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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 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 210Xtra

As we forge further into 2024, it's clear that one of the future names in rolling stock to look for is Talgo. The company that used to be only known in Spain seems to be growing throughout Europe with its latest announcement of the proposals for Bulgaria. This is what they have to say....

Talgo presents its best in class offer to improve rail transport in Bulgaria: "Intercity BG"

Talgo has unveiled the key technical points of its offering for 20 new trains based on its Talgo Intercity technological platform and which aim to take part in the ambitious modernisation program for rail passenger transport now under progress in Bulgaria. Designed and constructed in the European Union, the vehicles will be based upon the same technical standards already chosen by Deutsche Bahn (DB) and Danske Statsbaner (DSB) to operate in cross border services and in up to four European countries.

Under the Intercity BG project, each train will offer around 390 seats per unit and will not only boast unique passenger comfort thanks to its wide bodyshell but will also provide the world's best accessibility with a single-deck, 100% low-floor access at platform level of 760 mm and good accessibility for lower station platforms as compared with other coaches, increasing the autonomy of persons with reduced mobility and also enhancing the whole user experience by making boarding and debarking operations faster for all passengers.

The Intercity BG lightweight structure will improve the trains power-to-weight ratio reducing not only energy consumption but, crucially cutting acceleration and braking times. This will be especially helpful under the operating conditions set in Bulgaria, with a web-shaped network of comparatively low length density (similar to that of Spain) but many intermediate stops, and up to 80% of single-tracked sections which increase crossings and can put to test train timetables.

With a push-pull configuration, the train features a single conventional locomotive, intermediate passenger coaches, and a cabcar in the opposite end of the train. This is the ideal

solution to get all the traditional benefits of lightweight, conventional trains but without the need of locomotive for shunting operations.

As part of the Talgo 230 technological platform, the Intercity BG trains are born by design as fully EU-interoperable units and are the ideal choice to serve the Trans-European Transport Network (TEN-T) corridors within Bulgaria but also with the possibility to expand operations in neighbouring countries. Other units of this product family are set to operate in Germany, Denmark, Netherlands and Switzerland.

Talgo has a 82 years' experience and is the sole European train manufacturer fully specialized in the design, manufacturing and whole lifecycle maintenance of conventional trains which are also high-speed-ready: delivered as Intercity trains for a maximum commercial operating speed of 200 km/h which are nevertheless based on a platform for 230 km/h -and can be easily upgraded into very high-speed units if the need arises in the future

The Intercity BG trains could be also equipped with Talgo's newest intelligent maintenance solutions. Already in service in the Haramain rail project in Saudi Arabia, the T-Smart system joins remote control and artificial intelligence (AI) technologies to enhance maintenance operations, increasing the role of predictive actions, reducing that of the corrective measures which thus become redundant, and cutting not only the total lifecycle costs but also the train turnaround times on depots.

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.

Until next month...

David

This Page

CD Class 362.111 is seen stabled at Chomutov on February 10th. [Kevin McCormick](#)

Front Cover

SJ Rc6 No. 1369 stands in platform 4 bay at Uppsala C ready to work train No. R833 11:44 to Stockholm Central on February 4th. Out of sight, on the rear is loco No. 1360. [Andy Pratt](#)





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Every year, ÖBB Rail Cargo Group (RCG) transports 150,000 tonnes of goods multimodally from Turkey to Serbia for Stratemis, the leading building materials distributor in Serbia. And this is just the beginning of a long joint logistics journey – because these volumes will continue to increase in the coming years.

From Turkey via Bulgaria to Serbia with thousands of tonnes of cement, blocks, plasterboard and mineral wool in the luggage – RCG has been handling these transports for the leading Serbian building materials distributor Stratemis for three years. This is an average of 150,000 tonnes per year.

Multimodal way to the top

The first mile in Turkey is done by truck, while the main and last mile is done sustainably by rail. Together with Stratemis, RCG combines the advantages of each mode of transport to create an efficient end-to-end logistics solution. The aim is to increase volumes even further in the future. In 2023 alone, Stratemis has already doubled the volumes of 2022.

This success story is expected to continue this year.

From shipping point to customer

In addition to transport for Stratemis, RCG combines multimodal freight transport for customers throughout Europe and Asia using the most appropriate modes of transport, combining rail with road and sea and air freight. For small and medium-sized enterprises up to large industrial companies – even if they do not have their own industrial siding. In addition to intermodal services, RCG also focuses on special container solutions such as MOBILER containers with fast and uncomplicated transshipment between trucks and wagons.



RCG achieves B in CDP environmental rating

ÖBB Rail Cargo Group (RCG) once again achieves a good result in the globally important “Carbon Disclosure Project” rating.

The CDP is a non-profit organisation that rates companies, cities, regions and countries according to their environmental transparency and measures. Globally, the CDP rating is one of the world’s most renowned environmental ratings. Around 23,300 companies worldwide undergo the CDP’s comprehensive and rigorous assessment.

B rating maintained despite increased requirements

As the sustainable logistics backbone of the European economy, RCG once again reported for the rating in 2023 and submitted all climate-relevant figures. Although the requirements have increased and completely new topics such as biodiversity or the EU taxonomy have been added, the result was maintained at a good level.

In addition, the RCG achieved a significant improvement in the areas of “Energy” (A-) and “Value Chain Engagement” (B-). This puts us above the global C average.

As the leading rail logistics provider in Europe, we shape the industry 365 days a year - 24 hours a day and are aware of our great responsibility. Together with other leading European rail freight companies, we are committed to shifting 30% of freight volumes to environmentally friendly rail transport by 2030, thereby strengthening sustainable freight transport.

Five years of TransFER Linz–Scandinavia–Wels

In 2019, ÖBB Rail Cargo Group (RCG) launched a TransFER, which has established itself as an important rail connection for wagonload transport between Austria and Scandinavia.

Originally launched as TransFER Vienna–Scandinavia, the connection initially ran from Vienna via the Czech Republic to Rostock and on by ship to Malmö. In 2022, a strategic change was made and the connection was renamed TransFER Linz–Scandinavia–Wels. The route was moved overland via Germany (Rheinkamp near Duisburg) and Denmark. Up to Rheinkamp it runs together with the TransFER Linz–Duisburg–Wels.

Up to the Danish border it is operated by RCG in own traction with three round trips per week. The main goods transported on the route are rails and paper, but the TransFER offers the possibility of transporting goods of all kinds.

Connection to the southern Swedish port region

The transit time from Linz to Malmö is around three days, making the TransFER a fast and reliable connection for wagonload transport to Scandinavia. The southern Swedish port region can be reached directly and efficiently by rail, as there is no need to reload onto ship.

In this way, RCG not only provides a transport solution to the Scandinavian region, but also offers further connection options in Northern and Western Europe.

In Rheinkamp it is also possible to add volumes to Scandinavia or to distribute volumes from Scandinavia to Germany, France, Belgium and the Netherlands.

SNCB Class 1800 No. 1879 stands under the colourful roof of Liège-Guillemins station at the rear of train No. R5010 the 10:08 Liège-Saint-Lambert to Aachen Hbf on February 14th. The Belgian loco and stock took over running the route from the previous EMU operation during the December 2023 timetable change. *Andy Pratt*



CZ LOKO completed the modernization of fourteen locomotives of the 742 series for ČD

České dráhy already has back all 14 locomotives of the 742 series, which they gave to CZ LOKO for complete modernization. This happened almost a year earlier, as the contract for more than CZK 684 million envisaged the completion of the last vehicle only in November 2024.

“Accelerating this series of modernizations was practically the only option to at least partially keep the economics of the project within realistic limits. At that time, just after the signing of the contract, the war in Ukraine started and the supply chains fell apart. The prices of practically all components rose enormously and we were threatened with a catastrophic scenario. This is how we prevented him. Undoubtedly to the satisfaction of the customer who could use the vehicles before,” says Jan Kutálek,

member of the board of directors and sales director of CZ LOKO.

At the same time, the company managed to change the supplier of the ETCS system in record time, after Alstom unexpectedly and uncompromisingly ended the production of the EBICAB system used in this series. Therefore, CZ LOKO switched to the new AURIGA system from the Spanish manufacturer CAF.

“We had to do all the integration and testing from scratch, and that’s not easy. We are currently planning to switch to the Switch-On mode for serial locomotives, where we are also deploying the Spanish system,” said Jan Kutálek. The vehicle is then fully qualified for sharp commercial operation under ETCS on the domestic railway network.

“The comprehensive modernization of the locomotives of the 742 series to the EffiShunter 1000M is part of our Strategy 2030, in which we will renew a significant part of the rolling stock,” says Jiří Jeřeta, member of the board of directors and deputy general director of ČD for passenger transport. At the same time, he appreciates that CZ LOKO managed the contract in difficult external conditions at the original price and ahead of time. “Unfortunately, such fulfillment of orders is quite rare among our suppliers,” he added.

Česká dráhy will use these locomotives for independent traction on corridors equipped with the European ETCS safety system. Under his exclusive supervision, operation will be ensured on the selected railway network from January 2025.

“Modernization extends the service life of locomotives while significantly increasing the comfort and safety of our employees’ work, simplifies maintenance and reduces emissions,” said Jiří Jeřeta. The technologically demanding modernization of the 742 series to the 743.2 series, for which CZ LOKO uses the trade name EffiShunter 1000M, turns ČKD locomotives from 1977 to 1988 into practically new first-class machines. They are also equipped with online monitoring and diagnostics and a new generation of traction and auxiliary equipment. Only the chassis and the main frame remain original, but even these parts undergo major repairs and many modifications. The power of the



internal combustion engine of 1000 kW enables a maximum speed of 100 km/h.

In the past, CZ LOKO already succeeded with the same project at ČD Cargo, for which it modernized 50 locomotives of this series between 2018 and 2022, another 25 will be delivered by the end of 2024. The modernization of 20 machines for ZS Cargo Slovakia is also underway. Other vehicles are owned by CER, Rail Cargo Carrier or Ostrava ODOS.

Photo: ©CZ Loko/Dalibor Palko

ČD Cargo launches a new simulator. It will be compulsory for drivers every two years

In the presence of the Minister of Transport, the management of ČD Cargo, the parent company České dráhy and other representatives of authorities and institutions related to railway transport, the carrier ČD Cargo has festively launched the operation of a new train control simulator in Czech. All ČD Cargo train drivers will be trained there on a regular basis. The simulator is a faithful copy of the driver’s cabin of a Siemens Vectron locomotive.

“Traffic safety is an absolute priority for ČD Cargo. That is why every two years, our drivers undergo individual training on the simulator under the guidance of a lecturer from the Transport Training Institute. Here they can try out, for example, reacting to signaling equipment failures on the line, driving a train under the ETCS supervision, but they will also deal with emergency situations they may encounter in regular operation,” said Tomáš Tóth, Chairman of the Board of Directors of ČD Cargo.

“Train hard, fight easy. Preventing emergencies, reacting correctly in an extraordinary situation, is one of the important prerequisites to better manage traffic, to improve safety on the railway. This year, we have as a main theme the preparation for ETCS supervised operation I see the commissioning of the new simulator as an important milestone enabling a simpler transition to the new train control system,” added Transport Minister Martin Kupka.

The drivers run the simulator on lines based on the real railway network. Currently, the lines Chačupki – Bohumín – Hranice na Moravě, Hranice na Moravě – Valašské Meziříčí, Valašské Meziříčí – Frýdlant nad Ostravicí and Suchdol nad Odrou – Vítkov are available. The lines were selected to include the most frequently used ways of interlocking train journeys on the network of the Railway Administration. These are automatic block, automatic signal block, and control, command and signaling according to the D3 rules.

The simulator is also equipped with signaling systems used on ČD Cargo locomotives, such as LS 06, Mirell, or ETCS level 2. In connection with the expansion abroad, the simulator is also equipped with signaling systems of foreign railways (eg SHP, LZB or PZB). The simulator is supplied by Sim Factor, a company known for supplying similar equipment to Poland, Austria, Great Britain, Lithuania, and other countries.

