



Railtalk Magazine *Xtra*

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Submissions & Contributions

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

Photographic Contributions

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

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

Welcome to Issue 217Xtra

This month there's even more news from Innotrans with many companies using the trade fair to make announcements of sales or technology improvements. However we start with the news that more freight corridors are apparently needed in France as an alternative to Germany.....

Combined transport company Hupac says railways in eastern France need to be enhanced to ensure the long-term reliability of north-south European freight services by offering an alternative to routes through Germany. Following three years of preparation, SBB Cargo International, Captrain France, DB InfraGo and SNCF Réseau ran a diesel shuttle service on the non-electrified Wörth – Lauterbourg – Strasbourg – Offenbourg route during a three-week closure of the direct route along the River Rhein in Germany during August.

Hupac CEO Michail Stahlhuts said this was 'a groundbreaking concept, which overcame numerous technical and administrative hurdles thanks to a committed Franco-German-Swiss co-operation'. The weak point of the diversion proved to be the low capacity at transfer sites, and the diversionary route reached its capacity limit.

On September 9th, Hupac Chairman Hans-Jörg Bertschi called for the industry and policymakers to 'build on this pioneering achievement', and for Swiss modal shift policy to include French access routes to the north-south corridors through Switzerland. He said limited capacity in Germany has led to stagnation of modal shift in Switzerland, and planned major blockades in Germany will aggravate the situation until after 2030. Hupac is calling for the Belgium – Metz – Strasbourg – Basel route to be upgraded to provide 4m clearances so that traffic from Belgium and the southern Netherlands which currently goes through Germany could take the 110 km shorter route through France.

'In view of the decades-long backlog in the development of the rail axis on the right bank of the Rhein, increasing traffic via France is the only option' to prevent stagnation or a reversal in modal shift, said Bertschi. He suggested that Switzerland could provide targeted subsidies for gauge

enhancement in France, as it has already done in Italy.

Meanwhile over in Germany, DB has sold its Schenker arm to Danish DSV group.....

The Management Board of Deutsche Bahn AG have signed an agreement for the sale of its logistics subsidiary DB Schenker to the Danish transport and logistics group DSV for an enterprise value (EV) of EUR 14.3 billion. Including expected interest income until completion, the total sales value amounts to EUR 14.8 billion. As the new owner, DSV plans to invest around one billion euros in Germany over the next three to five years. The aim is to create a global market leader in the transport and logistics sector. Germany will become an even more important market in the new organization. Central functions are to be retained, including those at Schenker's location in Essen, Germany. It is anticipated that five years from now, the combined organization will have more employees in Germany than Schenker and DSV have today.

Focusing on DB's core business is a key requirement for implementing the long-term Strong Rail strategy, which - in line with the German government's transport policy goals - aims to increase rail passenger traffic and rail's share of freight traffic. DB Schenker will gain a financially strong owner and new growth prospects with DSV. With its leading position in numerous markets, DSV opens up considerable potential for DB Schenker. The aim is to create a global leader in transport and logistics, with DB Schenker being a pivotal pillar. Germany as a logistics location will benefit considerably from this. With around 72,700 employees at over 1,850 locations in more than 130 countries, DB Schenker will be able to continue its dynamic development in the future in association with DSV. The planned investments are intended to drive further sustainable growth. DSV has also made a clear commitment to German co-determination and to existing collective and company agreements.

Until next month...

David

This Page

ČD Class 750.706 runs into Všetaty on September 22nd with train No. Os9526, the 08:46 Praha hl.n. - Mělník.

[Andy Pratt](#)

Front Cover

SZ Class 644.020 passes Grahovo whilst hauling train No. AVT859 16:45 Bohinjska Bistrica - Most na Soci.

[Laurence Sly](#)





A Polish EN57 EMU is seen at Poznan Staroleka on August 22nd. *Brian Battersby*

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The AK cars are three ex-Southern Aurora carriages converted to be track inspection vehicles, recording track defects and geometry, and are hauled all over Australia by various eclectic locomotives. Every three months, the AK Cars do the NSW North Coast line to Brisbane, hauled by Southern Shorthaul Railroad's 1971 built 442 class ALCo's. On September 17th, Nos. 44206 and 44204 work NK81 Inspection train north near Rossglen, bringing these venerable old ALCo's back to their former 1990's stomping grounds. *Mark Bennett*





Pacific National freight No. 7SB3 runs past steam era infrastructure at Telegraph Point as it heads north from Sydney to Brisbane behind Nos. NR30, NR63, NR38 and 8106 on September 22nd. Pacific National has the 'Hook and Pull' contract for Journey Beyond Rail's Australian passenger trains, including the Indian-Pacific, The Ghan, the Overland and the Great Southern. Outside of the months of November - March, when JBR's Great Southern luxury tourist train does not run, the two Great Southern liveried NR's, NR30 and NR31 are pooled into normal Pacific National freight operations, and left to get quite dirty. No doubt they will receive a wash prior to Great Southern season kicking off!. *Mark Bennett*



Ten years of TransFER Hohenau-Bohumin/Petrovice

ÖBB Rail Cargo Group (RCG) has been linking Central European economic centres with the Baltic States for a decade. What began as a special transport service has developed into a highly frequented direct connection.

Originally, special consignments such as combine harvesters or underground railway sets were transported in wagon groups attached to empty coal trains in Hohenau, but the range of services has since expanded considerably. After just a few years, the TransFER was operating a regular service with six round trips a day. Initially, coke and coal transports as well as ad hoc special transports dominated, but soon transports of steel and paper as well as various chemical products were added.

Bohumín as a key to success

Today, RCG uses Bohumín on the Czech-Polish border not only as a transit hub, but also to serve local customers in the greater Ostrava area. For example, the transport of scrap, coil and chemical products is now handled via Bohumín. However, it also continues to play a key role in the transit sector, for example for the transport of propane gas or long rails.

End-to-end logistics with up to seven round trips per day

Thanks to the high frequency of up to seven round trips per day and the optimal connection to the broad-gauge network, TransFER Hohenau-Bohumin/Petrovice is now a crucial link between the economic areas of Central Europe and the Baltic

States. The connection acts as a hub between Italy, Austria and Poland with antenna connections to South and South-East as well as North-East Europe.

RCG also offers end-to-end logistics solutions – from organising the first and last mile to additional forwarding services such as handling, warehouse logistics and customs services.

Photo: ©RCG



Own traction: first train in the Netherlands

A milestone has been reached with the integration of the Netherlands into the extensive own traction network of the ÖBB Rail Cargo Group (RCG).

At the end of May, RCG acquired the Dutch railway company Captrain Netherlands B.V., thereby expanding its own traction network to an impressive 14 countries.

Now another milestone has been reached: RCG's Dutch carrier subsidiary has handled its first international train within RCG.

This is an intermodal train that runs four times a week between Maasvlakte and Linz. The Dutch carrier takes the train across the German border to Rheinhausen. From there, RCG's German carrier takes over to Passau. The rest of the journey to Linz is handled by a partner RU on behalf of RCG. With its own rail freight company in the Netherlands, RCG offers efficient



international production from a single source, linking the economic regions of Western, Central, Southern and South-Eastern Europe.

The extensive traction network in 14 countries is undoubtedly a key factor for sustainable success in international rail freight.

New Vectron for RCG Carrier in Poland

The Polish carrier of the ÖBB Rail Cargo Group (RCG) is adding a brand-new Vectron locomotive to its fleet in a partnership with European Locomotive Leasing (ELL).

partner ELL, a provider of locomotive leasing and maintenance services. The delivery of the freshly wrapped locomotive in RCG style took place in Czechowice-Dziedzice.

The Vectron multi-system locomotives offer a high degree of flexibility in cross-border traffic as they are designed for multiple power systems. They save time and money by eliminating the need to change locomotives at borders, and are adaptable and future-proof thanks to their modular configuration.

RCG is thus not only strengthening its fleet in Poland, but also expanding its freight transport from Gdansk to other European countries. In the future, even more goods will be transported by sustainable rail - for a Europe worth living in.

Their high performance - up to 8,700 hp - and reliability make them ideal for international rail transport. At the same time, they reduce maintenance costs and increase efficiency. Also, they reduce CO2 emissions.

Fresh RCG look

A brand new Vectron multi-system locomotive is now part of the fleet of RCG's Polish carrier, thanks to the cooperation with locomotive

Austria

ÖBB Class 1142.632 stands at Graz Hbf on September 2nd having just arrived with the two coach Eurocity service No. EC158 07:05 from Zagreb Gl. Kol. The Austrian loco having taken over from a Slovenian Class 342 at Spielfeld Strass. *Andy Pratt*



Bulmarket operate No. 85002 'Cassiopeia', seen in the sidings at Burgas on September 2nd. This 58 year old loco was formerly Class 86 702, and originally No. E3144 in the UK. A Siemens Smartron loco keeps it company. *Bryan Roberts*





Bulgaria

At Varna station on September 4th, veteran Soviet-era EMU No. 32.145 is seen about to depart.
Bryan Roberts





Bulgaria

A service from Sofia arrives at Varna on September 4th behind the state railways' loco No. 44.198.
Bryan Roberts





Croatia



HZ Cargo No. 1141.029 passes Belo Selo whilst hauling an intermodal wagon and the rescue train. The troublesome intermodal wagon is on a wheel skate. *Laurence Sly*









HŽPP A1A-A1A No. 2044.011 catches first daylight at Zagreb Gl Kol as it waits to depart with train No. ICN521, the 07:07 to Split on September 27th. The 423 km journey to the Dalmatian coast is booked 6 hours 53 mins, but timed for a tilting class 7123 unit. The slower speed of the conventional train and numerous speed restrictions en route will probably add an extra hour to it's arrival time. *Andy Pratt*





KŽC's Grumpy, Class 749.006 departs Všetaty station on September 22nd at the head of train No. R1272 'Kokořínský Rychlík', the 08:21 Praha-Vršovice - Mšeno while ČD's Goggle, Class 750.705 awaits departure with train No. Os9507, the 08:38 Mladá Boleslav hl.n. - Praha hl.n. *Andy Pratt*



ŠKODA GROUP AND HYUNDAI MOTOR COMPANY PARTNER TO ADVANCE HYDROGEN TECHNOLOGIES AND ENERGY EFFICIENT SOLUTIONS FOR MOBILITY

Škoda Group and Hyundai Motor Company have signed a Memorandum of Understanding (MOU) to initiate collaboration on the development of a hydrogen mobility ecosystem. The agreement was formalized during the Czechia-Korea Business Forum in Prague by Petr Novotný, CEO of Škoda Group, and Ken Ramírez, Executive Vice President and Head of Global Commercial Vehicle and Hydrogen Business at Hyundai Motor Company.

“We believe that hydrogen, alongside energy-efficient solutions, will play an essential role in transforming

mobility for a more sustainable future. Our collaboration with Hyundai Motor Company aims at enabling us to look beyond national borders and explore wider markets where these technologies can have a larger impact. By working together, we can bring innovative, eco-friendly solutions to the global mobility ecosystem, advancing cleaner energy in the areas where it's needed most,” said Petr Novotný.

“Our partnership with Škoda Group aims to accelerate hydrogen adoption, which would contribute to the

advancement of hydrogen technology and carbon neutrality across global markets, including the Czech Republic,” said Ken Ramírez. “Together with Škoda Group, we strive to lead the rapidly growing hydrogen businesses by creating positive synergies between our fuel cell technology and Škoda Group's mobility products and projects.”

The MOU focuses on the study and adoption of hydrogen fuel cell systems and energy-efficient technologies for mobility projects, as well as exploring opportunities within the broader hydrogen ecosystem and value chain

beyond mobility. Both companies see hydrogen as a key pillar in building a sustainable future, starting with the transportation sector. As part of the agreement, Hyundai Motor Company will explore the possibility of sharing its fuel cell technology, accelerating the adoption of eco-friendly mobility in global markets where Škoda Group operates. The companies will also conduct feasibility studies on hydrogen fuel cell applications for a wide range of uses beyond mobility, leveraging Hyundai's expertise in hydrogen technology to drive the energy transition forward.



