



**Railtalk** Magazine *Xtra*

Issue 207x  
December 2023  
ISSN 1756 - 5030

## Contact Us

### Editor

david@railtalkmagazine.co.uk

### Content Submissions

entries@railtalk.net

### Technical & Subscription Support

admin@railtalk.net

## Content

Pg 2 - Welcome

Pg 4 - Pictures

Pg 77 - World News

Pg 85 - From the Archives

## Submissions & Contributions

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

### Photographic Contributions

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

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

## Welcome to Issue 207 Xtra

Here in the UK in the last few months, we have seen an increase in the banning of Electric Scooters and similar devices on the rail network, but in India it would seem that their rail operator has enforced tough new measures on things that we wouldn't ever normally see .

*In a proactive move to ensure the safety of passengers during the ongoing festive season, Indian Southern Railway has launched an intensive awareness campaign against the carriage of flammable items on trains and at stations. The initiative aims to create a safer travel environment for all the passengers on board and promote a collective commitment to safety. Passengers are urged to exercise caution and refrain from carrying, as well as preventing their co-passengers from carrying, flammable objects such as firecrackers, gas cylinders, acid, petrol, kerosene, and other potentially hazardous materials during train journeys. As per Sections 67, 164, and 165 of the Railway Act 1989, carrying flammable and explosive articles on railways constitutes a punishable offence, with penalties of up to ₹1,000 or imprisonment for up to three years, or both, in addition to being responsible for any loss, injury, or damage caused. To reinforce this message, regular announcements are being made at railway stations, appealing to passengers to avoid bringing inflammable and explosive items on board trains. The goal is to enhance awareness and field officials have been instructed to maintain a vigilant watch on passenger movement during train travel. The Railway Protection Force (RPF) and Government Railway Police (GRP) personnel have been alerted and additional staff have been deployed to ensure safe travel.*

*Further, stringent measures are in place to ensure the thorough scanning of luggage and parcel items before loading onto trains. If a passenger onboard or at a railway station comes across any co-passenger in possession of inflammables like crackers. Indian Southern Railway has started a public awareness campaign to encourage rail passengers to take preventative measures to avert fire incidents during the period. Indian Southern Railway reinforces its dedication to the safety of rail users. All rail passengers are requested not to use any inflammable materials and adhere to the safety guidelines for travel.*

Also in the news this month, if you want a good quality rail network that won't cost a fortune - go to Spain.

*Spain's feat in creating the most extensive high-speed rail network in the European Union while keeping construction costs remarkably low takes centre stage in a recent report. Titled Efficiency of the Spanish Sector in High-Speed Rail Development, this study, compiled by engineering and consultancy firm Ineco, unveils the complex dynamics of the Spanish high-speed rail model's efficiency. A thorough examination of the Transit Costs Project database, coupled with an array of existing studies, affirms the claim: Spain now has the world's second-largest high-speed rail network, all the while maintaining one of the most economical construction costs per kilometre when juxtaposed with its global counterparts. Furthermore, Spain emerges as the European Union's paragon of cost efficiency in the realm of high-speed rail development. Engineering and consultancy of reference in the field of sustainable mobility and digital transformation, Ineco has been designing comprehensive, innovative, and technological solutions for more than 50 years that contribute directly to improving the quality of life of millions of people. With a multidisciplinary team of more than 5,500 professionals, the company is present on all continents where it deploys its experience and capacity to tackle technically complex projects.*

*With a price tag of just €17.7 million per kilometre, Spain's construction expenses for high-speed rail remain well below the €45.5 million incurred by other high-speed rail nations. This achievement underscores Spain's commitment to upholding impeccable design and quality standards, swift project execution, and unwavering adherence to budgetary parameters. The production costs in Spain have not compromised the quality of their product. In fact, the study reveals that Spain boasts a superior quality-to-cost ratio when compared to other countries. Those nations achieving higher quality scores often do so at the expense of disproportionately higher cost-per-kilometre ratios.*

Seasons greetings to all our readers and contributors.

Until next month... **David**

### This Page

Railjet Driving Coach No. 80-90.736 pushed by Class 1116.247 working as Railjet train No. 534 is seen near Klamm-Schottwien on the Semmering line on October 16th. *Thomas Niederl*

### Front Cover

A well presented Class 431.001-1 approaches Budapest Kelenföld working an additional service.

*Anton Kendall*



BDZ Class 75.005 is seen at Avramovo on November 22nd with train No. 16104 the 10:25 Dobrinishte - Septemvri. At 1267m above sea level, Avramovo is the highest station in the Balkans. *Andy Pratt*



## Terms & Conditions

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

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

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

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

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

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

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

[info@had-print.co.uk](mailto:info@had-print.co.uk) | 01757 600211

## With Thanks

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

These issues wouldn't be possible without contributions from:

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

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

Colin Pidgeon, Neil Pugh, Andy Pratt, Andre Pronk, Alan Rigby, Charlie Robbins, Bryan Roberts, Dennis Rowland, Tim Saunders, Neil Scarlett, Paul Senior, Alan Sinclair, John Sloane, Laurence Sly, Stewart Smith, Lee Stanford, Steve Stepney, Allison Twycross, Steven Thompson, Mark Torkington, Brian Turner, Gerard van Vliet, Wilko Wieffering, David Wood, Leuan Wood, Shep Woolley, Erik de Zeeuw

ÖBB Taurus Class 1016.040 has just departed the city of Vienna on October 16th, on its long way to Lienz in Osttirol with train No. IC533. This year the train is formed of Hungarian stock, however from the December timetable change, the train will run as a Railjet. *Thomas Niederl*



On November 8th, Class 1144.105 was used for the Transalpin Eurocity train No.164 to Zürich HB. Normally the train is hauled by a Taurus loco from Selzthal westwards. It is really rare to see here a Class 1144 working this service, seen here near the closed station of St. Martin am Grimming. *Thomas Niederl*



On October 16th, near Küb, on the Semmering line, Class 1144.257 and 1116.018 are seen hauling freight train No. 45336.  
*Thomas Niederl*



# Austria

On November 6th, OBB Class 1144.271 with train No. Rex4409 from Stainach-Irdning - Linz Hbf, is seen at Ebensee. This is one of the last remaining loco hauled services on this line. *Thomas Niederl*



The so called 'Inner-Alpine' Intercity trains from Graz to Linz, Salzburg or Innsbruck as are usually formed by push-pull trains. On October 23rd, two of the sets used on the Graz - Linz line had no driving coaches, so engine must be run round and the trains ran loco first from Linz to Graz. With the morning train, No. IC503, the retro liveried Class 1144.092 loco was photographed near Windischgarsten. *Thomas Niederl*







In Vienna there is an express shuttle from the city center to the airport branded CAT. Three Class 1016 locos are painted in CAT livery. Two are needed for these shuttle trains and the third is sometimes seen anywhere in Austria. On the November 4th, the spare loco was used on Railjet No. 19860 from Vienna to Salzburg Hbf, seen here near Oftring. *Thomas Niederl*



On weekends, the sugar beet train is diesel hauled from Wels via Eferding to Straß Emling. Near Haiding (the junction of the main line between Wels and Passau) the fully loaded train with Class 2016.911 is seen on its way to Wels shunting yard. *Thomas Niederl*







From the timetable change in December, DB push pull trains hauled by Class 101s will be withdrawn in Austria. New ICE stock or Austrian coaching stock will take over. On November 8th, DB Class 101.008 is seen with Eurocity train No. EC216 from Graz heading towards Saarbrücken near Pruggern. *Thomas Niederl*



## Multimodal Turkey-Connections: A bridge between the continents

The ÖBB Rail Cargo Group (RCG) offers door to door services for containers, swap bodies and craneable trailers between the two large freight terminals in Turkey and throughout Europe.

The RCG offers direct connections from Bratislava and Budapest to and from the Istanbul (Halkali) and Köseköy freight terminals with antenna connections throughout Europe and the CIS countries. RCG's multimodal Turkey connections allow industry customers to transport their goods to the CIS countries and vice versa by land. In doing so, RCG offers regular departures on a fixed scheduled timetable with attractive transit times and optional handling possibilities, independent of whether the company location has its own siding or not.

### Varied and flexible equipment

The multimodal transport solutions include

swap bodies with loading options from both above and from the side, containers, bulk and trailers. In this way, RCG can transport everything that is normally transported by road, by rail without any loss of loading space. The services cover the whole logistics chain: from the preparation of the empty containers to the collection and delivery by truck.

### Beverage sector example

For consumer goods, RCG has developed an international door-to-door service for customers from the beverage sector. And this is how the multimodal transport between the continents is carried out: The provision of the empty equipment and the loading of the containers take place in the Netherlands, from where they are transported by truck to the Neuss departure terminal in Germany. RCG then takes over the main leg of the journey by rail with a combination of the

TransFER Neuss-Budapest and TransFER Budapest-Istanbul connections. After arriving in Istanbul, the goods are reloaded at the Halkali freight terminal – depending on customer demands in covered or refrigerated trucks (also known as Frigo-Trucks). Customs processing for further transport also takes place here. The goods are then transferred from Turkey through Georgia and Azerbaijan by truck to Almaty in Kazakhstan. As well as by road and rail, ships are also used, as the goods are transported by roll-on-roll-off ferry over the Caspian Sea.

### Exclusive use of the Marmaray Tunnel

The 43 kilometer track on the Asian side of Turkey and 19 kilometres on the European side are connected by the 14 kilometre long Marmaray Tunnel under the Bosphorus. In addition to the public, national and international transport, the 76 kilometre route also serves freight transport in the

greater Istanbul area at night when the local transport is not in operation. This allows interruption-free freight transport between the continents. Rail Cargo Group is the only current end-to-end rail logistics specialist with a permit for the transit of semi-trailers as well as 45ft HC containers and swap bodies through the tunnel.

RCG is currently transporting intermodal trains with craneable trailers for an automotive customer from Europe to Asia through the Marmaray Tunnel.



## EVN – Waste on rails for 20 years

EVN has been pursuing a sustainable approach to the transport of municipal waste for two decades – and the environment benefits. EVN is a leading international energy and environmental services company based in Lower Austria. Together with ÖBB Rail Cargo Group (RCG), EVN has been transporting municipal waste to Dürnrohr for thermal utilisation on behalf of its partner BAWU, the Lower Austrian Waste Association, for 20 years – making it a pioneer in sustainability and climate protection.

### An impressive record

In 2022 alone, 19,040 containers were filled at the eleven transfer stations and transported to the plant in Dürnrohr in 6,347 wagons. Since 2004, 3.26 million tonnes of residual and bulky waste have been transported by rail for environmentally friendly thermal recycling – an impressive saving of around

30.99 million truck kilometres and 31.6 million kilograms of CO2. The energy generated is used to supply electricity to hundreds of thousands of households every year.

### New transports with new equipment

In order to build on the success of the past 20 years, the foundations are being laid with a new, innovative version of the ACTS truck. The first prototype was delivered earlier this year and is currently being tested by EVN. The prospects are certainly promising – and many customers in the waste management industry stand to benefit.

## Support for Ukraine is a priority for ÖBB

On November 3rd, the Ukrainian Railway Workers Day, ÖBB Rail Cargo Group (RCG) board member Imre Kovács, paid tribute to the heroic achievements of the Ukrainian system maintainers. Thanks to their tireless efforts, transport routes can be maintained even under wartime conditions. At the ceremony in Kyiv, Kovács emphasised on behalf of ÖBB that cooperation with the Ukrainian partner will continue to be a priority in the future.

As a leading railway logistics provider in Europe, RCG has been supporting the Ukrainian population and economy with transport and logistics services since the outbreak of the war. For example, RCG reacted quickly and consistently to the blockade of the Black Sea ports and created a reliable alternative for transporting grain by sea. To date, a total of over two million tonnes of agricultural products have been transported by rail - that is more than 100 trains a month, loaded with maize, sunflower seeds, wheat, soya, barley

and vegetable oil. RCG thus transports more agricultural products than any other European freight transport company. As part of the priority cooperation with Ukraine, significant quantities of iron ore, coal and raw materials for the construction and food industries are also increasingly being delivered from Ukraine to European markets. RCG thus makes a decisive contribution to global supply security.

