be designated as Class 458/5.

“Our Class 458s have proudly served South Western Railway’s routes for the last 25 years. We know that the needs of passengers evolve over time, so it’s important that our trains do the same, and that’s why we continually invest in our fleets to ensure they continue to meet expectations,” said Andy Bagguley, Fleet Services Director at Porterbrook. “Thank you to our partners at SWR and Alstom, and to all the companies who supported the successful delivery of this complex project.”

Opened in 2017, Alstom’s Widnes facility is the UK’s largest and most sophisticated centre for train modernisation, while its Crewe site is home to Alstom’s UK Centre of Excellence for Bogie and Traction Motor Overhaul. The Crewe facility has overhauled over 20,000 bogies – which house the train’s wheelsets – during the past ten years for the UK rail market. In the future, all the bogies for the 225mph trains for High Speed Two (HS2) will be assembled and maintained in Crewe by Alstom.

### £25 million investment

The work on the Class 458 trains has supported almost 70 roles at Widnes and Crewe, while UK suppliers have also benefitted from more than 80% of the £25 million investment. The trains were originally intended for use on the route between London Waterloo and Portsmouth Harbour via Guildford. However, following the COVID-19 pandemic and subsequent changes in customer travel patterns, the fleet will operate services on SWR’s suburban network, as the company works towards the full introduction of its fleet of 90 new Class 701 Aventra trains – built by Alstom in Derby and branded Arterio by the customer.

### Alstom-built trains

The Class 458 Juniper (5-JUP) EMUs were originally built by Alstom at Washwood Heath in Birmingham between 1998 and 2002 for South West Trains. The first refurbished Class 458 units – 458415, 458420 and 458422 – entered service in June, in the same week that Avanti West Coast’s final Class 390 Pendolino also left Widnes following completion of the UK’s biggest fleet upgrade.



Spain



## CAF wins the contract to supply the second batch of trains for the Madrid metro

Metro Madrid has once again placed its trust in CAF, awarding the company a contract to supply a second batch of new units for the Madrid underground system. This is part of the operator's plan to renew and expand its rolling stock fleet. The signed contract covers the design and manufacture of 40 narrow-gauge trains for Line 1, which connects the Pinar de Chamartín and Valdecarros stations. This line was the first in the underground system to be inaugurated in 1919. The contract also includes the development and implementation of a programme to optimise the life cycle of the fleet, including the possibility of increasing the number of units to be delivered in the future, as with the first batch. The contract is worth more than €400 million.

For this contract, CAF will supply six-car units featuring a continuous, unobstructed layout with gangways between all the cars. This design will allow high passenger capacity. These state-of-the-art trains will incorporate the latest technological innovations in terms of safety, performance, comfort and maintainability, while maximising energy efficiency.

As mentioned above, this is the second contract that CAF has signed with the Madrid operator this year, following the contract for the supply of 40 wide-gauge trains signed last June.

The European Investment Bank (EIB) will provide loans to finance the acquisition of these new units, the main aim of which is to improve the quality of service and increase the capacity of the capital's public transport system. The implementation of the Comunidad de Madrid's environmental policy, combined with rising passenger demand in recent years and growth forecasts, has led to the acquisition of these new, more modern and energy-efficient trains.

As in the previous tender, the award process was extremely rigorous in terms of technical requirements, with aspects such as energy consumption, LCC (Life Cycle Cost) and technical performance of the units playing a major role, including the possibility of semi-automatic operation of GoA2, with the possibility of upgrading to GoA3 automation during the project, where there will be no driver in the cab, but an assistant on board the train to supervise the operation.

CAF has a long-standing relationship with Metro de Madrid, having supplied the operator with many units over the course of their history together. To date, most of the fleet operating on the capital's suburban network has been supplied by CAF, which has delivered more than 600 metro units to Madrid, from the 2000, 3000, 5000, 6000, 8000 and 8400 series. Of these, the last Series 8400 units were delivered between 2010 and 2011 and are currently operating on Line 6 of the network.