Czech Republic

On September 9th, vintage tram No. 5602 is seen in Prague with a line No. 42 service.
Mark Armstrong

Arriva's Class 845.121 stands at Praha hl.n. with a service to Ceske Budejovice.
Mark Armstrong

ČD Class 111.006 is seen on shunt duties at Praha hl.n. on September 9th.
Mark Armstrong



Czech Republic

CD Class 854.032 stands at Praha Veleslavin station on September 10th. *Mark Armstrong*

On September 10th, CD Cargo's Class 123.012 is an unusual visitor to Praha hl.n. *Mark Armstrong*

On September 10th, PID liveried Class 814.156 a calls at Praha-Dejvice. *Mark Armstrong*



Czech Republic

▶ Class 1293.904 arrives at Praha hl.n. on September 11th hauling a Regiojet service.
Mark Armstrong

▶ EP Cargo Vectron Class 383.065 stands at Praha Vrsovice on September 11th, with the Golden Eagle Danube Express.
Mark Armstrong

▶ Lineas Traxx Class 186.291 working a Brussels sleeper service, arrives at Praha hlavní nádraží on September 12th.
Mark Armstrong



Czech Republic

CD Class E426.0001 (113.003) waits at Malšice to cross an oncoming service with train No. Os28410 10:06 Tábor to Bechyně on August 24th. *Mark Pichowicz*



Czech Republic

▶ Class 751.236 pauses for a photo stop on the TabortoBechyněbranchwhileworkingGrumpy Railtours' 'Barmy Balmy Bechyně Bardotka' raitour on September 23rd. *Andy Pratt*

▶ KŽC's Class 749.253 arrives at Všetaty on September 22nd with train No. R1275 'Lužickohorský Rychlík' the 08:51 Praha-Vršovice - Mikulášovice Dol. N. *Andy Pratt*

▶ ČDClass750.706runsintoVšetatyonSeptember 22nd with train No. Os9526 08:46 Praha hl.n. - Mělník. *Andy Pratt*



Class 751.236 crosses the Lužnice river on the Duhový Most on the approach to Bechyně station at the head of the Grumpy Railtours 'Barmy Balmy Bechyně Bardotka' special on Monday September 23rd. The railway shares the bridge with road traffic and a sizeable conga of cars followed the train across the bridge. Road traffic in the opposite direction was halted by a large contingent of photographers blocking the road... *Andy Pratt*



Class 751.148 has just arrived at Praha-Dejvice on September 7th with train No. Sp91171, the 09:18 from Praha-Vršovice, out of view on the rear was 749.250. This was one of the additional trains run for the Hostivice PID Regional Day, the event featured trains, buses and trams. *Andy Pratt*



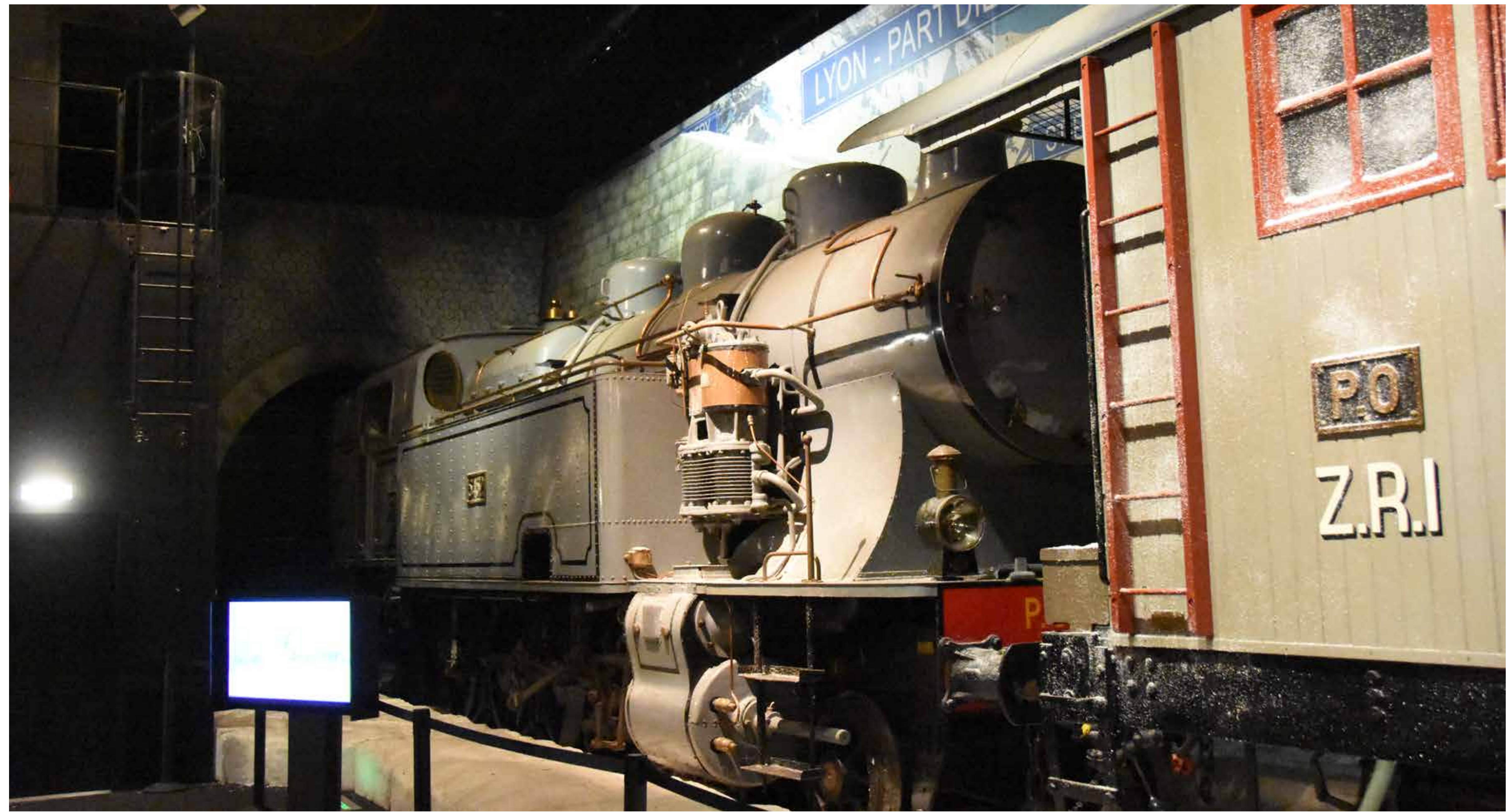


France

▶ PO 5452 (SNCF 141TA 452) and a steam snow plough are photographed in a snow scene at Cite Du Train - Mulhouse railway museum on August 31st. *John Sloane*

▶ SNCF 'Submarine' No. CC65001 at Cite Du Train - Mulhouse railway museum on August 31st. *John Sloane*

▶ Etat No. 2029 'Parthenay' at Cite Du Train - Mulhouse railway museum on August 31st. *John Sloane*



▶ SNCF 'en voyage' liveried BB No. 25609 at Cite Du Train - Mulhouse railway museum on August 31st. *John Sloane*

▶ SNCF PLM 0-6-0 No. 1423 and Nord 4-4-2 No. 2.670 head replica passenger trains in a night-time setting at the Mulhouse museum. *John Sloane*

▶ SNCF speed record holder BB No. 9004 at Cite Du Train - Mulhouse railway museum on August 31st. *John Sloane*



Seddin marshalling yard celebrates its birthday and looks back

A look back at the birthday celebrations and the eventful history of the marshalling yard

On September 7th, the Seddin marshalling yard celebrated its 100th anniversary with an impressive birthday party. Hundreds of railway fans flocked to the site to celebrate, marvel at historic and modern locomotives and have a great day out. The brand new BR 249 001 in particular cast a spell over the technology enthusiasts. For many visitors, it was a unique opportunity to take a look inside the driver's cab of a locomotive or even go for a ride. The driving simulator also delighted young and old alike. Thanks to the commitment of the employees, the day was an unforgettable experience.

A century in the service of rail freight transport

The Seddin marshalling yard quickly developed into one of the most important hubs for freight transport in Germany after it opened in 1924. With its favourable location southwest of Berlin, it was already indispensable for single wagon load transport in the first decades of its existence.

Thomas Klawes: 41 years of passion for rail freight transport

Thomas Klawes, who has worked as a shunting attendant at the station for 41 years, has experienced a large part of this development first-hand - and sees one major

point that has changed during this time: "Not much has changed in the processes today," explains Klawes, "but the technology has become more modern." Even though the station has evolved, the core principle of shunting remains the same: Trains are pulled apart, wagons are shunted around to create new trains. Klawes describes this charmingly as "lengthening trains and unhooking them on the mountain". Despite technical innovations, experience and cooperation take centre stage.

Thomas Klawes, whose father already worked as a shunting attendant in Seddin, has been an integral part of the station for over four decades. "I followed in my father's footsteps, but this job has always been my passion," says Klawes. He enjoys passing on his knowledge to younger colleagues, because "you gain job security through experience". Passing on his knowledge to the next generation is particularly important to him, which is why he also brought his grandchildren to the party to get them excited about rail freight transport.

Klawes remembers how the station has changed over the last few decades: "Up to 2,000 wagons used to roll over the hill here, and after reunification there was suddenly only one wagon left. But today we are back in a good position." For him, the 100th anniversary is not just a celebration of the



past, but also a look into the future. "Here's to the next 100 years!" he says with a smile.

A festival for all generations

The anniversary celebration was not only a look back at the long history of the railway station, but also a day full of exciting attractions. In addition to the exhibition and the rides, guided tours of the factory and a look at modern railway technology

attracted many visitors. For children, there was a lovingly designed garden railway layout and a bouncy castle. With a wide range of culinary delights and a lively exchange between railway enthusiasts, the festival was a complete success.

Thomas Klawes, who knows the station like the back of his hand, enjoyed the anniversary to the full with his family: "It's nice to share

this special day with my colleagues, my family and so many enthusiastic visitors." The day ended in a mood full of anticipation for the next 100 years of the Seddin marshalling yard.

Siemens Mobility and Beacon sign major framework contract for purchase of Vectron locomotives

Beacon, a leading European rolling stock lessor, and Siemens Mobility have signed a major framework agreement for the delivery of Vectron multi system locomotives, with an initial contract of 25 units. The new Vectron locomotives with a power of 6.4 MW will supplement the existing Vectron Beacon fleet.

The units will be produced at the Siemens Mobility plant in Munich-Allach, while the bogies will come from the global competence center in Graz.

With this initial order, Beacon increases its Vectron fleet in continental Europe to over 180 locomotives and provides a further commitment to the European 4-axle electric rail freight and passenger markets.

Adam Cunliffe, CEO Beacon says: "A modern and reliable locomotive fleet is central to supporting our customers. Beacon is one of the largest operators of the Vectron locomotive which we know provides an efficient and dependable service to our customers. Beacon is

delighted that it can continue the successful partnership it has developed with Siemens offering a fleet with comprehensive interoperability in France, Germany, and the main freight and passenger corridors."

Albrecht Neumann, CEO Rolling Stock Siemens Mobility says: "We are pleased that the long-standing partnership between Beacon and Siemens will continue on a solid foundation through the framework agreement and these initial orders."

Alstom pioneers Automated Regional Trains

The ARTE Project is set to revolutionize the rail network by implementing automated train operations (ATO) using the European Train Control System (ETCS).

The initiative presented focuses on existing rail lines, ensuring a seamless transition to modernized operations.

Joint project of Alstom, LNVG, TU Berlin and DLR with funding support from the German Federal state and the Land of Lower Saxony

On September 23rd, Alstom, global leader in smart and sustainable mobility, presented in Salzgitter, Germany, the ARTE (Autonomous Regional Train Evolution) project. The ARTE Project is a joint research project of Alstom, the German Aerospace Center (DLR) and the Rail Operations and Infrastructure Department at TU Berlin with funding support from the Federal Ministry for Economic Affairs and Climate Action and Lower Saxony's Ministry of Economics, Transport, Building and Digitalisation.

The Landesnahverkehrsgesellschaft Niedersachsen (LNVG) is providing two regional trains for the tests. The project is set to decisively support the digitalisation of the German rail network through implementing automated train operations (ATO) using the European Train Control System (ETCS) without the need for additional trackside equipment. As Alstom is working towards fully leveraging automation, this initiative focuses on existing rail lines, ensuring a seamless transition to modernised operations.

The ARTE project is intended to show how accompanied, automated train operation can be implemented in today's rail network by retrofitting the vehicles. Automated driving requires camera systems for obstacle detection, and instead of trackside ETCS equipment, a suitable image recognition system processes the existing railway signals. In Salzgitter, a delegation of international press was able to travel a few kilometres in autonomous mode, meaning without the intervention of a driver. They were also able to witness remote train operation (RTO) using a tablet. RTO serves as a fallback solution to regain manual control of a train without a driver on board.

“As we stand on the brink of a new era in rail, the embrace of driverless systems heralds a future where trains operate seamlessly, cities thrive, and communities connect like never before”, said Florian Kittelmann, Alstom Autonomous Mobility Director. “In the evolving landscape of transportation, driverless technology is more than a trend, it represents a revolution. While discussions often highlight autonomous vehicles, the potential of driverless rail transport is equally transformative”.

Remote Train Operation

Thanks to Remote Train Operation (RTO) systems, operators would be able to control trains remotely. And either from the depot or from a dedicated remote driving station, they would then be able to take control of the train and drive it to the next station. In the case of RTO, the ARTE project is providing a very simple solution – a tablet which is linked in with the train control. So, operators would always see the live transmission of the camera in front



of the train, providing the remote driver with the same kind of visibility the actual driver would have. They can brake the train, and they can accelerate the train, remotely. The DLR supports this by analysing and evaluating the findings on a stakeholder-specific basis in order to define new roles and tasks for the operating personnel as well as opportunities for their qualification. The objectives of TU Berlin are to develop and test an easy and flexible mobile remote control and making sure that safety requirements are fulfilled and approval of the assessment bodies is obtained.

“If we look at the RTO project, we have on purpose taken a train which already has a couple of years under its belt, and we have implemented leading edge technology,” said Florian Kittelmann. “That allows us to demonstrate our ability to basically upgrade any train in the world from manual to automated operation.”

The Promise of Driverless Rail

Driverless trains are becoming increasingly viable thanks to advancements in artificial intelligence, sensor technology, and connectivity. These innovations present a chance to reshape the safety sustainability, and operational efficiency of public transit. They can also support economic growth.

- **Safety:** Driverless systems provide an opportunity to enhance safety dramatically by minimising human involvement, significantly reducing the risk of errors. Autonomous trains continuously monitor their environment, respond swiftly to obstacles, and comply with stringent safety protocols.

- **Sustainability:** The ‘European Green Deal’ aims to achieve a reduction in greenhouse gas emissions by at least 55% compared to 1990 levels by 2030, underscoring the necessity of adopting innovative technologies like driverless rail transport to meet sustainability targets.

- **Operational Efficiency:** Autonomous trains can operate around the clock without the downtime that traditional systems require, resulting in reduced operational costs and enhanced service quality.

- **Economic Growth:** Efficient rail systems play a crucial role in economic growth. Countries like China and India are investing heavily in their rail infrastructure, recognizing that modern, reliable rail services can drive economic development and enhance connectivity.

Rail and DB Cargo as pioneers for CO₂e-free logistics

New perspectives for climate-friendly logistics: a clear vision for climate protection. The decarbonization of the industry and thus the entire logistics sector is a key component in the fight against climate change. Sebastian Schilling, Head of Business Development, Marketing and Transport Policy at DB Cargo, highlighted DB Cargo's role in this process in his presentation at the Handelsblatt annual conference "Decarbonization of Industry 2024". In his presentation "Rail and DB Cargo as pioneers for CO₂e-free logistics", he presented the opportunities and challenges that the transition to CO₂e-free logistics entails.

While some industries have already made considerable progress in reducing their greenhouse gas emissions, the transport sector still faces particular challenges. As one of Europe's leading freight railroad companies, DB Cargo plays a key role here and has set itself ambitious goals to make logistics more sustainable.