### New TransFER Vienna-Kyiv

In cooperation with Ukrainian Railways (UZ), RCG has also launched the new Vienna-Kyiv TransFER connection to permanently connect Ukraine to its intermodal network (TransNET). This will provide the first regular, high-frequency intermodal connection between Ukraine and numerous hubs in Central Europe. The first test train travelled from Kyiv to the

Rail Cargo Terminal BILK in Hungary in Hungary at the end of September, transporting non-craneable semi-trailers loaded with building materials by rail. Previously, non-craneable semi-trailers were transported exclusively by truck, as was common practice in the industry. The premiere of the new rail technology not only relieves the environment, but also the current tense situation regarding the shortage of truck drivers in Ukraine.



With the first snowfall of Winter dusting the hills behind Karlovo, BDZ Smartron No. 80.054 restarts train No. 3692 the 11:22 from Dabovo on its journey to Sofia on November 20th. *Andy Pratt*





Journey's end at Burgas for BDZ Smartron No. 80.035. The loco had just arrived with train No. 8601, the 06:20 from Sofia via Plovdiv on November 23rd. In spite of a late departure from Sofia and pathing issues through the myriad of engineering works in southern Bulgaria, the train arrived at it's destination punctually at 13:39. *Andy Pratt*



# Bulgaria

BDZ 760mm narrow gauge Class 75.008 arrives at the halt at Ostrec with train No. 16104 the 10:25 from Dobrinishte to Septemvri on November 21st. *Andy Pratt*

BDZ Class 75.009 arrives at Velingrad with train No. 16105 the 12:45 Septemvri to Dobrinishte on November 21st. *Andy Pratt*

BDZ No. 44.085 awaits departure time at Tulovo station with train No. 40120 10:20 Stara Zagora to Trjavna service on November 20th. *Andy Pratt*



BDZ No. 44.192 runs into Levski station at the head of train No. 2601 07:00  
Sofia - Varna on November 27th. The train was 65 mins late at this point.  
*Andy Pratt*



# Bulgaria

▶ BDZ Class 55.143 steam heats the single coach forming train No. 24225 15:02 to Trojan at Levski on November 25th. *Andy Pratt*

▶ BDZ Class 44.177 has just arrived at Vraca station on November 24th with train No. 70220 14:55 from Mezdra. The driver has already dropped the pantograph for the Shunter to uncouple the loco before running round the two coach train and returning to Mezdra. *Andy Pratt*

▶ The brightness of the headlights on BDZ Class 44.171 highlights the dull November weather as it arrives at Vraca station with train No. 7623 12:25 Vidin to Sofia on November 24th. *Andy Pratt*





BDZ Class 55.143 stands at Levski station having just arrived with train No. 24222 08:15 from Trojan on November 27th. The previous day's heavy snowfall which caused chaos across northern Bulgaria with trains running hundreds of minutes late was still on the ground. Saturday evening's Sofia to Varna, scheduled to arrive at 06:40 on Sunday morning finally reached it's destination at 21:40, some 900 minutes late. *Andy Pratt*











## ŠKODA GROUP AND SPENO INTERNATIONAL PARTNER TO INTEGRATE ETCS IN RAIL VEHICLES

Škoda Group has formed a strategic partnership with Speno International, experts in railway track and turnout reprofiling solutions. This collaboration is centred around system integration engineering and authorization services to introduce the European Train Control System (ETCS) to 15 of Speno's yellow fleet vehicles. With this new contract Škoda is expanding to Switzerland as a new country for the group.

Jan Christoph Harder, President Region West and North Škoda Group, expressed the significance of this partnership: "Our collaboration with Speno International

marks a milestone in the European market. ETCS plays a crucial role in the modernisation of railway networks and the enhancement of overall safety. This technology optimizes rail operations by reducing accident risks, increasing network capacity, and promoting cross-border compatibility. With the recent acquisition of The Signalling Company earlier this year, we have expanded our portfolio to include ETCS technology and the expertise required for seamless integration into the vehicles. As Europe transitions to a unified system, we stand ready to leverage our knowledge and experience to contribute to this important evolution."

ETCS, a technology designed to enhance railway safety, reliability, and efficiency, will be integrated into four vehicles within the next two years, with plans for an additional 11 vehicles in the pipeline. The goal is to incorporate this system into five different types of customer fleet vehicles. The primary challenge lies in securing authorization across 16 different countries, each with its unique set of National Technical Rules (NNTR). Consequently, the project will start with a comprehensive requirements assessment and analysis of NNTR for each country.

### Increased competitiveness through ETCS integration and expertise

Škoda Group's acquisition of The Signalling Company has significantly elevated its competitiveness within the European train manufacturing industry. This strategic move has empowered the group to offer a comprehensive portfolio of products and services to railway operators across Europe. Currently, The Signalling Company is equipping 110 locomotives with ETCS for Lineas, Europe's largest private freight rail operator. Furthermore, Škoda Group possesses experience in retrofitting vehicles with ETCS within the Czech market, having successfully retrofitted nearly 250 rolling

stock vehicles to date.

"The European Train Control System stands as a common European signalling system designed to ensure unified railway operations and enhance safety across the continent. It replaces a multitude of previously disparate and often outdated national systems. ETCS comprises two fundamental components: the on-board unit, directly installed on vehicles, and the trackside equipment, placed along railway tracks. While essential for high-speed rail networks, ETCS is also crucial for enhancing safety on standard rail lines," said Stanislas Pinte, Vice President Signalling at Škoda Group.

# Czech Republic

CD Cargo's Class 123.022-6 rounds the curves on the left bank at Usti nad Labem with a short mixed freight. *Anton Kendall*







# Czech Republic

On October 28th, colourful Class 714.217 stands at Praha hl.n. having arrived with the Cyklohráček (bike train) from Slany. *Class47*









## BRNO CITY TRANSPORT COMPANY HAS APPLIED AN OPTION, ŠKODA GROUP WILL DELIVER 15 MORE TRAMS

The fleet of Brno trams is about to undergo another significant step in modernisation. The obsolete KT8 types from the turn of the 80s and 90s will be replaced by 15 ForCity Smart 45T trams. These will be purchased by the Brno City Transport Company (DPMB) from the manufacturer, Škoda Group, by partially using the option under the existing contract. The price of one tram is CZK 75 million, and the value of the entire order is CZK 1.125 billion. The first five trams out of fifteen will arrive in Brno next year, the rest in 2025. DPMB can order another twenty trams of the same type under the option.

“We are glad that our trams have proved their worth in Brno traffic, and the Brno City Transport Company has decided to use the option and purchase more modern vehicles. Passengers can look forward to an increase in the quality of travel and safety. More and more cities are choosing rail vehicles as the backbone of the public transport network due to their higher transport capacity, speed, and efficiency.” says Tomáš Ignačák, President Region CZ/SK and Central East Škoda Group.

“The ForCity Smart 45T trams are a welcome addition to our fleet. They meet all our

requirements for modern 21st-century vehicles, and our passengers are satisfied. The first five trams in Brno almost exclusively serve line number 8 from Lišně to the University Campus. Both of these stops are terminated by a dead centre, so we make daily use of the bidirectionality of these vehicles. Other trams ordered will also be used on this line,” explains Miloš Havránek, Managing Director of the Brno City Transport Company.

### Modern vehicles for modern cities

The ForCity Smart 45T tram is a two-way, low-floor, three-part vehicle with a swivel

chassis. Reliable driving characteristics, even in adverse weather conditions, are ensured by full vehicle adhesion. This 31-metre tram comfortably accommodates up to 233 passengers, of which 64 are seated. The maximum operating speed is 70 km/h. There is air conditioning and two large multifunctional spaces for wheelchairs, prams, or bicycles. The new tram also offers a modern, clear information system with screens and panels. To ensure safety, the vehicle is equipped with a camera system. The new tram has a spacious, air-conditioned interior equipped with stainless steel handrails, widescreen LCD information

monitors, and USB chargers. The RIS2 control and information system, or EOC2 validators are also included. For transporting multiple wheelchair users, the tram has a total of four tilting platforms. The vehicle is also equipped with an external and internal camera system and partially tinted side windows. The driver's cabin has been newly redesigned. In addition to the clear panel, where the emphasis is on simplicity and good visibility, the controls are partly implemented directly in the driver's seat. The windscreens are equipped with heating, and the front windscreen has daytime running lights.



## The ČD Cargo 2023 photo contest has a winner

*“The CD Cargo jury has finally selected nine photos, and their authors will receive interesting prizes from CD Cargo. We believe that the prizes will bring joy, as well as the inclusion of photos in a desk or wall calendar for the year 2024. CD Cargo are really pleased with the interest in the photo contest.”*



1. místo - Vítek Bouša



7. místo - Tomáš Vyplašil



6. místo - Rok Žnidarčič



2. místo - David Stanovský



4. místo - Karel Ječný



8. místo - Andreas Schreiber



3. místo - Lukáš Plzák



5. místo - Jiří Štembírek



9. místo - Jakub Víšek

# Île-de-France Mobilités, SNCF Voyageurs and Alstom inaugurate the RER NG, the New Generation train for the RER D and RER E lines in Île-de-France

On November 13th, Ile-de-France Mobilités, SNCF Voyageurs and Alstom inaugurated the RER NG, the “New Generation RER”, at Haussmann Saint-Lazare station in Paris, in the presence of elected representatives and passengers.

“It is with immense pride that we are today celebrating the commissioning of the RER NG commuter train on Line E. It is a very special moment in the life of a project when a train meets its first passengers. It is also a source of pride for all Alstom employees, as this is the pinpoint of a great deal of hard work from each and every one of them, serving a major project for the Île-de-France region and its inhabitants,” said Henri Poupart-Lafarge, Chairman and CEO of Alstom.

## RER NG, providing more comfortable and efficient mobility

The arrival of the RER NG commuter train is an important milestone in the policy pursued by Île-de-France Mobilités to upgrade all the rolling stock on the Île-de-France railway network.

This new RER commuter train will contribute to a lasting improvement in travel conditions for the hundreds of thousands of commuters who use RER lines E and D every day:

- A specific train: A train designed at the request of Île-de-France Mobilités specifically for the Île-de-France region and its 9 million daily commuters.
- A capacity train: This train has been designed, both in terms of its overall architecture and its interior design, to optimise capacity and passenger flows. Thanks to its entirely open architecture and wide doors, it allows passengers to enter and leave with ease and offers distinct travel areas.
- A high level of comfort: With air conditioning, ergonomic seats, LED lighting adapted to the time of travel (day/night/station stops), USB sockets and numerous information screens, the RER NG enhances the passenger experience.
- An accessible train: In each of the end cars, platforms provide direct and rapid access for passengers in wheelchairs to adapted areas.

- A more reliable and efficient train: The RER NG offers first-rate acceleration and braking performance to optimise station stopping times, train frequency, and therefore the line’s capacity and regularity. It will also incorporate the brand new NExTEO train automation, control and supervision system, which will further increase train frequency.

## An industrial and human adventure

The RER NG is the result of close collaboration between the Alstom, SNCF and Île-de-France Mobilités teams throughout the project.

This inauguration is a major milestone for all 900 Alstom employees who are working on this project on a daily basis, and a demonstration of their specific know-how. At the start of the project, they were more than 2,000.

Designed and assembled at Alstom’s Valenciennes-Petite Forêt and Crespins sites in Hauts-de-France, a total of 9 of Alstom’s 16 French sites are contributing to the project, with the participation of sites manufacturing components.

## An essential first step



The RER NG commuter train is gradually being introduced on the RER E line. This gradual arrival will ensure that the train becomes more reliable before being deployed on the whole RER E line, including the new extension to Nanterre. It will then be deployed on the RER D line at the end of 2024.

Alstom™ is a registered trademark of the Alstom Group.