Photo: ©CD Cargo



ČD Class 743.212 awaits departure from Dečín hl.n. with the 14:36 train, No. Os6658 to Rumburk on February 12th. The Class 743 loco has been rebuilt from a class 742 diesel, and the single coach diagram of 2 return trips is currently the only booked passenger service for the class, although they are used at other locations to assist in shunting and reforming trains that attach/split coaches en route. *Andy Pratt*



Czech Republic

On February 10th, Class 749.240 was employed on a railtour to Cranzahl in Germany, seen here at its destination. *Kevin McCormick*

On February 11th, the loco took the charter to Lužec nad Vltavou, seen here before departure from Praha Vršovice. *Kevin McCormick*

On February 10th, Class 749.240 was employed on a railtour to Cranzahl in Germany, seen here at its destination. *Kevin McCormick*



Czech Republic

On February 10th, Class 774.703 hauls a rake of coal
hoppers through Chomutov. *Kevin McCormick*



Czech Republic

On February 12th, CD Class 151.014 is seen at Praha Vršovice having arrived with train No. IC520 'Valassky Express' 04:45 Vsetin to Praha Vršovice.
Kevin McCormick



Czech Republic

On February 12th, ČD Class 150.224 stands at Praha hl.n. working train No. R945 09:09 Praha Hlavní Nadraží to Hradec Kralove. *Kevin McCormick*





Czech Republic

On February 12th, CD Class 362.129 calls at Všetaty with train No. OS6409 10:03 Ústí nad Labem Zapad to Lysá nad Labem. *Kevin McCormick*



Czech Republic

On February 12th, CD Class 854.001 stands at Praha hl.n. working train No. OS9510 Praha hl.n. to Všetaty. Driving trailer No. 80-29.209 was leading.

Kevin McCormick



Germany

LINEAS TRAXX F140 MS No. 186.449 is seen in Viersen-Helenabrunn with a rake of Zags tankers heading to Köln Eifelort on January 19th.
Erik de Zeeuw





Flexible leasing model for regional trains: Smart Train Lease GmbH

Siemens Mobility has founded the subsidiary Smart Train Lease GmbH to enable customers to flexibly supplement their fleets with rented state-of-the-art battery, hydrogen, and electric multiple-unit trains. The Mireo Smart trains from Siemens Mobility are available at short notice, approved for operation, and meet all required standards for modern regional passenger transport. By providing preconfigured trains and additional services such as maintenance, this new offer provides an economical alternative for quickly and flexibly expanding fleets. It also enables customers to easily test innovative and sustainable rail technologies. Smart Train Lease GmbH is initially offering this rental model in Germany and plans to expand it throughout Europe in the medium term.

“The mobility transition has led to an extremely dynamic market for regional trains. Rail operators today are looking for more flexible and quickly available offers as new technologies further increase sustainability in rail transport. By founding Smart Train Lease GmbH, we’ve created an innovative rental model for highly standardized regional trains. Its cost position, reliability and speedy delivery time make it a new and especially attractive offer for our customers,” said Albrecht Neumann, CEO Rolling Stock at Siemens Mobility.

“We want to make renting trains as easy and simple as renting a car, and thus help accelerate the mobility transition. This service will further enhance the attractiveness of rail transport for passengers and enable our customers to react quickly to fluctuating demand,” said Benjamin Dobernecker, CEO Smart Train Lease GmbH.

The technological shift from diesel to alternative technologies such as batteries and hydrogen is driving significant market changes that present a number of challenges as well as opportunities. The trend away from private transport to public options, helped in part by Germany’s 49-euro monthly regional

ticket and its simplification of rail travel, has considerably boosted demand for trains.

In addition, numerous private rail companies now offer regional passenger service and are looking for new, more flexible offers with competitive installments to cover their need for new trains without long-term investment commitments. Smart Train Lease GmbH offers such a fast and high-quality solution.

In the rail sector, rental contracts were previously available only on a long-term basis, with terms of more than twelve years and including subsequent use or residual value guarantees. Until now, there were no offers for short- and medium-term rentals of multiple-unit regional trains or small fleets. In particular, operators were unable to rent state-of-the-art regional trains with alternative drive systems. Smart Train Lease GmbH has stepped in here to meet this demand and create a new market.

Which trains will be available?

Approved Mireo Smart trains are available immediately. The trains feature low lifecycle costs, low energy consumption, and are technologically advanced and optimally equipped. The Mireo Smart has a top speed of 160 km/h and is available in three variants: electric, battery, or hydrogen-powered multiple-unit trains. All trains are equipped with the future-proof European Train Control System ETCS and the point-based train control system PZB. The Mireo



Smart offers passengers a high level of comfort and convenience, with a capacity of 214 seats, spaces for 21 bicycles and two wheelchairs, and universal-access toilets. The trains are also equipped with modern air conditioning, WiFi service, a passenger information system, security surveillance systems, and large TFT monitors in the entry areas.

How does the leasing model work?

Smart Train Lease aims to make the rental process as easy and simple as possible, comparable to renting a car. The company

offers a standard contract with various service options that best fit the operator’s rail infrastructure and experience of its workshops. By providing centralized fleet maintenance management, even the smallest fleets with short rental terms can be smoothly integrated into ongoing operations without requiring extensive changes to the existing maintenance organization. Standard maintenance work can be carried out by existing staff at any time without extensive training, and Smart Train Lease provides direct on-site support for all other activities.

The entire train, including its maintenance, is rented as a complete package.

On February 1st, BLS Cargo TRAXX F140 AC1 Class 485.018 passes Breyell with a 'climate-friendly freight transport across Europe (semi-trailers on CargoBeamer railcars) from CargoBeamer Terminal Domodossola (I) via Kaldenkirchen (D) to Cabooter in Blerick (NL). *Erik de Zeeuw*



HSB Triebwagen No. 187.016 stands at Harzgerode, terminus of the branch from Alexisbad, on February 19th. The short 3km line sees just 3 trains per day. Departing from Harzgerode they are the 08:47 steam service to Quedlinburg, the 12:19 diesel unit to Nordhausen and the 19:10 diesel unit to Quedlinburg.
Andy Pratt



Metrans acquires 100 per cent of Adria Rail

Metrans, the rail subsidiary of Hamburger Hafen und Logistik AG (HHLA), has once again invested in the expansion of its European network and acquired 100 per cent of the Adria Rail Group, which operates in Serbia and Croatia. With this acquisition, Metrans is further expanding its business in South-East Europe.

Adria Rail will be active in the Serbian and Croatian markets within the Metrans Group. The company offers its own rail transport services from the Adriatic region to Central and South-Eastern Europe, covering 70 per cent of container transport to and from Serbia out of Croatia. Adria Rail also manages an inland terminal in Indija, Serbia, near Belgrade. Now, daily Metrans trains run between this terminal and the Croatian port of Rijeka. In addition, the new location in Indija is also connected to the Metrans hub terminal in Budapest.

Metrans had already acquired 51 per cent of the Adria Rail Group in March 2023. This stake has now been increased to 100 per cent.

Peter Kiss, CEO of the Metrans Group: “With the full integration of Adria Rail, we have reached another important milestone in the expansion of our European network. Adria

Rail’s new connections will enable us to offer our customers further important and climate-friendly logistics connections in the dynamically growing countries of South-East Europe.”

Metrans’ European network of connections stretches between the North Sea, the Baltic Sea, the Adriatic and the Black Sea and is being continuously expanded. As a result, Metrans offers its customers more than 650 regular rail connections per week. For the majority of the connections customers can book the HHLA Pure product, which enables CO₂-free container transports across Europe.

By investing in modern electric locomotives, the use of green electricity and electric cranes at the inland terminals, Metrans has been committed to climate protection for years and supports the HHLA Group’s goal of climate-neutral production by 2040.



Making steel green: RIVA Stahl expands rail transports

Making steel green: RIVA Stahl expands rail transports

The Brandenburg-based company is taking a further step towards sustainable steel transport with DB Cargo.

Steel production is becoming increasingly sustainable – and that includes logistics. This is because many companies in the industry are choosing rail to transport their products from the steelworks to processing plants or other locations. One of them is RIVA Stahl, Europe’s largest electric steel group, which has relied on rail transport for years.

Framework agreement for green steel transport

RIVA Stahl mainly produces steel products for the construction industry, including classic wire rod and welded wire mesh. In Germany, the Brandenburg-based company has steelworks in Brandenburg an der Havel and Hennigsdorf, as well as two processing sites in the southwest of the country.

To transport the steel from the Brandenburg plant to these sites for further processing, RIVA Stahl has once again joined forces with DB Cargo.

The framework agreement for 2024 includes faster, more efficient and more flexible shuttle transports for RIVA Stahl from Brandenburg to Mannheim, from where the steel is distributed to Trier, Lampertheim and other destinations. Both partners expect a further increase in volume in 2024. As a result, RIVA Stahl will transport a significant proportion of its steel by environmentally friendly rail.

This will make a real difference, as one train can replace up to 52 lorries, saving 80 to 100% of the CO₂ emissions generated by road transport.

Siemens Mobility signs framework agreement with Railpool for the delivery of up to 250 locomotives

Railpool, one of the leading rail vehicle rental companies in Europe, and Siemens Mobility have concluded a framework agreement for the delivery of up to 250 locomotives. With the signing of the contract, 70 Vectron locomotives were immediately called up. The initial call includes 24 multisystem locomotives for use in AC and DC networks, as well as 46 AC locomotives. With this order, Railpool's Vectron fleet will grow to a total of 228 locomotives. The framework agreement includes Vectron variants that can operate in up to 16 countries and on various European rail corridors (north-south and east-west).

“The recent expansion of our modern fleet is taking place with a forward-looking focus on maximum operational flexibility for our customers. In addition to the multi-system locomotives for east-west traffic, we are adding further AC locomotives to our range, primarily for the Scandinavian corridor and the DACH region. Like the MS locomotives, the AC locomotives are also perfectly equipped for the upcoming ETCS expansion in Europe,” said Torsten Lehnert, CEO of Railpool.

“We are especially pleased to be continuing our successful collaboration with Railpool. Follow-up orders like this show that our locomotives impress customers with their quality and outstanding operational reliability. Thanks to the Vectron's universal usability, our customer can respond quickly and flexibly to changing market needs, and provide climate-friendly, cross-border rail transport throughout Europe,” said Albrecht Neumann, CEO Rolling Stock Siemens Mobility.

The locomotives for Railpool have an output of 6.4 megawatts and, depending on the variant, can reach a top speed of up to 230 km/h. They are also equipped with the necessary national train protection systems as well as the European Train Control System. Including this first call, Siemens Mobility has sold more than 2,400 locomotives from the Vectron family to 96 customers in 16 countries. To date, the fleet has covered more than 900 million kilometers. The Vectron-platform locomotives are approved for operation in 20 European countries.



For a strong rail: Deutsche Bahn donates a professorship for digital railway systems at the TU Dresden

The need for skilled workers to expand the digital rail system in Germany will continue to increase in the coming years. In order to secure know-how in Germany as a business location in the long term, Deutsche Bahn (DB) and the Technical University of Dresden (TU Dresden) are establishing an endowed professorship for digital rail systems in the “Friedrich List” Faculty of Transport Sciences at the TU Dresden.

Dr. Volker Hentschel, Head of the Digital Rail Germany Group Program: “With the endowed professorship for digital rail systems, we are investing seven million euros in the future of rail transport and the performance of rail. Together with the TU Dresden, we are securing urgently needed specialist knowledge in Germany in order to advance the expansion of the digital infrastructure. We want to recruit up to 1,000 academic specialists. With Digital Rail, we are creating more space for trains on existing tracks and increasing reliability for our passengers.”

Rector Prof. Dr. Ursula M. Staudinger: “Achieving the ambitious goals of Digital Rail Germany requires specific know-how. We want to develop this further at TU Dresden

together with DB. The endowed professorship for digital railway systems underlines DB’s trust in the excellent research and teaching at TU Dresden, especially in the railway sector. Endowed professorships are bridges between business and research.

The new professorship strengthens our potential area of “Automated and Networked Mobility”. The future research results and the trained young specialists are important factors for the development of future-proof and sustainable mobility systems. Rail plays an essential role in this.”

The position is initially designed for ten years. The funding



includes a professorship, three research assistants, two research assistants as well as administration and secretariat. In addition, scholarships are awarded to students in order to attract new students to the specialist courses. The advertisement for the position is scheduled to begin in March.