Spain



## Euskotren commissions CAF to build three extra-long trams to meet growing demand in Vitoria-Gasteiz

Euskotren and CAF have signed a contract for the manufacture of three extra-long trams to be added to the Vitoria-Gasteiz fleet to meet the growing demand for tram services in Vitoria-Gasteiz.

The new units will represent an investment of €20 million and will be delivered in the second half of 2027. The new vehicles will have the same length - seven modules - and similar characteristics to the current extra-long vehicles, although they will incorporate new features in terms of accessibility: no tip-up seats, adapted signage and chromatic differentiation in the areas reserved for groups with functional diversity.





# Romania

The contract has been signed in Bucharest is the final of one of the two long-running tenders for the purchase of electric vehicles for Romanian Railways, in which PESA has submitted its bids, which have been ongoing since the beginning of the year. The tenders were conducted by the Romanian Railway Reform Agency /ARF/, and the first contract just signed is for the purchase of 20 Inter-Regio class electric multiple units /REIR/ with 15 years of maintenance with options for an additional nine units and a further 15 years of maintenance, financed by the Romanian KPO fund.

The signing ceremony, held at the headquarters of the Ministry of Transport and Infrastructure of Romania, was attended by: Minister of Transport and Infrastructure Sorin-Mihai Grindeanu, ARF President Stefan Adrian Roseanu and representatives of the Polish Embassy in Bucharest.

“Romania still has a lot of work to do when it comes to renewing its rolling stock. The Pesa vehicles will be the first modern trainsets for Romanian Railways in more than 20 years. What is equally important for us, these are the last contracts we have to sign within the railway package of the National Reconstruction Plan, the funds for all tasks are already contracted.” emphasised Sorin-Mihai Grindeanu, Minister of Transport and Infrastructure of Romania.

“The purchase of modern rolling stock using funds from Romania’s National Reconstruction Programme is another important step in the modernisation of rail passenger transport in our country. ARF, as a government agency, is working hard to secure additional sources of funding for further investments in this safe and environmentally friendly mode of transport.” added Stefan Adrian Roseanu, President of ARF

“The vehicles we will supply to Romanian Railways will be a development of the electric multiple units of the Pesa 654/655 family, which are being produced for the private Czech carrier RegioJet, and which are receiving good reviews in the Czech Republic. For us, this is another important step in building the company’s position as a supplier of modern, comfortable ‘Intercity’ class vehicles. We want to supply them, also in HS version, to hauliers who will operate connections within Via Baltica and further south in Europe, in the whole Tri-City region,” emphasises Krzysztof Zdziarski, CEO of PESA Bydgoszcz.

The Inter-Regio vehicles that PESA will produce for Romanian Railways are 3-unit electric multiple units



built on separate bogies, developing speeds of up to 160 km/h, with 192 seats in 1st and 2nd class, allowing barrier-free operation of 550 mm platforms, powered by AC 25kV catenary and equipped with the Romanian PZB 90 safety system.

As part of the contract, PESA will also provide the ARF with vehicle maintenance services for 15 years and to this end PESA will set up local service centres together with the state-owned CFR Calatori Railways. In this regard, PESA has already signed preliminary agreements with

State Railways CFR Calatori and CFR SA. To date, Pesa has supplied trams to the Romanian market between 2012 and 2023. A total of 37 of them are already running, in Cluj, Iasi and Craiova. As part of the Pesa 2030+ strategy, the company is consistently developing its presence in foreign markets. It is currently producing trams for Tallinn and vehicles for CD and Regio Jet in the Czech Republic and railways in Ghana, with exports accounting for more than half of Pesa’s production in recent years. Image: ©Pesa

# Panama

Alstom, a global leader in smart and sustainable mobility, has signed a new four-year maintenance contract with the Panama Metro (MPSA) that includes preventive and corrective maintenance of the rolling stock, signalling systems and power supply of the Line 1. This line, which extends for 16km, transports between 240,000 and 280,000 users daily and has been operating successfully since April 2014.

The contract includes the maintenance of 26 Alstom Metropolis trains, covering the inspection of bogies, brakes, couplings and pantographs, as well as the maintenance of the power system, which includes the auxiliary traction and passenger substations.

