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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 209Xtra

The onslaught for greener, cleaner trains and infrastructure continues as we enter 2024 and the recent concentration of announcements all seem to feature Hydrogen. The latest to announce entering into this sector is Talgo which has joined forces with several other companies to move the project forward. This is what they have to say....

Ten Spanish companies have joined forces to design, build and install, for the first time in the world, a propulsion system based on renewable hydrogen fuel cells on a high-speed train. Under the Hympulso project, the companies will develop a set of technologies that can be applied to the Talgo 250 'all-terrain' train, making it possible to electrify the rail network with energy generated entirely from renewable sources, even on lines without overhead power lines. Led by Talgo, Hympulso also includes Golendus, Ingeteam, Optimus3D, Repsol and Sener as partners. Universidad Pontificia Comillas and Tecnalia are collaborators, while Adif is an observer. The initiative has received a grant of €6.5 million and is part of the Incentive Programme for the Innovative Value Chain and Knowledge of Renewable Hydrogen, as part of the Recovery, Transformation and Resilience Plan.

Hympulso will be comprehensive in nature: it will activate the entire renewable hydrogen value chain in the railway system, from production to consumption. The project will also make it possible to analyse the impact of the future transition on the various railway infrastructure assets managed by Adif, such as maintenance facilities or the track. Thus, the project will result in a joint output of hydrogen supply installations adapted to railways -both mobile and static- and a pioneering prototype of a hybrid bimodal train for passengers with automatic track-gauge change, which will be able to run both on conventional and high-speed networks, using catenary supply when available, or hydrogen and batteries in those corridors that are not electrified.

This holistic perspective is key because tackling the many major technological challenges posed by the adoption of renewable hydrogen in rail transport will require the involvement of multiple stakeholders at all levels, and from both the public and private sectors.

An 'all-terrain' train

All project partners seek to evolve their enabling technologies and expertise in the field of renewable hydrogen with Hympulso. Talgo's objective will thus be to develop, manufacture and test dual-hybrid hydrogen battery traction on a Talgo 250 train, intended for long-distance operations on mixed sections: partially electrified and partially non-electrified. Called Talgo 250, these trains have two technical end cars each (CET), which are currently used to generate electricity from diesel to power the traction units on sections without catenary. Under the Hympulso project, one of these diesel CETs will be replaced in a Talgo 250 unit by one equipped with fuel cells and batteries to supply electricity to the locomotives using 100% green, renewable hydrogen.

The scope of each partner is as follows

Ingeteam will design, manufacture and test reversible high-power converters, capable of charging the batteries from the catenary. Repsol and Golendus will be responsible for developing two hydrogen refuelling facilities. Repsol will deploy a mobile facility, while Golendus' hydrogen plant will be a static production and supply facility. For the hydrogen supply facilities and the railway infrastructure, Sener will carry out an overall risk analysis and a simulation of the operation of the services. In both cases, a logistics control platform will be developed to monitor the use of hydrogen in the network. Finally an SME, the Alava-based Optimus3D will work on more efficient and durable new materials, based on additive manufacturing, and new processes to be used in hydrogen applications. As for the observer companies, Adif wants to develop its knowledge in the definition of requirements and use cases in the access to the railway infrastructure of hydrogen technology. It will develop the safety requirements associated with the infrastructure and the interfaces with vehicle and refuelling facility, as well as the design of standardised refuelling facilities and collaborate with the use cases on the hydrogen fuelling platform.

Until next month...

David

This Page

On December 12th, No. 99.4632 is seen on arrival at Putbus with the last train of the day from Gohren.

Mark Torkington

Front Cover

ZSSK Cargo Class 751.082-9 hauls a short tank train through Ružinov towards Nové Mesto, Bratislava.

Anton Kendall

CD Cargo Vectron Class 383.002-3 brings a container train through Ružinov heading towards Nové Mesto, Bratislava.
Anton Kendall

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Qube's GML10 heads train No. 5142, an intermodal from Forrestfield to Fremantle container port, through Bibra Lake. *Colin Gildersleve*

Australia

CBH Group's CBH001 takes a long-loaded grain train through the Perth suburb of Thornlie and is about to pass the Transperth terminus at Thornlie. *Colin Gildersleve*

Commonwealth Bulk Handling Group's Nos. CBH003 and CBH010 head an empty grain train away from the Perth suburbs and are about to enter the wine producing area of the Swan Valley as they head to a country location for another load of grain. *Colin Gildersleve*

On January 9th, OBB Class 5047.027 working train No. R6640 Schrambach - Hainfeld is seen near to Rohrbach a. d. Gölsen.
Thomas Niederl

Austria

ÖBB Taurus Class 1016.020-0 rounds the curve approacing Villach Warmbad. *Anton Kendall*

Austria

ELL owned Vectron Class 193.942-0 approaches Wels Hbf from the Passau direction.
Anton Kendall

Class 5047.014 and 5047.007 are on their way working train No. R6613 from Hainfeld to St. Pölten and are seen near to Rainfeld-Kleinzell on January 9th. *Thomas Niederl*

During winter, the Swedish private operator Snälltåget operate a weekly night train fromMalmö via Koebenhavn, Hamburg, Munich, Salzburg, Zell am See to Innsbruck. The train is hauled throughout by a Swedish Vectron Class 193. On January 13th, train No. 305 is seen near the halt of Mitterberghütten behind Class 193.965. *Thomas Niederl*

The Regional EXpress services from Braunau am Inn via Mattighofen to Salzburg are mostly operated by Desiro DMUs rented from Deutsche Bahn. On January 10th, Class 642.590 in DB livery with Arriva branding approaches Munferfing station working train No. Rex5866 to Salzburg. *Thomas Niederl*

Austria

Siemens Mobility delivers first 70 Mireo regional and long-distance trains to ÖBB

Austrian Federal Railways (ÖBB) has ordered the first 70 trains from the framework agreement won by Siemens Mobility at the end of summer 2023. The trains will be delivered in three different versions from late 2027 onwards. The trains are a further development of the in Europe successfully established and proven Mireo electric multiple-units. Designed to operate at speeds up to 160 km/h, the Mireos offer numerous amenities for passengers, including air conditioning, WiFi service, barrier-free access, electrical plugs, racks for skis and snowboards, capacity for buggies and wheelchairs near the doors as well as space for bicycles. The cars will be wider than on previous Mireos trains to further enhance the passenger experience of ÖBB customers. And, for the first time, Siemens Mobility is designing the new trains with inner bearing bogies as a single car concept.

Michael Peter, CEO Siemens Mobility: "Siemens Mobility and ÖBB have long enjoyed a strong and trusting partnership. We are especially proud to deliver a further development of the Mireo platform to ÖBB as a single car concept for the company's new fleet. With their numerous innovations, cross-border operating capability, and high level of passenger comfort and convenience, the new Mireo trains will help make ÖBB's local and regional transport even more attractive."

"With the additional 70 multiple-unit trains, we are consistently continuing our investment programme in a modern fleet. The new trains have a speed of 160 km/h and offer increased passenger comfort, barrier-free boarding, the option of transporting bicycles and Wi-Fi. In addition, a special focus was placed on efficient energy consumption," emphasizes ÖBB CEO Andreas Matthä.

The order consists of eleven 73-metre-long local trains and 28 106-metre-long trains for use in various federal regions. 31 trainsets with a length of 106 metres for long-distance transport within the Alps complete the first call-off. The most modern European Train Control System [ETCS] from Siemens Mobility will be used for controlling the train. In conjunction with the appropriate infrastructure, the system enables significantly shorter train intervals, which is an important economic factor on particularly busy routes.
The Mireo's lightweight construction and resulting low energy consumption, as well as its air conditioning systems using a natural refrigerant and a heat pump, ensure greater sustainability. The trainsets are especially environmentally friendly thanks to their low energy consumption. The car bodies are aluminum, and a new lightweight construction technology is also used for the inner bearing bogies.

Austrian know-how provides greater comfort for passengers
The SF7500 bogies, which were developed at the Siemens Mobility competence center for train bogies in Graz and have long since proven their worth internationally, will be used on the Mireos. In contrast to previous Mireo trains, in which two cars share one so-called "Jacobs bogie", each ÖBB Mireo car has two bogies. Several of them throughout the train are powered by high-performance traction motors, ensuring acceleration that is optimally balanced between traction and energy efficiency. The bogies are designed with inner bearings to save weight and space, and the extra space gained is used for relocating other components beneath the car body. This improves the train's handling and gives passengers more room and an enhanced spatial experience.
The Mireo trains will be built within our global network of train manufacturing facilities. The state-of-the-art bogies will be manufactured at the Siemens Mobility competence center in Graz.

Image ©ÖBB

Two EuroDuals from European Loc Pool for FRACHTbahn Traktion GmbH

European Loc Pool, a leading provider of locomotive leasing, is pleased to announce the signing of a long-term full-service leasing contract for two EuroDual locomotives with FRACHTbahn Traktion GmbH, headquartered in Vienna, Austria. This step emphasizes the commitment of FRACHTbahn and ELP to innovative, sustainable and efficient solutions in European rail freight transport.

"The EuroDual is a key element in the further development of our company," emphasizes Volker Kohl, Managing Director of FRACHTbahn Traktion GmbH. "It gives us access to heavy goods transport segments and complex topographical conditions that were previously challenging. Particularly noteworthy is the efficiency of the EuroDual in the first/last mile range and its ability to access alternative routes under diesel traction – an invaluable flexibility, especially for construction measures in the infrastructure sector."

The decision in favor of the EuroDual is based on its versatility and the possibility of opening up new transport segments. FRACHTbahn plans to use the EuroDual on main lines that run from the eastern borders of Austria to Germany, Switzerland and France, as well as on the transalpine corridor to Slovenia and Italy. "These routes are of strategic importance to us, and we see the EuroDual as a key asset for their development," explains Kohl.

"We will also develop further secondary axes in collaboration with our customers."

For FRACHTbahn, traction, sustainability, energy efficiency and flexibility are key aspects of its future strategy. EuroDual supports the company in developing new business areas and operating them economically.

European Loc Pool is proud to meet FRACHTbahn's expectations of a leasing company in terms of flexibility, reliability and support for growth targets," says Emiel Knarren, Chief Commercial Officer at ELP. Volker Kohl adds: "It is essential for our company that decisions are made quickly and by mutual agreement. Our experience with European Loc Pool to date leads us to expect many years of good cooperation."
The partnership with FRACHTbahn is an important step for European Loc Pool to promote sustainable and innovative transport solutions in rail freight transport in Austria. The handover of the two EuroDuals to FRACHTbahn is planned for the end of 2024.

Austria

New quantities for Marcegaglia Carbon Steel

ÖBB Rail Cargo Group (RCG) is handling additional tens of thousands of tons per year for Marcegaglia Carbon Steel as part of a new order.

Marcegaglia Carbon Steel, a long-standing customer of RCG, is one of the largest steel processors in Italy, offering a wide range of steel products. On top of the quantities the RCG was already handling, a new order has now been commissioned: every week, the RCG now runs a block train of pallets loaded with steel strip – for the manufacture of folding and hinge systems – from the terminal in Piadena, near Cremona, through the Brenner Pass to the Gebrüder Weiss terminal in Wolfurt.

The recipient of the consignment is the BLUM factory in the Vorarlberg region.

End-to-end from a single source
RCG is responsible for coordinating the entire logistics solution, including first and last mile and the main leg of the rail journey through Italy and Austria using its own traction. What makes this transport special is that the whole transport is completed within a single day. The new order is a huge step forward in terms of sustainability, as the transport was previously carried out exclusively by truck.

As strong as steel: RCG's logistics solutions
Maximum transport security for several million tons of high-quality steel and iron products every year, expert support and planning of technologically advanced logistics solutions –RCG's comprehensive logistics solutions are more than just transport handling, because the provided services cover the entire supply chain.

RCG's bespoke rail logistics solutions ensure that steel and raw material products reach their destinations reliably and safely across Europe, thereby safeguarding the quality of supply to international centres of the manufacturing and processing industries.

TransFER Linz–Wels–Duisburg becomes TransFER Linz–Duisburg–Rotterdam

ÖBB Rail Cargo Group (RCG) is optimising its TransFER with a connection to Rotterdam, which enables a direct round trip connection between Austria, Germany and the Netherlands. Rotterdam plays a crucial role in rail freight transport – the port is a major logistics hub in Europe and serves as an intermodal transport hub for the transhipment of goods between rail, ship and truck. Rotterdam is not only an important hub for freight transport within Europe, but also beyond. The TransFER Linz–Duisburg–Rotterdam now operates four round trips per week, providing an optimal connection for maritime flows of goods to the economic regions of Western and Central Europe. In addition, the TransFER allows transfers within Rotterdam to all maritime and continental terminals in the Maasvlakte and Waalhaven industrial and port areas, as well as to Antwerp and Zeebrugge.

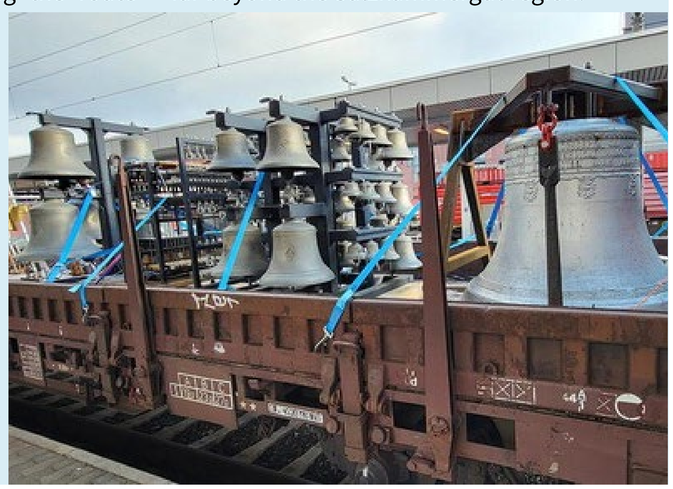
Procedure and options
The TransFER starts in Linz and runs via Duisburg to Rotterdam. Everything follows a fixed timetable for reliable logistics planning. All types of stackable containers between 20 and 45 feet can be transported. The use of swap bodies is also possible in the direction of Rotterdam. RCG is actively working on an additional transport option for cranable trailers. Dangerous goods (RID) can also be transported along the entire route.