The research activities at the new endowed professorship for digital railway systems include in particular digital control and safety technology. The aim is to advance

the development of methods for analyzing and designing secure technical systems. The focus is on the areas of safety and risk assessment, consistent digital data storage, technology analyzes and the approval procedures for railway systems. Innovative methods from operations research, formal methods, artificial intelligence, modeling and simulation are used.

Expansion of the ICE fleet continues unabated

Deutsche Bahn comments on speculation about possible savings in expanding the long-distance transport fleet. There are no plans to cut costs in the procurement of long-distance trains. What is actually true is that around 12 billion euros will flow into new long-distance trains by 2030. By then, the average age of ICE and Intercity trains will fall from 18 today to 12 years. This is an integral part of our Strong Rail corporate strategy.

The last of 137 ICE 4s ordered from Siemens Mobility will soon be handed over to the DB. Delivery of the ICE 3neo is currently underway, of which the DB has ordered 90 trains from Siemens Mobility. To date, 17 ICE 3neo trains are already in use, and there should be 30 trains by the end of the year. Then the first ICE L from the Spanish manufacturer Talgo will also hit the rails. 79 trains have been ordered here. By the end of the decade, the ICE fleet is expected to grow to 450 ICE trains. Last year alone we received an average of three new ICE trains per month.



DB opens the largest training workshop for future railway workers in Berlin



Deutsche Bahn remains on record when it comes to hiring young talent and is also continuing to invest heavily in training and qualifications. The DB's largest training workshop in Germany for commercial and technical professions has officially opened in Berlin. Together with Susanne Henckel, State Secretary in the Federal Ministry for Digital Affairs and Transport, the DB Group representative for Berlin, Alexander Kaczmarek, Dr. Oliver Fischer, Head of Personnel and Management Development at DB and Corinna Vogt, Managing Director of DB Training, Learning & Consulting, symbolically gave the green light for the modern training facility.

On now around 5,000 square meters, 2,000 more than before, a state-of-the-art new home has been created for around 500 DB trainees. At the training location there are, among other things, seven spacious workshop rooms for the different trades (including mechatronics engineers, electronics engineers, devices and systems, electronics engineers, automation technology, industrial mechanics). Digital forms of learning with HoloLens and virtual reality are also used.

Susanne Henckel, State Secretary in the Federal Ministry for Digital and Transport: "We have set the political course for a rail economic stimulus program worth billions. Implementing this will be an enormous challenge, for which our society depends on excellently trained and highly motivated specialists.

Rail is diverse, innovative and future-proof. I am pleased that this is already reflected here, because it is necessary in order to be able to survive in the competition for skilled workers."

Alexander Kaczmarek, DB Group representative for Berlin: "With the new training workshop, Deutsche Bahn is creating ideal conditions for the training and further education of its employees. A place that creates an ideal combination of theory and practice through its modern environment and innovative learning methods. A good investment in the future of our employees and therefore also in the future of rail."

Dr. Oliver Fischer: Head of Human Resources and Management Development at DB: "The training and further education of our employees is very important to us. It ensures the future viability of our company. This also and especially applies to our young talent. Only with qualified young talent will we be able to master the major challenges – mobility transition and climate protection."

Corinna Vogt, Managing Director of DB Training, Learning & Consulting: "We have significantly expanded our capacities in Berlin and have moved the commercial-technical training workshop to a modern, practice-oriented and sustainable location. The new building does not just represent a physical move - we have created a learning place here that offers trainees from all DB

business areas the best conditions for successful training."

The new training workshop guarantees project-related commercial and technical vocational training with a high level of practical relevance and real work processes. It also offers, among other things, IT systems with which all trainees can work with tablets and computers throughout the building.

Also important: The 22 trainers see themselves not only as experts in their respective fields, but also as learning companions who support the trainees.

Another special feature is the ecological component - the house is supplied with district heating, and energy is also generated and fed in via a solar system on the roof of the house.

Training at DB

DB is currently training 14,000 young people to be fit for the future. In Berlin alone there are more than 1,100 and the number of recruits has almost doubled in recent years. Around 500 young talent are to be hired in Berlin this year. The DB offers 50 apprenticeships and 25 dual study programs.

50th Vectron locomotive delivered to Alpha Trains Group

Alpha are delighted to announce an important moment in our partnership with Siemens Mobility with the handover of the 50th Vectron locomotive at a special ceremony at the Siemens workshop in Munich/Allach.

This event was not just a celebration of numbers. It was a statement of the long-term and cooperative relationship we have with Siemens.

Fernando Pérez, CEO of Alpha Trains Group: "This is a great moment and underlines that we are putting the needs of our customers first through stronger partnerships with our suppliers and investments in modern, state-of-the-art locomotives."

"We are delighted to commemorate this milestone together with Alpha Trains. Our state-of-the-art Vectron locomotives provide our customer with exceptional reliability

and flexibility for both passenger and freight transportation across Europe," adds Steffen Bobsien, Vice President Locomotives & Passenger Coaches at Siemens Mobility.

The Vectron locomotive is perfectly aligned with Alpha Trains' commitment to providing sustainable rail solutions to support the modal shift from road to rail and help reduce CO2 emissions.

The Vectron DualMode 248-055 was handed over to our new German customer LEAG Leipziger Eisenbahnverkehrsgesellschaft mbH.

Photo: 50th Vectron locomotive delivered to Alpha Trains Group © Siemens Mobility



Germany

HSB 2-6-2T No. 99.6001 enjoys a well deserved drink at Alexisbad having just arrived with train No. 8963 10:30 from Quedlinburg on February 20th. The loco will run round the stock and return to Quedlinburg at 11:46. *Andy Pratt*



Germany

▶ The Zittauer Schmalspurbahnen's Romanian built diesel No. 199.018 stands at Kurort Jonsdorf station waiting to depart with train No. SOE305, the 12:08 to Bertsdorf on February 6th. The 750mm gauge loco was working vice the advertised steam engine. *Andy Pratt*

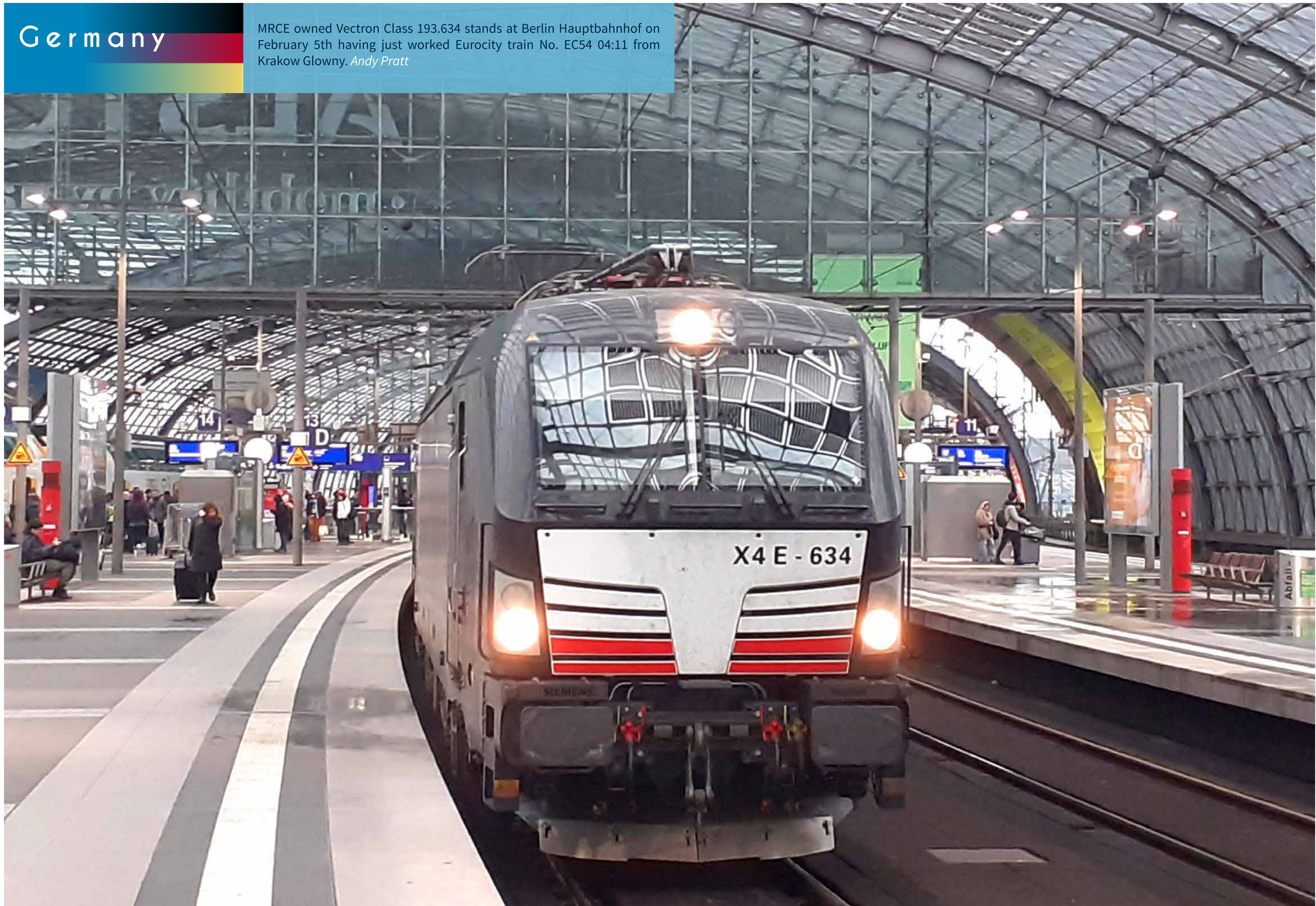
▶ The HSB diesel units from Harzgerode to Nordhausen and Nordhausen to Hasselfelde pass at Eisfelder Talmühle while waiting for the steam connection from Wernigerode to arrive on February 19th. The area behind the station shows the devastation caused by the bark beetle which has destroyed over 65% of the Spruce trees in the Harz National Park. *Andy Pratt*

▶ 2-10-2T No. 99.1762 stands at the terminus of the Weißeritztalbahn at Kurort Kipsdorf awaiting departure with train No. 5001, the 11:11 to Freital-Hainsberg on February 8th. *Andy Pratt*



Germany

MRCE owned Vectron Class 193.634 stands at Berlin Hauptbahnhof on February 5th having just worked Eurocity train No. EC54 04:11 from Krakow Główny. *Andy Pratt*



The 17.4 km 750mm gauge Fichtelbergbahn runs from Cranzahl to Kurort Oberwiesenthal near the Czech border in Sachsen, Germany. The 10:00 departure from Cranzahl waits patiently behind 1954 built 2-10-2T No. 99.1785 on a dull February 7th. *Andy Pratt*



Germany

Two EuroDuals from European Loc Pool: A Milestone for VPS in Sustainable Rail Freight Transport

European Loc Pool (ELP), a leading provider of innovative locomotive leasing services, is pleased to announce a new leasing agreement with Verkehrsbetriebe Peine-Salzgitter GmbH (VPS). This first agreement includes two EuroDual locomotives, marking a significant step for VPS towards increasing efficiency and sustainability in heavy rail freight transport. VPS is a wholly-owned subsidiary of the Salzgitter Group and its central logistics service provider.

Dr. Johannes Dreier, Managing Director of VPS, states: “The EuroDual offers a very good opportunity to improve the economic efficiency of our raw material transports for our customers while simultaneously reducing our CO2 footprint. These locomotives will be mainly used in heavy raw material transports from our Hansaport in the Port of Hamburg and from the Eastern Harz region to Salzgitter for the integrated steel mill.”

The exceptional capabilities of the EuroDual are at the heart of this new partnership. As a six-axle hybrid locomotive, it represents a significant innovation in European rail freight transport. With its tractive effort of 500 kN and performance capabilities of up to 2.8 MW in diesel mode and 6.2 MW in electric mode, the EuroDual offers up to 40% higher loading capacity compared to conventional models. This makes it the ideal choice for the demanding transport tasks of VPS, including the movement of heavy coal trains from Hamburg to Salzgitter and the transportation of lime from the Eastern Harz region.