Rail freight transport as an environmentally friendly solution

Rail freight transport is already one of the most environmentally friendly forms of transport, with 80 to 100 percent less CO₂e emissions per tonne and kilometre compared to truck transport. This is an advantage that must be used consistently for logistics solutions. With 3,600 freight trains and over 4,200 connection points in 18 countries, DB Cargo is already able to transport large quantities of goods sustainably.

The goal is climate neutrality by 2040

DB Cargo is pursuing the clear goal of climate neutrality by 2040. To achieve this, the company has set concrete interim targets, such as reducing specific CO₂e emissions by 50 percent by 2025 and using 80 percent renewable power in the traction current mix. By 2038, the traction current mix is to consist of 100 percent renewable energy in order to make a significant contribution to reducing CO₂e. DB Cargo is using several strategic approaches to achieve this:

1. Electrification and green power: The complete electrification of the rail network and the use of 100 percent renewable power are crucial. This also includes

expanding electrification and increasing the share of renewable energy in the energy mix.

2. Phasing out fossil fuels: The gradual phase-out of diesel through alternative drive systems and fuels, such as biofuels (e.g. Hydrotreated Vegetable Oil, or HVO for short), is already underway. Hybrid and bi-mode locomotives, which can run on both electricity and fossil fuels, are helping to reduce emissions.

3. Technological innovations: Investment in new technologies and fleet modernization is also important. This includes the use of traction energy recovery and special driver training to increase energy efficiency, as well as the use of bi-mode locomotives, which allow as many kilometres as possible to be driven on electricity, even in shunting operations. In future, we will use electric drives where switching locomotives currently run on diesel and only run on diesel where

there is no overhead line.

Freight trains cause 80 to 100 percent less CO₂e emissions per ton and kilometre compared to truck transport.

Sustainability along the entire supply chain DB Cargo not only focuses on sustainable transport infrastructure, but also on climate-friendly design of the entire supply chain, from loading to logistics. With the "Climate+" offer, customers can use 100 percent renewable power for their rail transports and thus offset unavoidable emissions. This is particularly relevant on non-electrified

routes, where the use of HVO biofuels can avoid around 90 percent of CO₂ emissions.

The path to an environmentally conscious future

DB Cargo is continuously driving the transformation to CO₂e-free logistics by gradually implementing its climate targets. This is creating forward-looking green logistics with innovative technologies and a holistic approach along the entire supply chain - an advantage that gives rail freight transport a clear edge over trucks.

Image: ©DB AG/Oliver Lang



For the first time with the ICE from Berlin to Paris: new direct connection presented

For the first time, the ICE will travel directly from Berlin to Paris. From December 16th, the two capitals will be directly connected at high speed. The trains, operated in cooperation by Deutsche Bahn (DB) and the French railway company SNCF Voyageurs, travel via Frankfurt South, Karlsruhe and Strasbourg. This will also be the first direct daytime connection between Berlin and the Alsatian metropolis, the headquarters of the European Parliament. Tickets with included seat reservation for the journey from Berlin to Paris are available from 59.99 euros in 2nd class and 69.99 euros in 1st class via bahn.de, the DB Navigator app and in DB travel centers and DB agencies. Sales start at DB and SNCF Voyageurs on October 16th. The ICE connects the city centres of Berlin and Paris. The journey takes eight hours. The expansion of international transport services is a central component of DB's Strong Rail strategy.

Michael Peterson, DB Board Member for Long-Distance Passenger Transport, and Alain Krakovitch, Director of TGV-INTERCITÉS at SNCF Voyageurs, presented the details of the new connection at the InnoTrans trade fair in Berlin.

"SNCF Voyageurs and DB are sending a strong signal for Europe's integration by rail. The new ICE connection will give a further boost to the booming international long-distance traffic. We will continue to work with our cooperation partners to enable more and better international rail connections. This is the only way Europe can achieve its climate goals," said Michael Peterson.

"This new connection is further proof of the Franco-German friendship and contributes to a common goal of our two countries: more CO₂-free mobility. For SNCF Voyageurs, this connection is part of our ambitions: we are present in long-distance transport in Spain, Italy, England, Belgium, the Netherlands, Germany, Switzerland, Luxembourg and Austria and believe in growth in Europe. This summer, more than 20 percent of our customers travelled on our cross-border or intra-European services," says Alain Krakovitch.

The ICE departs Berlin Hauptbahnhof at 11:54 and arrives in Paris Est at 19:55 (Frankfurt/Main Süd at 15:52, Karlsruhe Hbf at 17:06 and Strasbourg at 17:53).

It departs the French capital at 09:55 and arrives in Berlin at 18:03 (Strasbourg at 11:40, Karlsruhe Hbf at 12:34, Frankfurt/Main Süd at 14:04). The train is a class 407 ICE 3, which has already proven itself in high-speed traffic between Germany and France. The train has 444 seats, 111 of which are in first class, and reaches a top speed of 320 kilometres per hour on the French LGV Est high-speed line.

Since 2007, SNCF Voyageurs and DB have been working together to offer high-speed ICE and TGV services between Germany and France. Since then, over 32 million travellers have used the international connections Frankfurt/Main-Paris, (Munich-)Stuttgart-Paris and Frankfurt/Main-Marseille. In the summer, direct trains between Frankfurt/Main and Bordeaux are added on Saturdays. With the direct ICE Berlin-Paris, the number of daily connections between Germany and France increases from 24 to 26.

This corresponds to over 320,000 additional seats per year.

Alstom and SSAB in partnership for fossil emission-free steel

Alstom and SSAB have entered a partnership for the supply of steel made with close to zero fossil carbon emissions. The first delivery of SSAB Zero™ will take place already this year and be used in Alstom's first Traxx Shunter™ locomotives, a new platform designed for shunting and trackwork operations.

“We are very glad to sign this partnership agreement with SSAB,” says Christophe Gourlay, Alstom Chief Procurement Officer. “By supplying steel with low carbon emission footprint for our Traxx Shunter™ locomotive, SSAB will contribute in the delivery of Alstom's sustainable procurement strategy, which includes the reduction of the carbon emissions of Purchased Goods & Services by 30% by 2030.”

SSAB Zero™ is the world's first commercial steel made of recycled steel and produced with fossil-free electricity and biogas. By using SSAB Zero™ instead of traditional steel, Alstom will significantly reduce the embodied carbon footprint in the material of their new locomotive platform.

The Traxx Shunter™ platform is compatible with hydrogen, battery and catenary systems. The Traxx Shunter H™ hydrogen locomotive is an innovative shunting solution designed by Alstom, with funding from France Relance, France 2030 and Next Generation EU, as part of the IPCEI Hy2Tech programme. It combines the latest hydrogen fuel cell and battery technologies to achieve zero direct carbon emissions. Together with SSAB Zero™ steel, it underscores

Alstom's commitment to minimising its environmental footprint.

“We are proud to work with companies like Alstom that prioritize reducing fossil carbon emissions in their materials with a clear and ambitious target to decarbonize,” says Huy Nguyen, Sales Director for SSAB in Southern Europe. “At SSAB, we are committed to largely eliminating CO2 emissions from the steelmaking process and to create a fossil-free value chain with our customers and partners.”

Alpha Trains expands fleet with up to 70 new Vectrons

Alpha Trains and Siemens Mobility signed a framework agreement in July 2024 for the supply of up to 70 Vectron locomotives, including an initial order for 35 locomotives. The framework agreement foresees the provision of multiple variants of Vectron locomotives, including Multi-System and Dual Mode units.

The new Vectron locomotives have a maximum power of up to 6.4 megawatts and a top speed of up to 200 km/h. They complement the existing Alpha Trains fleet of Vectron MS, AC and Vectron Dual Mode models. The Vectrons will be manufactured at the Siemens Mobility plant in Munich-Allach and the first delivery is expected towards the end of 2026.

The order includes the delivery of the first Vectron multi-system locomotives for France, capable of operating on the North-South corridor across Germany, Austria, Switzerland, Italy, Belgium, The Netherlands, France and optionally Luxembourg. Additionally, the service contract signed by Alpha Trains and Siemens Mobility in 2023 has been amended to cover maintenance of the new ordered fleet in Belgium and France as well.

This decision underlines Alpha Trains' commitment to expanding its presence in the French market and promoting sustainable transport solutions across Europe.

“We are very pleased to be able to further increase our fleet of Vectron locomotives yet again and to further strengthen our market position, especially in the French market. There is a growing demand from our existing and new customers for efficient and state-of-the-art multi-system locomotives. With this latest order, we can ensure that our customers have the highest possible operational flexibility on all their routes with a proven and highly available platform,” said Vincent Pouyet, Managing Director of the Locomotives Division of Alpha Trains.

“We are delighted to continue our successful partnership with Alpha Trains and glad to support their fleet expansion with our Vectron locomotives. The inclusion of our multi-system and dual mode variants in the framework agreement reflects our commitment to providing Alpha Trains and their customers with the most versatile and efficient solutions for their railway operations. We are especially proud to deliver the first multi-system locomotives for France, which demonstrate their capabilities in terms of power, speed and cross-border operations. This milestone achievement will not only enhance Alpha Trains' existing fleet, but also play a significant role in advancing sustainable transportation throughout Europe,” said Albrecht Neumann, CEO Rolling Stock Siemens Mobility.



Strengthening door-to-door mobility in Saarland

Travellers in Saarland should be able to use local transport in their region even better from door to door in the future. Deutsche Bahn and Saarland are launching a model region to make climate-friendly local public transport even more attractive together with other public transport players. To this end, Evelyn Palla, DB Board Member for Regional Transport, and Petra Berg, Minister of Mobility for Saarland, signed a letter of intent for the joint innovation project on September 26th at the InnoTrans industry trade fair.

Evelyn Palla, DB Board Member for Regional Transport: “Together with Saarland, we are ensuring that as many people as possible use public transport for their daily journeys. The one million Saarlanders travel 3.3 million times a day. With express buses, shuttles, bicycle parking garages or car sharing, our passengers will be able to reach the train stations in the state more reliably and conveniently in the future. Supplementing rail services with new forms of mobility, especially in rural areas, is part of our Strong Rail strategy. Because through integration, we ultimately make all public transport more attractive. With our next model region, Saarland, we are taking another big step forward in this regard.”

Petra Berg, Minister for the Environment, Climate, Mobility, Agriculture and Consumer Protection of Saarland: “The networking of public transport already has a high priority in Saarland. Especially in the car-loving Saarland, it is important to offer attractive and networked public transport through seamless door-to-door travel chains. The state’s funding programs are available to municipalities and public transport companies for this purpose. Together with DB, the state is now inviting all mobility players to further improve door-to-door mobility with strong public transport as the backbone. Our goal is for the first projects in the Saarland model region to show results by the end of 2025.”

While the Ministry for the Environment, Climate, Mobility, Agriculture and Consumer Protection leads and coordinates the project, the DB subsidiary DB Regio supports it with conceptual and technical expertise, drawing on decades of experience in local passenger transport.

In Saarland, the rail network is planned to be expanded to an S-Bahn network with a more frequent service. Innovative mobility concepts such as mobility on demand already complement the rail network. By the end of 2025, further offers in the area of networked mobility are to be added. The Saarland Ministry of Mobility and Deutsche Bahn have set themselves the goal of better connecting rural areas in particular to public transport and giving more citizens access to public mobility.

The partners also want to improve travel to and from train stations. To this end, the project partners will select regional test areas around train stations on the basis of mobility and target group analyses and test new forms of mobility under real conditions without any operator involvement. These can be additional plus buses or express buses to the existing offer in the regional bus network, shuttle services, but also stations for bike and car sharing or bicycle parking garages. The long-term goal is to give people in Saarland a comprehensive mobility guarantee.

What’s next for the Saarland model region?

The project partners are testing the new forms of mobility under real conditions in so-called real laboratories. To analyse which types of

real laboratories are suitable for which location, DB Regio carried out a target group analysis and commissioned a mobility study from the DB subsidiary ioki. This shows that, due to social and demographic conditions, certain locations in Saarland would benefit more from a Plusbus connection, for example, while others would benefit from a bike-sharing station or from a public transport service that can be ordered via an app, building on the on-demand projects that already exist in Saarland.

In the next step, the project team uses the analysis to select the locations and develop individual mobility solutions. In addition, there are discussions with Saarland municipalities and other partners from Saarland’s public transport system.

The first results are to be presented at the celebrations for German Unity Day in October 2025 in Saarbrücken.

About DB Regio

DB Regio is the largest provider of local public transport in Germany. The subsidiary

of Deutsche Bahn operates train and bus services nationwide with around 39,000 employees. DB Regio also operates the metropolitan S-Bahns in Berlin, Hamburg, Munich, Rhine-Main and Stuttgart. In rural areas, DB Regio supplements the existing connections with a growing number of on-demand services. Local transport services in Germany are coordinated by federal states and municipalities by law.

In the model region “SMILE24” in the Schlei region in Schleswig-Holstein, the DB subsidiary Autokraft operates the region’s bus services and on-demand services under the leadership of the local authorities. The on-demand technology was developed by the DB subsidiary ioki. SMILE24 launched at Easter 2024 and offers travelers access to public transport around the clock.

About Saarland

The implementation of Saarland’s sustainable mobility strategy is based in particular on the guidelines for sustainable mobility (RL-NMOB). For example, the introduction of on-demand transport, the

barrier-free expansion of bus stops, the construction of mobility stations and various measures in the area of cycling are being promoted.

A climate protection concept is currently being developed in Saarland on a participatory basis, which contains ambitious goals and measures for the area of transport and mobility.



RS Lease expands fleet with up to 65 new Vectrons

RS Lease, the leading private lessor of railway vehicles in Slovakia, and Siemens Mobility have signed a framework agreement for the delivery of up to 65 Vectron locomotives. The agreement includes a fast delivery of 30 Vectron MS locomotives, with the option to purchase an additional 35 locomotives of the Vectron Multi System and Vectron Dual Mode variants.