Photo: RER NG Haussmann - St. Lazare. ©Theo Moll

## Alstom wins a 300 million euro contract to equip 2 RER lines in the Île-de-France region with the latest NExTEO signalling technology

Alstom, global leader in smart and sustainable mobility, has won a framework contract worth almost 300 million euro to develop and deploy the NExTEO signalling system on the RER B and RER D lines in the Île-de-France region. This contract for a new train automation, control and supervision system confirms the confidence placed in Alstom by Île-de-France Mobilités, SNCF Réseau, SNCF Voyageurs and RATP.

The new NExTEO solution is a CBTC[2] signalling solution that forms part of an overall strategy to modernise and optimise the infrastructure of these two Express Lines, with one main objective: to meet the ever-

increasing ridership by ensuring greater reliability of train passages in the common tunnel between Gare du Nord and Châtelet-Les-Halles stations.

NExTEO signalling technology will help to ensure a high level of performance in the densely populated central Paris area, while also making it possible to adapt to and manage the less densely populated areas on the suburban branches of the RER B and RER D lines, in the Île-de-France region. It also provides simultaneous control of the operating and interoperability rules that apply on the SNCF National Railway Network and on the extensive RATP urban network,

particularly on the RER B line to the south. “I am delighted with this new order, which demonstrates the confidence of our long-standing partners in the products developed by Alstom to improve the performance and throughput of RER lines B and D in response to the increase in passenger traffic. With this new contract, Alstom will equip a total of 350 trains and 100 kilometres of these 2 RER lines, which are among the busiest in the Île-de-France region,” said Jean-Baptiste Eyméoud, President of Alstom France.

## Market leader in digital solutions

Alstom is the world leader in the CBTC market, with its advanced and high-performance

urban signalling solutions in service on 145 lines worldwide. In Europe, Alstom technology is already in use in Madrid, Milan, Lyon, Lausanne, Paris and Amsterdam, serving various types of lines and grades of automation; and is currently being installed on numerous other lines. For the development and deployment of the new Urbalis solution on the RER B and RER D lines in the Île-de-France region, Alstom will leverage, among others, the expertise of three of its French sites: Saint-Ouen and Aix-en-Provence, for system specifications, development of the solution, integration of the signalling system and its deployment on the Ile-de-France network, as well as

technical expertise support; Villeurbanne for on-board CBTC equipment and trackside signalling products, as well as network, cybersecurity and remote maintenance systems. These three centres of expertise employ a total of more than 2,200 people with expertise in railway signalling. Alstom™ and Urbalis™ are protected trademarks of the Alstom Group.

NExTEO is a protected trademark of the SNCF Group.

[1] RER stands for ‘Réseau Express Régional d’Île-de-France’ (Île-de-France Regional Express Network)

[2] Communications-Based Train Control

France

SNCF Fret No. 27081 awaits its next duty at Le Boulou intermodal depot on September 4th. *John Sloane*





France

SNCF Fret No. 26077 is seen approaching Collioure with a steel train from Spain on September 6th. *John Sloane*



France

SNCF Fret No. 460.037 runs light into Perpignan on September 8th. *John Sloane*



France

SNCF unit No. Z27757 arrives at Collioure with a working from Avignon to Portbou on September 9th. *John Sloane*



▶ Triple voltage SNCF Fret No. 37060 passes through Perpignan at the head of a freight on its way to the Spanish border at Cerbere on September 8th. *John Sloane*

▶ SNCF Euroduplex double deck TGV No. 804 arrives at Perpignan with a service from Barcelona to Paris on September 8th. *John Sloane*

▶ A SNCF Ouigo budget service to Paris worked by TGV Duplex No. 777 heads out of Perpignan on September 8th. *John Sloane*





▶ On September 9th, SNCF EMU No. Z27757 is ready to depart Cerbere and cross the border into Spain at Portbou. *John Sloane*

▶ On September 9th, Euro Cargo Rail Class 186.169 prepares to depart Cerbere Yard with a train of Spanish built cars destined for Germany. *John Sloane*

▶ SNCF Regiolis unit No. Z54906 stands in the yard at Cerbere on September 9th. *John Sloane*



# Alstom, Transdev and the 'Sud' Region unveil the first Omneo Sud train that will enter into service on the first regional line open to competition in France, between Marseille, Toulon and Nice

On November 23rd, Olivier Delecroix, Vice-President Marketing & Sales, Alstom France, and Thierry Mallet, CEO of Transdev, presented to Renaud Muselier, President of the Sud Provence-Alpes-Côte-d'Azur Region and Deputy Chairman of 'Régions de France', the first Omneo train that will operate on the Marseille-Toulon-Nice line, prior to start the homologation tests. Starting at the end of November, this trainset will carry out a series of dynamic overspeed tests on the Velim test track (in the Czech Republic). After returning to Crespin to finalise the static tests and complete the interior fittings, it will then go into pre-operational service in the Sud Region.

On November 30th 2021, the Sud Region awarded Transdev the contract to operate trains on the Marseille-Toulon-Nice line from mid-2025. This route alone represents 10% of the region's rail services. The Region's decision is a historic one. It is the first tender for regional trains to be awarded to a competitor of the incumbent operator since passenger rail transport was opened up to competition in France.

Under the public service concession contract, Transdev is to acquire the rolling stock needed to operate the regional train service on behalf of the Region, as well as building a maintenance center near Nice station. This will enable Transdev to ensure that operations are highly safe, that maintenance is controlled and optimised, and that trains are fully available, particularly during peak times.

In this context, Transdev has chosen Alstom to supply 16 double-decker Omneo 8-car trains with high capacity, high comfort and high on-board service standards. The contract, worth around 250 million euro, also includes maintenance services for a period of 10 years. Delivery of the new rolling stock, manufactured at Alstom Crespin site (Nord),

will start at the end of 2024.

The Omneo trains for the Marseille-Toulon-Nice line are designed to meet the specific needs of Transdev operations, including :

- The creation of a convivial area where passengers can enjoy a snack area;
- The interior layout offers all the services requested by the Sud Region, such as bicycle spaces (12 per train), and a harmonious interior that reflects the image of the Region;
- The introduction of new on-board services, including innovative systems for video-surveillance, seat reservation or reservation of bicycle spaces, passenger counting and on-board Wi-Fi.

These new 8-car trains, 110 metres long, will offer 352 seats plus 49 folding seats for passengers making short journeys (a total of 401 seats). This high capacity is achieved by alternating single and double-decker cars. In addition, the modular design means that two trainsets can be coupled together, depending on the number of passengers expected.

Access to the train is on the same level through wide doors and is facilitated by an automatic step that fills the space between the train and the platform (gap-filling system). The smooth flow of traffic on board is also ensured by an architecture that is conducive to movement, based on wide corridors and spacious platforms.

Particular attention has been paid to comfort for long journeys on this coastal train: wide seats, large glass windows to make the most of the natural light and the panorama on the seaside, clear passenger information with screens and displays, air conditioning regulated according to the density on board, 2 classes with low and high levels, toilets accessible to all passengers, including wheelchair users, and connectivity tools (Wi-Fi, electrical sockets and USB sockets).

These new trains will be compatible with the new ERTMS signalling system to be deployed on this line from 2028. They will also be compatible with the new infrastructure created in the frame of the LNPCA project (Ligne Nouvelle Provence Côte d'Azur, which involves reconfiguring the network and offering more trains in the region). These Omneo trains are based on Alstom Omneo platform, for which 544 trains have already been ordered by 10 French regions (403 suburban and regional trains and 141 Intercity trains).

At the request of the Sud Region, Transdev will be doubling the transport offer on the line, with 15 round trips per day and a cadence of 1 train per hour over a wider range of hours. The aim is to improve the quality of service, reliability, regularity and punctuality (target of punctuality is 97.5%). This line is also resolutely committed to the ecological transition. The trains' traction energy will be 100% green, of French origin, with the purchase of green certificates from electricity suppliers. Drivers will be trained in eco-driving techniques.

"I'm delighted to be in North of France today for the unveiling of the new Omneo SUD trainsets. These trains will go into operation in June 2025 on the Marseille Toulon Nice line, a line we have awarded to Transdev after a competitive tender. On this route, the number of trains will be doubled, which will encourage more people to shift from road to rail, in line with the objectives set out in our Climate Plan "Une COP d'Avance". In this



way, we are doing everything we can to improve the day-to-day experience of passengers on regional trains," declared Renaud Muselier, President of the Sud Provence-Alpes-Côte-d'Azur Region and Deputy Chairman of 'Régions de France'.

"Our commitment to the Sud Region is the main expression of our business: we bring people and regions closer together," commented Thierry Mallet, CEO of Transdev. "Our long-standing experience in the rail industry clearly shows the extent to which service quality is a determining factor in ensuring that more and more passengers use our trains. That's what we'll be doing from Nice to Marseille, with a high frequency of trains, a wide range of timetables, and staff who pay constant attention to passengers and safety."

"We're proud to be involved in setting up the first concession for a French regional line with Transdev. Today we have presented

a proven, comfortable train, capable of running at 200 kph, to serve the mobility of all passengers. We will also provide maintenance support and thus contribute to the long-term operational efficiency of the trains", said Olivier Delecroix, Vice-President Marketing & Sales, Alstom France, adding: "This train has been awarded the Origine France Garantie label. This is recognition of the expertise of the employees at the Crespin site and a proof of our commitment to our customers, passengers and the entire French rail industry".

The new Marseille-Toulon-Nice regional train will enter service on June 29th 2025.

Photo: Omneo Premium Sud 03 ©Alstom/ Samuel Dhote

France

RENFE Rodiales Class 447.051 is seen at the rear of a service to Barcelona Sants as it departs Cerbere on September 9th. *John Sloane*





France

SNCF 1500v DC loco No. 7306 calls at Collioure whilst working a limited dates overnight train from Cerbere to Paris Austerlitz on September 10th. *John Sloane*



# Siemens Mobility and ELL sign framework agreement for purchase of 200 Vectrons



European Locomotive Leasing Group (ELL), based in Vienna and Munich, and Siemens Mobility has signed a framework agreement for the delivery of up to 200 further Vectron locomotives.

Specifically, the locomotives will be provided in various power system variants for use in both passenger and freight service. Sixty locomotives were initially ordered and will be delivered successively beginning in 2025. This fourth framework agreement between ELL and Siemens Mobility further reinforces the long-standing and strong partnership between the two companies.

By 2027, ELL will have at least 301 Siemens Vectron locomotives in service and thus operate Europe's largest Vectron fleet. Over

the medium term, the new agreement offers ELL the possibility of increasing its Vectron fleet to over 400 locomotives.

#### Siemens Mobility and ELL sign framework agreement for purchase of 200 Vectrons

"For ELL, this agreement is a milestone in the company's development. Our goal is to expand our market leadership in the areas of customer friendliness, reliability, and efficiency. We are convinced of the future of rail. Superior climate friendliness and cost-efficiency on the long international rail axes as well as the structural change in rail freight transport make the full-service leasing of locomotives a highly attractive business for the future. ELL is pursuing a consistent zero-emissions strategy. Our most important assets are our focused fleet policy and a

comprehensive service network at more than 30 locations throughout Europe. The development partnership with Siemens and the concentration on a standardized locomotive type are an important building block for us to successfully prevail in this market," said Christian Kern, CEO European Locomotive Leasing Group.

"For many years now, ELL has been relying on the quality and reliability of our Vectron locomotives. This new framework agreement makes a further contribution to climate protection and again underscores the advantages offered by our locomotive platform. With the Vectron, ELL can react flexibly to customer requirements and offer different configurations for providing cross-border transport throughout Europe," said

Albrecht Neumann, CEO Rolling Stock at Siemens Mobility.

#### The agreement in detail

In the framework agreement, ELL secures the procurement of a wide range of multi-system locomotives, including the Vectron Dual Mode. By ordering optional packages, ELL can precisely equip the locomotives to meet specific requirements and applications, and for service in special areas. It was also agreed that Siemens Mobility will actively support ELL in further strengthening its competence regarding vehicle operation, maintenance, and servicing.