To ensure the highest system availability and reliability for Panama Metro, Alstom has deployed HealthHub, its digital solution for condition-based and predictive maintenance, to continuously monitor the fleet and prevent service-affecting failures.

Alstom will also be responsible for the maintenance of the Urbalis signalling system, which uses communications-based train control (CBTC) technology. This system, recognized for its reliability, ensures accurate control of train movements, facilitating efficient and safe traffic management. It also allows for 90-second intervals between trains on Line 1, which allows the system to deliver more frequent service and increases capacity.

“We are honoured to have been chosen by the Panama Metro to continue with various works carried out by Panamanian personnel, hired, trained and qualified by Alstom. “This will help improve performance and extend the life of the trains, guaranteeing service quality and safety,” said Iván Moncayo, CEO of Alstom Panama.

“The maintenance of Line 1 will be based on our solid experience and advanced technology, which will ensure efficient and safe operation for the enjoyment of Metro passengers,” he added.

Alstom has been present in Panama actively contributing to the development of urban transport in the country

since 2010. During this time, Alstom has signed different transport contracts, such as the development, construction and implementation of the comprehensive railway system for Lines 1 and 2 of the Panama Metro, maintenance of Lines 1 and 2 of the Metro since 2014, which includes an innovative train driving simulator.

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## Alstom signs contract with Panama Metro for Maintenance of Line 1



Belgium

## Lineas and Hupac Intermodal cooperate to enhance services on Zeebrugge-Milan lines

Lineas, one of Europe’s leading private rail freight operators, and Hupac Intermodal, one of Europe’s most reliable intermodal network operators, are pleased to announce a significant extension of their collaboration, to strengthen intermodal logistics on the Zeebrugge-Milan lines. With this agreement, effective from January 1st, 2025, both companies aim to provide reliable, high-frequency intermodal solutions to meet the growing demand for sustainable and efficient cross-border transport between Belgium and Italy.

In order to better meet the expectations and needs of its customers, Lineas has implemented a large transformation plan in recent years. The company has completely realigned its offering to propose highly reliable operations and services. And this has paid off: its customer satisfaction has risen from 2.9 out of 5 in 2022 to 3.5 in 2023, with several peaks at 4 during 2024. This success is the result of many internal improvements, including a renewed focus on its core business of being a Railway Undertaking.

In this context, Lineas wanted to focus on being a traction provider for its Open Intermodal product Zeebrugge-Milano and to massify the Italian corridor delivering improved quality and synergies. The choice was to work on the Zeebrugge-Milano traffic together with a partner who could ensure long term continuity and development of the market in this corridor.

Therefore, from January 1st, 2025, Lineas and Hupac Intermodal cooperate on the Zeebrugge-Milan product, with Lineas concentrating on its core business of rail activities and Hupac supporting Lineas with its extensive industry knowledge and operational capabilities to provide excellent intermodal solutions. In particular:

- Lineas will act as the traction provider, ensuring a seamless transition and business continuity for customers, and will keep producing rail capacity on both sides of the Rhine (via Germany and France) to provide excellent connectivity.
- Hupac Intermodal will operate and provide the intermodal service on the Zeebrugge-Milan route.

Both companies are committed to maintaining the highest standards of service delivery during and after the transition period.

Customers can expect continued support and high-quality intermodal solutions that leverage Hupac’s extensive expertise and Lineas’ proven reliability as a Railway Undertaking.

“We are excited to take this next step with Hupac Intermodal,” says Bernard Gustin, Executive Chairman of Lineas. “The success of our Antwerp-Catalonia initiative has demonstrated the value of combining our strengths, and we are confident that our collaboration will bring the same high quality of service and operational efficiency to the Zeebrugge-Milan line.”

Michail Stahlhut, CEO of Hupac Intermodal, adds “This set-up represents a significant opportunity to deliver added value to the market by uniting the expertise of two leading companies: Lineas as railway undertaking, Hupac as intermodal operator. We appreciate the possibility to run our Belgium-Italy connection both via Germany and via France, and to serve terminals both in the east and the west of Milan. This is a way to increase the resilience and performance of intermodal transport.”