RCG transports the "Glögglwaggon"

To usher in the Capital of Culture year 2024, the ÖBB Rail Cargo Group (RCG) transported what is known as the "Glögglwaggon" through the Salzkammergut. This eye-catching art project involved a very special type of transport. Every year, the European Union selects at least two towns or cities to be designated as European Capitals of Culture. It is an honorary title that this year was awarded to Bad Ischl in the Salzkammergut. This is something to be celebrated, which is why 23 municipalities have joined forces to deliver a wide-ranging and multifaceted programme for this year as a Capital of Culture under the motto "23 for 24".

The Glögglwaggon Project
One element of this is an art project entitled "Salzkammer(sc)hall" by composer Georg Nussbaumer, which heralded in the 2024 Capital of Culture year in the truest sense of the word on January 19th. It is a moving sound sculpture with more than 40 bells of various pitches that travelled along the railway line from Attnang-Puchheim to Stainach-Irding. These bells and chimes were mounted on a railway wagon and caused to ring by the wind. The faster the train travelled, the more ringing the bells produced as it passed through the Salzkammergut with a Doppler effect. If the train passed by churches along the route within earshot, they responded by ringing the bells in their spires. When the train stopped, the bells fell silent.

An ÖBB project from start to finish
The frame for the bells was designed and produced by apprentices at ÖBB Infrastruktur. The RCG was responsible for organising and executing the special transport: a Klima-Taurus locomotive hauled a total of three passenger carriages with high-profile guests – invited guests included Climate Protection Minister Leonore Gewessler, ÖBB Infrastructure Director Silvia Angelo and 23 mayors – and a Kbs wagon at the end, on which the bells were mounted. The transport and the entire event were a complete success and was probably audible far beyond the Salzkammergut region.



Austria

Eight Class 642 DMUs have received an ÖBB Design. One of them is Class 642.083 seen passing Achenlohe with train No. Rex5870 on January 10th. *Thomas Niederl*

Czech Republic

Jubilee Mattoni Express

On January 16th 2024, the jubilee 800th Mattoni express set off from the Vojkovice nad Ohří station. By this train, ČD Cargo, in cooperation with the carrier Railsystém, ensures the transport of non-alcoholic beverages of the Mattoni 1873 company from the town of Kyselka to the warehouse in Mostkovice near Prostějov.

Transport of the beverage by rail resumed in August 2012, and eight hundred trainsets have since replaced the journey of over 22,800 trucks and saved over 9,200 tonnes of CO2. The use of ČD Cargo services is proof of Mattoni 1873's social responsibility and confirmation of the reliability and ecological and energy efficiency of rail freight transport.

Transporting Mattoni drinks by rail has had a tradition since 1895, when a railway siding was built from the Vojkovice nad Ohří station to Kyselka. Approximately 1,000 wagons with mineral water were transported along the line annually. The siding was used by freight trains until 1998.

The operation was resumed in 2012 after a four-month renovation of the siding and a series of demanding negotiations.

Photo: ©Mattoni 1873/CD Cargo

Czech Republic

NEW TRAMS FOR PRAGUE REVEALED: THE FIRST ŠKODA FORCITY PLUS PRAHA 52T WILL START RUNNING IN THE CAPITAL IN LESS THAN TWO YEARS

The capital of the Czech Republic can look forward to up to 200 modern, 100% low-floor Škoda ForCity Plus Praha 52T trams.

The Prague Public Transit Company (DPP) has signed an eight-year contract with the winner of the public tender, Škoda Group, for the purchase of 40 trams and an option to deliver up to 160 more. The total value of the contract is nearly CZK 16.602 milliard, and it is one of the largest investments in new trams in the modern history of DPP. The first 20 new trams are expected to arrive in Prague in December 2025, and another 20 vehicles a year later, by the end of December 2026.

The Škoda ForCity Plus Praha 52T is a one-way, five-part, 100% low-floor tram without a single step in the entire passenger compartment, including the space above the bogies, in a modern design created by a team of designers from Škoda Group led by Tomáš Chludil. It is 32 metres long, equipped with full-carriage green air conditioning with ecological refrigerant, an anti-collision system, automatic passenger counting, energy-saving LED interior and exterior lighting, and 70 padded seats, of which 44 are forward-facing and 26 are rearward-facing.
Compared to the previous 15T trams, the capacity of the new vehicles will increase by 33 passengers, or almost 16%. Passengers will appreciate the new information system with six large screens across the entire width of the aisle and more intuitive operation of the door opening buttons and signalling to the driver. That's a short description of the new tram that will hit the streets of Prague for the first time in 2025.

Prague, especially its historic centre, is typical for its narrow streets with sharp curves and steep gradients, significant height differences in the tram network, but also long and relatively straight routes. The development of the new tram for Prague considered all these facts as well as the technical requirements of the DPP resulting from the previous operating experience.

The design of the new tram combines a multi-link vehicle with two pivoting bogies under the outermost links and two partly pivoting bogies under the inner chassis links. This combination allowed for a much more accessible, airy saloon for passengers with short, wider, and spacious joints, free of any steps or other barriers. It also ensures adaptability to any track profile and promises a smooth, comfortable, and quiet ride, as well as reduced wear and tear on wheels and tracks. This solution will have an impact on the longer service life of the vehicles, assuming, for example, up to 50% more-wheel mileage than the 15T trams, and ultimately lower maintenance costs for the bogies and its most expensive components.

"Although Prague and DPP have purchased new trams type 14T and 15T in the past twenty years, they served to renew the fleet as a replacement for unviable high-floor trams, but not to increase the number of available vehicles. At a time when new lines were hardly built in Prague, this could have been enough. But we have started a tram boom in Prague. We are building new lines, last year we opened three lines with a total length of five kilometres, and we are preparing more. This year, for example, we will start building on Wenceslas Square. The new lines alone, which we plan to build in the period 2024-2027, will need 45 new trams. And it will be these 100% low-floor and quiet trams with an increased number of seats and an anti-collision system," says Zdeněk Hřib, 1st Deputy Mayor of the capital city of Prague for Transport and Chairman of the Supervisory Board of DPP.

"We have approached this public contract for the purchase of up to 200 new trams with the utmost care, just like other tenders. It was preceded by preliminary market consultations and the chosen form of negotiated procedure with publication allowed us to specify the requirements for the offered vehicles with the bidders and to verify that they can produce them in the required time and according to the required technical specification. We have drawn on our long experience of operating 14T and 15T articulated trams. We were able to award the contract to the winner on schedule within one year of the contract announcement without any obstruction or appeals to the Office for the Protection of Competition. We signed the contract with the winner at the end of 2023, and teams from both parties are now working on fine-tuning the technical details for the production documentation. I firmly believe that the production and delivery of new vehicles will continue schedule. The first passengers could ride the new trams in a test run as early as next year. We should take delivery of the first 20 vehicles no later than December 2nd 2025, and the second 20 by December 31st 2026. The option allows us to purchase up to 160 additional vehicles and gradually replace a substantial part of the current high-floor vehicles if we can secure financing for the purchase with the City of Prague. If we were to exercise the contract in full, delivery of the last vehicle would fall in 2032," comments Petr Witowski, Chairman of the Board of Directors and CEO of DPP, on the details of the public tender and the signed contract.

"It will be five years since the last 15T tram was delivered in about a month, but we are still paying them off. With the last instalment of approximately CZK 800 million, we will finally settle the previous large contract for the modernisation of the DPP tram fleet this year. This opens space for us to purchase new cars, and this is how we have always planned it," says Jan Šurovský, Member of the Board of Directors and Technical Director of DPP-Surface, adding: "I perceive the new tram as a combination of cutting-edge technical solutions of the 21st century and, at the same time, proven and technological principles tested in everyday operation in Prague. Therefore, I expect its high operational reliability and really low maintenance costs".

"We have managed to develop and prepare a tram that is not only technically adapted to the demanding operation in Prague streets and fits into the overall appearance of the city, but at the same time elevates the overall travel experience to a higher level. The biggest advantage from the passengers' point of view is certainly the continuation of the trend towards 100 % low-floor vehicles that will be fully air-conditioned. We already produced 250 trams with barrier-free boarding for Prague a few years ago, and I believe that another 200 will be even more positively received by passengers. For many passengers, the new trams will make boarding and exiting much easier. At the same time, passenger changes and movement inside the car will be faster for the operator compared to trams with high-floor sections. And these are just some of the aspects we have worked with in the design. In the running solution, we have revived the tram's electromechanical brakes after many years, which have lower maintenance costs and are much more environmentally friendly than hydraulic brakes.

The installation of electromechanical brakes was made possible by our significant technological advances and developments in the smooth control of driving systems and, in particular, engines. We can already fine-tune the smoothness of engine braking to a complete stop, bridging the original lack of mechanical braking while significantly achieving market-leading values in energy recovery and, therefore, operating costs. We at Škoda are excited about the new tram for Prague and believe it will exceed all passenger expectations. Supplying trams to Prague, one of the largest and most demanding tram operations in the world, is very prestigious for us, but it is also a great commitment," concludes Tomáš Ignačák, Vice-Chairman of the Board of Directors and President CZ&SK and Central East Regions at Škoda Group.

The branch from Neustadt (Waldnaab) to Eslarn in the Oberpfalz region of Bayern closed to all traffic in 1995, the section from Vohenstraus to Eslarn having closed 2 years previously in 1993. Although the station buildings remain at Eslarn, the only clue to its previous existence is a plinthed double sided smokebox door in the station area. On January 12th, in the background can be seen the replacement bus DB still runs to replace the branch closure. *Andy Pratt*

DB Regio Bayern Class 218.430 has just backed onto train No. RE4857 09:44 München Hbf to Hof Hbf at Regensburg Hbf on January 13th, Class 146.242 had worked the train from München. Alongside stands Beacon Rail's Class 182.596 waiting to attach 3 coaches to the next Praha - München Alex service which it will then work forward to it's destination. *Andy Pratt*

Germany

Alstom to supply DB Regio with new high-capacity trains

Order for 18 modern Coradia Max[1] trains

Combination of single and double-decker carriages for more capacity and comfort

Deployment of the regional multiple units in three German federal states

Alstom, global leader in smart and sustainable mobility, is supplying 18 modern Coradia Max electric multiple-unit trains to DB Regio AG. The order[2] comprises 9 three-car and 9 five-car trains, which will initially start operating on the highly popular regional express line RE1 between Hamburg and Rostock, in the Baltic Sea-Alster sub-network (OSTA) at the timetable change in December 2027. Following the electrification of the line between Bad Kleinen and Lübeck and the construction of a connecting curve, the trains will also run as far as Lübeck.

“The mobility turnaround in the north is picking up speed. With our new double-decker trains, we are helping DB Regio to expand its passenger services in the states of Hamburg, Schleswig-Holstein, and Mecklenburg-Western Pomerania in a sustainable and modern way,” says Müslüm Yakisan, President of Alstom Region DACH. “The Coradia Max scores highly in terms of capacity and comfort, providing the best arguments for more green mobility by rail. Passengers in northern Germany can look forward to reliable, spacious, and barrier-free trains.”

Carsten Moll, Chairman of DB Regio Northeast: “Our Hanse-Express between Rostock, Schwerin and Hamburg is one of the region’s most important lifelines for commuters and day trippers. We are delighted to have won the tender and look forward to the new vehicles. The federal states are investing in state-of-the-art trains in which travellers will benefit from additional passenger information and lounge areas, for example.

The RE4 Lübeck - Schwerin and RE2 Lübeck - Rostock lines will add more services to the Hanse Express.”

“With the federal states cross-border OSTA sub-network, 18 new, modern vehicles will be procured in the future. The new trains, which will feature the Mecklenburg-Vorpommern state design inside and out for the first time, will offer our passengers a pleasant journey between the Baltic Sea and the Alster with around 720 seats. With additional frequencies and new routes, we are creating more environmentally friendly mobility that is suitable for everyday use and connects the northern German regions and the Hamburg metropolitan region,” says Daniel Bischof, Managing Director of VMV-Verkehrsgesellschaft Mecklenburg-Vorpommern mbH.

Compared to the vehicles currently in use in Schleswig-Holstein and Hamburg, the new trains offer passengers up to 50% more seating capacity between Büchen and Hamburg at peak times. In Mecklenburg-Western Pomerania, the new lines from Rostock and Schwerin to Lübeck will benefit from the three-car multiple-unit train with a total of 265 seats. The five-car multiple-unit train with two additional double-decker centre cars will have a total of 462 seats. The trains will be produced at the Alstom site in Salzgitter.

The vehicles have a maximum authorised speed of 160 km/h and are equipped for the European Train Control System (ETCS) ex works as well as a combination of high capacity and comfort. Two different access heights allow comfortable and ramp-free access for travellers with reduced mobility at almost all stations on the RE1, RE2 and RE4 lines.

Thanks to the wide carriage profile on the upper floor, the vehicles also offer a generous feeling of space and more freedom of movement. In addition, free Wi-Fi provides fast internet and specially treated windows ensure better mobile phone reception while travelling.

The combination of single and double-decker carriages is the hallmark of the Coradia Max. This optimises capacity, flexibility, and accessibility.

Passengers benefit from an impressive travelling experience on the Coradia Max, whether on short or long journeys. Over 500 trains of this type have
been ordered across Europe.