#### The Vectron as a success factor

Since its first delivery in 2012, more than 2,200 locomotives from the Vectron family have been sold to 95 customers and the fleet has covered a total of over 850 million kilometres. The locomotives are currently approved for operation in 20 European countries. The Vectron and its variously equipped variants are built in the Siemens Mobility plant in Munich-Allach.

## Stadler is preparing locomotives for ETCS, paving the way for a faster ETCS roll-out in Germany

Deutsche Bahn (DB), Stadler and its engineering joint venture AngelStar have prepared locomotives for the European Train Control System (ETCS) for the first time without the involvement of the locomotive manufacturer. Manufacturers' capacities are considered likely to be one of the potential bottlenecks when around 13,000 locomotives and multiple units in Germany have to be retrofitted for ETCS in the coming years. The retrofits are necessary because more and more railway lines can only be used with the new, pan-European standardised technology. ETCS represents the basis for the further digitalisation of railway operations. The successful completion of an ETCS retrofit without the involvement of the vehicle manufacturer makes new capacities available in this area, and will therefore make a significant contribution to ensuring a faster ETCS roll-out in Germany.

Following successful retrofitting, two DB Cargo locomotives are now back on the tracks with the GUARDIA Baseline 3.4.0 ETCS automatic train protection system. This is the first retrofitting of DB locomotives from the 185.2 series with the ETCS system from Stadler. The pilot project by Stadler, DB and AngelStar therefore required particularly complex pioneering work before

the first locomotive received its re-approval as "First of Class". Official approval was much simpler for the second locomotive converted in the same way: since it was deemed to be structurally identical, it was awarded "Conformity to Type" status. All future retrofits performed in this manner can now refer back to this model.

"Stadler has deliberately broken new ground with this retrofit project in order to simplify the retrofitting of modern signalling technology in existing vehicles. With this innovation, we can create the urgently needed capacity in the rail industry to transport the large number of existing vehicles in Europe into the digital future", says Ansgar Brockmeyer, Head of the Sales & Marketing Division and Deputy Group CEO of Stadler.

Hans Peter Lang, Chief Technology Officer (CTO) at DB Group and Chairman of the Management Board of DB Systemtechnik, explains: "Equipping lines and vehicles with ETCS technology that is standardised across Europe is the basis for the further digitalisation of railway operations. This will create more capacity for travel and freight transport by rail. The fact that Stadler and AngelStar, DB Cargo and DB Systemtechnik have now together succeeded in retrofitting ETCS without

the involvement of the vehicle manufacturer opens up new paths and strengthens competition. This will significantly facilitate the ETCS roll-out for the entire industry in Germany."

Manuel Ayala, Project Manager at Stadler Signalling, says: "This innovation partnership means that Stadler is now able to equip vehicles made by other manufacturers with its own system without their involvement. This is not only of great importance for rail transport in Germany, but will also smooth the way for new opportunities in other market regions. We would like to thank Deutsche Bahn for the trust they have placed in us and look forward to continuing our successful collaboration."

Oliver Kaiser, COO of AngelStar, is delighted: "In the course of this challenging retrofit project, we were once again able to demonstrate the quality and flexibility of the GUARDIA system. Along with the agile organisation, these are the best possible prerequisites for further retrofit projects."

Until now, Stadler had mainly been accustomed to carrying out retrofit orders for its own vehicles. Stadler



received its first retrofit order for GUARDIA in 2020 from the Dutch rail operator Arriva. Some of its 34 FLIRT vehicles are also used for cross-border transport in the Netherlands, Belgium and Germany.

The ETCS automatic train protection system GUARDIA from AngelStar, a joint venture between Stadler and the MERMEC Group, has already been approved in several European countries and is in operation in Germany, Poland, Hungary, Slovenia, Switzerland and the Netherlands. GUARDIA consists of both hardware and software components that are used in the trains. The system allows the train driver to visualise the position of the train, its speed and other data. All this data is also transmitted to a control centre. Data such as track warrants can be collected at the same time.

## Job boost for refugees at DB

Deutsche Bahn (DB) is taking the recruitment of refugees up a notch and switching to job turbo. Targeted measures are intended, among other things, to make it easier for more Ukrainians to get started with Deutsche Bahn.

For the first time, DB is offering language courses across the group before the start of training. An updated landing page in Ukrainian and Russian makes it easier to overview and apply. The proven lateral entry classes will be expanded and positions will be filled with English-speaking IT experts for the first time. And in closer cooperation with the Federal Employment Agency, the DB uses "matching" to identify priority regions with an increased need for recruitment and suitable applicants. DB Human Resources Director Martin Seiler: "As a company, we put together a large aid package shortly after the start of the brutal war of aggression against Ukraine and have since then advised thousands of refugees and hired many people. More Ukrainians are now on the job market after completing appropriate

integration courses. We will once again increase our efforts to get these people into work quickly and thus make a further contribution to successful integration."

Martin Seiler made the comments during a joint visit with Federal Labor Minister Hubertus Heil to the ICE plant in Berlin-Rummelsburg, where some Ukrainians are now employed as electronics technicians.

Federal Minister of Labor and Social Affairs, Hubertus Heil: "As a result of Putin's terrible war of aggression, millions of people had to leave their homes. It was a matter of humanity to offer protection to many of them in our country and it is now a matter of common sense to increasingly help them find work. We have already put 140,000 Ukrainians into work. Now another 200,000 Ukrainians have completed the integration language course or are soon completing it. With the job turbo, we now want to place them in work quickly. To achieve this, we also need companies that do everything in their

power to give these people a chance and also pragmatically resolve language barriers. I'm pleased that Deutsche Bahn is at our side here."

The measures of the DB Job-Turbo for refugees at a glance:

- "Matching": Regional job centers of the Federal Employment Agency and the DB have already identified priority regions with high hiring needs and many potential applicants. In the next step, interested parties will be informed about suitable entry opportunities into the DB working world at joint consultation events.
- Starting next year, there will be group-wide offers for prospective trainees for the first time: DB is offering language courses in a pilot project before the start of training.
- In addition, successful projects of the past year and a half are to be expanded: lateral entry classes for stewards in the on-board catering, for dispatchers, train drivers and bus drivers. There are also plans to fill positions

with English-speaking IT experts for the first time in the coming months.

- An updated landing page also offers the opportunity to filter suitable jobs at DB in Ukrainian and Russian and to easily apply in your own national language.

Hardly any other company in Germany hires as many new employees as Deutsche Bahn: around 130,000 in the last five years alone. This year, five-figure personnel will once again be recruited and qualified. In doing so, DB is exploiting all labour market potential and is also increasingly focusing on the integration of refugees in order to make the railways strong and the railways better.

The southern route offers a fast and eco-friendly connection on the north-south corridor through Europe.

DB Cargo's comprehensive network spans all of Europe and parts of Asia. Our network map provides a clear overview of the benefits and special features that the various rail freight links have to offer.

#### Loaded with the southern Italian sun

Italian products such as pasta, tomato sauce and olive oil are popular throughout Europe. But the range of products that railports like Maddaloni in southern Italy handle, receive and ship to northern European retailers every day is much more diverse than just large volumes of foods and beverages.

Customers from the steel, transport and paper industries also use the route, which runs along the north-south corridor and connects Scandinavia and the port of Zeebrugge with southern Italy. They benefit from Alpine transit through the Gotthard Base Tunnel because unlike lorries, rail freight transport can avoid traffic jams on the roads. This brings goods to their destination quickly and in a virtually climate-neutral way.

#### Broad range of services from DB Cargo

DB Cargo's southern route offers a dense European rail network between the most important industrial centres on this corridor. The range of services includes block trains for larger cargo volumes and efficient single-wagon transports, in which products from different suppliers are consolidated

## The DB Cargo network: From Scandinavia to Italy

into full container loads. This allows both small and large cargo volumes to be transported by freight train. Door-to-door solutions make rail freight transport possible even in regions with poor infrastructure, thanks to first and last mile transport via HGV. The flexibility with which complete trains can be separated into single wagons and routed to different destinations is also particularly attractive for steel customers.

#### Service from A to Z

As usual with DB Cargo, customer service does not start and end with the booked rail line. DB Cargo also plans and organises the first and last mile in combined transport. Whether customers book individual containers or entire trains, or are only travelling on certain sections of the route, DB Cargo creates a complete transport package from A to Z.



## From wasteland to loading yard, all thanks to teamwork

DB Cargo Logistics' transport concept for a new loading yard is helping to grow environmentally friendly rail transport for timber.

The story began with a forecast for an increase in timber damaged by bark beetles in the forests in the state of Thuringia in central Germany. This came at a time when local timber loading yards were stretched to their limit. There was an urgent need for action. DB Cargo Logistics and its customers agree that timber transport should cover as little distance by road as possible, and ideally reach the nearest rail access point via the shortest route. It was therefore clear that a new timber loading yard had to be built as quickly as possible. A daunting task.

#### Finding the perfect space

After an intensive search, DB Cargo Logistics found what it was looking for near the railway station in Rudolstadt-Schwarza at the start of the year. The station still had

tracks, which had lain unused for many years. There was also an area between the tracks that appeared to be the ideal loading lane and offered enough space for marshalling HGVs. It quickly became clear that the site in Rudolstadt-Schwarza was the perfect place to build a loading yard for locally harvested logs. The only question was how.

DB Cargo Logistics quickly determined who owned the tracks and premises, and rented the infrastructure. Making the project a success on schedule also meant finding the right partners. Together with its long-standing partner Erfurter Bahnservice GmbH, DB Cargo Logistics developed a plan for the site that would serve the large potential demand from interested customers. The DB Cargo subsidiary also managed to get the municipal government on board, as well as the paper manufacturer JASS, which owned one of the tracks. Work began immediately and the first train loaded with logs

departed after only about three months. The loading yard in Rudolstadt has been operating ever since, mainly supplying sawmills in Germany and Austria. It therefore provides relief for the other timber loading points in the surrounding area.

#### A huge success with many advantages

Apart from its advantageous location, the site allows the use of the area between the tracks for loading on both sides. Block trains can also be loaded on site without intermediate shunting. The temporary storage area makes it possible to decouple road and rail transport. A HGV can therefore unload its timber and drive away immediately, without being bound to the dwell time of a train. This makes timber transport more flexible. Thanks to its various logistical options, Rudolstadt-Schwarza is not only a pure loading yard for timber, but also a timber port.

#### Good cooperation leads to mutual benefits

The proudest achievement of those involved is just how quickly they were able to go from recognising the need to dispatching the first train. "It became apparent that the calculated amount of timber in the region would increase due to the bark beetle infestation. The existing loading points could no longer handle it, so we had to react quickly", says Clemens Pflästerer, Head of Sales & Operations Center Timber at DB Cargo Logistics. "Implementing the solution we found in Rudolstadt-Schwarza was then very straightforward. We worked together with our partners constructively and effectively within a very short period, to everyone's benefit." DB Cargo Logistics played a key role in coordinating and organising the project, and took the lead in ensuring consultation with the parties involved. This led to a good result for everyone: the partners, customers and the environment.



## Lineas ambitions to increase its market share in German rail freight and announces new Country Manager for Germany

Lineas, Europe's largest private rail freight company, is committed to becoming an important player in the German industrial landscape.

Lineas helps its customers decarbonize their supply chain, by shifting their cargo from road to rail. To this end, the company operates the largest private rail network in Europe offering customers fast, daily, and reliable connections across the continent. Lineas has 1750 employees and is headquartered in Belgium, with offices in Germany, France, the Netherlands, and Italy.

With a clear focus on profitable growth, Lineas is further implementing its strategy by expanding its geographic coverage and introducing innovative & customer-oriented solutions to the German market. As confirmed by its high customer satisfaction, Lineas is convinced it can bring high-quality, efficient, and reliable rail freight services that meet the needs of industrial customers in Germany.

At the same time, Lineas wants to be a voice for modal shift. As an independent player, Lineas aims to be a prominent voice and a key contributor to modal shift in Germany, promoting more sustainable and efficient transport solutions.

To support its ambition, Lineas will reinforce its team with a new Country Manager for Germany: Andreas Plikat. He will take his new function as of February 1st, 2024 and will bring a wealth of experience and expertise to this key position.