Lithuania

## Stadler and LTG Cargo sign a contract for 17 Co’Co’ electric locomotives

Stadler and LTG Cargo, the freight transport railway operator belonging to LTG Group, have signed a contract for the supply of seventeen Co’Co’ electric locomotives. The agreement includes an option for 17 additional units, spare parts, and a 3-year maintenance period. It is Stadler’s first locomotive contract for the Lithuanian market.

The Lithuanian freight operator LTG Cargo awarded Stadler the tender for the supply of seventeen electric 25kV AC locomotives based on the EURODUAL 6-axle platform. The contract represents a new milestone for the company as it will introduce Stadler’s successful EURODUAL locomotive platform to a new market with extreme weather conditions.

The cargo locomotives are designed for temperatures as low as -40oC and include a winterization package for reliable operations in conditions with snow and ice.

The 1.520-meter gauge locomotive for Lithuania’s cargo rail network provides 500 kN of maximum tractive effort, up to 6,15 MW at rail of tractive power, and can reach a maximum speed of 120 km/h. It also includes an electric brake with regenerative brake functionality to increase the locomotive’s efficiency further.

The Valencia-built vehicle is also equipped with an automatic coupler SA3s. This versatility enables the running of heavy haul freight operations aligned with current European trends such as the decarbonization of transport, digitalization, and the lengthening of freight trains.

### Ergonomic and comfortable cabs

The two driver cabs, one on each end, are designed in accordance with the latest ergonomics standards and are in compliance with the European requirements for noise and comfort. The video surveillance equipment

(CCTV) system consists of two rearview cameras per cab, allowing the driver to observe the rear from his central driving position, and a forward camera. The vehicle is designed to provide excellent outside visibility from both cab directions, maximizing safety for drivers. In addition, the locomotive is equipped with an onboard restroom.

Iñigo Parra, Executive Vice President Stadler Division Spain, said: “We are very proud of this new development of our EURODUAL family, which allows us to introduce our cargo locomotives in Lithuania for the first time. This new locomotive shares the same high performance with the rest of the family, promoting a modal shift to rail.”

Eglė Šimė, CEO at LTG Cargo, said: “The purchase of electric locomotives marks the start of a new era of even more sustainable and reliable rail freight transport in Lithuania. The new electric locomotives will transport

freight between Vilnius and Klaipėda - a corridor that carries half of all rail freight in Lithuania annually. Electric locomotives are about three times more efficient than diesel locomotives, so we can offer our customers greener and more competitive freight transport services”.



# Romania

The Romanian Railway Reform Agency (ARF – the governmental institution in Romania that centrally buys rolling stock and also organises and finances passenger services in Romania under PSO contracts) has awarded a tender for the purchase of 62 electric multiple units for regional railways (RE-R) for 3 regions: Bucharest, Cluj, Iasi.

The budget for this tender is approximately PLN 3 million. PESA's offer was made for the delivery of the vehicles as well as for the maintenance service of all vehicles for a period of 15 years with the possibility of extending the maintenance contract for another 15 years, including the construction of 3 modern maintenance centres for all 62 multiple units on 3 railway properties.

“The order of modern electric multiple units for the Romanian Railways is an important step in the implementation of the PESA 2030+ Strategy in the context of foreign expansion. This is another Tricity country to which we will deliver our most technologically advanced vehicles and set up local maintenance centres. Increasing PESA's presence in the region is also one of the elements of preparation for offering HS class vehicles for the lines implemented as part of the Via Baltica,” emphasises Krzysztof Zdziarski, CEO of PESA

Romania's ARF had already announced the selection of PESA's bid in the second tender – for the purchase of 29 INTER-REGIO (RE-IR) EMUs (electric multiple units) for the Bucharest region.

The budget for this tender is approximately PLN 1.2 billion. The offer includes the supply of vehicles with maintenance service for a period of 15 years with the possibility of extending the maintenance contract for another 15 years. In this tender, PESA competed with the French company Alstom, which filed an appeal after the announcement of the Bydgoszcz manufacturer's victory. The procedure for considering this appeal is ongoing and a final decision on the matter should be made later this year.