“Sustainability, energy efficiency, and traction were decisive factors in our decision. The versatility of the EuroDual in electric and diesel operation allows us to utilize existing overhead lines for half of our routes, thereby significantly increasing our transport capacity and reducing the number of necessary trips. These improvements in our operation would not have been possible without the special capabilities of the EuroDual,” Dr. Johannes Dreier adds.



Leidenschaft für Zugkraft

Passion for Traction

Willem Goosen, CEO at European Loc Pool, comments on the partnership: “We are pleased to be able to accompany VPS on their journey towards more sustainable and efficient rail transport. Our EuroDual locomotives are not just means of transport; they are a testament to our commitment to innovation, efficiency,

and environmental protection in the railway industry.” The EuroDual has already proven itself in Germany, Austria, and Scandinavia, and the approval processes in other European countries are underway.

This partnership between ELP and VPS is evidence of the growing demand for sustainable and efficient solutions in the rail freight sector. The two EuroDuals will be delivered later this year.

On February 1st, BLS Vectron MS Class 475.404 is seen in America working a Rotterdam to Trecate benzene empties service. *Erik de Zeeuw*





On February 18th, NS International/DB Fernverkehr Intercity Class 193.263 powers through Bussum with the 08:55 Hamm to Amsterdam CS service. Usually the service starts in Berlin, but due to engineering works it started in Hamm. *Erik de Zeeuw*



An Arlanda Express X3 class unit arrives at Stockholm Central station on February 4th. The 20 minute journey from Stockholm Airport at Arlanda costs 320 Swedish Krone (approx £24) on the dedicated airport express service. *Andy Pratt*



Sweden

SJ Rc6 No. 1373 stands at Uppsala Central station with train No. IC48 17:44 Stockholm Central - Mora on February 3rd. *Andy Pratt*





Sweden

Alstom successfully completes modernisation of 270 cars for Stockholm metro

Alstom, global leader in smart and sustainable mobility, has completed the modernisation and upgrade of 270 models C20 cars for Stockholm metro, a project initiated in 2017. The last car is now leaving the workshop in Västerås to return to Stockholm, fully prepared for passenger service.

The modernisation programme emphasises the extensive reuse of materials to achieve environmental and cost-saving benefits. Additionally, the interior layout has been updated with an open design and new seating arrangements, facilitating quicker boarding and disembarking, and new passenger information systems, enhancing the passenger experience.

“For our operations in Västerås and for our local subcontractors, this project has been of significant importance, placing the Västerås workshop on the map internationally showing our expertise in the domain,” says Maria Signal Martebo, Managing Director of Alstom

in Sweden.

The project was carried out in close collaboration with Alstom’s customer MTR and the end customer SL.

Project facts:

- Alstom has modernised a total of 270 model C20 cars for the Stockholm metro.
- The work was performed at Alstom’s Västerås workshop.
- The project has been in progress since 2017, employing 110 fitters and 25 engineers, along with several local subcontractors in Västerås.
- The upgrade includes the reuse of materials, refurbished seats, new passenger information systems, more handrails, and more safety cameras than before.

- The new open design facilitates boarding and disembarking.

- In total, 27,540 seats have been installed, 110,160 screws used, and 240 kilometres of cable laid.

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

Alstom is the market leader in rail services, supporting customers over the entire asset lifecycle with the broadest portfolio of services solutions. Alstom’s FlexCare Modernise portfolio enhances and extends the lifetime of rolling stock with Life, Smart and Green modernisation solutions. Alstom addresses a wide

range of customer needs including minimising lifecycle costs, reducing environmental impact, and enhancing passenger comfort and train performance. Alstom has modernised over 40,000 vehicles around the world.

Alstom™ and FlexCare Modernise™ are protected trademarks of the Alstom Group.



India

Alstom commences production of the latest generation trainsets for Delhi Metro Rail Corporation Phase IV

Alstom, global leader in smart and sustainable mobility, has commenced the production of its world-class Metropolis trainsets for the Delhi Metro Rail Corporation (DMRC) Phase IV. Awarded in November 2022, this order aims to deliver 52 train sets, each comprising of six cars. The project is designed to cater to three different lines of DMRC, with two lines being extensions of the existing Line 7 and Line 8, and the new Gold Line 10 connecting Aerocity to Tughlakabad, covering a total distance of 64.67 km. The production was commenced at a commemorative ceremony led by leaders from Delhi Metro Rail Corporation and Alstom India. Speaking about this milestone, Dr. Vikas Kumar, Managing Director, DMRC said, “The Delhi metro stands as the lifeline of our city, and the addition of new routes will greatly enhance connectivity in the national capital. We are glad to know that Alstom is commencing the production of Metro trains for the Delhi Metro’s fourth phase of expansion. We are sure that the new age trains will ensure a smooth and comfortable ride for the passengers.”

Commenting on the occasion, Olivier Loison, Managing

Director, Alstom India said, “We have a longstanding association with the Delhi Metro, and it is a matter of pride for us to join India’s largest metro network in its continued growth and expansion. Our Metropolis metros have a noteworthy track record, low lifecycle cost, and keen focus on passenger experience, and we are honoured to be building these modern trains for the commuters in Delhi NCR, further promoting the transition towards sustainable mass mobility solutions.”

The total value of the project is 312 million euro, which also includes the maintenance of 13 trainsets of the new line for a period of 15 years. This 360-degree scope is a game changer for India’s metro segment as it will be the first maintenance project for Delhi Metro outsourced to an OEM. The Line 8 extension will extend the Magenta Line from Janakpuri West to RK Ashram, while the Line 7 extension will connect the Pink Line between Maujpur and Mukundpur and will improve DMRC connectivity another step above. Alstom has also been awarded the contract for supplying and commissioning the train-control and signalling solution for Delhi MRTS Phase-IV

Mukundpur – Maujpur (Line 7 ext.), and Aerocity – Tughlakabad Corridor (Line 10). These lines will be equipped with Alstom’s scalable Communications-Based Train Control solutions (CBTC), which will operate in conjunction with its Automatic Train Supervision (ATS) system.

Highlights of the Delhi Metro Phase IV

The Metropolis trains offer a unique design, a wide range of configurations and ensure the highest performance due to the perfect combination of proven and reliable components and innovations. These new trains are the most advanced state-of-the-art green vehicles, designed for a safe speed of 95 kmph and operational speed of 85 kmph, with GOA 4 driverless features, which makes them an environmentally friendly and comfortable metro solution for passengers of New Delhi.

Design specifications

Inspired by the tricolours of the national flag of India, the door pillar for the saloon interior of the trains will sport a mix of saffron, white, and green paint. The front

of the train for Line 10 has a metallic gold paint, making it the first time for Alstom to use this colour for a metro project in India. Under the ‘Make in India’ initiative, these Metropolis trains have been completely designed in India and will be built at the manufacturing facility in Sri City (Andhra Pradesh). This is Alstom’s largest Urban Rolling Stock manufacturing site in India, with a strong portfolio of delivering for major domestic and international projects.

Over the years, Alstom has provided over 800 metro cars that are currently in use throughout the Delhi Metro system, which is one of Asia’s largest rapid transit systems. Alstom has also partnered with DMRC for several other projects, including successful implementation of supply and commissioning of train control and signalling system for DMRC’s Red line (L1), (Yellow Line (L2), Green Line (L5), Violet Line (L6), Pink Line (L7) during Phase I, II & III.

India



Alstom successfully delivers the first trainset for the Meerut Metro



Commenting on the delivery, Olivier Loison, Managing Director, Alstom India said, “The Meerut Metro project is a step forward in the country’s ambition to modernise intra and intercity rail travel and we are delighted to be delivering our next generation products towards realising this vision. With its connectivity to the Namo Bharat line, the combined service will drive a long-term positive impact for business and leisure travel in the northern belt.”

Designed at Alstom’s Hyderabad engineering centre and manufactured at Savli (Gujarat), these trains are indigenous, in line with the government’s Make-in-India and Aatmanirbhar Bharat ambitions. The trainset will undergo its due testing and validation upon arrival at the depot in Meerut.

Alstom, global leader in smart and sustainable mobility, has successfully delivered the first indigenously manufactured trainset for Meerut Metro to the National Capital Region Transport Corporation (NCRTC), as part of a contract signed by Alstom in 2020 for the delivery of 210 cars for the Regional Rapid Transit System (RRTS). The first trainset was flagged off at a ceremony held at Alstom’s manufacturing facility at Savli in Gujarat, in the presence of Shri Hardeep Singh Puri, Honble Minister of Housing and Urban Affairs & Petroleum & Natural Gas (virtually), Shri. Vinay Kumar Singh, Managing Director – NCRTC, and Oliver Loison, Managing Director, Alstom India.

The Meerut Metro is an urban Mass Rapid Transit System (MRTS) that will operate across the 25-km stretch of Line-1 (~14.80 km elevated and 4.6 km underground), connecting Partapur to Modipuram via 11 stations. For the convenience of the residents of Meerut, three stations on this line will provide connectivity to the India’s first Regional Rapid Transit System (RRTS), connecting Delhi and Meerut. 30 coaches will be supplied by Alstom to serve the line in a configuration of 10 trainsets of three cars each. The rolling stock is based on Alstom’s Adessia commuter train family, incorporating worldwide experience. The primary purpose of this Mass Rapid Transit System (MRTS) is a feeder to RRTS and a metro for the Meerut region.

Shri Vinay Kumar Singh, Managing Director – NCRTC, said “Namo Bharat trains and Meerut Metro are a testament to our unwavering commitment towards the realisation of the Hon’ble Prime Minister’s Gati Shakti National Master Plan. In a first-of-its-kind initiative in the country, both these services will run on the same RRTS infrastructure. The modern Meerut Metro trainsets have been designed and manufactured indigenously under the Make-in-India initiative. Alstom team has worked hard in ensuring timely delivery of these MRTS trainsets in sync with the preparedness of infrastructure.”

Alstom and Meerut Metro Project Commitment

In 2020, Alstom was awarded the contract, and the scope of work includes:

- Design, build, and deliver the trainsets - 30 transit train cars
 - Design, supply and install the signalling, train control and telecommunication system, platform screen door & long-term evolution which is completed for the ~ 17km priority section for the launch
 - Provide comprehensive maintenance services for 15 years
- The outstanding ergonomics, safety and comfort, low life cycle costs and high recyclability also contribute to making these new commuter trains an attractive sustainable choice to promote public transport, thereby reducing traffic congestion, air pollution and fuel consumption. They help to save travel costs and time as well as to change the lives of millions of citizens by connecting suburban places with the economic center of the region.

The MRTS trains

- Resemble the appearance of conformist metro trains
- Present a mix of longitudinal and lateral cushioned seating
- Offer a range of passenger-centric amenities, including overhead luggage racks, miniature screens within the coaches, wi-fi connectivity, and multiple USB sockets near the seats
- Feature designated wheelchair spaces for individuals with disabilities and stretcher space for emergency medical transfers. Emergency communication capabilities are also integrated into the coaches, designed, and manufactured in alignment with International Safety Standards

Portugal

CP No. 1427 is framed by the old station crane at Pocinho while waiting to depart with train No. IR21860 15:12 to Porto São Bento on January 28th. *Andy Pratt*



India



Alstom commences production of driverless trainsets for Chennai Metro Phase II

Alstom, a global leader in smart and sustainable mobility, has commenced the production of its world-class Metropolis trainsets for the Chennai Metro Phase II from its state-of-the-art manufacturing facility in Sricity. This order aims to deliver 36 metro trainsets, each comprising of three cars, and capable of operating at a top speed of 80 kmph. These trains are designed to run on the 26 km corridor, a segment of Phase-II linking Poonamallee Bypass to Light House via 28 stations (18 elevated and 10 underground). The production was commenced at a commemorative ceremony led by leaders from Chennai Metro Rail Ltd. and Alstom India.

The project is valued at 124 million euros, which also includes training of the personnel to Chennai Metro for operation and maintenance. With 25 KV power supply for optimal energy efficiency, Alstom's Metropolis metros will ensure safe and reliable passenger transport for over 11 million citizens of the city. Additionally, the overall project will significantly contribute towards the socio-economic development by connecting key zones.