Vectron MS locomotive

Tibor Cunderlik, CEO RS Lease: “In 2017, we decided to enter into a strategic collaboration with Siemens in the field of locomotives. This partnership enables us to offer our customers throughout the entire Central European region the most modern and technologically advanced locomotives. Vectron locomotives contribute to the improvement of railway services and have elevated rail traffic safety to an entirely new level.”

Steffen Bobsien, Head of Locomotives and Coaches Siemens Mobility: “With their flexibly deployable Vectron fleet, RS Lease is already making an important contribution

to even more attractive mobility offerings on environmentally friendly railways. Whether it’s climate-friendly logistics chains or modern passenger transport, we support RS Lease’s planned growth trajectory with additional locomotives.”

The new Vectron locomotives have a maximum output of up to 6.4 MW and can reach a top speed of up to 200 km/h. They will be a valuable addition to RS Lease’s current fleet of Vectron MS locomotives. The production of the new locomotives will take place at the Siemens Mobility factory in Munich-Allach, with the chassis being sourced from the global competence center in Graz.

Currently, RS Lease operates a modern fleet of approximately 90 Vectron MS locomotives. With this new contract, RS Lease will have the opportunity to expand its fleet to up to 155 locomotives. For the existing fleet, a full-service maintenance agreement is in place between RS Lease and Siemens Mobility. Discussions are underway to extend this contract to cover the new vehicles.



RS Lease signs
Framework contract

SIEMENS



Framework contract for up to
65 Vectrons



Initial order of
30 Vectron MS locomotives



Contract consists of
different locomotive types



Maximum speeds of
up to 200 km/h

Siemens Mobility and Ruhrbahn digitalize Europe’s largest light rail interlocking system

Siemens Mobility and Ruhrbahn GmbH will digitalize control and safety technology dating from the 1970s in Essen and Mülheim an der Ruhr by 2031 to ensure the system is fit for the future. The contract, worth around €180 million, was signed recently by the partners and includes digitalizing Europe’s largest light rail interlocking system at Essen Central Station. The modernization will make the interlocking system more reliable and energy efficient. Sixty percent of the costs for the renewal of the interlockings will be funded by the municipal rail renewal program with state and federal funds; the funding is currently expected to total around €96 million.

“After decades of wear and tear and the interim refurbishment of the relay technology in three of our five interlockings, we are now undertaking the complete renewal and digitalization of the train control and safety technology for tram and light rail transport in Essen and Mülheim an der Ruhr. Our aim is to make the existing network more efficient and reliable. When the renewal project is completed, there will be fewer disruptions and downtimes, making the use of public transport even more attractive for our passengers,” explains Michael Feller, CEO of Ruhrbahn.

Guido Rumpel, Head of Rail Infrastructure Germany at Siemens Mobility says: “Reaching the goal of climate-neutral mobility will require a significant increase of passenger capacity in public rail transport. Smart cities are tackling and solving this challenge with modern technology. We are delighted that Ruhrbahn is converting its rail system to be fit for the future and that we have been chosen to implement this project with state-of-the-art control and safety technology by 2031. The digitalization of Europe’s largest light rail interlocking in Essen marks a great technological leap forward for rail operations. Once completed, passengers will benefit from a more reliable and punctual rail system.”

Modernization of the five interlockings with Europe’s currently largest relay interlocking for trams and metros at Essen Central Station will be carried out in five project phases by 2031. During the project, passenger services will be restricted only for short periods in individual sections of the system. The relay technology will be completely replaced, and the system’s control and safety technology will be converted to digital controls, making the infrastructure significantly more efficient.

The interlocking at Central Station alone currently sets points around 5,000 times a day and switches signals to green 23,000 times. The electronic interlocking solution Trackguard from Siemens Mobility is currently installed at five interlocking locations.

One special feature of this major project will be the integration of the metropolitan region’s three and four rail systems. The challenge here is to use the different track gauges in the system and enable seamless operations using state-of-the-art technologies.

As part of the project, Siemens Mobility will renew the approximately 28-kilometre-long train control section with 39 stations. The signalling system will be equipped with LEDs, the track vacancy detection system will be upgraded with an axle-counting system, and all magnetic barriers that prevent trains from passing a stop signal will be replaced.

Siemens Mobility and Niederbarnimer Eisenbahn usher in a new era of climate-friendly drives

Niederbarnimer Eisenbahn (NEB) and Siemens Mobility have just ushered in the age of zero-emission rail transport in Berlin and Brandenburg with a special trip by the Mireo Plus H hydrogen-powered train from Basdorf to Berlin Charlottenburg via the Berlin Stadtbahn. Gathering with representatives of the federal states and the Verkehrsverbund Berlin-Brandenburg (VBB) at the Basdorf station, they jointly pressed the start button to inaugurate the age of climate-friendly drive systems, presenting the Mireo Plus H for the Heidekrautbahn and the Mireo Plus B battery train for the East Brandenburg network.

Uwe Schüler, State Secretary at the Brandenburg Ministry of Infrastructure and Regional Planning, emphasises: ‘Around 73 percent of regional transport in Berlin and Brandenburg currently runs on climate-friendly electricity via overhead lines. The states of Berlin and Brandenburg and the VBB have set themselves the goal of making all remaining non-electrified routes independent of fossil fuels by 2037. To ensure that local public transport remains the most climate-friendly form of motorised mobility, rail transport is to become diesel-free. We are reaching an important milestone on the way to achieving this today. Not every route needs to be equipped with an overhead line throughout. For battery-powered multiple units, it is sufficient to electrify sections of the line; for hydrogen multiple units, a refuelling station that is regularly supplied with hydrogen is sufficient. With the climate-friendly hydrogen trains and battery trains, we are a big step closer to the goal of emission-free drives. The use of battery-electric trains alone will result in around 4.4 million fewer litres of diesel being consumed on the East Brandenburg network each year.’

Ute Bonde, Senator for Mobility, Transport, Climate Protection and the Environment: ‘Instead of using diesel vehicles on routes without overhead lines as in the past, the states of Berlin and Brandenburg, together with the VBB, have commissioned transport services with innovative drive concepts in order to make public transport even more environmentally friendly. I am delighted that passengers on the Heidekrautbahn and Ostbrandenburg networks will have access to modern vehicles with high-quality equipment in the future. The planned service expansions will allow us to offer people in the capital region more train connections and thus take the transport transition a step further.’

“We are facing exciting as well as challenging times with the introduction of two new types of drives,” commented Detlef Bröcker, CEO of NEB Betriebsgesellschaft, during the presentation of the new trains. “At the same time, we are looking forward to boosting regional rail transport and supporting the region by using environmentally friendly trains and helping to advance the transport transition by enhancing passenger service and comfort.”

“Together with NEB, we are delighted to present our climate-friendly and sustainable trains powered by hydrogen and battery drives for service in the Berlin and Brandenburg region,” said Albrecht Neumann, CEO Rolling Stock



at Siemens Mobility. “The Mireo Plus B and Mireo Plus H trains combine innovation and sustainability in places where electrification of the rail line is not possible or not economical. This will enable us to make a significant contribution to combating climate change.”

Martin Fuchs, Managing Director of Verkehrsverbund Berlin-Brandenburg (VBB): ‘It is our goal to operate 100% emission-free rail transport throughout the entire regional network by 2037. With the start of operations in the East Brandenburg network and on the Heidekrautbahn at the end of this year and with the use of battery-electric & hydrogen trains, we are getting a lot closer to this step. While we will still have 26 per cent diesel-powered trains in the VBB in 2024, this will be reduced to 15 per cent by 2025. I am optimistic that we will achieve our goal despite the challenges in procuring new vehicles.’ Starting with the scheduled timetable change in December 2024, both rail fleets will gradually and completely replace the old diesel-powered trains on almost all lines on the Heidekrautbahn and East Brandenburg rail networks. This shift will mark a significant milestone toward achieving sustainable mobility. These replacements will increase the share of electric drives used in regional rail transport in Brandenburg and Berlin to 85 percent.

Mireo Plus H and Mireo Plus B: A technological conversion in Brandenburg’s regional passenger transport

The Mireo Plus H and the Mireo Plus B are state-of-the-art trains operating with drives powered by fuel cells and batteries respectively, and utilize a traction system with a high drive power of 1.7 MW for accelerating up to 1.1 m/s² and reaching an authorized top speed of 140 km/h. The Mireo Plus H and Plus B

trains are designed to be energy-saving and environmentally friendly. Their welded lightweight aluminium unibody, improved aerodynamics, energy-efficient components, and intelligent on-board power supply management help reduce emissions and the use of resources.

The Mireo Plus H hydrogen train can run up to roughly 1,000 kilometres on one tank of fuel, and the battery trains can cover up to 120 kilometres operating on batteries alone. In 2021 and 2022, NEB ordered a total of 38 Mireo trains with these alternative, environmentally friendly drive systems from Siemens Mobility. This will be the first time that battery or hydrogen-powered trains will be used in regular VBB service in Brandenburg and Berlin. The switch from diesel to hydrogen and batteries will reduce annual CO₂ emissions by around 14.5 million kilos and save roughly 5.5 million litres of diesel.

In addition to the comfort and convenience provided by the modern trains, passengers can look forward to further amenities beginning in December 2024: all trains will be equipped with Wi-Fi service and also offer access to an infotainment portal. And for many of the lines, the new trains will also provide a noticeable increase in seating capacities. Moreover, a new passenger guidance system in the cars will ease boarding and alighting, speeding up passenger changes. The scheduled timetable change on December 15th will not only see the new trains enter daily service, but there will also be more frequent service on some lines or more trains operating in the mornings and evenings.

Design of the new vehicles for S-Bahn Munich presented

At InnoTrans, the international trade fair for transport in Berlin, Bavarian Transport Minister Christian Bernreiter presented the exterior design for the new Munich S-Bahn trains. Heiko Büttner, DB Group Representative for the Free State of Bavaria and CEO of S-Bahn München, together with Karl Blaim, Managing Director and CFO of Siemens Mobility, reported on the progress of the project.

The first of a total of 90 new trains from manufacturer Siemens Mobility are to be delivered successively beginning at the end of 2028. The exterior design of the new S-Bahn vehicles is based on a modern diamond pattern and the colours white and ‘Bahnland Bayern’ blue. Bavarian Transport Minister Christian Bernreiter: “In future, the new Munich S-Bahn trains will show who is behind them: the Free State of Bavaria, which is investing more than two billion euros in this project. It is therefore only logical that the most modern S-Bahn trains in Germany will be travelling in the design of our local transport brand. But it’s not just about new colours, because the exterior design of the S-Bahn trains will also make it as easy as possible for passengers to find their way around in future.”

To achieve this, the exterior design, developed in cooperation with the design studio neomind, combines digital and static elements. For example, a continuous LED strip in the upper area shows the color of the respective S-Bahn line. The new S-Bahn relies on strong light/dark contrasts that are especially helpful for ensuring barrier-free passenger orientation: Dark gray doors stand out clearly from the lighter body, and specially dedicated areas, such as for wheelchairs, bicycles and strollers, are highlighted in ‘Bahnland Bavaria’ blue. These zones are also marked with clearly visible pictograms already being used on the interior and exterior of the modernized ET 423-type S-Bahn trains.

Heiko Büttner, DB Group Representative for the Free State of Bavaria and CEO of S-Bahn München: “Our project team is working with our partners on the finishing touches so the XXL S-Bahn trains can go into production right on time. The new trains will set standards throughout Germany. For the first time, 200-meter-long S-Bahn trains will be fully accessible from front to rear and offer generous space and comfort for more than 1,800 passengers. This way, we can replace up to 1,500 cars in rush hours with a single train and show what a strong rail system can achieve in a congested capital like Munich.”

The new trains will offer state-of-the-art features and equipment: Thanks to the wide doors, spacious boarding areas and full-length accessibility, passengers can board and alight more quickly and circulate more easily throughout the train. Five large multi-purpose areas also ensure that passengers with bicycles or strollers can quickly find suitable space. The trains provide more legroom, lighting that automatically adapts to the time of day, USB ports, windows that are specially treated to improve



mobile phone reception, and many other features for highly comfortable and convenient travel. A powerful air conditioning system ensures pleasant interior temperatures even when dealing with outside temperatures of up to 45 degrees Celsius.

More than 160 interior and exterior displays provide a completely new level of real-time information about the route, stations, and occupancy. Passengers know where stairs or elevators are located on each station platform before they even get off the train.

Karl Blaim, CFO and Managing Director of Siemens Mobility: “We are delighted to present the white, blue and gray exterior design of the new S-Bahn trains for Munich together with Transport Minister Bernreiter. The project is proceeding according to plan and production will begin in 2025. We are proud that passengers in Munich and the surrounding region will in the future be able to travel in comfortable, ultra-modern trains that are especially reliable and future-proof thanks to Siemens rail technology, also at home here in Bavaria.”

The new S-Bahn trains for Munich are distinguished by their optimized lifecycle costs thanks to maximum energy efficiency, 100 percent availability, minimized maintenance costs, maximized network capacity, and top passenger comfort and convenience. To ensure this, the trains have a high number of redundant components and are equipped with the Railigent X analysis and maintenance system, which is part of Siemens Xcelerator, the open, digital business platform. Thanks to automation and artificial intelligence, the system ensures the highest possible availability of the trains.

The new trains will also be equipped with the modern European Train Control System [ETCS] and be capable of highly automated driving with an Automatic Train Operation [ATO] system.