PESA is actively participating and will participate in further tenders organised by Romanian cities for the purchase of trams for Oradea, Bucharest, Ploesti, Iasi, Bucharest, Galati. The above-mentioned projects are part of PESA's development strategy for 2030+ both in the area of tram and electric train production.

PESA's presence in Romania has been developed since 2012. In May 2023, the manufacturer completed the delivery of 17 trams for the city of Craiova, having

## PESA with further orders for Romanian Railways!



previously delivered 16 trams for the city of Iasi. The project completed in 2021 and delivered without any delays or even ahead of schedule. In 2012, PESA delivered 4 trams to Cluj purchased from the Cluj city budget.

Image: ©Pesa

# Finland

VR FleetCare, the rail fleet maintenance and wagon manufacturer; Bane NOR, the Norwegian owner of the track infrastructure; the Norwegian Defence Materiel Administration and the Swedish Defence Forces have signed a contract for the design and series production of new heavy transport wagons. The design of the wagon has already started, and production will start during 2025.

This is an important development for Nordic security of supply, as the procurement of the wagons will enable heavy defence equipment to be transported by rail. VR FleetCare will carry out the project from design to manufacture and delivery. The first phase of the project comprises the design and approval of the wagon type and the series production of ten wagons. The contract

includes an option for 110 wagons.

### We can use our expertise to secure Nordic cooperation and security of supply

“The project and the cooperation that are starting are important for Finnish wagon manufacturing, and a great start for the delivery of Finnish freight wagons abroad. VR FleetCare can efficiently produce freight wagons in special series for the demanding needs of different industries. We have the necessary technical expertise and manufacturing capabilities to get production up and running quickly. We are pleased that we can use our expertise to secure Nordic cooperation and security of supply,” says Otso Ikonen, VR's Senior Vice President of Maintenance.

### Arctic know-how as a starting point for design

Wagons supplied to the defence industry are carefully tailored to the needs and infrastructure of the customer. The design is based on the ability to transport heavy NATO equipment and the suitability for the arctic T2 climate zone, which places special demands on the design and engineering of the wagons, for example due to the accumulation of snow and ice. In the past, there was no heavy-duty wagon approved for Arctic conditions on the market. Long know-how of the Arctic conditions and experience of heavy transport in the North as advantages in project implementation

“We at VR have long know-how of the Arctic conditions and experience of heavy transport in the North. We are very proud to have been chosen by Bane NOR, the

Norwegian Defence Materiel Administration and the Swedish Defence Forces to supply the wagons. The project and the series production of the wagons will also further improve domestic security of supply, as the product is also practicable for the Finnish rail gauge,” says Ikonen. The new 6-axle wagon is designed with usability in mind, as well as a long lifecycle and maintenance operation. The wagon series will be manufactured at VR FleetCare's Pieksämäki workshop, where several wagon series can be produced simultaneously. In addition to heavy transport wagons, Pieksämäki also manufactures, for example, roundwood wagons and tank wagons. VR FleetCare is also actively developing other wagon products, such as the modular freight wagon, which is suitable for transporting a wide range of materials also with different track gauges.

## VR FleetCare Secures Major Order for Heavy Transport Wagons for the Norwegian and Swedish Defence Forces



# New Stadler locomotives for the Rhaetian Railway and the Matterhorn Gotthard Railway

The Rhaetian Railway (RhB) and the Matterhorn Gotthard Railway (MGBahn) have signed a contract with Stadler for the manufacture and supply of eleven new metre-gauge locomotives. Eight of the locomotives produced in Bussnang (Switzerland) will go to the RhB and three to the MGBahn. The new locomotives will replace older ones that are reaching the end of their service, and will see the fleet harmonised and expanded. The order is worth around CHF 100 million.

The hybrid metre-gauge locomotive is an innovative vehicle concept, allowing the vehicles on the construction sites of the two railways to be operated either by the overhead line or by diesel engines, to heighten flexibility and operational efficiency. The customised locomotives have four axles with single-axle drive and can reach a maximum speed of 100 km/h. They will be produced in Bussnang in north east Switzerland.