Alstom™, Coradia Stream™ and Coradia Max™ are protected trademarks of the Alstom Group.

[1] Coradia Max replaces the former product name Coradia Stream high-capacity
[2] Order booked during third quarter of fiscal year 2023/24

Image: The new Coradia Max trains will operate among others on the highly popular regional express line RE1 between Hamburg and Rostock, in the Baltic Sea-Alster sub-network (OSTA) – Non-contractual design for illustration purposes

Hector Rail's Class 151.070-0 (aka 162.002 'Lang') heads east through Timmerlah, Braunschweig on a tank train. *Anton Kendall*

Class 181 locos are now more common in the north of Germany, now that some have passed into private ownership. Class 181.204-9 ‘Rügen’ heads east through Dedensen-Gümmer on a loaded car train. *Anton Kendall*

WFL's Class 155.110-0 snakes across the tracks at Gemünden am Main hauling an empty sleeper train. *Anton Kendall*

The twin towers of the Kreuzberg Monastery oversee the arrival of Class 218.430 at Schwandorf on January 14th with train No. RE4856 09:44 München Hbf - Hof Hbf. The loco had just 11 days left in service with a 3rd life extension granted to it's expiry date of January 25th. *Andy Pratt*

Germany

BSAS operated EuroDual Class 159.210-4 hauls a huge rake of tanks from Hannover Hafen through Dedensen-Gümmer. *Anton Kendall*

Germany

Step into the future, please!

Built in Berlin. Built for Berlin. As of January 11th 2024, the next generation of the yellow underground trains for Berliner Verkehrsbetriebe (BVG) are finally visible, audible and tangible. The official handover of the first test vehicle from manufacturer Stadler to BVG took place at the Olympia-Stadion underground station. Numerous guests from politics, the public transport industry and the media attended the presentation of the first train with the internal BVG series designation “JK”. They were able to take a close look at the brand new vehciles inside and out and, above all, experience the new feeling of space.

“Today is a good day for BVG and a good day for Berlin,” said Governing Mayor Kai Wegner. “These new and modern trains will shape the image of the underground for decades to come - and thus also contribute to the mobility transition in Berlin. Our aim is that even more people switch to BVG and local public transport.”

Passengers will be the main beneficiaries of the latest addition to the Berlin underground family. Thanks to newly designed door areas and extremely flat passenger information systems on the sidewalls, the vehicle appears much more spacious than its predecessor. Passengers can look forward to other innovations including light colour controlled by the time of day and the position of the sun, which ensures a pleasant ambience at all times, and the “BVG Wi-Fi”, which in future will provide good Internet connections not only in the stations but also on the trains. Outwardly inclined handrails also provide plenty of space in the passageways, for example for wheelchair users or parents with pushchairs.

“The mobility transition not only requires good infrastructure, it also requires modern vehicles,” said Manja Schreiner, Senator for Urban Mobility, Transport, Climate Action and the Environment. “If we want to convince more and more people of the benefits of environmentally friendly mobility with buses and trains, then we also need to offer them attractive options.”

“I am delighted that my return to BVG starts with this great news,” said Henrik Falk, who took over as CEO of BVG at the turn of the year. “It’s especially good news for our passengers, who can look forward to many improvements.”

“Over the past 3.5 years, we have worked closely with Stadler in a difficult environment. I am therefore all the more pleased that we can now present the first underground vehicle,” said Dr Rolf Erfurt, BVG Board Member for Operations. Before the doors open for all passengers, however, the vehicles still have to complete a tight programme, as Rolf Erfurt emphasised. “Over the next few months, our experts will be putting the trains through their paces. The quality should and must be right before the first passengers board.”

The workshop specialists are currently familiarising themselves with the new vehicles. At the same time, the training of the drivers required for the test and acceptance runs has already begun. Then it’s onto the tracks - first on the premises of the Grunewald workshop, then on the entire small-profile network (lines U1 to U4). Once all the tests have been successfully completed, a phase of around twelve weeks with test runs in passenger service is planned - probably from late summer 2024. Then it will be time for all interested parties to “board the future, please”. Immediately afterwards, the plan is to start series delivery.

“Handing over a new underground train is always a great moment,” said Jure Mikolčić, CEO of Stadler Germany. “All the more so when it’s a tailor-made product - like the trains for BVG. 4600 individual components have to fit together and work perfectly with each other as well as with the existing infrastructure. We are working with our fullest commitment to get the new fleet on the tracks.”

High quality standards are important for passengers, manufacturer and BVG alike. After all, the new J and JK series trains will indeed shape the image of the Berlin underground for decades to come. This is the largest procurement order in the history of BVG.

According to the framework agreement with Stadler, a total of up to approx 1,500 vehicles can be delivered by 2035. With a total volume of up to 3 billion euros, the contract also stipulates the supply of spare parts for 32 years. The current delivery order comprises 236 carriages of the large-profile J series and 140 carriages of the small-profile JK series.

The agreement initially covers the delivery of the test vehicles, which has now begun (24 vehicles in total, 12 each for small and large profiles). Possible findings from the tests can still be incorporated into the series production on an ongoing basis.

As is well known, there were unfortunately delays in delivery. This was due to supply chain problems on the global market

Germany

Metrans improves connection between south-west German industrial region and Hamburg

Thanks to its efficient rail terminal, Kornwestheim is an important transport hub in the centre of the industrial regions around Stuttgart, Mannheim and Frankfurt am Main.

The European rail logistics company Metrans is linking these export-oriented regions more closely with Hamburg, Germany's largest seaport, with a new service.

The subsidiary of Hamburger Hafen und Logistik AG (HHLA) has been offering a daily rail connection for container transport between Hamburg and Kornwestheim since January 8th. Goods can be transported in both directions, and a direct connection to the seaports of Bremerhaven and Wilhelmshaven is also possible with Metrans.

Rail transport is proven to be much more climate-friendly than road transport. Metrans even enables certified CO2-free transport with the product HHLA Pure.

Sale: With the DB Ticket EURO 2024 for just 29.90 euros to the European Championship stadiums

Preparations for the UEFA European Football Championship are underway. As a national partner of UEFA EURO 2024™, Deutsche Bahn (DB) is committed to climate-friendly mobility around the major event. For travel to and from the stadiums in the ten German venues, football enthusiasts with tickets for the games can take advantage of attractive special offers that can be booked now.

With the DB Ticket EURO 24, holders of admission tickets for the stadium can travel directly to the stadium at a special price of just 29.90 euros each way within Germany. Tickets are train-specific and available while stocks last. You can now book via bahn.de/db-fussball-ticket.

The Interrail Pass EURO 2024 is the ideal ticket for football-loving visitors from other European countries. Guests with a ticket to the game can now for the first time purchase the special offer with a 25 percent discount for round-trip travel from 32 countries to Germany. The highlight: Customers can choose between a different number of travel days, on which the pass can be used for any number of trips within Germany in addition to arrival and departure.

Dr. Michael Peterson, DB board member for long-distance passenger transport: "Sustainable mobility is an integral part of this UEFA EURO 2024™. Our partnership includes attractive ticket offers for football enthusiasts from Germany and all over Europe. With over 400 trains, we are using the largest ICE fleet ever during the football summer."

As part of its "Strong Rail" strategy, the DB set the course for fleet expansion at an early stage. This means that DB can use longer ICE trains during the tournament period and offer trains on additional service days. In addition, 14 EM special trains will run every day. In total, the DB brings around 10,000 additional seats onto the rails on match days. Further special trains will be planned at short notice for the final round.

All information about Deutsche Bahn's commitment to the 2024 UEFA European Football Championship can be found here: bahn.de/em2024

Germany

For reliable trains: Federal Chancellor and railway boss open Germany's most modern maintenance facility in Cottbus

Deutsche Bahn (DB) keeps its word: Less than 20 months after the groundbreaking ceremony and thus at record speed, the DB has officially put the new ICE maintenance facility in Cottbus into operation.

DB is initially creating 450 new, highly qualified industrial jobs and training positions at the Cottbus site and is expected to create a total of 1,200 by 2026. The group has also strengthened vocational training and significantly increased the number of apprenticeships. This means that half of the jobs to be filled in the plant in 2026 can be filled with our own trainees.

The ICE 4 is the backbone of Deutsche Bahn's long-distance transport; the DB has ordered 137 of these trains. DB is continually expanding its ICE fleet as part of its "Strong Rail" corporate strategy. In total, around 450 ICE trains from different series are expected to be on the rails by the end of the decade. More trains also require more maintenance capacity. With innovative technology, the new plant in Cottbus ensures that trains get back on track quickly, that more people can travel in a climate-friendly and comfortable manner, and that the transport transition in Germany is successful.

Olaf Scholz, Federal Chancellor : "The "New Cottbus Plant" sets standards for large projects everywhere in Germany. Deutsche Bahn built a sophisticated building here in a very short space of time. That's what I mean when I talk about our new Germany pace.

Deutsche Bahn has courageously embarked on something new: the "rail partnership model". The cooperation between Deutsche Bahn and LEAG for the "New Plant" is also a prime example of how it works: Even if the jobs change, the good jobs stay here. "Deutsche Bahn has come here to Cottbus because it can and wants to draw on the experiences and qualifications of Brandenburg residents."

Richard Lutz, CEO of Deutsche Bahn: "The new Cottbus plant is a central building block for the further expansion of our offering and is indispensable for Strong Rail and the transport transition. In Germany's most modern maintenance facility, highly qualified employees ensure that the ICE 4 is back in use for our passengers more quickly. We also create attractive jobs in the region and thus contribute to successful structural change.

The Cottbus plant is already a beacon of progress and new beginnings in our country. And we are continuing this success story with the construction of the second hall."

Dietmar Woidke, Prime Minister of Brandenburg: "The start of the railway works is a great milestone in strengthening the structure of our Lausitz. I am happy that, through a joint effort, we managed to keep our promise in a very short time: We are creating new and future-proof jobs before we phase out coal-fired power generation. I am very grateful for this, because it also strengthens trust in political promises.

Our persistence during the negotiations on the coal compromise is paying off: many jobs in the middle of the city are now secured. The new building shows that Lausitz is developing into an outstanding location for innovative technologies. I am particularly pleased that the railways, together with LEAG, are making an above-average commitment to training young people. But this project also shows that short planning, approval and implementation times are possible in Germany if everyone involved has a goal and all wheels mesh together. This Brandenburg pace should become the benchmark."

During heavy maintenance, the trains are partially dismantled and heavy components such as traction motors or bogies are replaced. In the new plant, which is specially tailored to the ICE 4, this can be done within just two weeks - faster than in any other DB plant.

The 374 meter long XXL ICE with 13 cars and 918 full-length seats fit into the almost 450 meter long factory hall. Of the shorter, seven-car ICE trains, two of the approximately 200 meter long trains can stand one behind the other on the two maintenance tracks. The trains no longer have to be divided for maintenance - as in other plants. Employees can work on all cars at the same time.

Another hall with a total of four tracks is already under construction on the factory premises. It is scheduled to go into operation in 2026.

In the factory, state-of-the-art technology and automation ensure more efficient and simpler work processes, which accelerate maintenance processes and reduce the workload on employees: The two maintenance tracks are elevated so that the side flaps and wheel sets of the trains are easily accessible. Specially developed bogie changers are installed in the hall floor. The heavy bogies can therefore be moved out to the side under the train for further processing.

Employees in Cottbus can identify parts and components using the app and order them to their place of work on the train. Augmented reality glasses make it possible to bring in technicians and engineers from other locations to work in Cottbus; tips and advice are then displayed directly in the field of vision. This means that the trains are available again quickly and reliably for journeys in Germany, Austria or Switzerland.

The significantly earlier commissioning of the ICE plant than originally planned is due to various factors: DB AG has implemented a new, cooperative process (rail partnership model) for planning and implementation, which ensures rapid process development, team-oriented action by the partners and short coordination channels .

In addition, everyone involved worked closely and very constructively on the necessary coordination on the approval procedures. The task force set up in the State Chancellery under the leadership of Prime Minister Woidke and DB board member Daniela Gerd tom Markotten also contributed to this.

Germany

More than ever before: DB is hiring 6,000 young talent this year

Young people are the future! That's why Deutsche Bahn is upping the ante when it comes to trainees and students and is hiring more young talent this year than ever before: 6,000 new young DB colleagues are expected to come on board in 2024. Last year there were 5,500 who started in one of the 50 apprenticeships and 25 dual study programs.

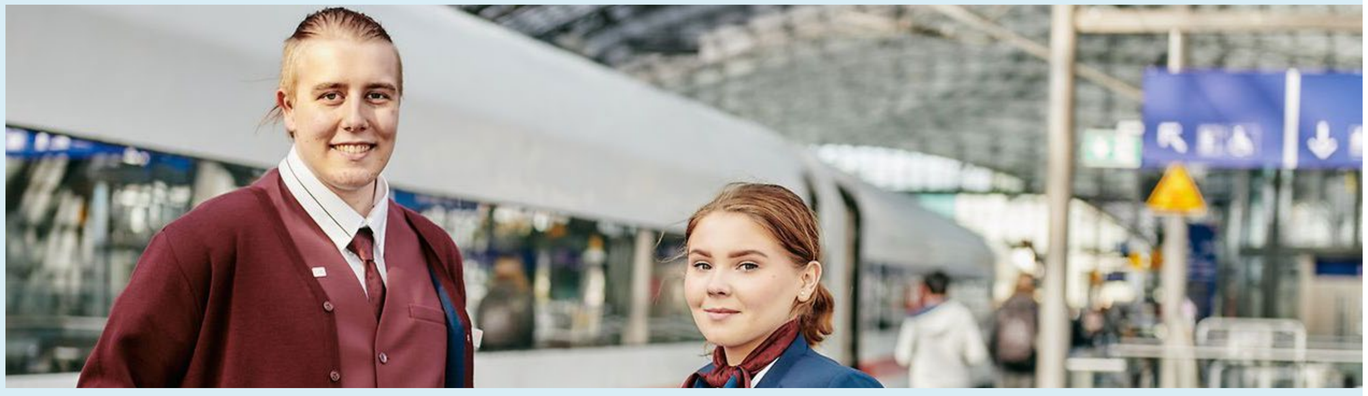
DB Human Resources Director Martin Seiler: "Only with qualified young people will we be able to master the major challenges before us - mobility transition and climate protection. That's why we at Deutsche Bahn attach great importance to being an attractive employer with very high-quality training."