Mr. M.A. Siddique, I.A.S., Managing Director of CMRL said, "Chennai Metro has established itself as a cornerstone of efficient and reliable transportation for our citizens. It not only boosts the economy by improving connectivity but also champions sustainable mobility by reducing emissions and de-congesting roads. CMRL will be introducing Driver-less trains in Phase-II. These modern

trains prioritize safety and passenger comfort, further elevating the commuting experience. We are happy that our first set of driverless trains will be manufactured near Chennai by Alstom. We look forward to operating these technologically advanced trains on the Phase-II network by end of 2025, marking a significant milestone for the city's transportation infrastructure."

Commenting on the occasion, Olivier Loison, Managing Director, Alstom India said, "We have a long-standing association with Chennai Metro, for over a decade. The rolling stock order for Chennai Metro Phase-I marked the beginning of our manufacturing journey in India. As we begin production for the second phase, we are thrilled to be bringing more innovation to Chennai Metro that promises to redefine the commuting experience for the residents of Chennai."

Rolling Stock Highlights of the trains for Chennai Metro Phase II

The metro system boasts impressive features, including three-car trains accommodating up to 1000 passengers, ensuring a seamless boarding experience with wide internal gangways. The air-conditioned environment prioritizes comfort, with dedicated spaces for women and differently abled individuals. Dedicated to creating a women-friendly travel experience, the new metro introduces special features catering to the comfort and safety of female passengers. One entire car reserve 2/3rd

of its space as a designated ladies' section. Recognizing the importance of accessibility, distinct colours mark grab handles within this area, and their installation at a lower height ensures easy access. Perch seats will offer support for standing passengers, complemented by enhanced security through CCTV cameras. Safety remains paramount with emergency evacuation doors and strategically placed fire extinguishers. The system is equipped with obstacle and detrainment detectors for swift issue resolution, and it emphasizes sustainability with regenerative electric braking for enhanced energy efficiency. These driverless trains are equipped with advanced passenger announcement systems, ensuring timely updates and information dissemination throughout the journey. The new metro is set to redefine urban transportation with a focus on comfort, safety, and environmental responsibility.

Design highlights of the trains for Chennai Metro Phase II

Inspired by the graceful 'Mudras' of the Indian classical dance form, Bharatnatyam, the exterior front mask forms a unique and culturally rich design. The saloon draught screen (the glass support against every corner seat in the metro) pattern pays homage to Tamil Nadu's traditional decorative art form, known as 'Kolam'. These trains will be the first in India to introduce Perch seats, enhancing passenger experience and comfort. The colour palette is based on the region's landscape, architecture, state

heritage, vibrant communities, rich traditions, diverse art, and cultural expressions.

These metro train sets are engineered and designed to operate driverless with Unattended Train Operations (UTO). The metro coaches are equipped with Automatic Train Operation (ATO) and Automatic Train Protection (ATP), along with a regenerative braking system, ensuring substantial energy conservation. Featuring GOA 4 driverless features, these trains will offer an environmentally friendly and comfortable metro solution for passengers of Chennai.

Alstom had also manufactured and delivered 208 metro cars for the 54km of first phase and Extension of Corridor-I from Airport to Wimco Nagar and Corridor-II from Chennai Central to St. Thomas Mount. In addition to this, the company has also successfully designed, tested, and commissioned the track-works covering 45 kms of corridors I & II for the Chennai Metro.

Poland

Alstom and PKP PLK sign a Maintenance Agreement of railway traffic control systems and devices

Alstom, global leader in smart and sustainable mobility, has signed a Central Service Agreement with PKP Polskie Linie Kolejowe S.A, managing the Polish national railway network. The contract aims to offer post-warranty maintenance for railway traffic control devices and computer systems produced by Alstom. This includes Alstom's railway traffic control systems, track vacancy system (SOL) and power supply. Alstom will provide service support for 328 facilities in 17 Railway Line plants located throughout Poland. The scope of services includes maintaining a modern reporting system, carrying out periodic inspections and ongoing repairs, spare parts management, reporting and training. The contract was signed for a period of two years, lasting until the end of 2025.

"The agreement with PKP PLK represents the most extensive and valuable service contract undertaken by the Katowice branch of Alstom. This marks our third consecutive contract of this type, undertaken for the manager of the national railway network. Our common objective is to ensure the ongoing maintenance of railway traffic control systems and speed up the resolution of potential problems. I am confident that the skills and dedication of the entire Alstom team will contribute to enhancing the appeal of railways as a comfortable, safe, reliable, and environmentally friendly mode of transportation," emphasises Adam Juretko, Managing Director of Katowice branch of Alstom in Poland.

Alstom is one of the largest producers of railway traffic control systems and devices in Europe. It was the first in Poland to implement the European Rail Traffic Management System (ERTMS) level 2 on most of the country's main railway lines and the control centre for the Warsaw Metro.

In addition, the company built 30 centralised railway traffic control (CTC) systems, equipped over 200 stations with computer interdependence systems and modernised over 1,700 crossing signalling systems.

Spain



CAF RECORDED ITS BEST YEAR IN THE CONTRACTING OF ONBOARD ERTMS EQUIPMENT

The CAF Group's railway signalling business has closed the year 2023 with more than 450 vehicles contracted to be equipped with its on-board ERTMS. That is the best record for this division in its 14 years of history as a Group company. Less than a decade after signing its first contract, the company has exceeded 1,300 vehicles equipped with on-board ERTMS and ATO (Automatic Train Operation), covering all types of vehicles, both new and retrofit. During these ten years, CAF has expanded its geographical presence in signalling in four of the five continents, specifically, it has projects in more than a dozen countries: Spain, Netherlands, Czech Republic, Slovakia, Poland, Hungary, United Kingdom, New Zealand, Australia, Mexico, Uruguay, United Arab Emirates and Arabia.

In its beginnings, the signalling subsidiary acquired its

first references and experience thanks to the support and drive of CAF's vehicle business. However, over the years this business has also managed to grow outside the Group's umbrella, providing services to other rolling stock manufacturers and benchmark operators such as Renfe, Euskotren, NS, Deutsche Bahn, KiwiRail, České Dráhy and SZDC.

REFERENCE SUPPLIER OF ON-BOARD ERTMS/ERTMS

The signing of contracts for more than 450 vehicles to be equipped with its on-board ERTMS in 2023 has positioned CAF as one of the main suppliers worldwide in terms of equipment contracted last year as far as signalling is concerned. In fact, CAF is currently the leader in on-board railway signalling in markets such as the Czech Republic, where it has a total of more than 400 vehicles equipped with on-board ERTMS; or the Netherlands,

with more than 275 references. It has also achieved one hundred percent of the market share in on-board ERTMS in New Zealand, where one of the fleets has also been equipped with ATO over ERTMS. In addition, it closed last year with the commissioning of more than twenty First in Class vehicles in countries such as the Czech Republic, Poland and Mexico.

2024, A CHALLENGING YEAR

The company expects this positive momentum to continue in 2024. The commissioning and certification of the ERTMS on-board project with Deutsche Bahn in Germany is one of the main challenges they face in the short term. Another important milestone will be the authorization for placing into service of the Automatic Train Operation (ATO) on ERTMS in Auckland (New Zealand); the commissioning of technically demanding

projects such as the on-board ERTMS of SJ trains in Sweden or the entering into ERTMS service of Stadler locomotives in Uruguay. In short, the company foresees the implementation of approximately 30 First in class projects, which will be certified in accordance with the new European regulation Technical Specification for Interoperability relating to Control-Command and Signalling Subsystems (TSI CMS) 2023.

Likewise, CAF's signalling division also participates in collaboration projects of high technological value with reference customers for the vehicle business. These include the technological collaboration project with the Dutch national operator NS, where it is developing and testing solutions linked to autonomous vehicle technologies such as ATO, Automatic Shunting and Remote Shunting.

India



Alstom kicks-off Low Emission Access to Public Transport (LEAP) program to enhance last-mile sustainable connectivity to metro stations in Bengaluru

Alstom, a global leader in smart and sustainable mobility, has introduced Low Emission Access to Public Transport (LEAP), a program under its Corporate Social Responsibility initiative, that aims to boost last-mile connectivity, encouraging greater public transport usage. As part of the pilot phase of the program, MetroRide will have electric autorickshaws deployed as last-mile service from Yelachenahalli and Indiranagar stations, of the Namma Metro in Bengaluru. As a step to encourage and include women in the urban mobility landscape, MetroRide, an AI-powered EV ride hailing solution for daily commuters, has trained around 25 women drivers to drive the electric rickshaws in the said region. The rides can be booked through the MetroRide app. The program was inaugurated by Olivier Loison, MD, Alstom India, Mr. Srinivas Alavilli, Fellow, WRI India, Prof. Rajeev Gowda Vice Chairman, Vice Chairman, State Institute for the Transformation of Karnataka and Smt. Kalpana Kataria, Executive Director (Connectivity & Asset Management), Bangalore Metro Rail Corporation Limited.

Speaking at the launch of the program, Olivier Loison, Managing Director, Alstom India said, "Namma Metro will play a significant role in easing the on-road movement challenges in Bengaluru and as leaders in sustainable

mobility there could be no better way for us to encourage public transport than LEAP. Through our partnership with WRI India and leveraging the innovations brought to the table by an Alstom-mentored startup, MetroRide, we have taken a noteworthy step in bridging the last mile connectivity challenge with this program. Together, we'll leverage innovation and expertise to implement solutions that elevate the metro experience, making it more accessible, efficient, and environmentally friendly". Bengaluru is one of the world's most congested cities and has the highest number of private cars in India. While the metro service has rapidly expanded over the years, a recent WRI India survey has revealed that 70% of commuters were deterred by poor last-mile connectivity to Bengaluru Metro. Women, constituting only a fraction of metro commuters, face additional challenges due to unsafe or inconvenient last-mile connections and chronic underrepresentation in the male-dominated transport workforce. LEAP aims to address these concerns by not only improving access to Bengaluru Metro for women but also actively contributes to enhancing women's participation in the transport workforce as drivers, fostering a more inclusive and sustainable urban mobility landscape.

Speaking at the occasion, Prof. Rajeev Gowda, Vice Chairman, State Institute for the Transformation of Karnataka; Ex Member of Parliament; Member of Brand Bengaluru Committee said, "This is a wonderful initiative on many fronts. It empowers women to become auto drivers, thus breaking into a male-dominated profession. Electric autos which facilitate public transport move us on the path toward a sustainable future. Let's empower more women to take the wheel and drive towards a more inclusive and safer Bengaluru."

Mr. Srinivas Alavilli, Fellow, WRI India said, "Our collaboration with Alstom and MetroRide is founded on a commitment to data-driven decision-making in public transport. Addressing the critical last-mile connectivity gap prevalent in India's metro networks, our joint efforts aim to provide commuters with a safe, low-cost, and low-emission mode of transport within the city. Beyond revolutionizing the daily commute, LEAP is dedicated to fostering sustainable livelihoods, particularly for our women driver partners. This initiative not only bridges gaps in urban mobility but also propels a socio-economic shift, underscoring our commitment to creating positive and lasting impact in the communities we serve." WRI India's pivotal role in LEAP's success includes conducting detailed commuter surveys, as well as

facilitating focus group discussions with both commuters and auto drivers. Their ongoing support also extends to working in close collaboration with MetroRide to design and test LEAP's operating model, evaluating the service's progress, and analysing insights, which helps contribute to the project's data-driven approach and overall effectiveness.

Alstom continues to demonstrate its commitment to sustainable mobility through strategic investments via the CSR route. The partnership with NRSCCL, IIM Bangalore's incubation centre for StartUps, manifests in the Sustainability Incubation Program, a pioneering initiative supporting startups dedicated to combating climate change and addressing diverse sustainability and mobility challenges. The first cohort of the Sustainability Incubation Program successfully shortlisted and nurtured ten ventures and the second cohort of the program is currently ongoing. Building on this, Alstom has introduced LEAP as a flagship program under its impact pillar, aimed at solving the last-mile connectivity issues and advancing the adoption of sustainable mobility in India. This program is expected to soon cover other metro stations that will help increase metro ridership by provide connectivity to high-frequency hubs.