Additional vehicles at RhB for shorter intervention times  
The procurement of eight new locomotives will enable five RhB locomotives to be replaced and withdrawn from service. The three additional locomotives will help reduce disruption, with more locomotives positioned along the route. Because many sections of the track on the network do not have road access, it is essential that trains that are stranded or have experienced an incident or fault can be removed quickly, and in future, this will

be done using these powerful locomotives. They will also be used to meet the increased demands placed on them, as more construction and maintenance activity is likely in future, and there will be less time overnight to conduct this work.

## Replacement for old MGBahn vehicles

MGBahn is procuring the three new service locomotives to replace the ageing HGm 4/4 61-62 locomotives. The new locomotives will be utilised for maintenance and to upgrade the railway infrastructure. They will play a central role in clearing snow from the Oberalp Pass in winter.

## Synergies for metre-gauge railways: Development costs are shared

In addition to the RhB and the MGBahn contract, the Montreux-Berner Oberland-Bahn (MOB) ordered six metre-gauge locomotives of a similar type in October 2024. On 10 December 2024, the Transports de la région Morges-Bière-Cossonay (MBC) and Stadler signed a contract for a single locomotive. The orders will enable the four RAILplus partner railways to develop synergies and share the one-off costs associated with the manufacture and delivery of this rolling stock.



# Logistical optimization and modal shift: Lineas and Evonik relaunch sustainable rail connection in the Port of Antwerp

Lineas, Europe's largest private rail freight operator, and chemical company Evonik proudly announce the relaunch of a strategic rail connection in the Port of Antwerp.

Since mid-November 2024, a weekly train service now connects Evonik's production sites in the Port of Antwerp with Lineas' Mainhub terminal. Here, seamless connections are provided to the LoRo (Left Bank-Right Bank) and RoRo (Right Bank-Right Bank) networks, further increasing transport efficiency.

This Intraport connection, which was initially introduced in 2008, was discontinued in 2022 and replaced by road transport. With its reinstatement, Evonik is not only reducing the number of trucks on the road but is also making an intentional modal shift to rail. Indeed, this sustainable alternative will reduce traffic congestion while also bringing greater efficiency, reliability and a smaller carbon footprint.

The renewed service takes 5700 trucks off the road every year. Thanks to technological innovations and accurate planning, rail transport is an alternative to road transport and can deliver goods at the right speed.

This makes rail a viable and smart link in the modern supply chain, even in complex port environments.

## A conscious choice for sustainable logistics

Evonik emphasizes that this connection fits within their broader sustainability goals. "With this service, we show that rail transport is not only more sustainable, even when it comes to short-haul intermodal transport, but also fits perfectly with our vision to further optimize our supply chains," says Tim Mertens, Assistant Logistics Solutions at Evonik. "This project is an excellent example of how cooperation with the right partners can lead to impactful results."

Luc Pirenne, CCO of Lineas, adds: "This project illustrates the essential role rail transport can play in logistics strategies. Thanks to our shared vision, we have achieved a fantastic result: transport that is both more sustainable and more efficient. We are proud of this collaboration with Evonik and hope it will inspire other companies to make the shift to rail."



## Alstom to supply Traxx electric locomotives to Ontrain sp. z o.o. in Poland

Alstom, a global leader in smart and sustainable mobility, announced signature of two contracts with Ontrain sp. z o.o.

The first contract, signed on November 29th, is for Alstom to supply 35 third-generation Traxx Universal multisystem locomotives, with an option for OnTrain to purchase an additional 20 vehicles. The rolling stock covered by this contract will be authorised for operation in Poland, Germany, Austria, the Czech Republic, Slovakia, Slovenia, Croatia and Serbia.

Under the second contract, signed on December 12th, Alstom will supply five third-generation Traxx Universal multisystem locomotives, authorised for operation in the Eastern Corridor, i.e. Poland, Germany, Austria, the Czech Republic, Slovakia and Hungary. The purchase of the above-mentioned locomotives by WBW2 sp. z o.o., operating under the OnTrain brand, will be carried out within the framework of the contract awarded in November 2024 for the supply of 5 units of brand new zero-emission electric multisystem locomotives together with their maintenance during the warranty period in the scope of maintenance levels: p1 to p3.