Image: Design of the new vehicles for S-Bahn Munich ©BEG/ Neomind GmbH





Germany

DB Class 112.180 waits departure time at Hamburg Hbf on August 20th with a RB81 service to Bad Oldesloe. *Brian Battersby*

Class 218.497 stands at Hamburg Hbf on August 20th with train No. IC2268 to Ostseebad Binz. *Brian Battersby*

Raildox No. 76.110 is seen stabled at Altmark on August 20th. *Brian Battersby*



Germany

DB Class 182.024 stands at Hamburg Hbf on August 20th with a service to Flughafen BER.
Brian Battersby

Railpool's Class 187.313 is seen stabled in Hamburg on August 20th. *Brian Battersby*

Flex operated Class 221.147 is seen stabled at Hamburg on August 20th. *Brian Battersby*













▶ Class 249.001 is seen at Seddin open day on September 7th. *Mark Enderby*

▶ Rasender Roland Class 251.901 is seen at Putbus on September 8th. *Mark Enderby*

▶ On September 7th, Class 228.501 and 185.077 are seen on display at Seddin open day. *Mark Enderby*















Class 418.135 stands at Fehérgyarmat after arriving with train No. R6316 15:13 from Debrecen during a MÁV Retro event on August 18th. *Mark Pichowicz*



Mda No. 3017 stands at Nagkereké having worked train No. R36716 14:38 from Debrecen and run round ready to return on August 19th. *Mark Pichowicz*



Hungary

On August 20th, Nohab No. M61.006 arrives at Badacsony working train No. R19776 15:55 Balatonfüred to Tapolca.
Mark Pichowicz



Hungary

Class 431.077 approaches Ukk in the evening sunshine with train No. IC963 17:49 Zalaegerszeg to Budapest Deli on August 20th. *Mark Pichowicz*





Hungary

Class 431.228 waits to depart Szeged with train No. IC703 14:44 to Budapest Nyugati on August 21st. *Mark Pichowicz*





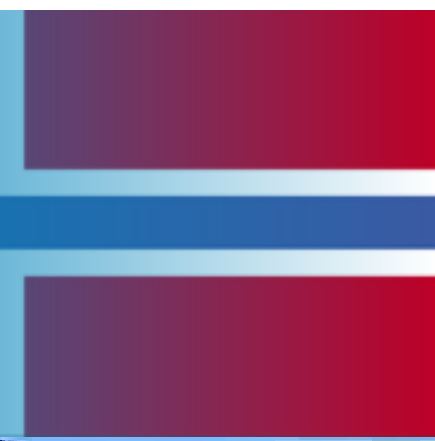
On September 14th, M31 tram No. 341 with a line 11 service to Saltholmen is seen in front of Gothenburg Central station.
Thomas Niederl



Norway

On September 15th, one of the BM 69 units which are used on the L2 line of the Oslo suburban Rail network, No. 69064 is seen with train No. L2725 at Hauketo, heading towards Ski. *Thomas Niederl*





In Lillehammer, BM No. 73103 is seen on its way as train No. F40 from Trondheim to Oslo whilst BM No. 74508 waits for its departure as RE service to Asker, a suburb west of Oslo. *Thomas Niederl*





Near to Finse, with altitude of 1,222m the highest Scandinavian train station, Railpool's Class 187.416 is seen hauling CargoNet goods train No. 5506 towards Oslo. *Thomas Niederl*









Portugal



On September 10th, Remodelado tram No. 565 on route 25 to Prazeres heads through Lisbon. *Michael Lynam*

Carris CAF Urbos tram No. 613 calls at The Praco de Comercio en route to Alges in Lisbon on September 10th. *Michael Lynam*

Remodelado tram cars Nos. 12 and 7, in Hill Tramcar Tours livery, are seen at the Praco de Comercio. *Michael Lynam*



Portugal



Remodelado tram No. 568 on route 18 is seen adjacent to Cais do Sodre train station and en route to Ajuda on September 10th.

Michael Lynam

Remodelado tram No. 574 approaches Santos Metro station on route 25 to Prazeres.

Michael Lynam

Carris CAF Urbos tram No. 604 stands at Santos Metro station en route to Figueira.

Michael Lynam



Portugal



Remodelado tram No. 559, in advertising livery for Monkey 47 Dry Gin, passes along Avenida Vinte e Quato de Julno, Santos on September 10th. *Michael Lynam*

Remodelado tram No. 574, in advertising livery for Beirao, calls at Santos Metro station on route 25 to Figueira. *Michael Lynam*

Carris CAF Urbos tram No. 613 passes along Avenida Vinte e Quato de Julno, Santos in Lisbon on September 10th. *Michael Lynam*





▶ Class 363.036 passes Hrastovlje whilst hauling an intermodal train to Koper.
Laurence Sly

▶ PKP Cargo Vectron Class 193.743 passes Rakek whilst hauling a car transporter train.
Laurence Sly

▶ SZ Class 644.020 passes Grahovo whilst hauling train No. AVT857 13:25 Bohinjska Bistrica - Most na Soci.
Laurence Sly









Spain



On September 9th, RENFE Class 464.206 is seen departing Cadiz with a service to Jerez de la Frontera. *Michael Lynam*



Spain



RENFE Class 449 and Class 464s are seen between duties in the carriage sidings at Cadiz. *Michael Lynam*





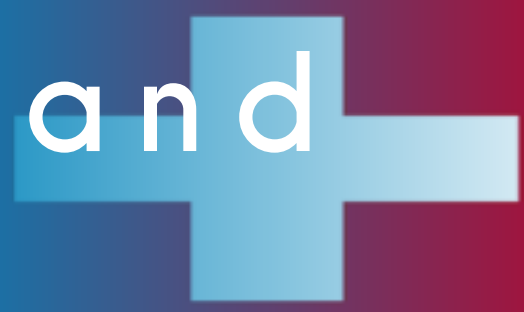
▶ WRS (Switzerland) Class 420.502 is second hand from SBB and is working through Pratteln with a tank train from the Olten direction on August 28th. *John Sloane*

▶ SBB Cargo Class 843.055 heads through Pratteln station towards Zurich on August 28th. *John Sloane*

▶ On August 28th, former SBB Class 446.017 worked light engine through Pratteln to Basel SBB where it stabled for several days. It was originally one of four prototype SBB locos which were subsequently sold to the Sud Ost Bahn and later to Eisenbahndienstleiter. *John Sloane*







Preserved No. 10039 (410.039) approaches Pratteln with a three coach train working from Basel towards Olten on August 28th.

John Sloane

SBB Cargo International Class 193.477 'Fulda' stands in MuttENZ Yard waiting to head south with an international container train on August 28th.

John Sloane

Traxx Class 185.567 in Beacon Rail livery, is seen stabled at Rheinfelden on August 30th.

John Sloane



▶ Sersa operated Class 940.002 'Katerina' runs light northwards through Pratteln station on August 28th. *John Sloane*

▶ SBB Cargo Class 843.060 is seen in Muttenz Yard on August 30th. *John Sloane*

▶ SBB Class 841.025 is seen shunting at Mohlin on August 30th. *John Sloane*



Switzerland

Three SBB Class 922 four wheeled electric shunters are seen stabled at Basel SBB station on August 31st. *John Sloane*

SBB Cargo International Class 193.701 'Ruhrgebiet' hurries through Rheinfelden on August 30th with a freight heading in the Zurich direction. *John Sloane*

SNCF Ter EMU No. 27857 stands in Basel SNCF station on August 31st. *John Sloane*



Tenerife

On September 5th, Tranvia Alstom Citadis 302 tram No. 116 on route 1 to La Trinidad (La Laguna) seen approaching the Teatro Guimera stop. *Michael Lynam*

Tranvia Alstom Citadis 302 tram No. 110 in O2 livery is seen on route 1 to La Trinidad (La Laguna) arriving at the Teatro Guimera stop, Intercabiedor (Interchange) in Santa Cruz de Tenerife on September 5th. *Michael Lynam*

Tranvia Alstom Citadis 302 tram No. 126 is seen on route 1 to Intercabiedor (Interchange) in Santa Cruz de Tenerife. *Michael Lynam*



France

Parcel delivery by tram in Strasbourg, an experiment to improve the flow of traffic in the city centre

From September 16th to October 26th, an experiment of parcel transport by tram will be carried out on Line B of Strasbourg's public transport network. This initiative, led by La Poste, Alstom, Eurométropole de Strasbourg and the Strasbourg transport company CTS, aims to explore new parcel delivery solutions, optimising the available capacity of the existing transport infrastructure.

This project is the fruit of cooperation between 4 major players: La Poste, a logistics and parcel delivery operator; Alstom, a world leader in sustainable and intelligent mobility; Eurométropole de Strasbourg (EMS) as the transit authority and the Compagnie des Transports Strasbourgeois (CTS) as the network operator.

In practice, this means Colissimo parcels will be delivered via Line B trams. The route will run from Hœnheim Gare station to Broglie station, in the heart of Strasbourg city centre. At 09:00, a postman will accompany around a hundred parcels in the tram's lead car. On arrival at Broglie, a second postman will load the parcels onto a cargo bike and deliver them to Strasbourg's inner city. During the trial, a second route will be added in the early afternoon. This experiment in tram parcel transport, carried out under real conditions, will enable the partners to check whether parcels can coexist with passengers, without impacting on passenger comfort or on operation of the tram network, and without altering the parcel delivery service. If this is the case, it will help

to define new logistical solutions in which delivery links made by truck could in future be operated by tram.

The 4 partners share a desire to innovate by developing logistics solutions that respond to several current issues: reducing urban congestion, rethinking public space and improving urban air quality.

The experiment is in line with the objectives of the roadmap "for sustainable, low-carbon urban logistics" adopted by Eurométropole de Strasbourg in 2023. The local authority is aiming to reduce heavy goods vehicle and commercial vehicle traffic in favour of alternative modes such as cyclo-logistics, river freight and rail freight. It is also promoting innovation by hosting avant-garde experiments. For example, following on from the long-term river freight experiment, Eurométropole is continuing its efforts to promote short-distance rail freight. While urban goods transport accounts for 20% of urban traffic and 30% of road use, it is responsible for 50% of diesel consumption. As a result, it is responsible "for 25% of greenhouse gas emissions and 35% to 45% of particle emissions"[1].

In response, La Poste is working to develop sustainable urban logistics in the regions by co-constructing innovative solutions with local authorities and economic players. To this end, it has signed cooperation agreements with 18 cities in France, including Strasbourg. With them, it is developing new, less polluting urban logistics solutions. Here in Strasbourg, La Poste has already



deployed 22 cargo bikes and 20 electric vehicles for parcel delivery. As the instigator of this unique partnership, Alstom relies on digital innovation to make transport ever more sustainable, safe and efficient. Thanks to its expertise, Alstom is helping municipal authorities to achieve greater fluidity and capacity in their various transport services, by predicting variations in passenger and goods flows, adapting to them and responding to changes in real time.

[1] Fact-finding mission on sustainable urban logistics. Report by Senators HERZOG and FILLEUL, May 24th 2022.

Egypt

British Ambassador to Egypt visits Derby-built Cairo Monorail

Alstom, global leader in smart and sustainable mobility – together with its partners – has welcomed His Majesty's Ambassador to the Arab Republic of Egypt, Gareth Bayley OBE, to witness the construction of the new Cairo Monorail system.

As part of the visit, he was able to enjoy a test run inside one of the British-built four-car Alstom Innovia 300 units that will serve passengers along the 61-mile-long network once operational. The British Ambassador was joined by the Egyptian Deputy Minister of Transport, Wagdy Radwan, and Chairman of the National Authority for Tunnels, Dr. Gen. Tarek H. Gewaily, where they also visited Alstom's main workshop and control centre, as well as one of the system's 35 stations.

The Cairo Monorail trains were assembled and tested at Alstom's historic Derby Litchurch Lane Works as part of a £2.3 billion contract to construct and run the new

Egyptian network. This marked the first export of UK-manufactured rolling stock since Derby-built trains were supplied to South Africa for the Gautrain rail system in 2008. In total, 272 monorail cars for Cairo were assembled and tested in Derby, which is also home to Alstom's Global Centre of Excellence for Monorail.

"I was impressed by my visit to Cairo's brand-new Monorail where I tested the cutting-edge train carriages that the brilliant Alstom team have produced," said Gareth Bayley OBE, His Majesty's Ambassador to the Arab Republic of Egypt.

He added: "This project is an excellent example of the growing UK-Egypt trade cooperation and highlights the UK's support for Egypt's ambitions in providing greener and more sustainable solutions and services to its people."

In January this year, the team in Derby celebrated the completion of the final Cairo Monorail car off the production lines. The monorail project has supported hundreds of jobs at Alstom and across the UK, and the rolling stock has been delivered from the UK to the Cairo depots in accordance with scheduling and budgetary requirements.

Alstom's Derby Litchurch Lane Works is the UK's premier, largest and longest established train factory, and the only facility in Britain able to design, engineer, build and test trains for domestic and export markets.

The first train was dispatched from the Litchurch Lane site on June 14th 2021 – which was 20 months post-contract signature – with the last train departing on January 16th 2024. Leaving Derby by road to Felixstowe, it shipped to Alexandria before being transported to Cairo.

"We were honoured to welcome the British Ambassador, along with the Egyptian Deputy Minister of Transport and Chairman of the National Authority for Tunnels, for a site tour of our advanced monorail system. This visit was a testament to the strong partnership between the UK and Egypt, reflecting our shared commitment to innovative infrastructure projects for the country," said Ben Lezala, Cairo Monorail Project Director at Alstom.

He added: "Our discussions underscored the importance of collaborative efforts in driving environmentally friendly mobility forward. By working together, we are developing integrated transport solutions that not only enhance efficiency and connectivity but also promote sustainable practices, contributing to the development of smarter and more resilient cities that meet the growing demands of urban populations."



Alstom delivers the first Long Distance Train to the Tren Maya project

On September 20th, Alstom, global leader in smart and sustainable mobility, delivered the first Long Distance train for the Tren Maya project to the Federal Government and the National Fund for Tourism Development (FONATUR) / Ministry of National Defense (SEDENA). These trains, a key part of the transformative Tren Maya project, are manufactured in Mexico by Mexican workers and will provide an elevated level of safety, comfort and modernity, providing the best possible passenger experience and allowing for both day and night operation. The sleeper cars create an atmosphere of tranquillity and intimacy, allowing passengers to enjoy both reclining seats and multi-functional cabins. During the day the cabins provide ideal spaces for working, relaxing and eating. At night, they become comfortable single bunks.

The Long Distance Train (P'atal) offers a versatile travel experience. In addition to offering seats in preferential and tourist categories, it has a restaurant car and a

cafeteria car, allowing travellers to enjoy a wide variety of dining options along the way. With capacity to accommodate 260 passengers, the Long Distance train has been designed to offer comfort and accessibility. This train includes 238 standard seats, 4 specific spaces for passengers with reduced mobility and 18 seats distributed in its 9 cabins. This configuration improves the capacity of the previous standard model by 17%, providing more space and a more inclusive and comfortable experience for all travellers. To ensure that the train meets all required standards, Alstom has planned a series of extensive tests. These tests include static and dynamic evaluations focusing on key systems such as traction, braking and passenger information.