In a historically tight labor market, it is also becoming more difficult to find new employees. That's why the DB continues to go to schools more, among other things, to reach potential young people in the classroom. "A year ago we set ourselves the goal of increasing the number of school collaborations to 500," says Martin Seiler, "and today I am very pleased that we have significantly exceeded this goal with almost 570 collaborations."

In order to maintain a close exchange with more schools nationwide, the DB has also hired so-called community recruiters who are also active outside of the metropolitan areas in the area and near DB locations. In addition to information events about the employer DB and professional orientation, school cooperation also means that employees are always available as so-called school mentors as contact persons. School internships and practical days, for example in signal boxes and workshops, are also on offer.

In some schools, practical tasks are already integrated into the curriculum. "We are continuing to expand this," adds Martin Seiler. "It's about anchoring practical content, for example in math or physics lessons, and linking tasks directly to a job."

Together with the Berlin Senator for Education, Youth and Family, Katharina Günther-Wünsch, Martin Seiler visited the Johanna Eck School in Berlin today, with which the DB has a close cooperation.



Senator Günther-Wünsch: "After my visit to the Johanna Eck School, I once again emphasize the importance of the transition from school to work for the future life of young adults. Early and comprehensive orientation towards future careers plays a crucial role. The partnerships between schools and companies, in particular the commitment of Deutsche Bahn, illustrate how such collaborations not only promote the individual professional development of young people, but also contribute to securing a qualified young workforce. This collaboration is a key to the future viability of our society. I encourage schools and companies in Berlin to follow this example in order to work together to strengthen the bridge between education and the world of work and to offer young people optimal opportunities for their future."

Planned hiring of trainees in 2024 in the top 5 professional groups:

- Training for dispatchers (train traffic controllers): around 890
- Trained train drivers: around 880
- Training as an electronics technician: around 750
- Mechatronics technician training: 430
- Training as a transport service clerk: 350

Full capacity utilisation, full success: New round-trip concept for Stellantis

It's the holy grail of rail logistics providers everywhere: freight trains running loaded on every journey. The reality is often quite different, as trains usually transport goods to one destination and then travel empty to the next pick-up address. Not so with the transport recently launched by Stellantis and DB Cargo Logistics – a great partnership with a recipe for success. The train is then directly reloaded with vehicles for the German market and makes its way back to Rüsselsheim, where the cars are stored temporarily until last-mile transport, often to dealerships. Now the train is ready for Stellantis to load more export vehicles, and a new round trip begins. It sounds simple on paper, but it's a dream come true for the rail logistics company and ensures high satisfaction for the car manufacturer, too. This seamless concept has been running smoothly and efficiently once a week since September 2023.

Resilient and robust: Shuttle with fixed resources

Several things all need to come together for this transport concept to be successful. DB Cargo Logistics has drawn up the timetable such that even unexpected disruption does not throw the round trips off track. This also allows for last-minute repairs to wagons if necessary. In addition, the car carrier wagons are used exclusively for this round-trip service and are therefore permanently available. Stellantis has found a pragmatic yet far-reaching solution here by turning part of the Rüsselsheim plant into its own compound, which can temporarily store imported vehicles as well as vehicles for export. The compound ends Stellantis's reliance on third-party providers and overcrowded car terminals and perfectly complements the round-trip concept between Rüsselsheim and Zeebrugge. It's a solution that required intensive planning and innovative spirit.

Round trip between Eisenach and Cuxhaven offers potential

Stellantis has already trialled this new strategy at its own factory in Zaragoza, Spain. It also plans to use it for transports between Rüsselsheim and its plants in France, as well for another recently launched round trip in Germany between Eisenach and Cuxhaven. This is another resilient shuttle system, with a train of around 220 finished vehicles travelling to the seaport for export every week. There is just one difference – the return journey to the Stellantis plant in Eisenach is still an empty run without reloading in Cuxhaven. Stellantis is therefore already working on ways to convert parts of its Eisenach plant into a compound, making itself even less reliant on other parking service providers.

If this is successful, nothing stands in the way of another perfect round trip by rail, with Stellantis's own car terminal providing the key to its success. It's all thanks to good, forward-looking cooperation and the new, innovative approach at Stellantis.

Germany

The best in freight: Steve, the versatile railwayman from Mainz

Steve Wiktor knows his employer like the back of his hand. He's been working for DB since 1996, when he began training to become a train driver in Halle. It was an eventful time in a Germany that was coming back together. During his training, he was advised to move to the former West Germany. That's how he came to Mannheim in 1999 and ended up working throughout southwestern Germany. After a stint in locomotive planning at the DB Cargo Control Center in Frankfurt, he switched to single wagonload transport in Mainz in 2017. He still works in single wagonload transport today, but now back in Mannheim.

Driving, planning, photography

"I used to get paid to drive, now I get paid to plan," he says with a wink. "Of course those are two completely different things, driving and planning. I want to use my expertise to contribute to the company's success." In the marketing department, for example, because Steve is also an ardent photographer.

DB Cargo, a versatile employer

At DB Cargo, there is nothing in day-to-day work that is exclusively the province of men. The corporate culture is based on equal opportunity, appreciation and respect, with diversity playing an important role in day-to-day work with people and in employee recruitment.

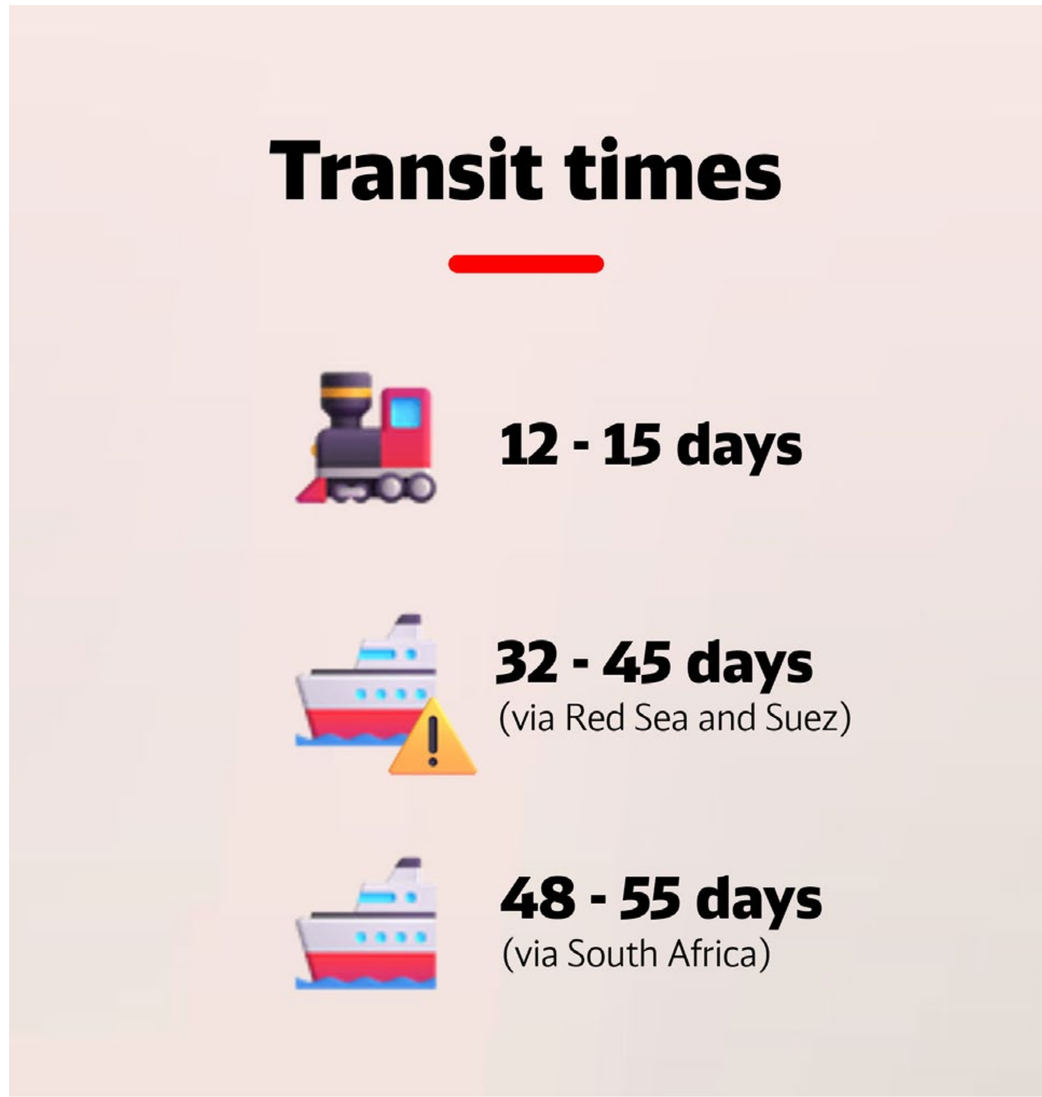
As an employer, DB Cargo offers all people – regardless of nationality, gender identity or age group – a working environment where everybody is treated equally, and it supports everyone in attaining their personal goals.

"It's nice to capture in pictures what you work on yourself," he says, adding that it makes him proud when the company uses his pictures for public relations purposes. "I've been through a lot of reorganisations. I want to do my part for the company, and I hope to work for it until I retire – happy and healthy."

Why rail is ideal for logistics between Asia and Europe

From low transport costs and transit times to avoiding conflict zones, rail is coming into its own for goods transport between Asia and Europe.

Trade between Asia and Europe is vital to the German economy, with huge volumes of goods travelling between the two continents every day by ship, plane and train. In today's environment, the importance of rail freight is becoming particularly apparent for a range of reasons – not least the favourable transport time. Rail's advantage on this route is made possible by DB Cargo Eurasia, a subsidiary of DB Cargo with extensive expertise in rail transport routes to and from Asia. Rail freight transport is more environmentally friendly than air and ocean freight, faster than the sea route, and cheaper than both planes and ships. It has therefore become an important transport alternative for companies from Asia and Europe. DB Cargo Eurasia works closely with customers to find the right rail links, before making sure that shipments are carried out as efficiently as possible. Journeys usually take between 12 and 15 days, making them up to four times faster than by sea.



FRACHTbahn Traktion GmbH Vectron MS Class 193.942 is seen in Bryell working an intermodal from the Cabooter Railterminal in Kaldenkirchen via Hegyeshalom (traction change) to Curtici Railport in Curtici (RO) on January 19th. *Erik de Zeeuw*

Germany

On January 19th, DB Cargo TRAXX F140 AC3 Class 187.144 passes Viersen Helenabrunn with an engineers train towards Mönchengladbach. *Erik de Zeeuw*

On December 11th, No. 99.2331 passes along Goethestrasse in Bad Doberan with a train from Kuhlungsborn West. *Mark Torkington*

Germany

On December 12th, No. 99.2331 is seen on the Bad Doberan main street (the appropriately named Mollistrasse) with a Mollibahn train to Kuhlongsborn. *Mark Torkington*

On December 11th, No. 99.2331 stands at Kuhlungsborn West before departure to Bad Doberan on the Mollibahn system near Rostock. *Mark Torkington*

On December 13th, No. 99.4011 stands at Binz passing 99.4632 in the left hand platform on the Rügensche BäderBahn system based at Putbus. *Mark Torkington*