## Vossloh expands cooperation with Deutsche Bahn

Vossloh, a leading global supplier of rail infrastructure products and services, strengthens its position in the growing and strategically important German rail infrastructure market. By signing a four-year framework agreement with Deutsche Bahn in the Customized Modules division, Vossloh is further expanding its market position in Germany. For the first time, Vossloh has succeeded in winning a framework agreement for complete switches with firmly committed delivery quantities. Over the next four years, Vossloh will supply a total of at least 600 switches to Deutsche Bahn. At the same time, Vossloh will continue to supply a substantial volume of switch components.

Deutsche Bahn is currently renewing its rail network as part of a comprehensive modernization program and is building more than ever before. The aim is to expand the high-performance network and reduce infrastructure-related disruptions by 80 percent. Vossloh is providing

significant support for Deutsche Bahn's extensive investment project – and not just with switch systems. In September, for example, an existing contract with Deutsche Bahn for preventive rail maintenance was extended and the scope of services expanded. Accordingly, Vossloh will grind at least 13,000 kilometres of the most heavily used track links within the so-called high-performance network in 2024 using the highly innovative and self-developed smart HSG (High Speed Grinding) technology. During each pass, important condition data is collected and evaluated in real time using extensive digital measurement and analysis technology, which serves as the basis for the transition from time-based to condition-based maintenance.

Stationary long rail welding and rail logistics are also benefiting from Deutsche Bahn's modernization projects. Vossloh is the market leader in both areas in Germany. In view of the extensive modernization

measures planned – a general overhaul is planned for 40 sections of the heavily used network alone by 2030 – Vossloh also expects high demand in these areas in the coming years. The same applies to the rail fastening systems business, where Vossloh is also a leader.

Vossloh and Deutsche Bahn have jointly held an "Innovation Day" at Vossloh AG's headquarters in Werdohl with the aim of exchanging ideas and further intensifying cooperation. High-ranking representatives from various areas of Deutsche Bahn and its subsidiaries took part in the event and discussed together with the Executive Board and representatives of all Vossloh Group business units working for the customer Deutsche Bahn the most pressing challenges and approaches to overcoming them in practice. The focus of the product and service innovations presented, including numerous digital-based solutions, was on reducing closures and increasing track availability for Deutsche Bahn.

Oliver Schuster, CEO of Vossloh AG, explains: "The new framework agreement for complete switches with Deutsche Bahn is a major strategic success for Vossloh and a further step on the way to becoming a system supplier of complete track solutions in Germany. Deutsche Bahn represents the largest rail network in Europe and is of considerable importance as a globally recognized technological reference. In this respect, we are extremely pleased to be able to provide this important customer with significant support for its major modernization projects over the coming years. As a traditional German company, it is particularly important to us to contribute to advancing the railways as the most sustainable mode of mass transportation in this country as well, thus creating an important basis for achieving the European climate targets."

Bombardier Class 187.520-2, owned by Akiem and operated by VHID, makes a fine sight hauling a rake of Italian registered hoppers at Budapest Kelenföld. *Anton Kendall*



# Hungary

Under threatening skies, LTE's Class 187.932-9 works an intermodal train through Budapest Kelenföld. *Anton Kendall*



# Hungary

A colourful GYSEV operated Class 193.837-2 hauls a rake of tanks through Budapest Kelenföld. *Anton Kendall*



NS No. 1765 is seen in Assel, Hoog Soeren with set 7703 working train No. IC148 from Berlin Ostbahnhof to Amsterdam CS on September 11th. After 30 years of service, the locomotives of this Class will make way for the Siemens Vectrons at the start of the new timetable in December. *Erik de Zeeuw*



# Netherlands

On November 18th, a special train ran from Amsterdam to Amersfoort for a farewell tour on November 19th. After almost 30 years in service the Class 1700 locomotives will be put out of service for passenger trains but the class will still be used on cargo trains. The train, which ran with special branding, departed from Amsterdam via, Weesp, Lelystad, Zwolle to Amersfoort. The farewell tour departed Amersfoort and ran via Zwolle, Arnhem, Den Bosch, Tilburg, Breda, Rotterdam, Den Haag, Utrecht and back to Amersfoort. *Andre Pronk*



# Netherlands

On November 19th, the NS said goodbye to the locomotives series 1700. On the occasion of this farewell, locomotives Nos. 1761 and 1750 pulled a train consisting of DB IC carriages from Amersfoort via Zwolle, Arnhem, 's-Hertogenbosch, Tilburg to Rotterdam where several locomotives of type 1600/1700/1800 from different carriers were lined up. From Rotterdam, via The Hague and Utrecht, the train headed back to Amersfoort where the official farewell of the series 1700 took place. The photo shows locomotive No. 1750 with a part of the farewell train in Utrecht Centraal station. *Gerard van Vliet*



# Norway



▶ EMU No. 78007 is seen at Oslo Central on August 24th. *Brian Battersby*

▶ No. 71009 arrives at Oslo Central on August 24th. *Brian Battersby*

▶ Class 18.2259 stands at Oslo Central on August 24th. *Brian Battersby*





Norway



Class 18.2256 is seen at Oslo Central on August 24th. *Brian Battersby*





Slovakia

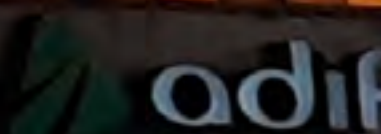
PRVA's Class 753.608 and 365.007 are seen in the yard at Kutý on October 28th. *Class47*









ESTACIÓN ABANDO INDALECIO PRIETO 

# Spain



On the left, Renfe Cercanias unit No. 136M is stabled between duties while on the right two car unit No. 209C forms train No. IC283, the 12:15 departure to Miranda da Ebro in Bilbao Estacion Abando Indalecio Prieto. *Andy Pratt*



Spain



At Seville Santa Justa station on November 1st, Iryo operated Class 109-009. These units have Frecciarossa branding. *Bryan Roberts*





Spain



A selection of High Speed Trains at Malaga Maria Zambrano station on November 1st. Iryo unit No. 109-004 adds some extra colour, next to Renfe Ave Class 103 unit No. 22 (bound for Tarragona) and an Ave Class 102 EMU. *Bryan Roberts*



Spain



Renfe Rodiales EMU Class 447.363 waits to depart the monumental station at Portbou with a service to Barcelona on September 5th. *John Sloane*



Spain 

Renfe Rodiales Class 447.051 calls at Portbou on a service from Sants station in Barcelona to Cerbere on September 9th. *John Sloane*



Spain



Renfe Media Distancia DMU No. 598-003 stands at Malaga Maria Zambrano, having travelled three and a half hours from Seville, not on the high speed line. Alongside is a Cercanias local EMU. *Bryan Roberts*



Spain



Renfe Avant EMU Class 104 No. 19 stands at Malaga on November 1st. *Bryan Roberts*



# Spain



▶ Renfe Class 334.024 arrives at Alcazar de San Juan on November 5th with train No. IC271 the 07:32 Almeria to Madrid Chamartin.

*Andy Pratt*

▶ On November 6th, Renfe Class 334.003 and 334.009 have run round train No. IC190 08:28 from Madrid Chamartin at Mérida and are ready to depart for the remaining short journey to the Portuguese border at Badajoz. *Andy Pratt*

▶ Renfe's latest high speed train offering is the Class S-106, branded Talgo Avril. The 12 coach trains have a top speed of 330km/h, will operate on both Iberian broad gauge (1668mm) and high speed standard gauge (1435mm) and are expected to enter service in late November. Highlights of the sets to look forward to include 3+2 seating. Set No. 59 is seen stabled at Alcazar de San Juan on Sunday November 5th awaiting commissioning. *Andy Pratt*



# Spain



Renfe Class 599.014 is seen at Madrid Príncipe Pío station on November 25th.

*Mark Armstrong*

On November 25th, ALSA Class 321 No. 2148 is seen at Madrid Príncipe Pío station working a tourist train. *Mark Armstrong*

A Renfe Ave Class 102 unit No. 08 stands at Malaga on November 1st. *Bryan Roberts*



# Spain



On November 26th, a Renfe Class 450 unit is seen at Madrid Príncipe Pío station.

*Mark Armstrong*

0-4-0 steam loco No. 202-0231 is seen on a plinth outside the Madrid railway museum on November 26th.

*Mark Armstrong*

Renfe's AVE and many more units are seen in this view of Atocha station at Madrid.

*Mark Armstrong*







# Spain



On November 26th, unit No. M-1121 is seen at the museum on the unused platforms at Chamatin station. *Mark Armstrong*

On November 26th, unit No. M-505 is seen at the museum on the unused platforms at Chamatin station. *Mark Armstrong*

A Renfe Class 599 unit is seen at Atocha station on November 26th. *Mark Armstrong*



# Sweden

Tram No. 332 is seen in Gothenburg working a line 2 service to Krokslatt. *Brian Battersby*

CAF tram No. 472 is seen in Stockholm on August 29th. *Brian Battersby*

Elderly trams Nos. 621 and 606 are seen in Gothenburg on August 22nd. *Brian Battersby*



# Sweden

Green Cargo's No. 1287 heads through Stockholm Central on August 30th.  
*Brian Battersby*

No. 1407 stands at Gothenburg Central on August 22nd.  
*Brian Battersby*

Unit No. 3217 is seen at Gothenburg Central on August 21st.  
*Brian Battersby*



Chile

## Alstom provides a modern driving assistance system for the extension of Line 2 of the Santiago Metro

Alstom, global leader in smart and sustainable mobility, celebrates the opening of the Santiago Metro's Line 2 extension. Alstom was proud to provide the most modern signaling and automated technology for this project which will provide for a safer, more efficient and more reliable service for passengers.

"This extension is another example of the long-term commitment that Alstom has with Chile and with the Santiago Metro. We are proud to provide this cutting-edge technology that will ensure high levels of safety, reliability and efficiency. At Alstom we continue to contribute to intelligent and high-standard mobility for the Santiago Metro, something we have done since its inception, almost 50 years ago," says Denis Girault, General Director of Alstom in Chile.

The technology that Alstom installed will allow the movement of trains to be under the control of Alstom interlocking system and automatic train control system

(SACEM) with an assistance to the driver, guaranteeing the safety of passengers, optimizing the acceleration and deceleration of trains thereby reducing energy consumption and providing a more comfortable ride for passengers. In addition, this will allow the time interval between trains to be maintained as on the existing line.

This 5.2 kilometre extension includes four new stations: El Bosque, Observatorio, Copa Lo Martínez and Hospital El Pino; it will benefit more than 651 thousand inhabitants by reducing travel time by 42% compared to the current time, reaching approximately 24 minutes (against 41 minutes today). It is estimated that more than 30 thousand people will use this service daily.

Alstom will also be in charge of maintaining the most modern electronic interlocking technology in the new Line 2 depots, located in Vespucio Norte, as well as for the extension of the line.

Alstom has maintained a continuous and successful partnership with Metro de Santiago since its inauguration almost 50 years ago, contributing significantly to the development and improvement of the city's public transport system. The company is also supplying

technology, rolling stock and maintenance for Line 7 of the Santiago Metro, which is planned for 2028.



Belgium

## Alstom unveils the world's first Eurobalise with integrated encoding capabilities – a pioneering breakthrough in rail safety

Alstom, global leader in smart and sustainable mobility, has introduced a groundbreaking Eurobalise (a safety-critical device transmitting data from track to train) that integrates simplified ERTMS encoding functionality to serve multiple use cases. This innovative solution represents a major stride in advancing rail safety standards, addressing the critical need for increased safety during track work. Its easy installation offers rail operators a cost-effective proposition. "Alstom is proud to introduce this game-changing super balise to the market. This innovation is in line with our commitment to advance rail safety with digital solutions to meet the evolving needs of the industry," says Bernard Belvaux, Alstom Benelux Managing Director.