This is the first delivery of three Long Distance Trains, as part of the total of 42 trains in the fleet that makes up the Tren Maya project (Long Distance P'atal = 3, Standard Xiinbal = 31, Restaurant Janal = 8).

The delivery of this long-distance train marks a historic moment for mobility in Mexico, as it is the first of its kind in the country, developed specifically for Tren Maya. This development not only represents a significant modernization of the Mexican passenger rail network, but is also a testament to Alstom's commitment to Mexican manufacturing, innovation and cutting-edge technology. Alstom is marking a milestone in building a transport system that not only connects communities, but also drives a sustainable and prosperous future. More than 4,500 direct workers have participated in this ambitious project, devoting thousands of hours of work over 1,209 days since the signing of the contract. This joint effort has enabled not only the design and construction of a high-quality train, but also the

integration of advanced technologies that guarantee the safety and comfort of passengers. "We are creating a milestone in Mexico's mobility with the Tren Maya, a project that reflects Alstom's ability to lead the future of transportation," said Maite Ramos, Managing Director of Alstom Mexico.



Alstom successfully hands over the first trainset to Delhi Metro Rail Corporation

On September 23rd, Alstom successfully handed over the first Metropolis metro train for the Delhi Metro Rail Corporation (DMRC) Phase IV, from its world-class manufacturing facility in Sricity (Andhra Pradesh). These 100% made-in-India trains are designed for a safe speed of up to 95 kmph and operational speed of up to 85 kmph, with GOA 4 driverless features.

Dr. Vikas Kumar, Managing Director, DMRC shared his enthusiasm on the occasion of the dispatch of first train set for Phase 4 corridors, "Today is a historic occasion for the Delhi Metro family as we take another major step towards operationalising the Phase 4 corridors. The first set of trains for this new phase of expansion is being dispatched today from Sri City, Chennai. We are looking forward to a new era of enhanced convenience and eco-friendly travel for our passengers."

Olivier Loison, Managing Director, Alstom India shared his views on this milestone, "We are proud to continue our long-standing partnership with the Delhi Metro Rail Corporation, marking yet another key milestone in our journey of collaboration. Our locally manufactured,

cutting-edge Metropolis metro trains are set to play a pivotal role in improving the quality of life for citizens and driving the city's development. At Alstom, we are dedicated to creating sustainable, future-proof solutions that stand the test of time, and we are honoured to contribute to this transformative project."

Awarded in November 2022, this order aims to deliver 52 train sets, each comprising of six cars. The project is designed to cater to three different lines of DMRC, with two lines being extensions of the existing Line 7 and Line 8, and the new Gold Line 10 connecting Aerocity to Tughlakabad, covering a total distance of 64.67 km. The production was commenced at a commemorative ceremony in February 2024.

The total value of the project is 312 million euros, which also includes the maintenance of 13 trainsets of the new line for a period of 15 years. This 360-degree scope is a game changer for India's metro segment as it will be the first maintenance project for Delhi Metro outsourced to an OEM. Under the 'Make in India' initiative, these Metropolis trains have been completely designed in

India and are built at the manufacturing facility in Sri City (Andhra Pradesh).

About Metropolis metros

Alstom's modern metro trains are serving the different needs of customers worldwide for over 60 years. Designed to fit new and existing infrastructure, Metropolis metro trains can be adapted to multiple capacity needs. With flexible configurations from 2-to-9-cars, small to large gauge profiles, different voltage systems, and individual interior designs, Alstom's metros can be operated manually or driverless. Metropolis metros feature low noise levels,

high recyclability, and optimised energy-efficiency to minimise environmental impact. Over 35,000 metro cars have been ordered or are in operation in more than 70 cities in 40 countries.



Alstom announces an investment plan of €63 million over 3 years in Italy and the results of the first Impact Report conducted by EY

For more than 160 years, Alstom has been accompanying Italy in the modernization and development of its transportation network, with 9 sites distributed throughout the country. In FY24, Alstom supported more than €1.019 billion in contribution to the Italian GDP and 14,087 jobs. This achievement demonstrates Alstom's central role in the Italian industrial system and its leading position in the transportation industry.

Alstom's contribution to growth and sustainable development in Italy was analysed in the impact report conducted by EY, presented today in the ISMA (Institutes of Santa Maria in Aquiro) room of the Senate of the Republic in Rome. The event was attended by Sen. Giorgio Maria Bergesio, Vice President of the IX Industry Commission of the Senate of the Republic, representatives of the institutions, including Hon. Salvatore Deidda, President of the IX Commission of the Chamber of Deputies, Sen. Elena Leonardi, X Commission on Health and Labor of the Senate of the Republic, Hon. Alberto Luigi Gusmeroli, President of the X Commission of the Chamber of Deputies, Simone Bettini, Vice President of Federmeccanica with a mandate for Structural Growth of Businesses, Alesia Sabbatino, EY Corporate Sustainability Expert, along with Michele Viale, Managing Director of Alstom Italy, and the journalist Diletta Parlangei who moderated the interventions.

In addition, the Hon. Massimo Bitonci, Undersecretary of the Ministry of Made in Italy Enterprises, sent a written greeting to the participants.

Giorgio Maria Bergesio, Vice-President of the 9th Committee on Industry and the Senate of the Republic Senator said: "It has been a pleasure to host today this important initiative dedicated to the presentation of Alstom's first Impact Report, which, by tracing the results of the company's impact on our country's economy, testifies to Italy's ability to be an attractive territory for companies in all sectors, starting with the strategic one of mobility. The data and results contained in the report show how commitment to digital innovation and sustainability can be a driver of employment and growth for the country within the European context, in a scenario characterized by complex challenges at the international level. But you don't need a report to understand the positive impact that a company as Alstom represents in the territories where it is present; I can realize this when I go back to the province of Cuneo, where Alstom

is present in Savigliano with its most important site. These are issues, which also in the work we deal with on a daily basis in Parliament and particularly in the Industry Committee, emerge as an absolute priority of this government and this majority. The Made in Italy law, which is about to turn one year old, is a clear example of the desire to enhance the productive excellence of our country."

"Alstom continues to be a strategic partner for the sustainable development of rail transport and the Italian economy. With a contribution to the GDP of more than € 1.019 billion generated in the past two years and supporting more than 14,000 jobs, Alstom is an accelerator of employment and professional development for thousands of people in Italy." - said Michele Viale, Managing Director of Alstom Italy, "In an Italian mobility system characterized by great dynamism and constant growth, supported by the PNRR and the IPCEI Fund, Alstom continues to invest and is pleased today to announce a new investment plan of more than €63 million that will give further boost to our business, with an important impact on the entire Italian railway sector."

Alstom contributes to the development of the Italian economy

Alstom is constantly committed to enhancing the industrial ecosystem by fostering the development of local talent and expertise. In FY2023-2024, Alstom Group purchased goods and services for a total of € 829 million from more than 1,500 Italian suppliers. The Group also promotes Italian excellence abroad, exporting "made in Italy" technologies to many countries including Switzerland, Ireland, Denmark, Poland, Sweden, Germany, India, Mexico, Argentina, the Philippines and Egypt. This allows Italian companies that collaborate with Alstom to access international markets, also taking advantage of the experience acquired in meeting the high quality and safety standards adopted by Alstom. Innovation at the service of citizens' mobility

Alstom promotes a modernization path for the Italian rail network through the implementation of the European Rail Traffic Management System (ERTMS), which will increase rail capacity by up to 40% and improve the operational efficiency of networks. The "New Platform for Environmentally Sustainable Trains to Benefit European Railway Interoperability" project, promoted

by Alstom in collaboration with the Ministry of Made in Italy, also aims to create an innovative and modular electric train platform capable of coping with the fragmentation of local and intercity rail networks across Europe.

With a strong commitment to the decarbonization of Italian rail transport, Alstom designs and implements advanced technologies to transform diesel train fleets into more sustainable solutions, such as electric, hydrogen and battery-powered trains. In Italy, it has developed a hydrogen-powered version of the Coradia Stream™, which will be introduced on the Brescia-Iseo-Edolo line in Valcamonica, a project developed thanks to IPCEI funds from the European Union.

Environmental sustainability: by 2050 Alstom will achieve environmental neutrality

With the aim of achieving high standards of environmental sustainability, Alstom will use 100% renewable energy at all national sites. The company has set ambitious targets to reduce CO2 emissions, aiming to achieve "net zero" by 2050, with intermediate milestones for 2025 and 2030.

Alstom is taking an eco-design approach to minimize the environmental impact of its products by optimizing the use of materials, reducing pollution in production and delivery, and improving energy efficiency with actions such as insulating buildings, monitoring temperature, installing LEDs, improving lighting control systems, and installing photovoltaic panels in plants. The company also continues with a strong commitment to waste reduction, and as of today already 98% of the waste produced is recycled.

Social sustainability: Alstom's commitment to the community

Alstom promotes corporate welfare programs by organizing activities and initiatives for mental and physical well-being. The Group promotes home-work balance programs and pro-parenting policies through two programs, "The Lifeed Path" and "Paths: Parents born, parents growing," which help families.

Diversity, inclusion and employee development are key pillars for Alstom. The inclusion of women in the workplace is a priority, as is the training and development of the soft and hard skills among all employees, thanks

to more than 96,400 hours of training completed.

Alstom Italy has been certified Top Employer 2024, an award for excellence in HR practices. Alstom's commitment also extends to local communities through major projects, volunteer initiatives, organized collections and donations to organizations. In addition, in the past two years Alstom has been engaged in a campaign to fight violence against women throughout Italy involving more than 4,000 people including institutions, associations, employees and citizens. Alstom's commitment to communities includes several partnerships with Associations. At the beginning of 2024, Alstom also achieved the CSR label assessment, based on the ISO 26000 guidelines, obtaining the 'Exemplary' level.

[1] The data shown in the report refer to FFY 2023/24 and 2022/23. The model used by EY to represent the socio-economic cascading effect within a given territory is based on the studies of economist Wassily Leontief, Nobel Laureate in Economics in 1973. This research focuses on the use of symmetric input-output tables that simulate the interdependence of all sectors of an economy.

Bulgaria

ŠKODA GROUP TO SUPPLY BULGARIA WITH NEW TRAINS WORTH MORE THAN HALF A BILLION EUROS

Passengers in Bulgaria can look forward to a significant improvement in comfort and safety when travelling by train. Škoda Group has won an order to manufacture and supply up to 25 barrier-free electric units, which will replace outdated trains and offer more than 300 seats, air-conditioned carriages, and a smooth ride with minimal noise. The basic contract covers the supply of 20 four-car electric units based on the well-known RegioPanter type and includes the provision of full service for 15 years. The contract also includes an option for a further 5 vehicles. The total value of the contract including option is more than half a billion euros.

“I am honoured that today, with the signing of this contract, we are taking a huge step towards the renewal of the Bulgarian railway. I would like to thank the team of the Ministry of Transport and Communications,

thanks to whom this contract is a fact. I wish the contractor’s representatives success, honesty and compliance with the delivery deadline. I sincerely hope that very soon we will be greeted with more contracts for new rolling stock and equipment financed under the National Recovery and Sustainability Plan,” said Krasimira Stoyanova, Minister of Transport and Communications of the Republic of Bulgaria.

“Our experience in the production of electric units allows us to offer a proven solution that has found its way into several European countries. Nearly 400 of our modern electric units will soon be on the railroads in the Europe,” says Petr Novotný, CEO and Executive Chairman of Škoda Group. “Winning this order confirms that our products can compete internationally and at the same time strengthens our position

in the modernisation of European rail transport. Bulgaria joins the list of countries where our trains contribute to the attractiveness and accessibility of rail travel.”

Innovation and proven quality for Bulgarian railways

Škoda’s modern electric units offer exceptional performance and reliability. The trains reach a top speed of 160 km/h and are ready to operate on lines with 25 kV AC 50 Hz electrification. Passengers will benefit from ergonomic seats, air-conditioned interiors and on-board Wi-Fi connectivity. Security will be enhanced by an advanced exterior and interior camera system. The trains will also be partially low-floor to ensure full accessibility for all passengers. For fast, safe and convenient passenger interchange, the trains will have low-floor boarding and

1,500 mm wide doors. The vehicles will also include multifunctional areas for disabled persons, prams or bicycles. The new trains will also feature Škoda’s advanced digital technology, which will ensure greater reliability and passenger safety. The units will be equipped with the ETCS Level 2 system, which guarantees the highest safety requirements in accordance with European standards.

Modernisation of rail transport in Bulgaria

Bulgaria’s railways will be significantly modernised with a new fleet of electric units. The current fleet, which includes older Škoda locomotives, will be replaced by vehicles that meet TSI specifications and all current European standards, and will



bring significant savings in operating costs thanks to advanced technology and lower energy consumption. The RegioPanter type of accessible electric units is a popular and proven model produced by Škoda Group. They are in operation in the Czech Republic, Slovakia, and Latvia, and have recently been delivered to Estonia, where they have already started trial operation. They offer customers an optimal solution for fleet modernisation in suburban and regional as well as interregional transport. In total, more than 300 of these units have been produced or ordered.

Finland

TAMPERE TRAMS WILL BE LONGER AS ŠKODA GROUP SIGNS CONTRACT TO PRODUCE ADDITIONAL MODULES

Škoda Group has signed contracts with Tampereen Raitiotie Oy for the production of 10-metre additional modules to extend the existing 37-meter trams currently operating on the Tampere tram network. The agreements, valued at approximately EUR 25 million, are part of an option under the original order and will be implemented in two phases, increasing tram capacity to meet growing passenger demand. The contracts also include a 10-year full-service package.

The deal involves the production and installation of 11 modules for 11 trams, extending the vehicles to 47 meters. This extension will provide much-needed capacity to keep pace with the rapid growth in tram ridership on the Tampere network. The extended trams will maintain the same technical characteristics and performance as the current ForCity Smart Artic X34 vehicles, with compatible and interchangeable components.