Siemens Mobility and Cargounit sign agreements for the delivery of up to 100 locomotives

Cargounit, the largest independent locomotive leasing company in Poland, has signed an agreement with Siemens Mobility for the purchase of 90 Vectron MS locomotives, of which 30 have been immediately called up. Additionally, a second contract was signed for the delivery of ten Smartron locomotives. The first deliveries are planned for 2025. Siemens Mobility and Cargounit's collaboration dates back to 2018, when a single Vectron MS locomotive was purchased. Cargounit is the largest customer for Siemens Mobility locomotives in Poland. With this new order, the company will have a total of 66 Vectrons and 18 Smartrons in its fleet.

“Without Vectron locomotives, Cargounit is paving the way for sustainable and efficient cross-border rail transport in Europe. The new orders reaffirm Cargounit's trust in one of the most modern and environmentally friendly universal locomotives available on the European market today,” said Albrecht Neumann, CEO Rolling Stock at Siemens Mobility.

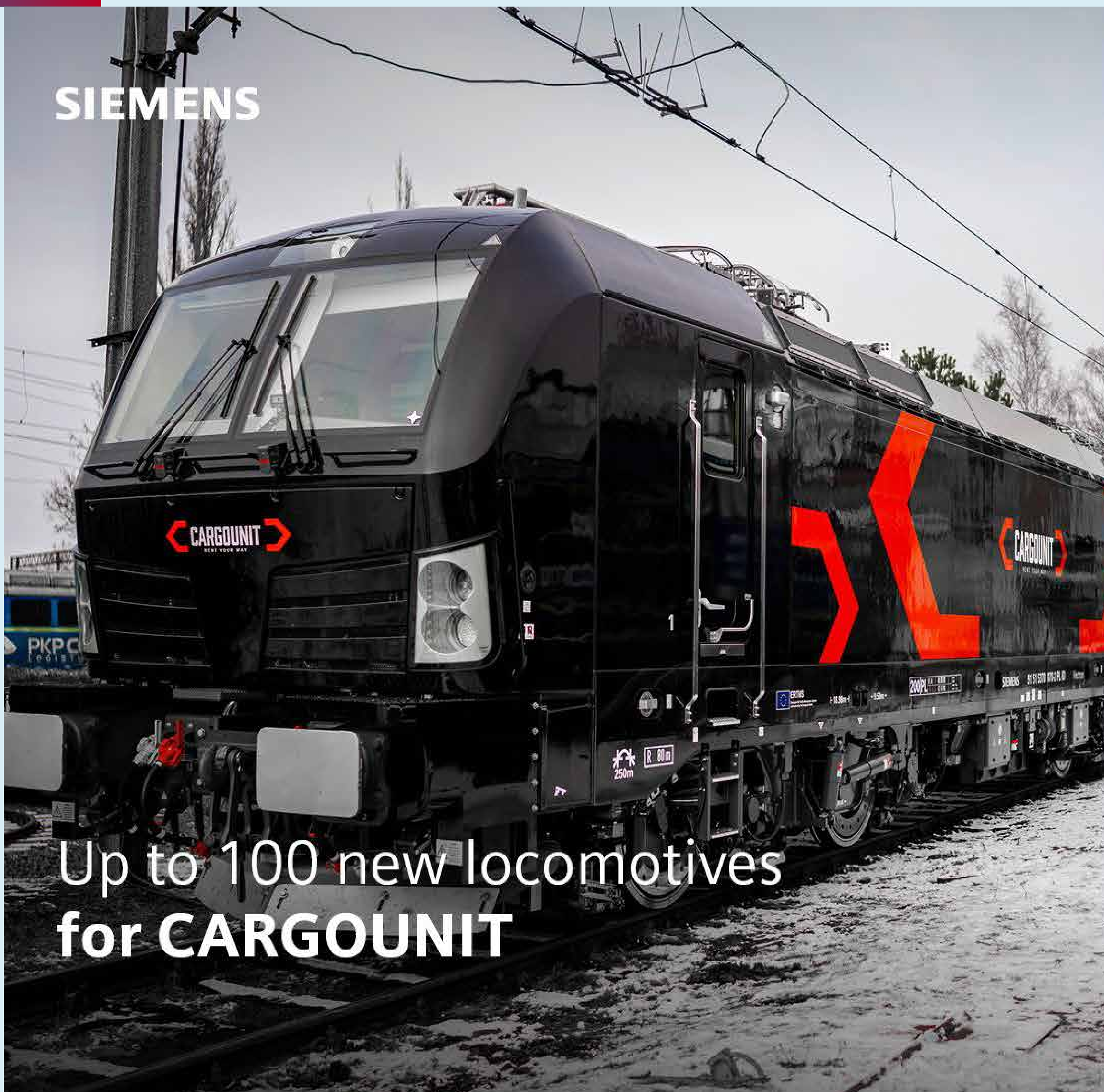
“The signing of the agreements with Siemens Mobility marks another milestone for Cargounit in implementing our strategy to modernize our fleet of locomotives for freight and passenger service in Poland and elsewhere in Central and Eastern Europe. Over the past three years, we have significantly exceeded our original goals for purchasing and delivering state-of-the-art locomotives to customers in Poland, including multi-system locomotives. In the coming years, we plan to continue replacing older units with highly reliable,

low-emission locomotives in line with the strategy of Cargounit and rail operators to increase sustainability in the rail sector. We are confident that Cargounit will benefit from this trend of modernizing rolling stock in Central and Eastern European countries,” said Łukasz Boroń, CEO of Cargounit.

The ordered Vectron MS locomotives have a power

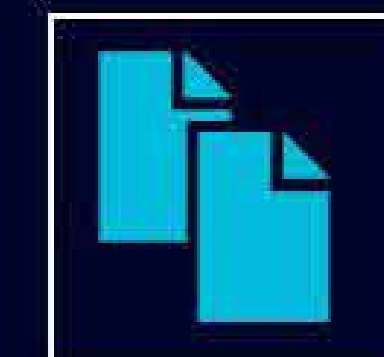
output of 6.4 MW in AC and 6.0 MW in DC and will be equipped with an ETCS system that complies with current Baseline 3 specifications. Plans call for Cargounit's new Vectron MS locomotives to operate in Poland, Germany, Austria, the Czech Republic, Slovakia, Hungary, the Netherlands, Romania, Slovenia, Croatia, Serbia, Italy, Bulgaria and Belgium. The Smartron locomotives will operate in Germany, Bulgaria or Romania.

To date, Siemens Mobility has sold more than 2,400 locomotives from the Vectron family to 97 customers in 16 countries. Vectron locomotives are approved for operation in 20 European countries.

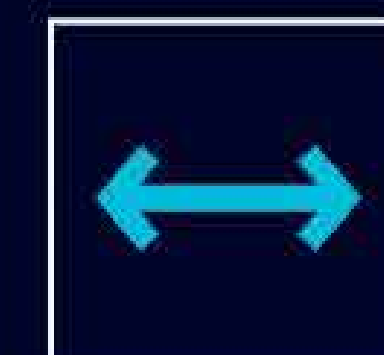


SIEMENS

Up to 100 new locomotives for CARGOUNIT



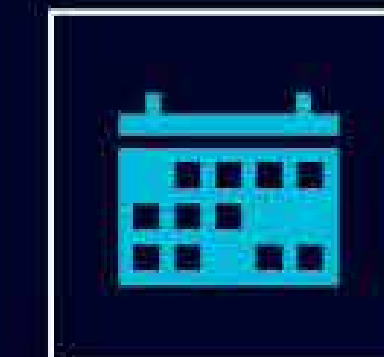
Two orders for Vectron and Smartron locomotives



Framework agreement of up to 90 Vectron MS with first order of 30



Additional order of 10 Smartron locomotives



Delivery from 2025 onwards

Belgium

Red Sea trade routes closure: Lineas and CSP Zeebrugge set up new train connection between Zeebrugge and Graz.

Lineas, in collaboration with CSP Zeebrugge, has set up a new train connection between Zeebrugge and Graz, Austria on behalf of COSCO Shipping Lines. This solution comes in response to the logistical challenges caused by ongoing attacks by Houthi rebels, which have made the usual route along the Red Sea and via the port of Piraeus, Greece, temporarily impossible for COSCO Shipping Lines.

The need to find an alternative route quickly brought Lineas and CSP Zeebrugge together to create an efficient and flexible solution. The train service between Zeebrugge and Graz provides a fast and reliable connection for the delivery of freight from Belgium to Austria.

Bernard Gustin, Executive Chairman of Lineas, stated, “We are pleased that we were able to respond quickly and effectively to the challenges faced by our COSCO Group partners. This new connection highlights the flexibility of our network, and we are committed to continuing to provide

innovative solutions that meet the evolving needs of our customers.”

Tom De Wannemacker, Business Development Manager at CSP Zeebrugge, added: “The cooperation with Lineas allows us to maintain the reliability and customer focus of our service, even in challenging times. We are very pleased with the speed and flexibility with which Lineas has been able to implement this solution, and we look forward to further expanding our freight transport capabilities.”



Luxembourg

Alpha Trains and Stadler sign Full-Service agreement for the maintenance of EURO9000 locomotives

Alpha Trains, Europe's leading leasing company for locomotives and trains, has signed a full service maintenance agreement with Stadler.

The contract covers the complete maintenance of all EURO9000 locomotives recently ordered by Alpha Trains for a minimum period of 10 years as from delivery of the locomotives. The scope of service includes preventive, corrective and heavy maintenance to guarantee the highest service standards to Alpha Trains' customers across Europe.

This milestone agreement further strengthens the collaborative efforts of both companies to enhance sustainable and efficient transportation solutions across Europe.

In 2023 Alpha Trains announced its first order for the purchase of 12 of this latest generation of six-axle hybrid multi-system locomotives. Delivery is scheduled for 2025 and 2026.

The strategic collaboration between Alpha Trains and Stadler underscores their longstanding and successful partnership and at the same time emphasizes their commitment to providing customers with a reliable and efficient fleet of EURO9000 locomotives across Europe.

Guus de Boer, Commercial Director, at Alpha Trains Locomotives about this partnership: “Stadler's extensive service network, excellent maintenance track record and shared values have led us to this agreement, which will enable Alpha Trains to provide best of class customer service for the latest purchased Stadler EURO9000 locomotives.”

Christian Mayer, Senior Sales Manager, at Stadler Service AG commented: “We are very pleased that we were able to collaborate with Alpha Trains as a well-known customer for the Full Service of the EURO9000 locomotives. With our flexible and innovative maintenance concepts, we ensure the highest level of availability and thereby create an advantageous starting

position for Alpha Trains' customers to be successful in the market. With our established service network and the mobile Stadler teams, we can provide holistic support throughout the DACHINLB region.”

Alpha Trains provides attractive leasing products and state-of-the-art locomotives which contribute to enable and increase the modal shift of freight from road to rail. This co-operation with Stadler is an example of the common vision of both companies to contribute to a more sustainable and efficient future for European transport.

Brazil



MRS Orders 30 Wabtec Evolution Series Locomotives

R\$500 million investment in MRS fleet renewal strategy
RIO DE JANEIRO and PITTSBURGH

MRS Logística (MRS-AM) and Wabtec Corporation have announced an agreement for 30 new Evolution Series locomotives. The deal is valued at approximately R\$500 million with the first deliveries scheduled for 2024. The purchase is part of MRS's railway fleet renewal strategy and reinforces the almost 30-year relationship between the two companies.

According to Guilherme Segalla de Mello, president of MRS Logística, the fleet renewal is crucial for the company to improve efficiency and safety.

“By using a modern fleet of locomotives, we promote better energy efficiency in rail transport and contribute to improving our country's logistics. The railway is already a more sustainable mode of transportation. Even so, we are making every effort to have the lowest possible gas emissions in our operations, thus contributing to sustainable development. This order is aligned with the regulatory commitments assumed by MRS with the Federal Government, in combined efforts between the public and private sectors. It generates more efficiency

for the intermodal transportation and promotes the railway industry,” he states.

The ES44ACi's advanced technology aligns with the global push towards more sustainable practices. The locomotive aims to provide emissions reductions compared to its predecessor, the AC4400. The high-strength materials used in production also significantly increase diesel engine overhaul intervals, reducing operating costs throughout the locomotive's lifecycle. “These cutting-edge ES44ACi locomotives offer high performance and greater reliability, as well as reduced CO2 emissions,” says Danilo Miyasato, president and regional leader of Wabtec Latin America. “This long-term contract highlights our vision of a greener railway network for Brazil.”