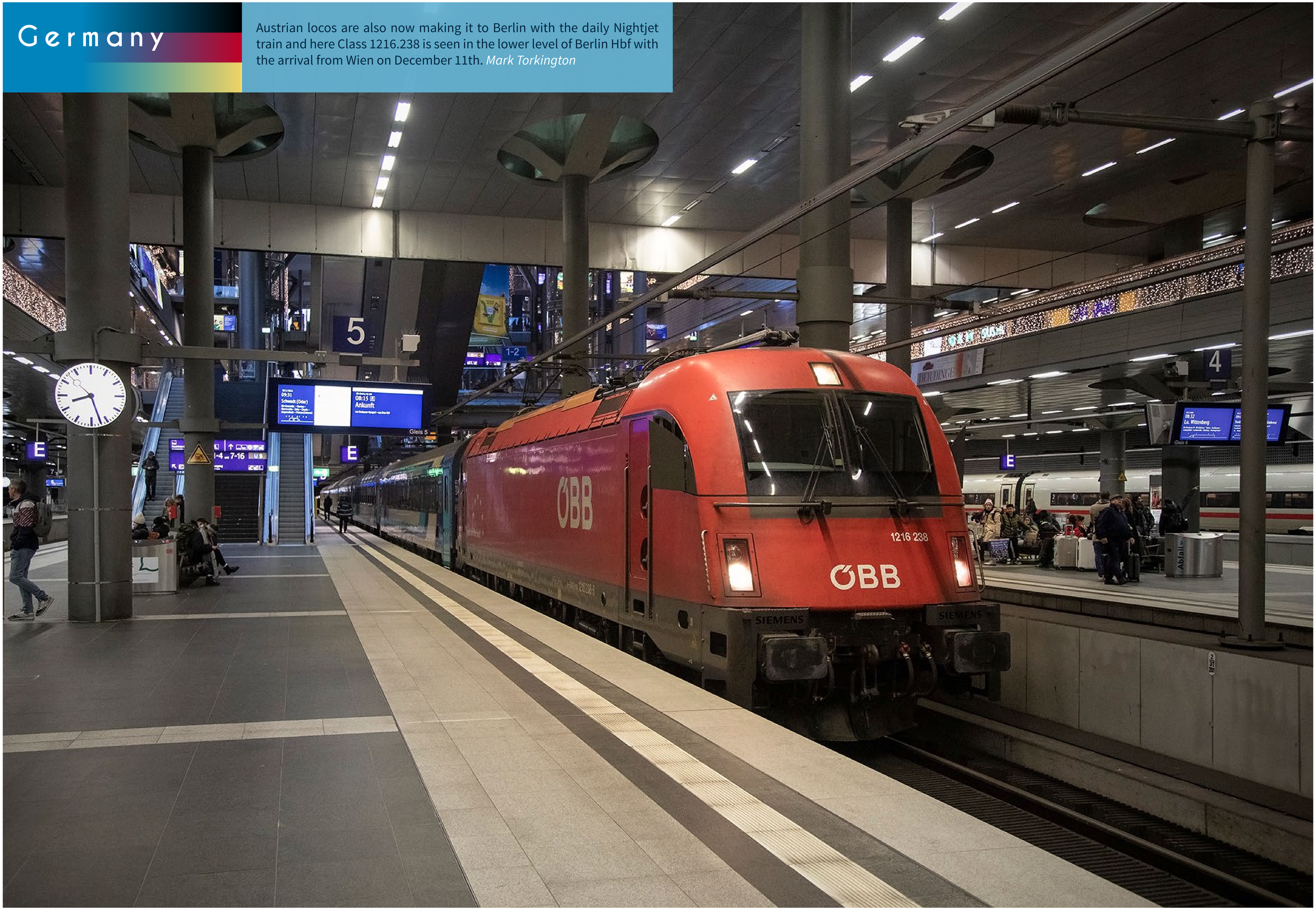
Germany

Class 147.012 and 143.238 sit with RE trains at Stralsund Hbf on December 13th. *Mark Torkington*

Dutch Vectrons are the new face of Amsterdam to Berlin trains and here Class 193.932 stands at Berlin Hbf in the evening of December 13th. *Mark Torkington*

Germany

Austrian locos are also now making it to Berlin with the daily Nightjet train and here Class 1216.238 is seen in the lower level of Berlin Hbf with the arrival from Wien on December 11th. *Mark Torkington*



Railexperts No. 9902 is seen on January 6th in Haarzuilens with Mitropa & Bord club carriages working a New Year Express from Uitgeest to Rotterdam CS. The locomotive wears a new livery on the occasion of a children's book 'Tommie and Tess train journey to the mountains'. *Erik de Zeeuw*

On January 19th, DB Cargo Class 189.089 passes Griendtsveen with a Kijfhoek Zuid to Mannheim Rbf (D) mixed freight. *Erik de Zeeuw*

On December 30th, former NS railcar No. mC9002, now owned by 2453CREW is seen at Woerden during an NVBS rail interest ride on December 30th. *Gerard van Vliet*

Netherlands

On December 30th, former NS railcar No. mC9002, now owned by 2453CREW is seen at Breukelen. during an NVBS rail interest ride on December 30th.
Gerard van Vliet

Medway No. 1904 stands in the platform at Ourique whilst hauling Medway freight No. 68984 from Mina de Neves-Corvo to Praias de Sado on December 9th. *Laurence Sly*

No. 5602 passes Amendoais whilst hauling train No. IC570 10:02 Lisboa Oriente - Faro on December 10th. *Laurence Sly*

No. 5607 passes Pata de Baixo whilst hauling train No. IC672 14:15 Faro - Lisboa Oriente on December 10th. *Laurence Sly*

No. 1427 waits time at Pinhão on January 27th with train No. IR21860, the 15:12 Pocinho to Porto São Bento. *Andy Pratt*

Train No. 5713, the 15:15 to Vila Real de Santo Antonio departs Faro on December 10th.
Laurence Sly

No. 4003 passes Pata de Baixo whilst working train No. AP186 16:00 Faro - Porto Campanha on December 10th. *Laurence Sly*

No. 1427 arrives at Pocinho on January 28th with train No. IR865, the 09:20 from Porto São Bento. Behind it, classmate No. 1454 waits to drop on the stock to work it back to Porto at 13:08. No. 1427 will work back at 15:12 with the stock from the 08:20 ex Porto. *Andy Pratt*

Portugal

CP Class 1400 No. 1429 takes in the January sunshine at Livração with train No. IR865, the 09:20 Porto São Bento to Pocinho while waiting to pass the slightly delayed suburban unit forming the 10:14 Marco da Canaveses to Porto São Bento on January 29th. *Andy Pratt*

CP No. 1429 makes a fine sight powering away from its Pinhão stop with train No. IR865, the 09:20 Porto São Bento to Pocinho on January 29th. *Andy Pratt*

Medway No. 1907 passes Panoias whilst hauling train No. 55891 from Praias do Sado to Mina de Neves-Corvo on December 11th. *Laurence Sly*

Medway No. 5625 passes Panoias whilst hauling train No. 55982 from Mina de Neves Corvo to Praias do Sado on December 11th. *Laurence Sly*

Slovakia

ZSSK operated Vectron Class 383.103-9 brings a passenger service into Bratislava through Ružinov towards Nové Mesto. *Anton Kendall*

Slovakia

Budamar Vectron Class 383.215-1 hauls a car train through the Bratislava suburbs through Ružinov towards Nové Mesto. *Anton Kendall*

SZ's Class 363.010-4 rounds the bends just north of Rakek with a Metrans container train heading for Koper Docks. *Anton Kendall*

SZ Taurus Class 541.106-5 rounds the bends just north of Rakek with a Metrans container train from Koper Docks. *Anton Kendall*

ÖBB Vectron Class 1293.048-5 leads a sister locomotive on an empty grain train through Ljubljana.
Anton Kendall

Hungary

Alstom has successfully equipped 59 electric trains with its proven on-board signalling solution for MAV-START

Alstom, global leader in smart and sustainable mobility, has achieved a significant milestone in its operation in Hungary. The fleet modernization project of MÁV-START's Flirt-type electric trains with European Train Control System (ETCS) Level 2 system has been successfully completed in October 2023, with the retrofitting designed to enhance the speed and safety of the trains.

Thanks to Alstom's proven ETCS Level 2 train control equipment, which meets the strict European requirements, all the 59 retrofitted units can travel with increased safety and higher speeds where the tracks allow. The newly installed state-of-the-art equipment has obtained the market authorisation and the trains have resumed passenger services. The retrofitting has been successfully completed in December 2023, with the completion of a certification procedure involving extensive testing and verifications.

"Modernising the 59 FLIRT vehicles has been an important part of the realization of the rolling stock development strategy of MÁV-START Zrt. coming effect in recent years. With the installation of ETCS L2 system on these train, altogether 123 FLIRT EMUs and 40 KISS EMUs are now equipped with the most modern railway safety system, so we managed to move to a higher level in terms of traffic safety. The project was extremely important for MÁV-START Zrt. because, in addition to increasing the safety of rail transport, it also opens opportunities for a more favourable and fast travelling on our trains, so the biggest winners of the developments will definitely be our passengers." – emphasized Dr. László Mosóczi, the CEO of MÁV-START Zrt.

"As a company committed to the Hungarian railway, we were happy to participate in making MÁV-START's assemblies safer. The modernisation process, which took place according to a predefined, strict schedule, was completed on time. Bearing in mind the needs of the customer, the trains were taken out of passenger traffic for the shortest possible time, in line with the already existing maintenance schedule. The on-board equipment and systems offered by Alstom provide the current state-of-the-art solution among on-board train control devices existing in the market" – emphasized Gáspár Balázs, CEO of Alstom Transport Hungary Zrt.

The primary purpose of the European Train Control System (ETCS) is to monitor the movement of trains and enhance the safety of rail traffic in various operational situations. The system continuously calculates warning, operating and emergency braking speed profiles, and monitors the authorized speed for both the train and the track. In full supervision mode, it is practically impossible for a driver to mistakenly ignore a red warning signal. The enhanced ETCS Level 2 provides continuous monitoring via GSM-R (the rail version of GSM).

Ultimately, ETCS Level 2 system improves traffic efficiency by allowing upgraded trains to circulate at higher speeds on lines where the track conditions allow, such as the Budapest-Székesfehérvár line, thus increasing the speed to a maximum of 160 km/h, compared to the previous speed of 120 km/h.

Alstom offers leading expertise in mainline signaling standards with over 120 ETCS projects worldwide, 19,200 onboard units and 13,300 km of equipped lines. In Europe, Alstom delivered 70% of ETCS-equipped trains in service.

Italy

Alstom to build two sections of infrastructure for the Florence tramway Line 4

Alstom, global leader in smart and sustainable mobility, has been awarded a contract by the Municipality of Florence, valued at € 50 million for the construction of track, catenary, substations, and lighting system for Line 4.2 of the city's tram system, with an option for Line 4.1, worth €49 million.

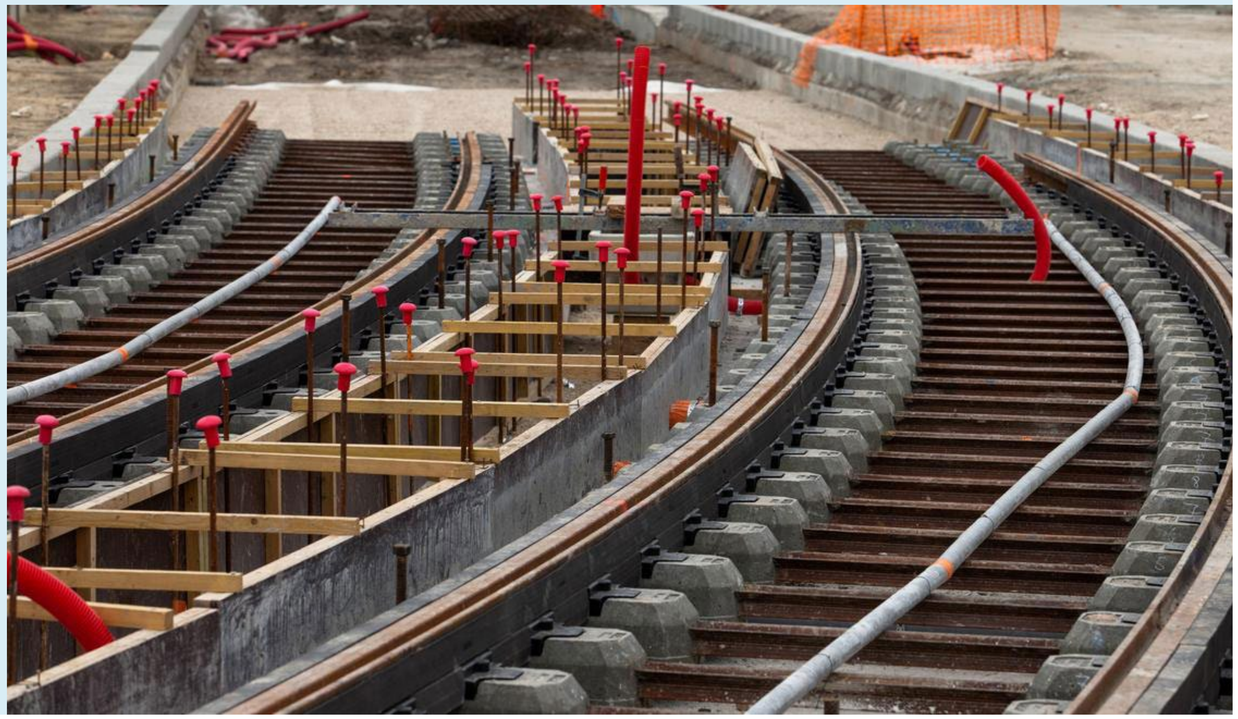
The tender was awarded to a temporary consortium of companies composed by the mandated company CMB together with Alstom, Hitachi Rail and ComNet, and covers operations spanning across a distance of 5.3 kilometres (11 stops) of Line 4.2 Campi Bisenzio-Piagge. The Line 4.2 will connect Le Piagge station to San Donnino and from there to the centre of Campi Bisenzio.

The contract includes an option, for the second lot, which will cover the 6.3 kilometres of Line 4.1 Piagge-Leopolda (13 stops) will connect Line 4.2 with the city centre.

"We are highly pleased with the agreement reached in this contract, confirming our expertise in the development of sustainable and efficient suburban mobility. We are delighted to be able to contribute to intensifying Florence's transport system with the construction of more than 11 kilometres of tramway line in addition to what has already been achieved for Line 2," said Michele Viale, General Manager of Alstom in Italy and President and CEO of Alstom Ferroviaria. "By signing this new contract, we fortify our expertise in providing innovative solutions for local public transport, once again recognised."