In total, Alstom will supply OnTrain with 40 third-generation Traxx Universal multi-system locomotives and, with the exercise of an additional option to purchase 20 locomotives, this will increase to 60 locomotives, making OnTrain the largest Alstom customer for this type of locomotive in this part of Europe.

Alongside the locomotive supply agreements, Alstom and OnTrain have signed contracts for preventive maintenance of the purchased rolling stock during the warranty period. Alstom's plant in Kassel, Germany, will be responsible to produce the rolling stock, while the bodies will be built at the Alstom site in Wrocław. The vehicles will be equipped with the Onvia signalling system (formerly known as Atlas), Alstom's market-leading on-board solution for European Train Control System (ETCS), covering the largest number of countries and subsystems.

"We are delighted with the contract with Ontrain, a new player in the market, has chosen our locomotives as the foundation of the vehicle fleet it is creating to serve transport needs in Poland and the region," stated Beata Rusinowicz, Managing Director of Alstom in Poland, Ukraine and the Baltic States.

"We are seeing increasing interest in leasing modern locomotives. Poland is investing and will continue to invest huge resources in the coming years in the modernisation and construction of rail transport corridors. This will be further enhanced by the continuing dynamic development of intermodal transport. Poland's growing economic position, however, is not matched by statistics on the age and efficiency of the rolling stock used by hauliers. We have a lot of catching up to do here. Given these circumstances, we believe that the demand for the hire of modern locomotives will accelerate, thus making OnTrain an attractive partner for hauliers. The purchase of Traxx 3 multi-system locomotives is part of our strategy to offer our customers locomotives that meet the highest expectations and will contribute to the positive environmental impact of rail transport. This is possible thanks to the involvement of investors Marguerite, Griffin Capital Partners and WBW Invest" - added Piotr Ignasiak CEO of OnTrain.

OnTrain is a new company whose majority shareholder is Marguerite, a pan-European infrastructure investor, while the other shareholders are Griffin Capital Partners, a private equity and real estate investor and asset management firm in Central and Eastern Europe, Germany and other selected EU countries, and

WBW Invest, a Polish investment firm operating in the renewable energy, transport and logistics sectors, with extensive experience in the rail industry, particularly in the rental of rolling stock. OnTrain's strategy is to provide rail operators with modern locomotives along with maintenance services. Third-generation Traxx multisystem locomotives are characterised by high operational efficiency, reliability, energy efficiency and extended maintenance intervals. They are designed to handle higher loads compared to other locomotives in the same class. The design of the vehicles is based on a modular platform, used in passenger and freight transport, national and cross-border services, available in various configurations (AC, DC, multi-system).

Alstom solutions have been contributing to the development of a sustainable and low-carbon Trans-European Transport Network for many years. Thanks to Traxx Universal locomotives, rail carriers and logistics operators operating on key European corridors can achieve strategic objectives in a responsible and cost-effective manner. The vehicles, manufactured by Alstom with a significant Polish team, cover a total of more than 300 million kilometres per year, across 20 European countries.





# From the Archives

France

SNCF BB No. 25119 stands at Thionville station on a train from Metz on October 28th 1986. *John Sloane*