Launched in 2022, the ES44ACi model locomotives are equipped with Evolution Series diesel engines, which produce 4,500 horsepower with just 12 cylinders. The electronic four-stroke internal combustion engine with turbocharging provides greater energy efficiency and lower emissions, thanks to a design focused on the thermal efficiency of combustion combined with a double intake air cooling system.



U.S.A.



Wabtec Launches the Next-Generation Railcar Mover – the Commander NXT

Wabtec has launched its Shuttlewagon Commander NXT, the next generation of railcar movers. The NXT series will provide the railcar moving industry improved performance, reliability, and efficiency.

“The Commander NXT was designed with the customer in mind and represents the future in railcar mobilization,” said Raj Gupta, President and CEO – Maintenance of Way, Wabtec. “Packed with a narrower frame and an advanced rail wheel stability system, the NXT allows for efficient navigation of challenging rail, tunnels, and sharp curves, without compromising on power or performance. This capability helps our customers efficiently and reliably run their railyard operations.”

The Commander NXT series debuts with four dynamic models, offering tractive efforts ranging from 26,000 lbs to a robust 41,300 lbs, catering to diverse operational needs of customers. This new railcar mover also features the patented ShuttleLaunch technology, a cutting-edge solution specifically

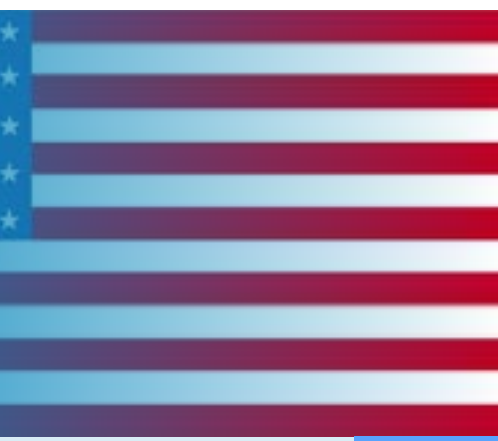
engineered to optimize tractive effort, substantially reduce wheel slipping, and extend tire life, marking a notable advancement in the industry.

Each model in the NXT series boasts cutting-edge features, including an advanced joystick operation for precision control, a dual-rail wheel design enabling navigation of tighter curves, and a proven AAR coupler and rubber tire drive system. These enhancements collectively elevate the functionality and efficiency of the NXT series.

Since 1972, Wabtec's Shuttlewagon railcar mover has served more than 1,000 customers in over 12 industries that include government, agriculture, chemicals, mining, and other industries that are integral to the supply chain.



U.S.A.



Wabtec and CSX Extend Deal to Modernize over 200 Locomotives

On February 13th, Wabtec Corp. and CSX Corp. (NASDAQ: CSX) signed a deal for over 200 locomotive modernizations featuring a suite of digital solutions, innovations, and services. The agreement will transform the remaining AC4400 locomotives in CSX's fleet providing improved fuel efficiency, reliability, utilization, and tractive effort.

"This modernization order is part of our commitment to deliver excellence for our customers, shareholders, employees, and communities," said Mike Cory, CSX executive vice president and chief operating officer. "Wabtec's modernization program enables us to maximize the capabilities of our existing fleet. The upgrades will improve asset reliability allowing us to move more freight with fewer locomotives, which also will help reduce our carbon emissions footprint."

CSX's fleet modernization effort is part of the railroad's expanded use of innovative fuel-saving locomotive technologies and supplier engagement to achieve its sustainability goals. This order will continue upgrading the AC4400 locomotives in CSX's fleet delivering enhanced operational performance and reduced greenhouse gas (GHG) emissions.

"The modernizations will enable CSX to maximize the value of its existing AC4400 fleet," said Gina Trombley, Wabtec executive vice president of sales and marketing, and chief commercial officer – Americas. "By installing state-of-the-art technology on these locomotives, we are helping to improve locomotive performance, fuel efficiency, and reliability, while also reducing on-going maintenance costs. This modernized fleet is well-positioned to support CSX's long-term sustainability and service goals."



CSX's over 200 modernized locomotives will feature a suite of Wabtec hardware innovations, such as the FDL Advantage (FDLA) engine upgrade, and digital solutions, like LOCOTROL® Expanded Architecture (LXA). Those technologies will work to enable the locomotives to deliver up to 8% fuel savings and carbon reduction. The modernizations will strive to provide approximately 170 tons of carbon reduction per locomotive per year. It is Wabtec's goal for CSX's total order to realize approximately 35,000 tons in annual carbon reductions.

Achieving those reductions would be the equivalent of removing emissions from nearly 8,000 passenger cars per year.

Additionally, the modernizations will extend the locomotives' lives for several more years. It also will target to provide an increase in reliability by up to 35% and tractive effort by up to 14%. CSX's AC4400 fleet will have greater availability and increased capabilities at reduced operating costs.

Wabtec will do the modernization work at its locomotive plants in the United States from 2024 - 2028. The contract is in addition to the 260 modernizations that CSX previously ordered, the majority of which have already been delivered.

Stadler will supply Next Generation Intercity Trains to Saudi Arabia

On February 5th, Saudi Arabia Railways (SAR) and Stadler signed contracts for the supply and the maintenance of 10+10 Next Generation Passenger Trains for the operation on the growing railway network in the Kingdom of Saudi Arabia. With these landmark contracts, SAR is taking the next step towards the VISION 2030 development of their railway operation. For Stadler these are the first contracts in one of the fastest growing railway markets, the GCC-region. The total contract volume is approx. 600 Mio CHF. The signature was witnessed by H.E. Saleh bin Nasser Al-Jasser, Minister of Transport and Logistic Services of Saudi Arabia and Chairman of the board of SAR as well as the Swiss Federal Councillor Guy Parmelin, emphasizing the strategic importance of this cooperation for the bilateral relationship between the Kingdom of Saudi Arabia and Switzerland.

The new trainsets will be designed according to latest European and International Standards while being equipped particularly for the climatic and ambient conditions in Saudi Arabia. They will be approx. 175m long, self-propelled with two independent diesel-electric power heads meeting the latest European emission standards stage V and cater for approx. 320 passengers.

The new trainsets will elevate train travel in the Kingdom to the next level in terms of passenger comfort, travel experience and reliability. They will be ready to operate on SAR's growing railway network throughout the country and will connect the growing cities of the Kingdom.

The supply contract consists of a base contract for 10 trainsets with an option of another 10 trainsets. The maintenance contract provides full maintenance support and spare parts for a period of 10 years with an option to be extended to additional 10 trainsets for 10 years. The total contract value of both base contracts is equal approx. 600 Mio. CHF.

The contract follows an international tender procedure of SAR in 2022, the selection of Stadler as preferred bidder to SAR in 2023 and an extensive negotiation process. This contract is the first contract for Stadler in the fast growing market of the GCC region. However, with two large other contracts in the MENA region Stadler does have significant design experience for the relevant climatic and ambient conditions.

His Excellency the Minister of Transport and Logistics Services, Chairman of the Board of Directors of Saudi



Arabia Railways (SAR), Engineer Saleh bin Nasser Al-Jasser, explained that the purchase of these modern trains comes in response to the increasing demand for the East Train passenger services, as the new trains will contribute to doubling the annual capacity of the East Trains to reach more than (3.8) million passengers annually and provide direct trips from Riyadh to Dammam (express service) to meet the growing demand for trips between the two main cities in the Kingdom.

His Excellency Al-Jasser added that the introduction of these modern trains into the railway network also comes in alignment with the initiatives of the National Transport and Logistics Strategy (NTLS) to improve the quality of life, enhance the public transport system in the Kingdom, and improve the overall experience, stressing that “the entry of new trains into service in the near future will open new horizons for the economic movement witnessed in the Kingdom, by supporting rapid connectivity between cities and main regions in

the Kingdom, noting the great and unlimited support that the transportation and logistics system receives from the Custodian of the Two Holy Mosques and HRH the Crown Prince, to enable the sector to achieve its initiatives in accordance with Saudi Vision 2030.”

For his part, CEO of Saudi Arabia Railways (SAR), Dr. Bashar bin Khaled Al-Malik, affirmed the company's commitment to its pioneering national role by stating: “Today we are experiencing a comprehensive development and a sustainable strategic transformation in the railway sector, as these modern trains represent an effective tool for improving services provided to the residents and visitors of the Kingdom.” He added: “The new trains will serve the entire operational scope of the East Railway network by increasing seat capacity, the number of daily trips, and the annual capacity of the network, as these trains will cover the stations of Riyadh, Hofuf, Abqaiq and Dammam.”

Peter Spuhler, Executive Chairman of Stadler Rail says: “Today we are honoured to be awarded with this prestigious contract from one of the fastest growing railway companies in the world. We are very happy to be trusted with the development and delivery of SAR's next generation passenger trains and will do our utmost to meet the high expectations of SAR and the passengers in the Kingdom. It is an honour to be part of Saudi Arabia's development towards sustainable and ecological passenger transportation. At the same time this is a strategic milestone for Stadler to enter into the railway market in the GCC region, a market that is expected to be outperforming other railway markets in terms of travel experience and passenger growth.”

Photo: © Stadler

Latvia

“LDZ ritošā sastāva serviss” Ltd. signs memorandum of cooperation with Association of Ukrainian Transport Infrastructure Innovation

Vita Balode-Andrews, Member of the Board at SJSC “Latvijas dzelzceļš” and management of “LDZ ritošā sastāva serviss” Ltd., a subsidiary of SJSC Latvijas dzelzceļš, has been on a visit to Ternopil Oblast in Ukraine, where they met with Ukrainian cooperation partners at the Ukraine-Latvia Business Forum. During the meeting, Anda Sīviņa, Chairwoman of the Board at “LDZ ritošā sastāva serviss” Ltd., and Andriy Smorodin, Chairman of the Association of Ukrainian Transport Infrastructure Innovations, signed a memorandum of cooperation aimed at

promoting economic, industrial, scientific and technical cooperation.

As part of the memorandum, “LDZ ritošā sastāva serviss” Ltd. and the Ukrainian partners signed a contract for the supply of spare parts, which will provide “LDZ ritošā sastāva serviss” Ltd. with the products manufactured in Ukraine that are necessary in the company’s core business.

“LDZ ritošā sastāva serviss” Ltd. Board Chairwoman Anda Sīviņa comments: “The world has changed, and we are changing as a company as well: we are looking for new

customers, new logistics chains, and new suppliers. Ukraine has strong companies with significant know-how and expertise, and I am pleased that this contract will ensure a reliable supply of spare parts for our operations, while the Ukrainian side will have the opportunity to expand its exports to the Baltic countries.”

Andriy Smorodin, Chairman of the Association of Ukrainian Transport Infrastructure Innovations: “This is the first time a contract of this kind has been signed in this format and it will allow Ukrainian

manufacturers to enter the Latvian and European markets, help the Latvian side to replace products purchased from Russia with Ukrainian products, and develop joint projects specific to Ukraine and Latvia.”

In the meantime, Vita Balode-Andrews, Member of the Board at SJSC “Latvijas dzelzceļš”, during the visit to Ukraine met with the management of Ukrainian Railways and the Ukrainian Infrastructure Ministry’s Deputy Minister in charge of transport and logistics. During the meeting, discussed were opportunities for further cooperation

between SJSC “Latvijas dzelzceļš” and Ukraine in logistics and freight shipments, with an emphasis on opportunities for shipping Ukrainian agricultural products using Latvian railway infrastructure. The parties also highlighted the potential for cooperation between the two countries in rolling stock repair and spare parts supply.

New Zealand

Stadler and KiwiRail strengthen partnership through recent locomotive agreements

Stadler and KiwiRail, the national railway operator of New Zealand, have strengthened their partnership by signing two additional locomotive contracts. These contracts further reinforce Stadler’s presence in New Zealand. The first contract involves the delivery of nine mainline locomotives equipped with ETCS (European Train Control System) for seamless operation on the North Island. The second agreement includes the supply of 24 innovative hybrid battery-diesel yard shunt locomotives, along with spare parts, specialized tools, and technical support services.