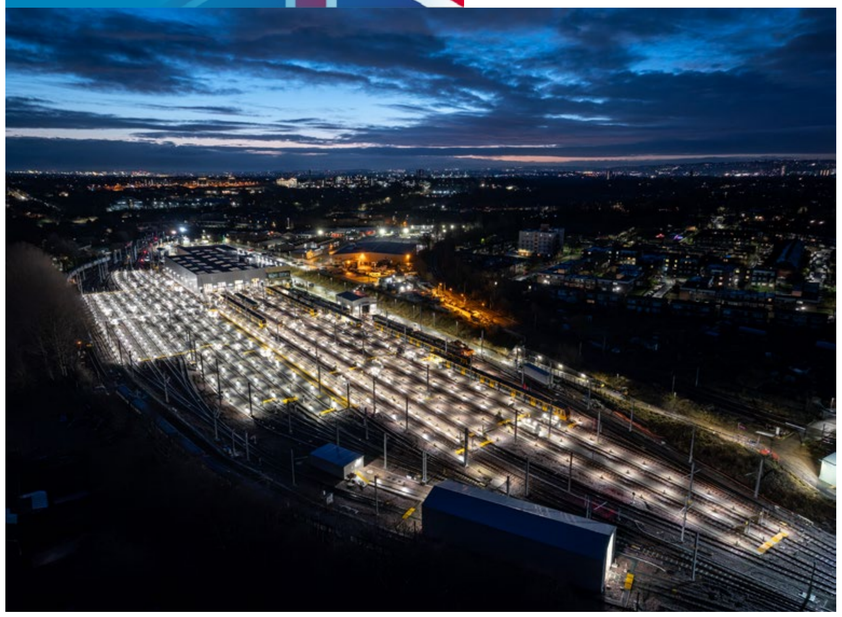
The project is financed by National Recovery and Resilience Plan funds.

The works will be carried out by the System & Infrastructure team in Rome and the components for the electric traction will be designed and supplied by the Alstom site in Valmadrera, Lecco.



U.K.

Stadler completes new depot for new Tyne and Wear Metro fleet



Ahead of the entry into service of the new Tyne and Metro trains, Stadler has completed the project to construct a new depot at Gosforth in Newcastle. The purpose-built facility features inspection roads and pits, a separate wheel lathe building and a wash-plant to clean train exteriors. There is a storage areas for spare parts and materials, as well as office space for training and support functions. Set to vastly improve the working environment and become home to a wide range of activities, including preventative and corrective maintenance and train presentation, the new depot covers 12 acres just outside Newcastle city-centre. VolkerFitzpatrick was the construction partner that carried out the work.

The facility also has a component drop to enhance maintenance efficiency, monorail cranes on both light maintenance roads and an overhead crane on the heavy maintenance roads for lifting roof components. A room dedicated to managing train movements digitally has been strategically positioned to have a bird's eye view of the depot. To minimise carbon emissions, the new depot makes use of premium insulation and has solar panels on the roof. It makes best use of natural light, providing an attractive environment for employees. Water is recycled on site and used for train washing facilities. There is a dedicated, secure area for bikes, and showers for people cycling to and from work. Charging bays for electric cars have been installed.

The structure of the original facility, built 100 years ago, was crushed in-situ and material was reused for tracks and the foundations of the new one. This helped maintain air quality and keep lorries off the roads, particularly those in the area close to the depot. Landscaping has made the site greener that it has ever been.

Paul Patrick, Managing Director for Stadler Rail Service UK, commented: "After three years of hard work, the new facility is now an asset to the local area and one that local residents and the wider community can be proud of. It has been built to a very high standard, with quality and precision at its heart, and its technologically sophisticated features will mean that trains can be maintained efficiently and speedily. This promotes an efficient, smooth-running railway for the benefit of passengers, supporting regional jobs and growth and helping the north east to flourish."

Cathy Massarella, Managing Director of Nexus, said: "It's fantastic to see that the new £70m Gosforth Metro depot has been completed on time. Huge thanks go to the teams at Stadler and VolkerFitzpatrick for doing such a superb job as well as our own project team. The new depot will revolutionise Metro train maintenance. It's transformative for the teams who work there, and provides a state of the art home for the new Metro train fleet. It brings fleet maintenance into the 21st century, ensuing that we have the very best facilities for many years to come. A huge amount of work has gone into the project. From the demolition and construction phases through to the creation of all 17 of the new train stabling lanes, overhead lines and signalling systems. It's been built on exactly the same site as the previous Metro depot, but these new buildings bring a step change in quality. It's a cleaner and brighter working environment, boasting a range of features to save energy and cut carbon emissions. The completion of Gosforth depot is another step on the road to a brighter future for the Tyne and Wear Metro. The work to get the new trains ready for service is continuing and that will be the next big milestone to come."

Paul Lilley, Divisional Director for Rail and Depots for VolkerFitzpatrick, added: "It has been a privilege to work with Stadler and Nexus to deliver this depot, which will be integral in providing modern and reliable rail services for the Tyne and Wear Metro. Through the team's dedication and collaborative spirit, we have been able to stay on track for completion and deliver the facility safely and efficiently – regardless of working on an active depot, and worldwide events that included a pandemic. I'd also like to take the opportunity to thank our supply chain who have made all of this possible – VolkerRail, NG Bailey, PLS engineering, First in Rail and A&M Electricals."

Eurostar

Eurostar: Exceptional growth in 2023, on the way for 30 million passengers in 2030

Eurostar announces that it transported 18.6 million passengers in 2023, up 22% on 2022 and putting numbers back in line with pre-Covid levels. This result was boosted by the strong demand on routes to Amsterdam, Brussels and Paris, and puts the new group on the road to its bold ambition of reaching 30 million passengers by 2030.

"Eurostar is growing and in 2023 we welcomed many more customers on board across our five countries. Our goal is to encourage more people to take the train so it's a win for customers and a win for the planet. We have a bold vision to reach 30 million passengers by 2030, and growth in 2023 of +22% versus 2022 show we are strongly on our way" explains Gwendoline Cazenave, CEO of Eurostar.

Routes that have seen the most growth on the Eurostar network from the UK are:

- London - Amsterdam: +38%
- London - Brussels: +33%
- London – Paris: +25%

"Eurostar achieved exceptionally strong growth in 2023," continues Gwendoline Cazenave. "We carried almost 8 million passengers between London and France (+25%), 1.1 million between the Netherlands and the UK (+38%) and 2.2 million to Belgium (+33%)."

2023 saw the launch of the new Eurostar: new website, new application and new rewards programme. Eurostar now operates in 5 countries, to 28 destinations. Last year also saw the launch of the new Eurostar Snow service between London and the French Alps, the introduction of Smartcheck for fast-track facial biometric check-in, and signature of partnerships with the Olympic/Paralympic teams for Paris 2024.

3 direct trains a day between London and Amsterdam and connecting journeys while the terminal is closed

In 2024, Eurostar continues growing with a specific attention to infrastructure constraints in Amsterdam. Eurostar's cross-Channel terminal at Amsterdam Centraal station will operate until June 14th and will be closed for six months for renovation works. After this period, a new cross-channel terminal will welcome more passengers to London.

During the works, to maintain traffic between the Netherlands and the UK, and to offer customers solutions to travel on high-speed trains, Eurostar will operate 3 direct daily services from London to Rotterdam and Amsterdam.

From Amsterdam, Eurostar will offer a connecting service at Brussels-Midi, providing a 48-minute to 1 hour 48-minute connection between the Amsterdam-Rotterdam-Brussels train and the Brussels-London train.

"Amsterdam is a key hub for Eurostar's international network. In 2024, we will continue to develop sustainable travel with a specific solution during the renovation of Amsterdam station. We will ensure the continuity of the direct London-Amsterdam link. From Amsterdam and Rotterdam to London, passengers will be able to travel by Eurostar with a connection, with a choice of up to 8 routes. The construction of a new terminal is vital for passengers, who will be able to increase their numbers significantly when it opens," said Gwendoline Cazenave."

Close to two million passengers expected for the Paris Games

Eurostar expects to carry close to two million passengers on its various routes to Paris across the Olympic and Paralympic Games period. As rail partner, Eurostar will take the Olympic teams from Great Britain, the Netherlands, Germany and Belgium to victory.

India

Wabtec Awarded $157 Million Brake System Order from Siemens Limited

Wabtec Corporation (NYSE: WAB) have announced a large brake system order from the Mobility Business of Siemens India Private Limited for the prestigious 9000HP locomotive project for Indian Railways.

The $157 million (Rs.1300 crore) order will provide improved operating performance, efficiency, and safety with the latest technology for the new line of 1,200 electric locomotives.

“Siemens is firmly committed to transform rail and mobilize India with cutting-edge technologies and solutions. We are excited about our partnership with Wabtec, who also shares a similar vision of creating a green and world-class railway network,” said Gunjan Vakharia, Head of Mobility Business, Siemens Limited.

The order has Wabtec supplying Siemens with brake systems from Wabtec’s Hosur plant for 11 years and maintenance services for 35 years. Siemens will assemble the locomotives at the Indian Railways factory in Dahod, in the state of Gujarat, India.

“Wabtec is committed to the delivery of high performance and safety critical products for the Indian market,” said Sujatha Narayan, Senior Vice President and India Region Leader, Wabtec Corporation. “The ILS series of braking system is a product ‘Made in India’, which is designed and developed by the India-based engineering team.”

The high-performance brake system will equip the locomotives with critical safety features, high reliability, and reduced maintenance intervals. Wabtec already supplies brake systems for other Indian Railway and metro projects making the company a highly valued brake supplier across platforms for mainline and urban rail mobility.

Wabtec’s Transit business in India has capability to build major subsystems, which includes brake systems, pantographs, couplers, air-conditioning systems, and passenger access doors. The company’s large engineering presence in Hosur and Bangalore can provide technical and service support.

Italy

CAF STRENGTHENS OPERATIONS IN ITALY WITH A CONTRACT TO SUPPLY TRAMS FOR ROME

ATAC S.p.A. has awarded CAF the framework contract for the supply of the new tram fleet for the Italian capital city. The contract specifically covers the design and manufacture of 40 trams, train maintenance for 5 years and the associated fleet spares. There is also an option to increase the number of units in the project by a further 81, taking the total to 121. The base contract is worth in excess of €130m, which could grow to in excess of €400m should the customer make use of all the options provided for in the contract.

ATAC S.p.A., the public transport concessionaire for the metropolitan area of Rome, which is wholly owned by the City Council of Rome, is the largest urban transport company in Italy and one of the leading European players. In addition to the tram network, it also controls Rome’s three metro lines, the suburban train, as well as the urban bus and trolleybus lines that provide the backbone of the city’s transport network.

The Italian operator plans to replace the old fleet currently operating on the network’s six existing lines and to purchase trams for the new lines planned to be built in the near future by leveraging European funding.

The CAF-designed units belong to the Urbos tram platform, with more than 1,000 of this type of vehicle already running across all continents (more than 20 countries and 50 cities). The tram will consist of 5 modules with one key feature being the readiness for the upgrade with the OESS (On Board Energy Storage Systems) system, which allows the unit to operate on catenary-free sections, thereby reducing the visual impact on the historic Italian city whilst improving energy efficiency.

This is testament to the CAF Group’s commitment to the Italian market and in particular to sustainable transport in the Italian capital, where it has been working in partnership with Roma Capitale for over 20 years. Throughout these years the company has supplied 71 metro units currently in service on the A, B and Roma-Lido lines, successfully meeting high operational reliability and availability standards. It should also be mentioned that Solaris, a Group company that specialises in sustainable bus construction, is the current zero-emission bus market leader in Italy, having already supplied a significant volume of both electric and hydrogen-powered units.

Saudi Arabia

Alstom signs contract with The Royal Commission for AlUla for the Tramway Project in the Kingdom of Saudi Arabia worth more than €500 million

Alstom, global leader in smart and sustainable mobility, signs a more than €500 million contract with The Royal Commission for AlUla (RCU) for AlUla's pioneering battery-powered tramway – the world's longest catenary-free line.

The fully integrated Alstom tramway system will feature 20 state-of-the-art Citadis B battery-trams. The 22.4km line will encapsulate richness, history, and green mobility like no other, linking 17 strategically located stations, offering unmatched access to AlUla's five core historical districts, including UNESCO World Heritage sites such as AlUla Old Town (District 1), Dadan (District 2), Jabal Ikmah (District 3), Nabataean Horizon (District 4), and Hegra Historical City (District 5).

This ambitious project aims to deliver unique transit options for residents and tourists, with innovative, climate-adapted trams.

"This project is truly unique as it combines sustainability, passenger experience, and immersion into the surroundings, in a region full of history and wonders. It is so much more than a tramway and we are extremely honoured to have been selected by the Royal Commission of AlUla. This project incorporates many key elements of Vision 2030 including Saudi Arabia's focus on environmental stewardship. We very much look forward to unveiling it to the world," said Mohamed Khalil, Managing Director of Alstom Saudi Arabia
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Alstom plays a pivotal role in this project, from comprehensive system design to integration, installation and testing and commissioning of the catenary-free and battery-powered tramway. Alstom will also deliver power supply, signalling, communication, and depot equipment and provide full maintenance for the trams for 10 years, using HealthHub, Alstom's tool for predictive maintenance and fleet management to deliver the highest availability. The services teams will also use an itinerant workshop for all types of overhauls to be more flexible and reduce capital expenditure, and provide robust training programmes for tram personnel, ensuring operational efficiency. The project will draw on Alstom's global in-house expertise in integrated railway systems. The trams will be manufactured across Alstom's French production sites, including La Rochelle for both design and construction.

This project builds upon Alstom's pioneering expertise in the field of Tramways in the GCC. The company delivered the Dubai tramway, the first fully integrated tramway system in the Middle East and the world's first 100% catenary-free line, which was opened in November 2014. Alstom also built the first tramway in Lusail Qatar, the largest tramway system project in the Gulf region and the first catenary-free tramway in the country, which transported passengers during the World Cup.

Alstom has been a reliable partner of Saudi Arabia's history for over 70 years. The company has supported the Haramain high-speed rail line between Mecca and Medina and also supplies an integrated Metro System for Lines 3, 4, 5, and 6 and the operation and maintenance of these lines.

Alstom has also provided automated people mover (APM) system to Jeddah's King Abdulaziz International Airport, which has been in passenger service since 2020, for which the O&M maintenance has been carried out by Alstom since 2022.

Sweden

Alstom and Skanska introduce a new report outlining an efficient solution for the new railway connection between Oslo and Stockholm

Alstom, global leader in smart and sustainable mobilty, partners with Skanska, prominent global player in project development and construction jointly present the "New Scandinavian Railway Oslo – Stockholm" report. This report outlines a swift railway connection between two major Nordic cities, aiming to significantly reduce the area's carbon footprint by decreasing the necessity for air travel.