“This project exemplifies our ability to respond swiftly to the needs of our partners. By extending the existing

trams, we are providing a practical solution that addresses the growing demand for public transport while ensuring compatibility with the current fleet. Our focus remains on delivering efficient and effective mobility solutions for urban environments,” said Jan C. Harder, President Region West and North at Škoda Group.

“The number of passengers on Tampere Ratikka has grown faster than expected. The extension of the vehicles will increase the passenger capacity by more than 30% from 264 to 345 passengers. At the same time, the increased passenger capacity will allow us to operate on the entire route with an optimal 7.5-minute headway. This makes sense from the point of view of traffic flow and public transport passenger service,” says Pekka Sirviö, Managing Director of Tampereen Raitiotie Oy.

The project will begin with the production of a prototype module at Škoda Group’s Otanmäki factory in 2025. This module will be fitted to one of the existing trams and undergo comprehensive testing both at the factory

and in Tampere. Once the prototype is validated, Škoda Group will manufacture and deliver the remaining 10 modules.

Installation of such modules will commence in 2027, with all extended trams entering service by the summer of 2028.



U.S.A.

Siemens Mobility to establish America's first high-speed rail production facility in Horseheads, New York

U.S. Senate Majority Leader Chuck Schumer, Brightline West and Siemens Mobility recently announced that Horseheads, New York will become home to North America's first high-speed rail production facility. The first-of-its-kind facility in the United States will produce America's first high-speed trains, the American Pioneer 220, which will operate on Brightline West's Las Vegas to Southern California line. Selected for its skilled workforce, industrial history and ability to best meet the needs of Brightline West, Horseheads is located in the southern tier of New York state. Production at the facility is expected to begin in 2026.

"This is an exciting time not only for us at Siemens Mobility, but for the rail industry as a whole," said Michael Peter, CEO Siemens Mobility. "This new facility in Horseheads, New York, marks the beginning of a brand-new industry in the USA – bringing both high-speed rail production and some of the world's most modern trains to the continent for the first time. Designed with the latest digital twin technology and leveraging world-class digital rail solutions, the New York-built American Pioneer 220s feature cutting-edge advancements, including a revolutionary gearless propulsion system that reduces energy consumption by 30% and allows it to climb effortlessly at steep grades."

"America's high-speed rail future will be built in Upstate NY. Siemens' investment in Upstate NY will lay the foundation for the next chapter of our nation's transportation future, making high-speed rail, what only a few years ago seemed like a dream, but because of the Bipartisan Infrastructure Investment & Jobs Law is becoming a reality. After months of relentless advocacy, I am proud to announce this massive 300 job first of its kind manufacturing facility for America is coming to Upstate NY," said U.S. Senate Majority Leader Chuck Schumer. "Upstate New York is unmatched in rail car manufacturing capabilities, with a deep proud history pioneering the rail industry and a community that is excited to get to work building America's future. Siemens Mobility is an excellent addition to the outstanding manufactures already in this region, and I am thrilled they heeded my call to come to New York and will join the rail car manufacturing ecosystem right here in the Southern Tier.

All eyes are on this major step in the modernization of America's infrastructure and the Southern Tier will be at the forefront! Thanks to the trainsets that will be made right here in Chemung County. It's full steam ahead for America's high-speed rail future, with every stop powered by union workers here in Upstate NY."

"We've said from the start that Brightline West will plant the flag for high-speed rail in America and will lay the foundation for a new industry with unimaginable economic benefits. Today's announcement that jobs are being created thousands of kilometres away from the rail line is just the starting point," said Michael Reininger, CEO of Brightline. "For the first time ever in the U.S., we will be manufacturing trains that will compete with the best in the world. Reaching speeds of over 300 km/h, these trains will be marked by the latest innovations designed for the modern traveller and establishing a new benchmark in transportation."

"Through a \$4 million grant from our FAST NY program, the Chemung County IDA is able to help prepare this site for Siemens Mobility so that they can create good paying, Union jobs in the Southern Tier and get up and operating quickly," said Governor Hochul. "Today's announcement is testament to the partnership between state, local and federal support to grow manufacturing and unlock real opportunities in New York State."

When fully operational, the new manufacturing facility will span nearly 300,000 square feet and create around 300 jobs – including electro-mechanical assemblers, quality management, quality control, industrial production and test engineers, project management, supply chain management and logistics employees. Just as New York's rich rail history once helped shape the state, these skilled jobs will help shape high-speed rail production in our country for the very first time. Siemens Mobility also has a memorandum of understanding in place with the International Association of Machinist for union representation at the new site. Siemens brings more than two billion miles of experience across its more than 1,000 high-speed trains. Putting the needs of 21st century American travellers top-of-mind, Siemens engineers designed the next generation of trains, the Siemens American Pioneer 220, featuring the latest digital technologies, including Railigent X, from the Siemens Xcelerator portfolio, unparalleled passenger experience, and safety features to meet FRA requirements.



Brightline selected Siemens Mobility to build train sets for the Brightline West highspeed rail project that will connect Las Vegas and Southern California in under two hours. The American Pioneer 220 will be the first true high-speed trainsets to be built in America. Production in Horseheads will begin in 2026.

With an unmatched passenger experience, it is an ultrawide body train, designed to meet the needs of passengers today and into the future. The new empty tube body concept, results in the most accessible high-speed rail vehicle on the market, ensuring passengers in wheelchairs can seamlessly move from car to car throughout the entire trainset, exceeding ADA requirements. With large, comfortable seats and high-speed internet connectivity, business commuters and leisure passengers alike will enjoy a comfortable ride as they drive by those sitting in automobile traffic on the freeway. Furthermore, the "party-car" creates an exciting passenger experience, emblematic of its name. The first-of-its-kind lounge car will allow passengers to relax, enjoy a beverage and views of the desert along the commute.

Siemens has deep roots in New York state and a nearly 150-year history, beginning in 1875 with the first transatlantic telegraph cable between the U.S. and Europe. Today,

the company has more than 2,500 employees in New York, including the Siemens Mobility North American Headquarters, and encompassing 15 facilities in the company's infrastructure, financial services, mobility, and healthcare businesses. More than 1,100 New York businesses are also part of Siemens U.S. supply chain. The new facility also joins Siemens Mobility's growing U.S. manufacturing footprint, with eight manufacturing facilities currently in operation around the country – providing more than 3,000 rail vehicles, 30,000 rail crossings, and more than 4,500 jobs to North America. Siemens Mobility contributes to the power of connection, jobs and investment in America, with more than 2,000 suppliers across the United States.

Siemens has been a national asset moving America forward for more than 160 years, investing \$3 billion in the United States over the past four years while serving the industries and infrastructure forming the backbone of the American economy. The company's 45,000 employees across the U.S. and 25 manufacturing sites are developing and deploying technologies for more than 100 cities and 90 percent of Fortune 500 industrial companies.

Photo: American Pioneer 220 ©Brightline West

U.K.



Stadler at InnoTrans 2024: Class 99 bi-mode Co-Co locomotive unveiled

Demonstrating Stadler's commitment to developing rail freight in the UK, the Class 99 bi-mode Co-Co locomotive was officially revealed at InnoTrans in Berlin on September 25th. Beacon Rail and GB Railfreight have commissioned 30 of these vehicles in an order that is the first of its type in the UK and builds on the success of the EURODUAL six-axle locomotives sold in mainland Europe. The 30 vehicles will herald a new generation of locomotives, providing a range of economic and environmental benefits that underscore Stadler's green credentials. Adapted for use on the UK railway network, the Class 99 is based on the proven EURODUAL locomotive concept and features a dual drive system. This enables the locomotive to operate in purely electric as well as in diesel-electric mode, allowing it to run on both non-electrified and on electrified lines, potentially replacing diesel-powered locomotives and helping cut carbon emissions on the UK railway.

The Class 99 is able to operate on a 25 kV AC electrified line, has a power of 6,000 kW at the wheel and features a high-power low-emissions Stage-V engine. With an impressive tractive effort of 500 kN, it can reach speeds

of up to 120 km/h, boasting high hauling capability and performance. The cab is designed with the driver in mind, and is a safe, modern and comfortable working environment. A centrally positioned seat in combination with the huge front window ensures excellent visibility. State-of-the-art cameras provide direct views of pantographs, shunting zones and the area in front of the locomotive. The two protection systems required on British rail networks, AWS and TPWS have been fitted; ETCS will soon be installed.

Iñigo Parra, CEO of Stadler Valencia, commented: "Along with our clients, GB Railfreight and Beacon Rail, we are delighted to be presenting this fantastic locomotive, which is testament to Stadler's commitment to green technology. Set to be a game changer in UK rail freight, this environmentally-friendly, efficient and powerful vehicle will encourage modal shift from road to rail, helping the UK decarbonise the railway and supporting net zero targets."

John Smith, Chief Executive Officer of GB Railfreight,

said: "The Class 99s represent a game changing moment for the UK rail freight industry improving the resilience of our fleet and reducing journey times. These locomotives will be the first to offer rail freight customers the chance to run wholly sustainable, heavy-haul services the length and breadth of the country."

Adam Cunliffe, Chief Executive Officer of Beacon Rail, added:

"Beacon is proud to introduce the Class 99 to the market; this is the result of a collaborative approach with our long-standing customer GB Railfreight and manufacturer Stadler. The Class 99 order underlines Beacon's drive to support the UK's journey towards a greener and more efficient rail network."



Stadler has a 16-year full service contract with GB Railfreight, comprising tailored maintenance solutions, modernisation and overhaul and the provision of spare parts and material supplies. It covers vehicle repairs and service support, as well as the management of rail data and maintenance software.

Switzerland

Stadler and SBB Cargo sign a Frame Agreement to supply 129 Bo-Bo multisystem locomotives

Stadler introduces the new interoperable and multisystem Bo-Bo locomotives for continental Europe with the first contract for 36 units. The agreement includes an option for 93 additional vehicles. The Swiss freight operator awards Stadler the tender launched in early 2024 for the supply of thirty-six electric multisystem (25 kVAC/ 15 kVAC / 3 kV DC) locomotives. SBB Cargo will replace its in-age-coming locomotives Re420 and they have found in Stadler a reliable partner for the new generation of electrical multi-system Bo-Bo locomotives. The new Bo-Bo locomotives are the natural evolution of the proven successful EUROLIGHT, EURODUAL and EURO9000 families designed for freight and passenger service in European railways.

The locomotives are at the cutting edge of technology to cover every current and future need in an efficient and reliable way offering freight operators economic, environmental, and operating benefits. Their flexible

design allows to include two 500 kW diesel engines or two traction battery modules providing up to 2MW power for last mile operations in non-electrified tracks. A combination of both is also possible. They are equipped with a Radio Remote Control System for operation on track works or shunting operations on yards.

From a performance, efficiency and flexibility perspective, the locomotives set a milestone in the European Bo-Bo segment. They provide a maximum tractive effort of up to 350 kN and a tractive power of 7 MW at wheel rim. Among other operational advantages, its low energy consumption and the option for a digital automatic coupler stand out. They meet the technical specification for interoperability (TSI) and are equipped with various country packages. These include conventional automatic train protection systems and ETCS to ensure smooth cross-border operations. The initial configuration with Switzerland, Germany, and Austria can be extended

to other countries in the future. The locomotives are provided with two driving cabs designed according to the most demanding ergonomic criteria and fully comply with the comfort and noise requirements of the latest European standards. The cabs which include an HVAC system, ensure the maximum driver comfort in the operating environment. Each cab is equipped with two rear-view cameras and two side control panels to facilitate shunting operations.

Iñigo Parra, Executive Vice President of Stadler Division Spain, says: "We have used all of our experience from previous successful families to offer the next-generation solution for rail transportation with the new Bo'Bo' locomotive. I am convinced it will set a new standard in this segment."

Alexander Muhm, Head of Freight Services at SBB, says: "A modern and efficient fleet is a prerequisite

for successful rail freight transport at SBB. We are confident that, with the vehicles from Stadler, we are acquiring a locomotive with which we can reliably serve our customers and lead Swiss rail freight transport forward into the future. We are taking a central step in the necessary transformation of rail freight transport." Photo credit: © Stadler



Tailor-made technology to link Switzerland and Italy

Stadler is presenting the new electric metre-gauge multiple unit for Ferrovie Autolinee Regionali Ticinesi (FART) at InnoTrans. Eleven further vehicles customised for the operators of the Vigezzina – Centovalli Railway will follow.

One railway line, two operators. Trains running on behalf of both the Swiss company FART (Ferrovie Autolinee Regionali Ticinesi) and the Italian company SSIF (Società Subalpina di Imprese Ferroviarie) have been travelling between Locarno in Ticino and Domodossola in Piedmont for a hundred years. Although the line is only 52 kilometres long, it has no fewer than 83 bridges and 31 tunnels and is considered one of the most beautiful in the world due to the picturesque valleys and wild gorges it passes through. Both railway operators target commuters and tourists alike with their services, operate jointly in the region under the “Vigezzina – Centovalli Railway” brand, and place the focus firmly on innovation and new technologies when it comes to rolling stock. With Stadler, they have the right partner at their side. The next generation of vehicles for the Vigezzina – Centovalli Railway is precisely tailored to the needs of each operator and equipped with the latest comfort features that will define the future of rail travel. The first multiple unit was built for FART and was on show at InnoTrans in Berlin at the end of September.

Low-floor multiple units that operate in multiple traction

The operators of the Vigezzina – Centovalli Railway will receive a total of twelve electric low-floor multiple units:

- four four-car ABe 8/16 multiple units, which will run on cross-border services between Switzerland and Italy for FART in the future,
- four three-car ABe 6/12 multiple units intended by FART for regional services in the Centovalli (Locarno-Camedo), and
- four ABe 8/16 four-car multiple units for use by SSIF both for regional services from Domodossola to Camedo and for international services to Locarno.

The multiple units are 63.4 and 48.9 metres long respectively and can accommodate 338 passengers (128 seated, 210 standing) in the four-car version and 258 passengers (95/168) in the three-car version. They can also be assembled to form two-car ABe 4/8 trains (34.5 m long), offering space for 174 passengers (49/125) in this configuration.