Stadler is currently manufacturing the 57 DM class narrow gauge locomotives, ordered by KiwiRail in 2021, to be used primarily for mainline services on the South Island rail network. Under the new agreement, both companies have expanded their commitment with an additional order for nine DM class locomotives that will be equipped with ETCS technology for deployment on the North Island rail network. Additionally, the last ten Class DM locomotives from the first order in 2021, will also be fitted with ETCS bringing the total number of ETCS fitted DM class locomotives in the North Island to 19. ETCS will enable the DM class locomotive to safely and seamlessly operate in the Auckland Metro area that is fitted with ETCS Level 1 trackside signalling system. This initiative also future proofs the DM class locomotive to safely operate in the Wellington Metro area when that trackside signalling system has been upgraded to ETCS.

As part of the second agreement, Stadler will supply 24 hybrid battery-diesel narrow-gauge yard shunt locomotives featuring a central cab and a maximum axle load of 16 tonnes. The new yard shunt locomotives are specifically designed to operate within all shunting areas belonging to KiwiRail. Thanks to the on-board battery module, the locomotive will primarily operate as zero-emission vehicle, significantly contributing to the reduction of KiwiRail’s shunting operations carbon-footprint. The comprehensive contract also includes spare parts, special tools and technical services. The yard shunt locomotives will be designed to be operated from outside the driving cab within the shunting yard limits by means of a safe and resilient remote-control system.

Iñigo Parra, Executive Vice President Stadler Division Spain, expressed his pride in the ongoing collaboration, stating, “Stadler stands at the forefront of green drive technologies globally, offering a diverse range of solutions for our clients. We are very proud that KiwiRail has once again entrusted Stadler with the renewal of its locomotive fleet, and we are delighted to support them on their journey towards a zero-emission rail service.” KiwiRail Chief Customer and Growth Officer Adele Wilson said the new locomotives were part of a \$1.7b investment in rolling stock that would enable KiwiRail to deliver better service to its customers and further enhance the New Zealand freight market’s access to low

carbon emission transport. The locomotives will also be deployed on the tourism routes where travellers demand low carbon options. “New mainline locomotives and shunts mean less maintenance time in the depots and more time on the track reliably serving our customers. We welcome the advantages in up-to-date technology our long-term relationship with Stadler brings, especially to our goal of decarbonisation.”

Mainline locomotives

Stadler’s high quality, fuel efficient, more powerful mainline locomotives will contribute to getting more freight off the roads and onto the railways. A low-emission diesel engine, boasting an impressive 3,000 kW output, powers these Co-Co locomotives. Compliant with the latest European emission standard (Stage V), they not only achieve a substantial reduction in pollutant emissions but also optimize combustion, resulting in lower fuel consumption and reduced greenhouse gases emissions. They are designed for the use with HVO bio-fuels, which contribute to the reduction of over 80% of CO₂eq emissions (calculated along the entire value chain of the product). Customized to meet KiwiRail requirements, the narrow gauge and narrow body locomotives feature service proven components and systems. The two cabs also offer optimal visibility and an exceptional working environment for the drivers,



including ergonomic desks. Two external walkways connect both cabs and provide direct access to main equipment for maintenance purposes.

Hybrid yard shunt locomotives

The Bo-Bo yard shunt locomotives will combine high performance and efficiency of the AC traction system with the flexibility and environmental-friendly hybrid traction. Designed for both cabin and external operation, these locomotives will feature a Remote Control System for enhanced versatility. Same as for the DM class mainline locomotives, the new yard shunt locomotives are equipped with an Automatic Engine Start-Stop System (AESS) to minimize fuel consumption, noise, and emissions, as well as a remote diagnostic and conditioning monitoring system. These locomotives represent an innovative solution for sustainable and efficient shunting operations.

U.S.A.

First battery trains from Stadler for Chicago

Metra and Stadler have signed an agreement for 16 battery-electric trains. The initial order is for eight, two-car multiple units. In this first competitive bid for battery trainsets in the United States, Stadler continues to add to its recent success that includes the signing of the contract option for hydrogen trains for California in early 2024 and the rail vehicles with alternative drive solutions already sold in the USA. Stadler once again confirms its leading position in rail vehicles with alternative drive systems.

Stadler has been awarded the contract to supply up to 16 state-of-the-art Battery Electric Multiple Unit (BEMU) rail vehicles for Metra, which Metra intends to introduce on its Rock Island Line. Metra is initially ordering eight two-car trainsets, which can later be expanded to three-car or four-car trainsets. Compliant with the Buy America Act, the vehicles will be built in the United States and are designed to meet all Americans with Disabilities Act (ADA) and Federal Railroad

Administration (FRA) standards.

The contract award represents a transformative step forward for Chicago's transportation landscape. We're introducing emission-free drive technology for rail transport in the city for the first time and pioneering the sale of modern multiple-unit train technology. This marks a significant shift towards sustainable and efficient urban mobility, shaping the future of transit in our city.

The trains ordered from Metra will be manufactured to be winterized and thus adapted to the severe winter conditions in Chicago. The features include efficient air conditioning technology including underfloor heating in the boarding areas as well as special insulation and well-sealed machine rooms to protect the drive technology.

Martin Ritter, CEO Stadler US, says, "Our

BEMU technology helps support transit agencies like Metra in their mission to bring state-of-the-art green public transit to the US. We are excited to build these trains for the greater Chicago area and are looking forward to the partnership with Metra."

"We think these trains will be an essential addition to our fleet," said Metra CEO/Executive Director Jim Derwinski. "Beyond the environmental and noise reduction benefits, they could also play a significant role in our vision to provide more frequent all-day service. We are excited to be working with Stadler and taking the lead on this technology."

Alternative drive solutions for a net-zero rail travel

Stadler's range of alternative drive solutions enable more environmentally-friendly rail travel even where there was previously no alternative to diesel. Stadler has more than 80 years of experience in the construction

of battery-powered rail vehicles. Today, the modern battery-powered vehicles run both with and without overhead lines and recharge while travelling or braking.

In 2023, Stadler was awarded the contract by Californian rail operator Caltrain to develop the first battery-electric double-decker multiple-unit train for the USA. This innovative multiple-unit train enables low-emission local operation, especially on routes that are only partially electrified. Stadler also signed an important contract in October 2023: The delivery of a total of 29 hydrogen-powered trains for the California State Transportation Agency (CalSTA) and Caltrans.

The first call-off includes four hydrogen trains, and six more hydrogen trains were ordered at the beginning of 2024.

With these ground-breaking developments in the USA and the successful sales of rail vehicles with battery or hydrogen drive in Germany, Italy, Austria and Lithuania, Stadler once again underlines its leading position worldwide in the field of alternative drive solutions for rail transport.



U.S.A.

Stadler to build more hydrogen trains for California

The State of California and Stadler have signed an agreement for six additional hydrogen trains. These are contract options that the state is exercising under a contract signed in October 2023. These additional vehicles will expand the fleet to ten hydrogen trains. With this contract award and the other successes in the US, Germany, Italy, Austria and Lithuania, Stadler once again confirms its leading position in alternative and ecological drive systems with batteries and hydrogen as over 150 trains with battery or hydrogen drives have been sold to date. After announcing the order of four four-car hydrogen-powered rail vehicles for the state of California last fall, Stadler will now deliver six additional state-of-the-art hydrogen-powered trains to the California State Transportation Agency (CalSTA) and Caltrans. The original contract includes an option to purchase up to 25 trains.

Martin Ritter, CEO Stadler US, says, "We are very proud to be providing additional hydrogen trains to the California State Transportation Agency (CalSTA) and Caltrans. With our multiple units, we are jointly driving the decarbonization of rail transportation in the US. We thank CalSTA and Caltrans for their trust and look forward to deepening our partnership."

"Stadler is committed to making travel in North America more environmentally friendly and offering innovative solutions to the region's specific challenges. Given the limited electrification of rail lines in the U.S., the FLIRT H2 proves to be particularly significant. Hydrogen technology enables sustainable mobility as it is an environmentally friendly alternative to conventional drives. Stadler is thus actively pursuing the goal of modernizing public transport in North America and making a contribution to environmental protection in the process," says Ansgar Brockmeyer, EVP of Marketing and Sales, Stadler.

Stadler's hydrogen train has been extensively tested in both Switzerland and the USA, proving its exceptional performance and reliability. The SBCTA FLIRT H2 is performing well in pre-revenue testing, showing that Stadler has designed a quality product that is fulfilling the needs of our clients.



SBB orders five more Giruno trains from Stadler

SBB orders five additional Giruno high-speed trains from Stadler for the planned expansion of its international services to Italy. Just like the 29 Giruno trains from the first series, the trains will also be manufactured entirely at the production plant in Bussnang, Switzerland. The Giruno, Stadler's SMILE, is the first high-speed train in Europe to be designed and built completely barrier-free and fully complies with the Disability Discrimination Act.

The demand for train travel between

Switzerland and Italy has risen steadily in recent years. This success encourages the cooperation partners Trenitalia and SBB to work together to make the international offer even more attractive and expand it further, particularly on the Gotthard line.

For the planned expansion of its services, SBB commissioned five more Giruno trains from Stadler which will be manufactured at the production plant in Bussnang by the end of 2025. These five vehicles are part of the option right that SBB publicised in the

Giruno tender. The existing 29 Giruno were ordered in 2014 and delivered by 2021. The vehicles now run between Basel/Zurich to Lugano/Milan and on to Genoa, Bologna and Venice. Seven additional Giruno trains have been ordered in 2022. The first vehicles are expected to be delivered in the course of this year and are planned to run Switzerland and Germany via Basel from 2026.

“The Giruno represents Stadler's innovative strength and is the result of our long-standing and successful collaboration with SBB.

We would like to thank SBB for their trust and look forward to continuing this partnership,” says Ansgar Brockmeyer, Executive Vice President Marketing & Sales at Stadler.

The Giruno, Stadler's SMILE high-speed train, is an eleven-car electric multi-system multiple unit train with a length of 202 metres and a top speed of 250 kilometres per hour. In double traction operation, it offers an impressive 810 seats.

With an innovative low-floor entrance for different platform heights in four countries

and exemplary implementation of the disability equality standard, the Giruno offers a high level of accessibility and it is characterised by outstanding travel comfort.

Thanks to its features, such as the excellent mobile phone reception, Wi-Fi, power sockets at each seat, large luggage racks and modern LED lighting, the Giruno offers an incomparable travel experience.



From the
Archives

CSD Russian built M62 type diesel
No. T679.1490 parked outside Turnov
shed on December 4th 1976.
John Sloane

Czechoslovakia



From the Archives

Germany

DB Class 101.042 on a late evening arrival leaves the Hohenzollernbrücke over the Rhine and runs into Köln station on July 10th 2013. *John Sloane*



From the Archives

Indonesia

An impressive pair of Mallets, Nos. CC5024 and CC1007, climb away from Cibatu with a train for Cikajang on February 4th 1980. *John Sloane*



From the Archives

Four different classes of FS electric locos on view outside the shed building at Genoa Brignole on July 31st 1984. *John Sloane*

Italy



From the
Archives

Morocco

Alstom built No. CC807 stand in front of two other French built electrics at the ONCF shed at Marrakech on April 12th 1993. *John Sloane*



From the
Archives

Kiwi Rail DXB No. 5166 rolls a freight
through Palmerston north on
December 2nd 2010. *John Sloane*



From the Archives

Myanmar

On the very remote Burma Mines Railway in Shan State, passenger services are worked by three Hino and Bawmech lorries converted for rail use and with a belt drive on the rear axle. One such is working up the line on January 27th 2006 was with Bawmech 'railcar' No. NBRT3. *John Sloane*



From the Archives

PKP 2-8-2T No. Tkt48 168 works a local train between Jarocin and Czempin on March 8th 1989. *John Sloane*

Poland



From the Archives

A pair of SAR Bo-Bo electrics Nos. E147 and E148 head a freight out of Cape Town on October 21st 1973.
John Sloane

South
Africa



From the Archives

RENFE No. 1317 is seen hauling an
MZA 4-8-0 No. 240.2303 in a freight at
Bobadilla on August 9th 1968.
John Sloane

Spain 



From the Archives

GM Canadian 1958 built A1A-A1A Diesel No 595 'Newfoundland' stands at Colombo Maradana station on August 11th 1980. *John Sloane*

Sri Lanka