The report "New Scandinavian Railway – Oslo-Stockholm" provides detailed plans on how the project can be designed to maximise efficiency, sustainability, and passenger comfort.

"This report marks a pivotal milestone in our efforts to enhance transportation infrastructure across the Nordic region. Combining our railway sector expertise with Skanska's construction experience, we have developed a realistic and innovative plan for a railway connection that links two major Nordic cities." says Maria Signal Martebo, CEO of Alstom in Sweden.

Alstom holds vast experience in delivering entire railway projects worldwide, taking charge of all aspects through the turnkey approach – supplying infrastructure, signalling and Rolling Stock. By using the turnkey approach, projects can be streamlined, resulting in faster completion and potentially reduced costs, all while maintaining the quality of the final product. The turnkey approach combines expertise from companies like Skanska and Alstom to ensure deliveries within budget and on schedule. This approach involves an integrated method for design and planning, which has been shown to save up to 15 percent of the total construction time.
Key points in the report include:

Design and Technology: Proposals for cutting-edge track technology and train design aimed at maximising speed and safety along the Oslo to the Stockholm route.

Environmental Impact and Sustainability: Detailed analysis of the project's potential environmental impact and suggestions on how to minimise it through sustainable construction methods and energy-efficient solutions.
Economic and Societal Benefits: An overview of the economic and social benefits of the project, including improved accessibility, increased regional economic growth, and contributions to climate goals.

Implementation Strategies: A comprehensive roadmap detailing how the project can be achieved, including financing models, timelines, and potential challenges along the way.

Alstom is the largest supplier in the Swedish train market, with over a thousand trains delivered to the Swedish railways and several major maintenance contracts. Alstom is also leading the ERTMS rollout in Sweden both onboard and trackside and is delivering the new standard national traffic management system for Trafikverket.

France

Total cost of ownership: how Alstom's Adessia commuter trains provide the best value for money

More and more of Alstom's customers are thinking about Total Cost of Ownership (TCO) before they buy. For rolling stock buyers, the concept is quickly becoming an economical and environmental game-changer. Cost calculations take functional and performance targets over the train's lifetime into account. This leads to improvements and new developments in train architecture, energy consumption, lightweight and maintenance-friendly train designs, reliable performance, digital solutions and much more - making TCO an enabler for innovation and green mobility.

All of this is especially interesting for commuter trains, as they offer a broad range of operations from inner-city to regional networks, combining the challenge of high passenger volumes and short dwell times with passenger comfort for longer journeys.

What is Total Cost of Ownership?
TCO is a financial estimate used to help operators assess the complete cost of acquiring, operating, and maintaining a product, service or system over its entire lifecycle. TCO takes into account not only upfront costs, such as purchase price, installation and setup, but also ongoing costs, such as energy consumption, maintenance, support, training, operational expenses, and potential downtime.

Why should our customers adopt a "TCO approach"?
Thinking about TCO before making a purchase helps operators to make more informed decisions about their investments. Not only will it reduce costs in the long term; it can help them anticipate and plan infrastructure management and maintenance activities. This approach is particularly important in the railway industry, where the trains run for at least 30 years, meaning that long-term reliability, efficiency, and operational continuity are critical factors in decision-making.

Optimising TCO isn't just good for the operator - when you optimise the train design with a view to improving energy efficiency and requiring fewer spare parts, it's also good for the environment.

How does Alstom offer commuter solutions with optimised TCO?
Building a TCO-optimised train calls for energy-efficient propulsion systems, lightweight materials and maintenance-friendly designs, as well as standardisation and a modular approach for more streamlined manufacturing. Alstom has all of these capabilities, as demonstrated by our new, highly standardised product platform, Adessia™. Adessia commuter trains are composed of Alstom's state-of-the-art subsystems, all of which undergo constant optimisation and can be customised as required. This allows us to offer the very latest energy efficiency technologies, such as our lightweight Flexx Eco™ bogie, energy-efficient HVAC systems, traction heat recovery technologies, digital solutions, and more.

Working with experts all over the world, we use sophisticated optimisation tools, simulations and algorithms to offer TCO-optimised trains to our customers. Alstom backs up all of its TCO optimisation calculations with guaranteed cost savings for our business partners. But Alstom is not just a manufacturer; we are the market leader in rail services, and operate and maintain fleets around the world, including commuter train fleets. We take care of all aspects of train operations, including train drivers and crew, dispatching, and customer service, and maintain the fleet and the entire system including signalling, railway infrastructure, stations and maintenance facilities. Our operations and maintenance experience gives us much greater insight into how our trains perform, and allows us to close the design loop with the feedback from maintenance to continuously optimise our solutions for TCO.

Can you give us some examples of the benefits of TCO for commuter rolling stock purchasers?
TCO optimisation, in combination with new technologies, can be a real game-changer for operators. One of the clearest examples of this is battery technology. Batteries represent a real revolution in terms of TCO. In addition to offering lower operating and maintenance costs in comparison to diesel propulsion systems, electric traction systems (including batteries) help operators meet sustainability goals: their high efficiency helps to reduce energy consumption, resulting in lower CO_2 emissions. Even taking diesel and electricity price fluctuations and national differences in electricity price into account, fleet owners and decision-makers are finally starting to accept battery operation as a realistic, cost-effective alternative to diesel.

The DART Commuter Network in Dublin, Ireland, is a great example of how train optimisation can lead to a winning bid! Reducing energy consumption was a major objective for this project. To achieve this, we replaced the conventional configuration of the cars with an articulated "deported knee" configuration. This allowed us to continue using conventional bogies, which are lighter and used in fewer numbers, as well as providing superior performance. This led to a significant reduction of the weight and a 10-15% reduction in TCO.

Finally, our Aventra™ commuter train fleets operating in the United Kingdom demonstrate how TCO can be optimised to reduce maintenance costs, increase availability and enhance sustainability. The trains were designed with maintenance in mind: as well as being equipped with state-of-the-art subsystems and smart stabling to ensure low energy consumption, we integrated the latest maintenance technologies, such as an advanced fleet monitoring system, and Alstom's automatic vehicle inspection system. This has allowed major component overhauls to be extended by up to 50% compared to the previous generation of rolling stock, reducing total asset life costs and the impact of overhauls on vehicle downtime. It also resulted in significantly less raw material processed, manufactured and transported for maintenance, bringing major improvements to the sustainability of rolling stock over their full life.

What's the best way for commuter solutions purchasers to adopt a TCO approach?
It's all about communication! At Alstom, we are always happy to be in transparent dialogue with our customers and business partners on tender preparation. We propose to our stakeholders to focus on functional requirements in their specifications, rather than giving in-depth technical descriptions, which only closes the door to eventual optimisation down the line. We always recommend using business models that take the complete lifecycle cost into account.

There are many other steps operators can take to ensure TCO-optimised trains in their tenders. These include clearly defining expectations, implementing performance-based contracts, and requesting comprehensive lifecycle cost assessments right from the tender stage. Benchmarking proposals against industry best practices is a good way to assess the efficiency and cost-effectiveness of the solutions being proposed.

Finally, building long-term partnerships with suppliers fosters ongoing developments and allows continuous optimisation of entire transport eco-systems to achieve the best TCO balance.

Eurostar

European Loc Pool acquires another 10 Euro9000 Locomotives from STADLER

European Loc Pool (ELP), a leading provider of innovative locomotive leasing services, announces a new milestone in its ongoing expansion: the acquisition of 10 additional Euro9000 locomotives, following the successful homologation in the Netherlands and Belgium. This order further underlines the close partnership between Stadler and ELP, initiated in 2018, and is proof of the mutual benefits of this sustained collaboration.

The Euro9000, the 'next generation' locomotive, stands for peak performance in the European Rail Freight Industry. With a tractive effort of 500 kN and a performance capability of up to 1.9 MW in diesel and 9 MW in electric operation, it enables up to 50% higher loading capacity. One of its most notable features is its 'boost' ability on 3kV DC tracks, which allows the Euro9000 to improve its electric power by adding the diesel engines power, achieving a remarkable combined performance of 7.7MW at the wheel.

As the 'launching customer' of the Euro9000, European Loc Pool placed the first order for ten locomotives with Stadler already in May 2019. With the approval to operate in Germany, Austria, Switzerland, the Netherlands and Belgium, the Euro9000 has been successfully running in Europe since mid-2023.

Following this new order, ELP's locomotive fleet of innovative 6-axle hybrid locomotives now totals 124 units, of which 84 are EuroDual and 40 are Euro9000 locomotives. Willem Goosen, CEO of European Loc Pool, expressed his satisfaction with the company's growth: "ELP has far exceeded initial expectations with a total of now 124 locomotives ordered. Remarkably, over 100 locomotives have already been deployed on long-term full-service leases.

We are proud that several existing customers have chosen to expand their fleet with additional ELP locomotives with our care-free full-service package. This shows we have an unbeatable offer of high performing locomotives, supported by our unique service concepts."

This new order directly follows ELP's acquisition of 10 additional EURODUAL locomotives at the end of December 2023, underlining ELP's ambition as positive disruptor in the European Rail Freight Market, constantly pushing the boundaries of what's possible with our innovative approach and portfolio of innovative 6-axle hybrid locomotives.

Italy

FdC orders three more narrow-gauge hydrogen trains from Stadler

The Italian railway operator Ferrovie della Calabria (FdC) has commissioned three new narrow-gauge hydrogen trains. The order is part of the framework agreement signed in 2023 for up to 15 hydrogen- powered trains, set to run on regional and local transport networks in the Italian region of Calabria. Stadler is the first train manufacturer in the world to produce narrow-gauge trains with hydrogen propulsion. It is also supplying six for ARST and five for passenger transport in California.

At the beginning of the new year, FdC and Stadler signed the second call-off for the delivery of three more hydrogen trains for the narrow-gauge network (950 mm), for operation on regional and local transport routes within the Italian region of Calabria from 2026. The three new hydrogen-powered vehicles will complete the FdC fleet commissioned under the framework agreement, which was signed in July 2023. The agreement between Stadler and FdC includes the delivery and maintenance of a total of 15 trains with hydrogen propulsion. The first call-was for the delivery of six trains. Both vehicles already on order, as well as the new ones, will be manufactured at Stadler's headquarters in Bussnang,Switzerland.

The signing of the second call-off is testament to the leading role Stadler is playing in the decarbonisation of rail transport in Italy. Stadler is the world's first railway manufacturer to develop and produce hydrogen-powered narrow-gauge multiple units.

Ernesto Ferraro, CEO of FdC, expressed his satisfaction with the further agreement with Stadler: "The additional trains ordered from Stadler, with whom we have had a fruitful cooperation for years, are a further investment towards the company's ongoing modernisation. The purchase of a further three hydrogen-powered trains, in addition to the six already commissioned, and the other investments underway, including those for modernising and speeding up the railway infrastructure, renewing the rolling stock on the road, building the hydrogen production plant, and innovating the company's technology and infrastructure, represent the concrete implementation of the company's strategies launched with the ambition to become a modern and sustainable transport company within the next three years. These goals are now possible thanks to the synergy created with the Region of Calabria, the company's sole shareholder, and with the relevant Ministries, which have made available the necessary resources to support the industrial plan that the company is pursuing, and to whom our thanks go."

Aristide Vercillo Martino, FdC's Investment Manager - PNRR - IT, added: "The project launched in recent years as part of the ecological transition, with a project to use hydrogen as a new fuel for its means of transport, and a total investment of more than 400 million euro, confirms the company's desire to become a leader in regional transport and to provide more services to users, with innovative processes and in line with the objectives that a modern company must set itself. The synergy created over the years with Stadler will make it possible to accelerate the processes initiated to improve rail services in the area."

Ansgar Brockmeyer, Executive Vice President Marketing & Sales at Stadler said: "We are very proud that FdC has once again commissioned Stadler to supply additional trains. In partnership with FdC, we are driving forward the decarbonisation of rail transport in Italy. The new narrow-gauge hydrogen trains are a world first and pave the way to sustainable rail transport on narrow-gauge lines worldwide. We thank FdC for the trust and look forward to deepening our partnership with them."

Maurizio Oberti, Marketing & Sales Director for Italy, commented: "This additional order consolidates Stadler's positioning in Italy. The entire portfolio of Stadler products and vehicles has already been acquired by several Italian regions and operators, from trams and metros to long-distance vehicles and locomotives. This is a remarkable achievement for Stadler."

More about the trains

The vehicles consist of two passenger cars and a power pack. The cars feature lightweight aluminium structures to make the train's more energy efficient. The power pack houses the fuel cells and hydrogen tanks, as well as other technical equipment. With a total length of around 50 metres, the new trains offer 89 seats per vehicle for a total of 155 passengers. Thanks to their low-floor access, they are fully accessible not only for people with reduced mobility, but also for passengers with pushchairs and bicycles. The new vehicles also offer specific areas near the access and exit doors and a PRM toilet compliant with TSI standards.

Estonia

LDZ CARGO Ltd. plans to raise domestic freight transport volumes in Estonia this year

This January marks one year since LDZ CARGO Ltd. has been operating in the Estonian rail freight market. The company won several public tenders in Estonia at the end of last year, which will help it significantly increase its domestic freight transport volumes in Estonia and play an increasingly important role in the neighbouring country's freight transport market in 2024.

Last November, LDZ CARGO Ltd. was awarded a public contract to transport bio-based woodchips of Estonian state-owned energy company Enefit Power from Valga to Tapa Station to be then shipped to a woodchip cogeneration plant. The projected transport volumes under the contract are 100,000 tons, which will increase LDZ CARGO Ltd. market share in Estonian rail transport. Also at the end of 2023, LDZ CARGO Ltd. was awarded another public contract by Enefit Power for transporting petroleum obtained from oil shale from Vaivara Station to Muuga Harbour station. These projects will further increase LDZ CARGO Ltd. freight turnover in Estonia by around 60,000 tons.