Alstom has received the first firm order from Infrabel, Belgian railway network operator, for 50 units and 20-year maintenance services, with the potential to expand to 100 units. The production will involve engineering and manufacturing sites in Villeurbanne (France) and Charleroi (Belgium)

The solution, to be deployed by Infrabel for the first time, includes an automatic warning system to safeguard track workers. It efficiently secures the work area by transmitting "STOP" or "GO" messages to the train automatically.

When used in a train control system level 1 with limited supervision (ETCS L1LS) installation, it autonomously selects the right message out of 16 possibilities and transmits it to the train in SIL4 (the highest Safety Integrity Level). Simple to install, the combination of Eurobalise and encoder functions into a single product provides customers with a notably competitive solution. Finally, the solution addresses the essential necessity for elevated safety during track maintenance. By allowing operators to remotely control train movements, the system minimises the risk of accidents and enhances overall safety standards.

A Eurobalise is vital for data transmission, train positioning, and European Rail Traffic Management Systems (ERTMS) compliance. This advanced version

presented is based on the proven Alstom Onvia Balise technology with over 400,000 units installed around the world.

Alstom™ and Onvia Balise™ are protected trademarks of the Alstom Group.



# Poland

The company AŽD concluded a contract with the civil construction company ZUE S.A. for the supply of signalling and telecommunication equipment on the railway line Będzin – Katowice Szopienice Południowe in Poland. The value of the contract is 79,85 million zł (approx. 445 million CZK).

For the Czech company AŽD, this is already the sixth contract in Poland, this time in the role of subcontractor of the civil construction company ZUE. The project is co-financed by the European Union through the CEF program and is to be completed within 44 months from the conclusion of the contract.

The AŽD company figures in the project as a subcontractor of a fully digital ESA 44-PL type interlocking for two railway stations and a line section 8 km long. Railway line Będzin – Katowice Szopienice Płd. will also be equipped

## AŽD company has won the sixth contract in Poland

with 100 pieces of electromechanical point machines, 187 light signals and two level crossing safeguarding devices.

Some supplies, for example in the field of telecommunications and passenger information systems, will be provided by partner Polish companies



# Belgium

## Lineas aims to increase its market share in Dutch rail freight and announces new Country Manager for the Netherlands

Lineas helps its customers decarbonize their supply chain, by shifting their cargo from road to rail. To this end, the company operates the largest private rail network in Europe offering customers fast, daily, and reliable connections across the continent. Lineas has 1750 employees and is headquartered in Belgium, with main offices in the Netherlands, Germany and France.

Lineas, already #2 on the Dutch rail freight market, aims to further strengthen its presence in the Netherlands. With a strong presence in the Port of Rotterdam, one of the largest ports in Europe, the company is dedicated to building a strong local organisation while focusing on profitable growth and the expansion of its international long-haul network.

At the same time, Lineas continues to bring innovative, customer-centric solutions to the Dutch market. With an impressive customer satisfaction rating of 4/5, Lineas is confident that it can deliver high-quality, efficient, and reliable rail freight services that meet the specific needs of its customers in the Netherlands.

To support its ambitions, Lineas is pleased to announce the appointment of Jeroen Tempels as its new Country Manager for the Netherlands, effective November 1st, 2023.



Canada



## Alstom's Coradia iLint, the world's first hydrogen-powered train, has won the 2023 Environmental Sustainability CUTA Award

Alstom, a global leader in smart and sustainable mobility, is pleased to announce that it has won the Canadian Urban Transit Association's (CUTA) Award for Environmental Sustainability. Alstom's Coradia iLint hydrogen-powered train was the first hydrogen-powered train transporting passengers in all of North America. It carried more than 10,000 passengers in a demonstration project in Quebec from mid-June to the end of September 2023 on the Réseau Charlevoix rail network along the Saint-Lawrence River.

Michael Keroullé, President Alstom Americas, said, "This summer, we demonstrated that hydrogen trains can be an attractive, safe and viable alternative to diesel on non-electrified lines and that Alstom can do it right here in North America. We proudly accept the 2023 CUTA Environmental Sustainability Award, and thank the association for helping elevate transit innovation and excellence in Canada."

Using Alstom's green hydrogen-powered train on this route helped save approximately 8,400 liters of diesel and averted 22 tons of CO<sup>2</sup> direct emissions, compared to the diesel trains that normally service this route. During the demonstration project, Alstom and its partners, have laid the foundation of a comprehensive, safe and efficient hydrogen ecosystem for the heavy transportation sector in North America, from production to refueling to operation. This is the first project from the Americas Innovation Center bringing thought leadership, as well as technical, operational and regulatory expertise on green propulsion solutions.

In addition, Alstom and its partners welcomed 34 commercial, governmental and regulatory delegations from all over North America to experience this hydrogen-propulsion technology, setting the stage for wider implementation of green transit across North America. Alstom also received a second CUTA Award, for the Rainbow Train, a virtual pride parade, the first ever awarded in the Equity, Diversity, and Inclusion category.

### About the Coradia iLint

The Coradia iLint is the world's first passenger train powered by a hydrogen fuel cell, which produces electrical power for traction. In operation, this train emits no CO<sup>2</sup> and exhausts only water and is special for its combination of different innovative elements. Specifically designed to non- or partially electrified lines up to 1,000 km, it enables clean, sustainable train operation while ensuring the highest levels of performance. In Quebec, the demonstration project was made possible thanks to a partnership between Alstom, which supplied and maintained the trains, Réseau Charlevoix / Train de Charlevoix who made their teams and tracks available, Harnois Énergies, which provided green hydrogen, HTEC, which implemented the mobile hydrogen charging solution and Accelera by Cummins, which supplied and maintained the fuel cell during the pilot. The project was also authorised and supported by

the Government of Quebec. Alstom is partnering with the Hydrogen Research Institute of the Université du Québec à Trois-Rivières to analyse the results of the demonstration project and will issue a final report for public authorities in early 2024.



Lithuania

## AŽD will deliver level crossing safeguarding systems to Lithuania

Following the success of the tender, a contract has been signed between the Czech company AŽD and AB LTG Infra (Lithuanian Railways) for the supply of four level crossing safeguarding systems for the Kaunas – Kybartai railway line worth 2.1 million euros.

The delivery includes four level crossing systems of the PZZ-GTS type produced by AŽD, including barrier drives, LED warning lights for road and pedestrian crossings, axle counters, surveillance cameras and integration into station interlocking and line signalling equipment. The integration will not be difficult, because the Kaunas - Kybartai line is secured by the AŽD company's equipment, which will centrally control all level crossings. The implementation period, including design, is 12 months. AŽD cooperates with the local company UAB FIMA on the project.

"This project was initiated by a serious emergency that recently took place in Lithuania at one of the railway level crossings of a foreign manufacturer, revealing significant safety deficiencies in the existing level crossing devices

in Lithuania. The signing of this contract confirmed the highest technical level of AŽD technologies and the interest of the new management of Lithuanian Railways in further cooperation. This order opens the door to the Lithuanian market even more for us," says the CEO of AŽD Zdeněk Chrdle.

Part of the evaluation of AŽD's offer was also the so-called "National Security", when it was necessary to prove that AŽD's ownership structure does not contain any property ties to Russia, Belarus or China and that it is a purely Czech product manufactured in the Czech Republic. In Lithuania, projects related to the Rail Baltica corridor are now being intensively prepared, which is a big challenge for all companies in the railway industry. The AŽD company will definitely not stand aside in this process and is already intensively preparing for the expected public tenders.



Canada



## Alstom delivers the first of 60 new streetcars to the Toronto Transit Commission

**New Alstom Flexity™ streetcars will provide state-of-the-art, accessible, sustainable service for Toronto**

**Vehicles are made in Canada – in Thunder Bay, ON, with support from Alstom’s site in La Pocatière, QC**

**Original order signed for €275 million (approximately CDN \$396 million) in 2021**

On November 17th, Alstom announced that it has delivered the first of 60 new low-floor, zero-emission Flexity light-rail vehicles (LRV) to the Toronto Transit Commission (TTC) as the first step in fulfilling a contract signed in June 2021. The vehicles are being produced in Canada and will help to enhance experience for Toronto’s transit users and to meet population growth in the Greater Toronto Area. These 60 new streetcars will be added to a fleet of 204 Alstom LRVs in serving

Torontonians every day. Close to 400 highly-skilled Alstom employees in Canada are at work ensuring the flawless execution of the contract until early 2025.

“The team at our manufacturing facility in Thunder Bay is unsurpassed in their experience with assembling and testing TTC streetcars, having delivered over 200 of these vehicles through the years. We are proud to offer our customer and Torontonians the public transit they deserve through our ability to manufacture and test locally thanks to Alstom’s large industrial footprint in the province,” said David Van Der Wee, Vice President Rolling Stock, North America.

Alstom’s site in La Pocatière, QC, supports Thunder Bay’s final assembly line in providing component sub-assemblies for the project such as the flat pack, which includes the underframe, side walls, roof and articulation

portals, as well as the truck frames. This was made possible thanks to a Quebec government forgivable loan that allowed the site to boost productivity through modernization and automatization of specific areas of the facility.

In addition to streetcars, Alstom has also supplied 480 Toronto Rocket subway cars to the TTC and is currently providing a communications-based train control (CBTC) railway signalling solution on Line 1 Yonge–University as well as the Toronto-York Spadina Subway Extension (TYSSE).

Globally, over 5,000 Flexity LRVs have been ordered or are already in successful revenue service. They are renowned for their ability to run smoothly in addition to their spacious interiors, wide doors, air conditioning, enhanced features for people with limited mobility and

improved passenger information, all to ensure a more comfortable journey and passenger experience.

Alstom is leading the way toward more sustainable mobility options. With demand on the rise, cities and countries need transport solutions that help decrease greenhouse gas emissions, congestion, and pollution to improve public health for the years to come. With 4,600 Canadian employees, Alstom is the only global rail mobility manufacturer to have production facilities in the country.

Alstom™ and Flexity™ are protected trademarks of the Alstom Group

Sweden



## Alstom successfully delivers the 40th Flexity light rail vehicle to Gothenburg in Sweden

Alstom, global leader in smart and sustainable mobility, has delivered the 40th Flexity tram to Gothenburg’s Transit Authority, Göteborgs Spårvägar and Västtrafik, completing the first order of light rail vehicles signed in 2016. The first Flexity vehicle was delivered in 2019 and the fleet is operating on Sweden’s largest tram network, spanning over 160 km of tracks. It has already run more than 4.5 million kilometres in operation. Since the delivery of the first tram, Flexity has since become a part of Gothenburg’s iconic cityscape. The modern and contemporary design has received praise from both passengers and operators, who appreciate their reliability as well as the enhanced comfort and the full low floor providing high accessibility.

The state-of-the-art Flexity light rail vehicles are designed to meet the city’s tracks and weather conditions. The cutting-edge technology ensures that passengers have a safe and stable journey. The design meets as Gothenburg’s requirements for environmentally friendly public transport. With the high-capacity light rail vehicles, the public transportation network of the city can run more smoothly and efficiently.

“We are delighted and proud to see the final delivery of the Flexity M33 tram, serving the local population through a modern, reliable light rail fleet with increased comfort for passengers”, says Maria Signal Martebo, MD Alstom in Sweden.

The light rail vehicles, built with consortium partner Kiepe-Electric, replace a part of the current fleet and provide high-capacity transportation to accommodate the rapidly growing population in Gothenburg and the surrounding region. The trams were built at the Alstom site in Bautzen, Germany. At the end of October, the final delivery of the base order underwent thorough testing and inspection before being transported to Sweden. After the final commissioning and inspection, the 40th vehicle has now been delivered to the customer ready to start operating in traffic.

### Further delivery of trams to Gothenburg

Alstom will continue to deliver light rail vehicles to Gothenburg, as an order of 60 additional units has been placed as options on the base order. The new Flexity tram M33 Type C, locally known as the M34, is an extended

45-meter version of the M33 tram and increases transport capacity by 50 percent.