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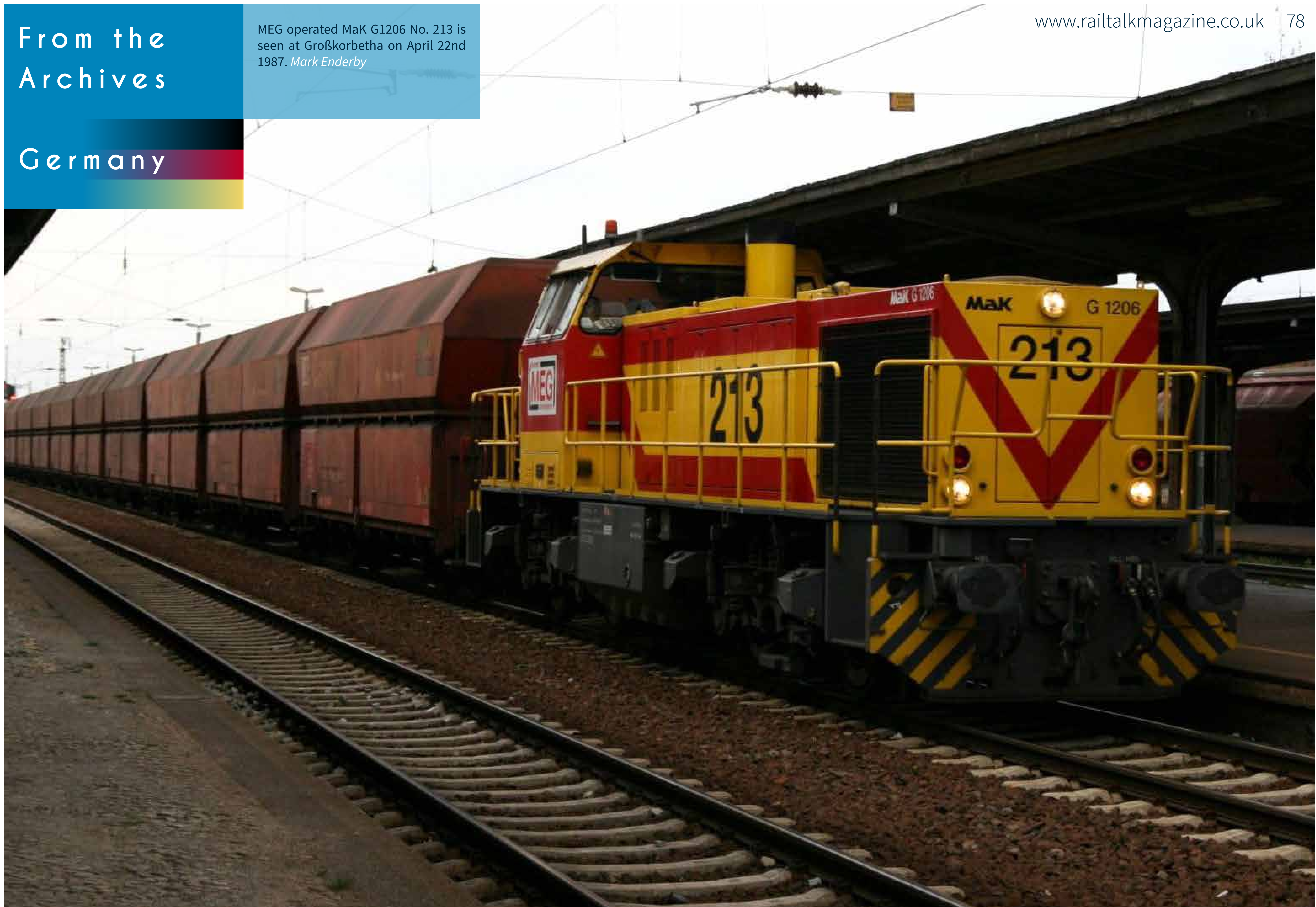


From the  
Archives

Germany

MEG operated MaK G1206 No. 213 is seen at Großkorbetha on April 22nd 1987. *Mark Enderby*

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# From the Archives

## Greece

On the narrow gauge Pelopenese system, Japanese built No. 9403 shunts the stock of the daily steam worked mixed train to Tripolis at Kalamata on August 22nd 1973. *John Sloane*

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# From the Archives

India



Bombay Port Trust 2-6-0T No. 32, built by Nasmyth Wilson in 1924, handles a train of tank wagons near Wadala Road on March 13th 1976.

*John Sloane*

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# From the Archives

A Howrah to Amritsar express with  
WAM4 electric No. 20587 in charge  
rolls into Tundla Junction on March  
19th 1976. *John Sloane*

India





# From the Archives

At an altitude of just over 12,000 ft the daily express service worked by Wickham railcar, No. 26, prepares to depart from Huancayo for Huancavelica on December 10th 1981.  
*John Sloane*

Peru





# From the Archives

## Ukraine

On April 27th 1993, the yard at Fastov held a pair of Soviet built VL 80 twin unit electric locos Nos. VL80-122 and VL80-459.  
*John Sloane*

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