LDZ CARGO Ltd. Member of the Board Mārtiņš Pevko: "Our company's long-term vision is to consolidate the Latvian and Estonian rail transport markets so that LDZ CARGO Ltd. becomes a carrier of regional significance. In addition, we are planning to expand our operations in Lithuania: at the end of last year we signed an agreement with LTG INFRA for using the Lithuanian public railway infrastructure, which means that we can also ship freights in the territory of Lithuania. We have already made our first shipment there – we transported 50m of railway tracks from the Port of Klaipėda to Tallinn for a project of our client, RAIL BALTICA. In the meantime, we have offered Polish oil refinery ORLEN to provide pan-Baltic services, which means transport along the entire rail infrastructure of the Baltic countries, from the oil refinery in Mažeikiai, Lithuania, in transit through Latvia and on to the Port of Tallinn. This could be the first instance of such kind of service in the history of Baltic railways. We are confident that we will be able to offer favourable conditions to clients in Lithuania."

LDZ CARGO Ltd. started providing transport services in Estonia at the beginning of 2023 after obtaining all the necessary permits, and in June opened a branch there, which currently employs 10 people. Clients are attracted by appealing tariffs and strong technological back-up, as well as by a variety of transport solutions.

LDZ CARGO Ltd. only cooperates with such clients or freight owners that are financially reliable and have a good reputation. LDZ CARGO Ltd. carries out a thorough assessment of all potential cooperation partners and clients before any form of cooperation commences in order to strictly comply with all the requirements of international sanctions and related restrictions regarding different types of freight, blacklisted persons, and others.

Germany

BM Bahndienste secures the 100th locomotive from European Loc Pool: Contract signed for one EuroDual

European Loc Pool (ELP), a leading provider of innovative locomotive leasing services, proudly announces the completion of a significant contract with BM Bahndienste GmbH for one EuroDual locomotive. This contract marks a milestone: it is the 100th six-axle hybrid locomotive that ELP has leased under a long-term full-service leasing contract. As a company with only a five-year history in the European rail freight industry, ELP continues to set ambitious goals to positively transform the market.

The collaboration between ELP and BM Bahndienste, a specialist in track construction logistics, personnel services, traction, and transportation, signals another step in the evolution of rail freight transport. BM Bahndienste has chosen the EuroDual to expand its offering in construction site traffic. This locomotive will be used on various routes and axes as needed, especially in the area of construction logistics and transportation, where its dual operation with full-load diesel offers unbeatable advantages on non-electrified routes.

The decision for the EuroDual was based on its impressive features, such as high towing loads and the installed

ALSTOM Atlas ETCS L2 BL3.4.0. Additionally, the remote control offers full flexibility in use, without the need for additional personnel or the purchase of external services. Traction power, sustainability, energy efficiency, and flexibility were decisive factors for BM Bahndienste.

Manfred Merkel, Managing Director of BM Bahndienste, comments on the partnership: "The EuroDual offers us exactly the flexibility and performance we need for our diverse tasks in rail transport. With ELP, we have found a partner who shares our vision of efficient and sustainable rail transport."

European Loc Pool is pleased to have reached this important milestone. The contract for the 100th locomotive underscores ELP's commitment to offering innovative solutions for rail freight transport and having a positive impact on the industry.

Willem Goosen, CEO of European Loc Pool, emphasizes the company's vision: "Our goal is to positively disrupt the European rail freight transport industry – and we are well on our way to achieving this quickly and successfully! We congratulate BM Bahndienste on their decision to lease their first EuroDual from us."
The handover of the EuroDual to BM Bahndienste is scheduled for December 2024.

Denmark

DSB unveils Talgo Intercity trains to serve international routes

Danish State Railways company DSB has unveiled the first of the Talgo 230 units to enter its long-distance intercity train fleet in the following months. During a press event held in Copenhagen on January 25th, the company announced the official kick-off of the dynamic testing phase of the trains which are expected to connect the Danish capital and Aarhus with Hamburg and potentially other international as well as domestic routes. With a design speed of 230 km/h and an operating speed of 200 km/h, the trains will feature a larger width than standard cars in cross-border traffic, which will allow for more interior space and higher passenger comfort while keeping full technical interoperability to serve not only domestic routes but also international services.

As part of the Talgo 230 technological platform, the trains have also the capability to reduce energy consumption by up to 30% as compared with the industry standard thanks to the unique rolling assembly technology of the Spanish company and its lightweight passenger coaches, and boast a 95% recoverability of the train structure.

During the upcoming certification process all the systems will be validated to ensure the stringent levels of reliability DSB requires and to guarantee full technological compatibility of the train with the Danish infrastructure and with the existing, third-party locomotives.

In a second phase, a Talgo cab car (styrevogn; a passenger end-coach with a driving cab but no engines) will be added to each train to allow for a push-pull configuration that will ensure swift train turnaround times at the final destination of each route, while minimizing train weight and thus also cut accelerating and braking times.

This comes in addition to the operating flexibility the locomotive+coaches train formations already provide, and within a project implementation where total scope measured in coaches was increased by a 15% on the fly with almost no actual impact on the deployment.

One framework contract, three orders

Back in in February 2020 and after an open tendering process, DSB awarded Talgo with a framework contract worth €500 million which included a first firm order of €134 million for the supply of 8 complete trains of the Talgo 230 technological platform. In April 2021 and in light of the new demand for international rail travel, DSB decided to increase the fleet size with a second order for additional coaches which raised the passenger capacity of the 8 initial trains by a full 10%, to 492 seats each. Then in April 2023 the railway company placed a third order, for 8 additional trains and worth €184 million.

About Talgo 230

The Talgo 230 platform is based on the same technological foundations that have established the Spanish train producer's intercity trains as an international reference. They are light vehicles boasting independently rotating, self-guided rolling assemblies, able to maximize capacity and which can mount natural tilting and/or automatic track-gauge changing systems. They are also highly scalable: Acquired as conventional trains, they can be easily and inexpensively upgraded into true very high-speed trains for commercial top speeds of 300km/h – as Talgo is currently doing for the Spanish state-run company Renfe.

The Talgo 230 platform was also selected by the German federal operator Deutsche Bahn (DB) in 2019 with a framework agreement for the manufacture of up to 100 trains, with two blocks already ordered of 79 units in total of which the first ones are already under certification in Germany. DB is expected to use them both for domestic links and over the Berlin-Amsterdam route (Germany-Netherlands).

New Talgo DSB trains factsheet

- Routes: International routes, at first Copenhagen-Hamburg and Aarhus-Hamburg
- Maximum commercial speed: 200 km/h
- Maximum design speed: 230 km/h
- Passenger capacity: 492 seats
- Coach types:
  - Flex-space coach: 36 seats; Prams; Bicycles; e-bikes recharging.
  - PRM coach: 3 PRM spaces; 1 PRM toilet; 10 conventional seats; Vending.
  - Second class coaches with 32 seats.
  - Second class coaches with 40 seats.
  - First class coach (2+1 seating) with 22 seats.
  - First class coach (2+1 seating) with 28 seats.
  - [Cab car (styrevogn): to be added in a later phase].
- Recoverability of the train structure: 95%.

Rail in Denmark

Founded in 1885, DSB is one of the oldest state railway companies in Europe and it serves all the five regions of Denmark along a 2,600km-long rail network managed by independent state-owned infrastructure manager Banedanmark.

Denmark has one of the most intensively used rail systems in the European Union, with 722 passenger-km per capita (as compared to 348 passenger-km per capita of Spain), and rail is at the forefront of the country's ambitious climate pledge, with plans to cut back carbon emissions by a 70% in 2030 (with the whole EU aiming for a 55%) and to become carbon neutral as soon as 2050. It is in under this strict commitment that DSB is investing heavily to enlarge and modernize its rolling stock fleet with new reliable and energy-efficient trains like the Talgo 230 unveiled today.

From the Archives

Belgium

SNCB Class 27 No. 2744 is seen arriving at Brussels Midi on November 1st 1991. *John Sloane*

From the Archives

France

SNCF oil burning 141R No. 1146 is seen in store at Miramas roundhouse on April 3rd 1972. *John Sloane*

From the Archives

India

WP broad gauge Pacific No. 7673 has charge of the Nilagiri Express from Metupalliam as it halts briefly at Perambur station in the suburbs of Madras on November 23rd 1977. *John Sloane*

From the Archives

Italy

FS Class E402.109 sweeps into Pisa with an express from Rome to Genoa and Turin on September 11th 2017.
John Sloane

From the Archives

Malasya

The driver of KTM No.564.36 'Temerloh' keeps a sharp lookout as he rounds a curve south of Kuala Lumpur with a special train on February 12th 1980. *John Sloane*

From the Archives

Morocco

ONCF Polish built electric No. E-1020 stands at Roches Noires shed in Casablanca on April 13th 1993.
John Sloane

From the Archives

New Zealand

Remote control fitted DSG No. 3059 stands outside the shed at Wellington on November 22nd 2010. *John Sloane*

From the Archives

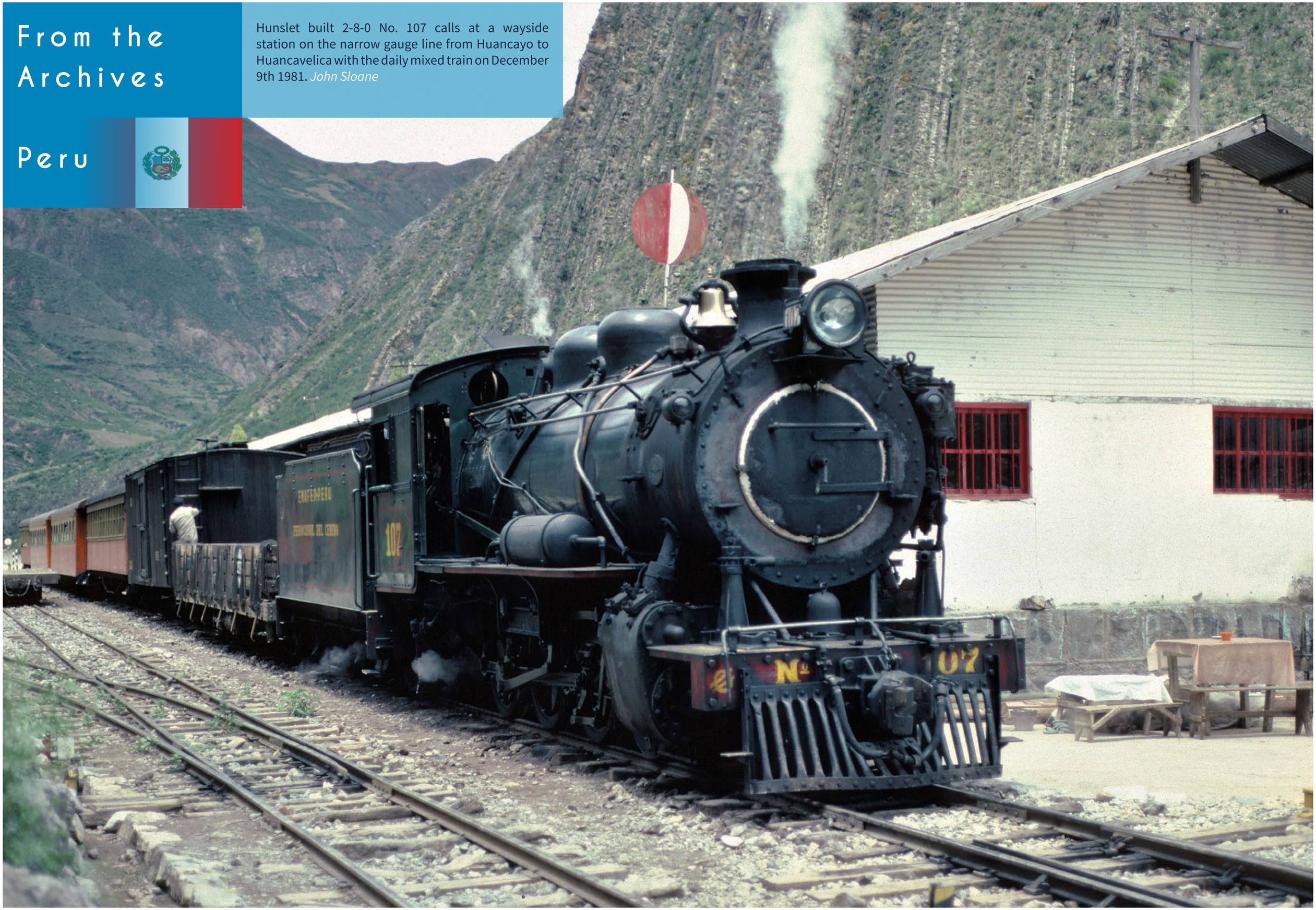
New Zealand

Former Otira Tunnel electric loco No. 74 stands at Wellington terminal at the head of an arrived commuter train on November 22nd 2010. *John Sloane*

From the Archives

Peru

Hunslet built 2-8-0 No. 107 calls at a wayside station on the narrow gauge line from Huancayo to Huancavelica with the daily mixed train on December 9th 1981. *John Sloane*



From the Archives

Serbia

Veteran Hungarian design No. 126.014 simmers at the coal mine at Resavica on May 27th 2007. *John Sloane*

From the Archives

Spain

FGC Alsthom diesel No. 1001 at Martorell Empalme on October 23rd 1978. *John Sloane*

From the Archives

Sri Lanka

Hitachi Class Ms diesel No. 770 calls at Mount Lavinia with a southbound train on August 10th 1980. *John Sloane*