### About Alstom light rail

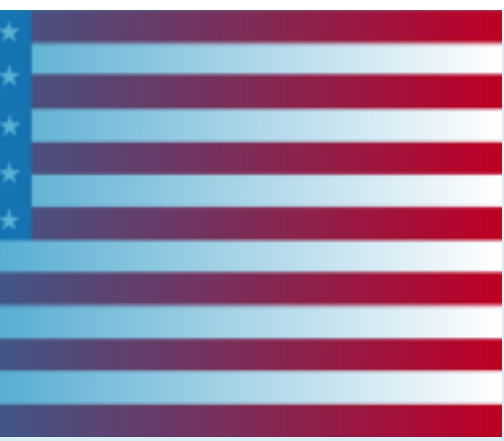
With an outstanding track record of more than 30 years and over 8,000 vehicles ordered or in successful revenue service in 140 cities around the world, Alstom is the global leader in tram and light rail solutions. The versatile portfolio ranges from trams and light rail vehicles to streetcars and tram-trains, offering solutions that are ideally suited for existing networks and new lines as well as for inner-city and suburban connections. Alstom also leads the industry with proven solutions to make urban transport even safer by providing technologies

for obstacle detection, overspeed monitoring, collision prevention and automatic braking, and to integrate seamlessly in urban environments by offering the widest variety of solutions for catenary-free operation.





U.S.A.



## Alstom and partners celebrate launch of Edmonton Valley Line Southeast LRT

Alstom, global leader in smart and green mobility, celebrated the November 4th launch of the new Edmonton Valley Line Southeast Light Rail Transit (LRT). This project was delivered by TransEd, a consortium comprised of Alstom, along with Bechtel, EllisDon and Fengate, contributing to the enhanced connectivity of Edmonton's residents today and for the future. The city is expecting it to serve about 30,000 riders per day. Under this partnership, Alstom played a pivotal role in the design, supply, installation and testing and commissioning of the LRVs, signalling, communications, power supply and distribution, overhead catenary system, and related depot equipment, as well as system integration. This turnkey project is a Public-Private Partnership (P3) that includes a now completed design-build stage, and an operation and maintenance (O&M) commitment extending until 2050.

Alstom assumes a majority share in the joint venture responsible for the O&M of the system for TransEd. This includes maintaining the complete fleet, tracks, catenary, stations, maintenance facility and all other elements of the system, as well as all aspects of operating the fleet including crew training and dispatching, control room management, customer service and passenger experience. A team of more than 125 experts is devoted to delivering exceptional services to the Edmontonians. Notably, this represents the first LRT system where Alstom is involved in the complete O&M scope of the system.

The 26 Flexity LRVs, each capable of carrying up to 275 passengers along the 13 km system, offer a 100 per cent low-floor design, ensuring easy access and a comfortable ride for all passengers. Step-free boarding is an important part of this enhanced passenger experience for persons with reduced mobility, wheelchairs, mobility aids and strollers.

Alstom takes pride in designing and assembling these vehicles in Canada, creating good-paying Canadian jobs. With 4,500 employees in Canada, including those in Edmonton, Alstom is committed to delivering safe and reliable mobility solutions while actively fostering local supply chains and regional economies.

Michael Keroullé, President and CEO, Alstom Americas said: "Alstom is proud to celebrate this important milestone with the City of Edmonton and our partners.



We look forward to serving the citizens of Edmonton with a world-class LRT service for years to come."

With more than 20 references in the world, Alstom has again demonstrated its turnkey and services capabilities to deliver, operate and maintain a new LRV system that has been designed, built and commissioned to be safely, efficiently and reliably operated in extreme weather conditions over decades of operation.

Alstom's LRV product range is the reference for modern low-floor tram solutions. It is at the heart of many urban renewal projects around the world, offering an improved

passenger experience, driver ergonomics, low energy consumption and optimized life cycle costs. About 8,000 Alstom trams and LRVs have been ordered or are already in revenue service, in more than 140 cities around the world. In addition, these vehicles require four times less energy consumption than a bus, and 10 times less than a car, enabling cities to offer passengers the best options in sustainable mobility.

As the number one private operator in North America, Alstom offers best-in-class train operation solutions, including both fully automated and manual operations, with train crew and station staff, ticketing, and scheduling.

Alstom offers scalable maintenance solutions for the entire railway system, including rolling stock, signalling, as well as railway and civil infrastructure. Alstom's North America references include more than 25 rail systems across the United States and Canada. Its comprehensive services portfolio also includes modernization, parts, repairs, overhauls, and digital and support services

Alstom™ and Flexity™ are protected trademarks of the Alstom Group.

U.K.



## Alstom secures an eight-year services contract extension worth around €950 million from CrossCountry in the United Kingdom

Alstom, global leader in smart and sustainable mobility, has signed an eight-year extension to its Train Services Agreement (TSA) with CrossCountry in the UK. The contract extension, valued at around €950 million, further secures this long-term partnership and is evidence of the trust placed by the customer.

Under the agreement, Alstom will continue to maintain, overhaul, service and clean 252 vehicles of the CrossCountry fleet (34 Class 220 Voyagers and 24 Class 221 Super Voyagers) at their primary depot, Central Rivers. In addition, seven Voyagers will move to CrossCountry when they are released from service with Avanti West Coast to bolster the CrossCountry fleet and enable service uplifts in due course.

“We are delighted to extend our Voyager Maintenance Contract with CrossCountry for another eight years. We have worked in close partnership since 2007, providing reliable, well-presented, and safe trains for all CrossCountry’s customers. We look forward to working with our colleagues at CrossCountry to help them deliver a high-

quality train service for the next eight years,” says Nick Crossfield, Alstom Managing Director, UK & Ireland.

“We’re delighted to continue our relationship with Alstom as we embark on our National Rail Contract. Improving the onboard experience is critical to ensuring our customers view us as a long-distance operator of choice and we look forward to working closely with Alstom in the years ahead to deliver these improvements”, says Tom Joyner, Managing Director, CrossCountry.

The contract places a strong focus on robust fleet performance, with a collaboration team between Alstom, the asset owner and CrossCountry established to identify optimisation and improvement initiatives, as well as to ensure the quality of the passenger environment. The contract includes management of all planned (preventative) and unplanned (corrective) maintenance; all required overhaul activities; cleaning, and light maintenance services on the vehicles; vehicle servicing; service delivery support (including 24/7 telephone help line); vehicle cleaning (daily and periodic); depot

management; shunting; obsolescence monitoring and management, and accident/vandalism repair. Within the agreement, the fleet will be installed with an Intelligent Engine Stop Start (IESS) system, which will drive a reduction in fuel usage, emissions, and operational costs. Additionally, the collaboration team will continue with other

fuel savings measures to build on the weight reduction initiatives already undertaken, or underway, which will substantially reduce the emissions produced from the fleet.

Owned by Beacon Rail, the Voyagers are running across the CrossCountry network, from Aberdeen, Scotland, to Penzance,

England. Alstom’s Voyager and Super Voyager inter-city trains have already served passengers across England, Scotland and Wales for over two decades. Operating at speeds of up to 200 km/hour, they have clocked up over 414 million miles of service. Alstom™ is a protected trademark of the Alstom Group.



U.K.



## CAF SELECTED BY THE BRITISH OPERATOR LONDON NORTH EASTERN RAILWAY TO SUPPLY FIRST TRI-MODE UK INTERCITY FLEET

The operator London North Eastern Railway (LNER) has selected CAF as the preferred bidder for the project to supply 10 tri-mode trains, i.e. they can operate in electric, diesel or battery mode, whereby they are extremely versatile units given their capacity to operate with different drive technologies. The project also includes the maintenance services for these units for 8 years. The value of this operation exceeds €500 million, this amount includes both the cost of purchase for the trains by Porterbrook who subsequently lease to LNER and maintenance delivered by CAF.

Each unit will consist of 10 cars, based on CAF’s Civity UK platform: A train designed for intercity services which is fitted out with state-of-the-art safety technology. It also meets the most stringent requirements in terms of interior design and customer comfort.

The new fleet will enter passenger service on the LNER-operated East Coast Main Line (ECML), the trains can run on both electrified and non-electrified sections of the network, hence, increasing service operation efficiency and flexibility, as well as achieving a more

sustainable and environmentally friendly transport system.

The fleet will be assembled at the CAF state of art manufacturing facility in Newport, Wales. This facility has been operative since September 2018, and it currently employs a workforce of approximately 220 skilled staff and supporting personnel who are trained and prepared for the manufacture of all types of passenger railway vehicles. This includes from assembly to final acceptance and undertaking all factory and static type tests required before commissioning for

service.

This project confirms CAF’s commitment to the UK railway market. This reinforces the company’s successful track record in the UK market. We have delivered numerous contracts over recent years with various operators including First Group, Arriva, Serco Group, West Midlands Trains, Transport for Wales, Transport for London and West Midlands Metro. These projects amounted to a total value in excess of €2,500 million.

All of the above stems from a strategy that is fully in line with the British Government’s Growth Plan, geared towards transforming the country, with its main priorities being reindustrialisation and a strong commitment towards modernisation of the railway industry.

Romania

## Alstom builds modern depot in Bucharest to provide maintenance services for the new electric Coradia Stream passenger train

Alstom is investing €50 million as part of its commitment to establish a new state-of-the-art depot in Bucharest for the maintenance of new electric Coradia Stream passenger trains.

To initiate the project, Alstom has contracted the acquisition of 30,000 square metres of land which includes several buildings on Calea Grivitei in central Bucharest, granting access to the rail mainline. The agreement has been executed with Atelierele Grivita, a Bucharest-based company specialising in rolling stock repairs. The project will include significant modernisation work on existing facilities and the construction of new ones to establish a modern and fully equipped site for the maintenance of the 37 Coradia Stream passenger trains acquired by the Railway Reform Authority (ARF).

The initial phase of the investment – a depot equipped for testing and maintenance operations – will be ready by the end of January 2024, and the full completion is expected in the second half of 2024. The new depot will be equipped with cutting-edge machinery and technology that is

used in rolling stock maintenance depots across Europe, including a digital diagnostic facility based on the latest technology, including HealthHub™, Alstom's solution for predictive maintenance and fleet management, and an underfloor wheel lathe.

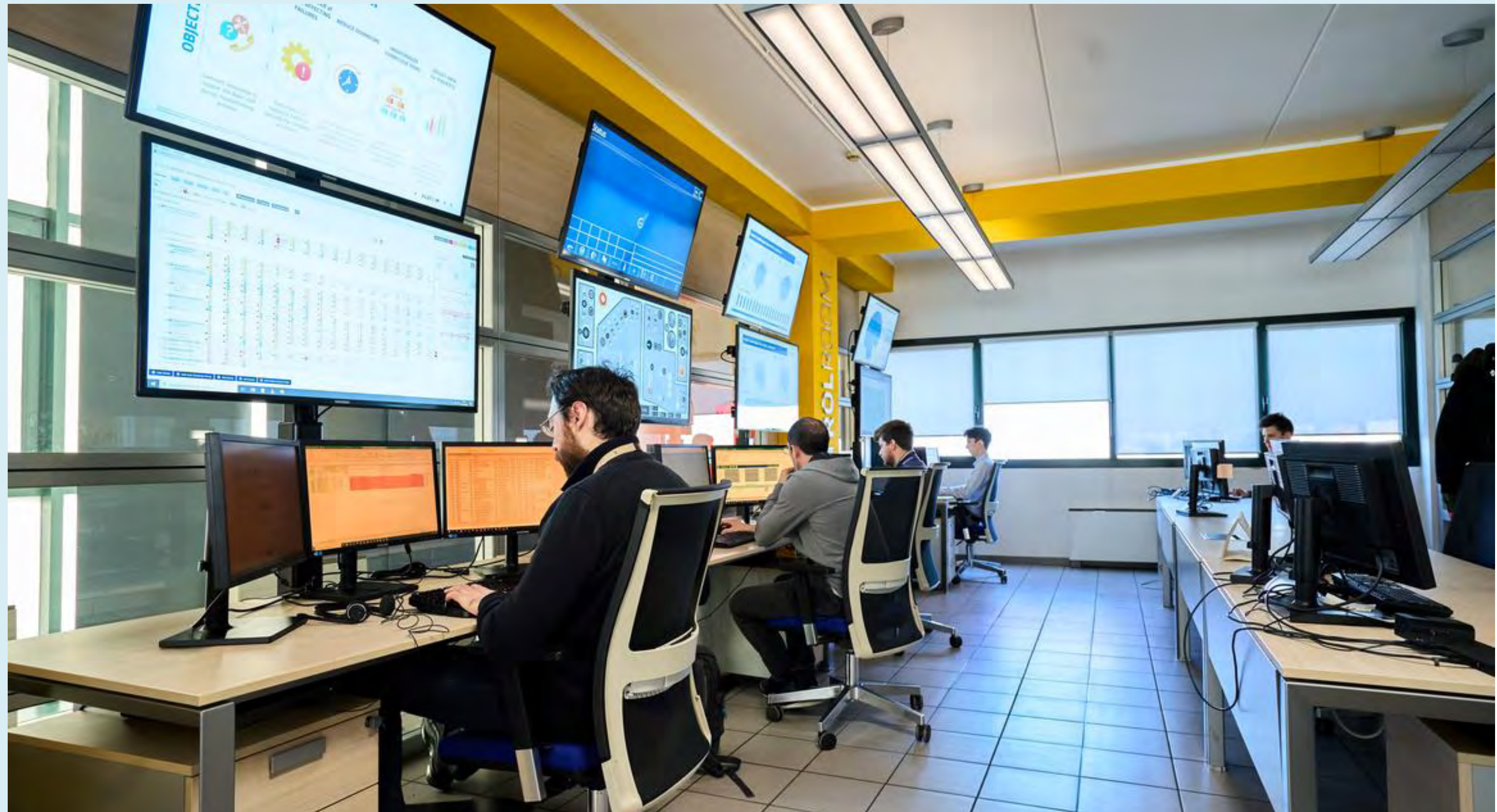
“This investment represents Alstom's enduring commitment to the Romanian market, where we have been providing maintenance services for the Bucharest metro fleet for almost 20 years. The investment in a new facility for Coradia Stream electric multiple unit (EMU) trains for ARF marks a significant milestone for us and will open a new chapter of our presence in Romania, especially since the completion of the investment coincides with our 30th anniversary in the country,” said Gabriel Stanciu, Alstom Managing Director for Romania, Bulgaria and Moldova.

Alstom is actively recruiting for the new maintenance facility, with over 50 new employees expected to join this project and go through a specialised training.

In March 2022, Alstom and the Romanian Railway Reform Authority (ARF) signed a contract for the delivery of 20 Coradia Stream inter-regional trains and associated 15-year maintenance services.

In September 2022, an addendum to the initial contract was signed for the delivery of 17 more Coradia Stream inter-regional trains and associated 15-year maintenance services. These 37 trains, currently in production, are the first new modern EMUs purchased in Romania.

Alstom is the global leader in rail services, with over 16,000 services employees in 40 countries, across 250 sites. More than 35,500



vehicles are covered by rolling stock maintenance contracts, out of which about 50 contracts have a duration of 20 years or more. In Romania, Alstom has been providing maintenance to the metro fleet

of the Bucharest metro continuously since 2004.

Alstom™, Coradia™, HealthHub™ are trademarks of the Alstom Group.

Luxembourg

## Alpha Trains expands fleet with 12 new Stadler EURO9000 locomotives

Alpha Trains and Stadler have signed a contract for the purchase of 12 EURO9000 locomotives. This is the first order of this latest generation of six-axle hybrid multi-system locomotives by Alpha Trains. Scheduled for delivery in 2025 and 2026, these state-of-the-art locomotives will be built at Stadler's factory in Valencia. The project is funded with a total of 15 million Euros by the German Federal Ministry for Digital and Transport (BMDV) as part of the BMDV's rail funding guideline. The funding guideline is coordinated by NOW GmbH and implemented by Project Management Jülich (PtJ).

The multisystem electric EURO9000 locomotives are also equipped with diesel power units. They enable rail

freight operations on AC and DC electrified lines and on non-electrified track sections, even on international routes with mixed traffic. With their advanced traction capabilities and their high-performance, they are ideal for a wide range of freight services and perfectly complement Alpha Trains' large and diverse portfolio. By investing in efficient and innovative alternative propulsion vehicles, Alpha Trains is helping to reduce diesel consumption and thus improves the sustainability of rail freight.

“The purchase of the EURO9000 demonstrates our company's position as a key player in the industry, and it reflects our commitment to providing leasing

solutions that meet the specific needs of our customers. The exceptional power and efficiency of the EURO9000 locomotives is perfectly in line with our goal to promote sustainable and reliable transport solutions,” said Fernando Pérez, CEO of Alpha Trains Group.

The decision in favour of the EURO9000 locomotives continues the long and successful partnership between Alpha Trains and Stadler. Alpha Trains already has an impressive fleet of 121 Stadler locomotives and 162 Stadler multiple-unit passenger trains.

“This new order reinforces our long-standing collaboration with Alpha Trains to offer the market

locomotives that support the modal shift from road to rail by increasing the competitiveness of rail freight transport with sustainable, efficient and economically profitable solutions. The EURO9000 locomotive is the latest example,” said Iñigo Parra CEO of Stadler Valencia.

Italy

## Alpha Trains and Alstom sign Service Agreement

Alpha Trains, Europe's leading leasing company for locomotives and trains, has formalised a Framework Maintenance Service Agreement with Alstom, global leader in smart and sustainable mobility, in Italy.

The contract provides for the maintenance of up to 20 TRAXX locomotives manufactured by Alstom at its depots in Italy over a period of eight years. This extensive, long-term commitment will permit Alpha Trains to enhance its full-service offering of Traxx locomotives throughout Italy.

Through this agreement, Alpha Trains continues to bolster its Europe-wide network of professional and reliable workshops to provide its customers with the best service for maintaining a fleet of highly dependable Traxx locomotives in Italy.

Gianmaria Castori, Commercial Manager for the Italian Market, about this partnership: "The product knowledge, the wide service network as well as the quality of maintenance delivered by Alstom have prompted us to reach this agreement, thereby enabling Alpha Trains to offer an exceptionally reliable fleet

of Traxx locomotives throughout Western and Central Europe."

This strategic collaboration between Alpha Trains and Alstom underscores their commitment to sustainable and efficient transportation solutions throughout Europe.

Switzerland

## Successful approval of the Euro9000 locomotive in Switzerland

European Loc Pool (ELP), a leading provider of innovative locomotive leasing services, is pleased to announce the successful approval of the Euro9000 locomotive in Switzerland. Thanks to the partnership with Stadler Valencia and Stadler Bussnang, ELP was able to achieve this significant milestone. The approval in Switzerland follows the type approval and the authorization for introduction in various European countries, which were granted by the European Railway Agency (ERA) in March of this year.

Soon its customers will start to operate the Euro9000 locomotive on Swiss railways and it will be deployed on multiple routes. Together with its service partner, Stadler Rail Services, ELP has already established a service network in Switzerland.

The approval of the Euro9000 in Switzerland is a significant success for European Loc Pool and marks an important step in expanding the geographical reach of this locomotive. So far, the Euro9000 has already been approved in Germany and Austria, and it has been successfully operational in both countries since last summer. Further approvals in Belgium and the Netherlands are expected in the coming weeks, with Italy following in 2024. The Euro9000 locomotive represents the latest cutting-edge technology in the European rail industry. Compared to conventional four-axle locomotives, the Euro9000 offers up to 50% more traction and power. With an impressive 1.9 MW in diesel mode and remarkable up to 9 MW under overhead lines, it is indispensable for the success of rail freight transport in Europe. The Euro9000 is 'the next generation' locomotive in rail freight and has been specifically designed for European routes.

Willem Goosen, CEO of ELP, expressed his excitement about the approval: 'We are thrilled that with the approval of the Euro9000 locomotive in Switzerland, we can take the next step in our innovation initiatives. We believe that this locomotive will fundamentally change rail freight transport in Europe, and we are proud, as ELP, to have initiated and advanced this transformation.'

### More about the Hybrid Locomotives

European Loc Pool (ELP) focuses on innovative six-axle hybrid locomotives with a power output of up to 2.8 MW in diesel mode, 9 MW in electric mode, and a traction force of 500 kN. All vehicles come equipped with ETCS-Baseline 3 as standard for operation on Level 2 tracks. The first ELP EuroDual locomotives have been in operation on the German rail network since April 2020. They enable operation on electrified and non-electrified lines, as well as last-mile and shunting operations. All Dual locomotives are equipped with remote control.

From mid-2023, the second generation of ELP's dual locomotives, the Euro9000, were put into service as a hybrid multi-system electric locomotive designed for use in all European corridors. As the "launching customer," European Loc Pool ordered the first ten Euro9000 locomotives from Stadler in May 2019. The first version with 1.9 MW of diesel and 9 MW of electric power at 500 kN tractive effort will be used in Germany, Austria, the Netherlands, Italy, Belgium, and Switzerland. Subsequently, the locomotive's area of operation will be expanded to other countries and corridors.

### About European Loc Pool AG

European Loc Pool (ELP) is a young, innovative leasing company for locomotives and was founded in May 2018. The company is headquartered in Frauenfeld, Switzerland. ELP ordered the first EuroDual locomotives in the third quarter of 2018. Since then, ELP has signed a framework agreement with Stadler for 100 Co'Co' hybrid locomotives. From this agreement, 85 locomotives have already been leased under long-term full-service contracts with more than 30 operators in six countries. ELP targets rail operators and logistics companies across Europe and focuses on new innovative six-axle



hybrid locomotives. ELP's full-service leasing includes a comprehensive maintenance and insurance offer as well as the possibility to customise the exterior of the locomotives.

ELP is committed to sustainability and utilise advanced technology to reduce their environmental impact while improving operational performance. ELP's experienced team of professionals prioritises safety, reliability, and cost-effectiveness to exceed customer expectations.

From the  
Archives

No. D-18.008 stands outside the steam roundhouse at Temuco on December 4th 1981. *John Sloane*

Chile



# From the Archives

The magnificent SNCF No. 232 U.1. is seen in Mulhouse Museum on October 28th 1983. *John Sloane*

France



# From the Archives

Chemins De Fer de la Provence's classic Billard railcar No. 212 stands outside the depot at Nice CP on August 19th 1987. *John Sloane*

France



# From the Archives

SNCF No. 22260 arrives at Nice with a service from Ventimiglia to Paris on July 24th 1997. *John Sloane*

France





# From the Archives

## Hungary

MAV No. V46-012 stands at Budapest Keleti station with an empty stock working on September 18th 2007.  
*John Sloane*



From the  
Archives

Hungary

Preserved 4-4-0 No. 204 is seen in the  
museum roundhouse at Budapest  
North depot on September 15th 2007.  
*John Sloane*



# From the Archives

New Zealand 

Tranz Rail liveried No. 7051 and Kiwi Rail No. 4830 are about to leave the yard at Mount Manganui in Tauranga with a freight for the Auckland area on November 17th 2010. *John Sloane*



From the  
Archives

CP No. 5614 is seen at Lisbon Oriente station at the head of a train about to depart for the Algarve on April 26th 2015. *John Sloane*

Portugal



# From the Archives

RENFE No. 141F2202 rests in the  
roofless roundhouse at Merida on  
August 6th 1974. *John Sloane*

Spain



# From the Archives

FEVE Alstom built Bo-Bo No. 1025 is seen working a p.w. train at Santander on April 13th 1977. *John Sloane*

Spain



# From the Archives

Former Hedjaz Railway 2-8-2 No. 260 arrives at Damascus with the 'International' train from Amman on May 27th 1983 having attracted some additional passengers in the form of local children. *John Sloane*

Syria ★ ★



# From the Archives

TCDD ex Prussian G8 No. 44071 approaches Hilal flat crossing in Izmir with a local service to Buca on August 12th 1976. *John Sloane*

Turkey 





# From the Archives

USA



New Jersey Transit's Swedish electric No. 4433 stands in Sunnyside Yard in New York awaiting its return rush hour working on April 3rd 1997. *John Sloane*