Accessible rail travel

During the development stage, Stadler paid particular attention to accessibility for people with disabilities and people with reduced mobility (TSI PRM). The cars feature wide double doors (1,200 mm) to allow rapid passenger changeovers, as well as low-floor entrances and sliding steps that bridge the gap between the doors and the platform to facilitate accessible boarding and alighting. Two spaces are provided in the end carriages for passengers with wheelchairs or walking frames, with adjacent folding seats for their travelling companions. There is also a disabled toilet with a changing table in every vehicle. Bicycles, pushchairs and bulky luggage can be stowed in the newly designed multifunctional compartments right next to the entrance doors. During the journey, HVAC systems and air-sprung bogies ensure modern travel comfort. Large windows, even in the low-floor area, offer a fantastic view of the passing natural surroundings and cultural attractions. An innovative passenger information system and WLAN reception on the entire route complete the modern travel experience on the new FART and SSIF trains.

Safe travel on narrow-gauge tracks

The Vigezzina – Centovalli Railway is a narrow-gauge railway (1,000 mm) that crosses the two Alpine valleys. There is no alternative for negotiating the extremely winding route smoothly and with no jolting (348 bends, tightest radius of 42 metres). Between Trontano and Masera, the trains have to climb gradients of up to 60 percent. The adhesion multiple units can do so without assistance (rack and pinion) thanks to Stadler’s powerful traction equipment. The technology behind the vehicles consists of a 1,350 V direct current from the overhead contact line, 125 kW wheel power per motorised

bogie, and 500 to 1,000 kW total power at the wheel (two-car / four-car set). A tractive force of 80 to 160 kN (depending on the configuration) enables the trains to achieve a starting acceleration of 1.15 m/s² (gross) and a maximum speed of 60 km/h (designed for 99 km/h).

Modern, efficient and environmentally friendly

The low-floor multiple units for the Vigezzina – Centovalli Railway are built from a modular construction kit. The car bodies are made of lightweight aluminium, while drive equipment redundancy ensures high reliability. The impressive, elegant design of the outside of the trains, which continues inside the cars, will represent

the face of the narrow-gauge railway in the future. The modern style and the elegant Stadler front give the multiple units a particularly dynamic look. Passengers can expect modern comfort, accessibility and state-of-the-art communication in the new multiple units. At the same time, they offer operators the opportunity to transport more passengers than before and to make railway operations in general more efficient, sustainable and environmentally friendly thanks to the varied configuration options as two-, three- or four-car multiple units. The new local trains will be put into operation on the Vigezzina – Centovalli Railway from 2025 (2025 for FART and 2026 for SSIF).



Germany

Alpha Trains & Rolls-Royce sign letter of intent for up to 1,000 overhauls of mtu rail drive systems

Alpha Trains and the Division Power Systems of Rolls-Royce are planning to conclude a framework agreement for up to 1,000 overhauls of the mtu drive systems used in Alpha Trains' fleet of DMUs, which consists of the Talent, Desiro and Lint series. The corresponding letter of intent was signed by both companies at Innotrans, the leading international trade fair for rail and transport technology.

The main objectives of the agreement are to fully align the overhaul processes with Alpha Trains and its customers, to develop replacement solutions in the event of possible obsolescence, i.e., to replace components before they become obsolete, and to maintain their deliverability. The Power Systems division of Rolls-Royce is also thoroughly reviewing the introduction of the EU maintenance certification ECM 2 and 4. The contract will ensure that mtu underfloor drive systems are maintained in the best possible way, both technically and economically, throughout the remaining service life

of Alpha Trains' diesel multiple units.

Alpha Trains owns 173 diesel multiple units equipped with 369 mtu PowerPacks from Rolls-Royce – including vehicles from the VT 643 (Talent), VT 642 (Desiro), VT 648 (Coradia Lint41) and VT 622 (LINT54) series. mtu PowerPacks are compact drive systems that, in addition to the engine and power transmission, contain all the auxiliary units necessary to drive the vehicle, such as the cooling system and the exhaust gas after treatment.

Jörg Hagemeyer, Engineering Director of the Passenger Division commented: "With the long-term partnership and the conclusion of this framework agreement between Rolls-Royce and Alpha Trains, we are offering our customers and the operators of our trains an all-round carefree package: we are increasing the attractiveness of the Alpha Trains DMU fleet and maximizing the availability of the drive systems."

Dr. Lukas Köhler, Managing Director Sales and Service Germany at Rolls-Royce Power Systems, added: "It is very important to us to be a long-term industry partner for Alpha Trains. In particular, our investments in our remanufacturing plant in Magdeburg and our service engineering have enabled us to provide Alpha Trains and its customers with the best possible long-term support in operating their vehicle fleets. Part of our strategy is to continuously improve our service business by providing sustainable solutions."

Sustainable and efficient: a new lifecycle for mtu rail drives

Reman (short for remanufacturing) is the term used to describe the industrial renewal of main components and engines. mtu PowerPacks are completely disassembled using standardized processes, cleaned, tested, refurbished and reassembled with remanufactured components or new parts.

Product improvements are automatically incorporated in the process. The environment also benefits from mtu's reman solutions: products that have reached the end of their useful life are not simply disposed of but are renewed from the ground up.

This process minimizes the demand for raw materials and energy. The PowerPacks are then returned to the customer as good as new and are available for a further operating cycle of around 18,000 hours.

Denmark

DSB selects Sqills' S3 Passenger as a new inventory system

"We are excited about partnering with Sqills because we want to continue to provide the best possible service for our passengers while ensuring that we modernize our offer. Our inventory management system is at the heart of the DSB system landscape, making it a critical part of our commercial platform. Sqills' proven implementation track record plays a large role in feeling confident in this long-term partnership," said Jens Visholm Uglebjerg, Commercial Director DSB.

The fact that S3 Passenger meets virtually all DSB requirements out-of-the-box and Sqills' proven implementation track record are key enablers of a relatively short implementation project. "We are honored to partner with DSB in their journey to replace their reservation system. At Siemens Mobility, we are committed to driving the digital transformation of the rail industry by delivering technology that drives operational efficiency and ensures great passenger experience. We look forward to a successful collaboration, supporting DSB in meeting the evolving needs of their passengers and the industry," said Devina Pasta, CEO of Siemens Mobility Software.

"Over the past few years, we have continued to establish ourselves across Northern Europe and partnering with DSB is another indicator of the maturity of S3 Passenger. We feel that we are at the start of a great partnership that will be defined by a collegial and professional approach to jointly bringing better service to the Danish train traveller," added Johan Nieuwerth, Chief Product Officer Sqills.

Optimizing the customer experience

DSB is the leading Danish train operator and the largest train operator in Scandinavia. Last year, DSB transported more than 160 million passengers with around 5,000 train services per week. DSB's network runs urban, intercity and regional services, as well as international services. One of the most important future goals for DSB is further improving the overall customer experience while optimally using their available capacity. The S3 Passenger seating algorithm allows DSB to optimally allocate and sell available capacity during peak hours and leverage off-peak capacity more effectively.

The new partnership significantly extends the booking

horizon for DSB. With S3 Passenger, DSB can be more flexible in terms of adjusting to timetable changes. DSB benefits from this added flexibility while having the option to open ticket sales much longer before departure, even when later timetable updates require dynamic rebooking to the final departure times.

Another important aspect for DSB is making the complete journey more enjoyable for passengers. Keeping passengers informed about any changes to their journey through better and more direct communication.

Increasing offers and adapting to demand

DSB is also investing in an extensive transformation of its train fleet. Ageing train sets will be replaced by more modern electric and more climate-friendly trains, including 42 Vectron locomotives built by Siemens Mobility. The added fleet asks for flexibility in managing availability easily and dynamically on both the logical and physical level: S3 Passenger will provide DSB with

the necessary capabilities to serve Danish train travellers optimally.

To this end, DSB will be able to introduce dynamic zones in their trains, new off-peak fares provide more flexible booking and after-sales options. If there is an increased demand for certain types of seat capacity, DSB will be aware of this and can adapt accordingly.



Belgium

Lineas and ECS strengthen sustainable transport with new rail link to Germany

Lineas, Europe's largest private rail freight operator, and ECS, a market leader in supply chain solutions and intermodal transport, are proud to announce the launch of a new, sustainable freight train connection between Zeebrugge and Crailsheim (Stuttgart region) in Germany. Thanks to this cooperation, three trains will be running back and forth every week, taking more than 11,000 containers off the road per year – which is good for a CO2 saving of 2,600 tons. With this new route, ECS is moving closer to its goal of reaching 100 million kilometres travelled annually by rail by 2030. Starting in September, the first freight trains will travel over the new rail connection between Zeebrugge and Crailsheim, Germany. This route connects seamlessly with the existing rail and shortsea connections to, among others, the United Kingdom and Ireland, and further strengthens the logistics network of the intermodal transport specialist ECS. The commissioning of the rail connection was made possible in cooperation with Lineas, the largest private rail freight operator in Europe.

Over 11,000 containers

The new connection will carry 42 containers back and forth between Zeebrugge and Crailsheim, three times a week. This will take more than

11,000 containers and as many trucks trips off the road each year, which will not only reduce traffic but also significantly reduce CO2 emissions. The estimated savings amount to as much as 2,600 tons of CO2 per year.

New loading and unloading method

The new rail link uses a new loading and unloading method in which the full set of wagons to be unloaded is disconnected, and a set of wagons, that is already filled, is picked up. This method minimizes loading time and allows the 751-kilometer route to be completed within 24 hours, with minimal time loss and high punctuality compared with congestion-prone track transport.

Sustainability

Bernard Gustin, Executive Chairman of Lineas, emphasizes: "This collaboration underscores our shared commitment to providing sustainable transportation solutions that not only improve supply chain efficiency, but also help reduce CO2 emissions. Together with ECS, we are taking an important step towards a greener future."



Spain

Talgo and PESA to collaborate in Poland high-speed rail network expansion

Spain-based high-speed train manufacturer Talgo and Polish rail vehicle supplier Pesa have entered into an agreement to start exploring the possibilities to collaborate in the development of the new high and very high-speed rail network in Poland.

The two companies have signed a Memorandum of Understanding (MoU) during Innotrans 2024, the world's biggest transport show in Berlin and where both companies are presenting their offering for rail passenger markets across the European Union.

Signed by Talgo President Carlos Palacio and Pesa CEO Krzysztof Zdziarski, the MoU covers the exploratory works to prepare later agreements and along three main business lines: the very high-speed rolling stock procurement process to be called in Poland in 2025, other future high-speed projects yet to be defined and finally -and within even broader terms- the collaboration for new, additional opportunities.

Under current plans unveiled last year by the government of Poland, the country will construct a new high-speed

rail line connecting some of its biggest cities, including Warsaw, Łódź and Wrocław, the first of a range of around 2,000km of new passenger dedicated routes to be constructed in the following years and as part of the Centralny Port Komunikacyjny (CPK) project.

Talgo President Carlos Palacio stated: "It is for us a pleasure to enter into a preliminary collaboration with Pesa, a conventional rail vehicle specialist with a strong presence in Poland and neighbouring countries and a deep and precious knowledge of the Polish rail market. We look forward to demonstrating the capabilities of our very high-speed platform Talgo Avril, already under service in Spain, and the modularity and interoperability of Intercity 230, our range of long-distance trains to be deployed soon in Denmark and Germany and that we are showcasing here in Berlin, at Innotrans 2024".

"Pesa has been working on the development of the HS project for several years. From the beginning, we assumed that we would implement this project with a technology partner. The potential of Talgo and Pesa complement each other, and I am convinced that together we will

offer a vehicle that will perfectly fit the needs of carriers on the Polish market and in the entire Three Seas region." – said Krzysztof Zdziarski, Pesa President and CEO. Talks on cooperation between Talgo and Pesa have been ongoing for over two years, the terms of the agreement were negotiated, but above all, technical teams worked to prepare the assumptions of the concept of a base vehicle and partners' responsibilities for tasks within the project, so the consortium is already prepared to present an offer of HS vehicles for the Polish market and neighboring markets.

About Talgo

Talgo is a leader in the design, manufacture and maintenance of high-speed and intercity trains, with industrial presence in Spain, Germany, Denmark, Saudi Arabia, Egypt, Kazakhstan, Uzbekistan and the United States. Recognised worldwide for its capacity for innovation, unique and distinctive technology and reliability, the company has a team of more than 3,300 people of around 50 nationalities. Talgo is the main supplier of high-speed and very high-speed trains to Renfe, and the supplier of trains for

the "Haramain" project between Mecca and Medina in Saudi Arabia. Talgo is also the manufacturer chosen by Deutsche Bahn in Germany and the DSB in Denmark to decarbonise their mobility with Talgo 230 Intercity trains.

About Pesa

Pesa is the largest rolling stock manufacturer in Poland. PESA trains and trams run in all Polish regions and most large cities as well as in over a dozen European countries. PESA trams are used, among others, by the inhabitants of Warsaw, Kiev or Sofia. Its' vehicles carry passengers of e.g. German DB Railways, Italian Trenitalia, Czeskie Drahy or PKP Intercity. Pesa has been consistently developing competences related to the design and production of electric multiple units for years. Regional EMUs Elf1, Elf2 and the first Polish Intercity class vehicle PesaDART are used on the Polish market. Based on this experience, Pesa produced two-system, innovative vehicles of the 654 and 655 types for the private Czech carrier RegioJet. At the moment Pesa is producing new EMUs for Polish and Romanian Rails, 200 km/h EMUs for Regio Jet, and is also working on a HS train project.

From the Archives

France

SNCF No. 2D2-9135 stands outside Paris Charolais depot on a gloomy February 2nd 1998. *John Sloane*



From the Archives

France

A pair of former DB Class 211s operated by infrastructure contractor TSO stand outside the private Siefel locomotive works in the former SNCF steam shed at Mitry Claye on October 27th 1997.

John Sloane



From the Archives

Indonesia

A rare 1984 CFD built diesel No. BB 30505, one of only three such locos, stands at Djember shed in eastern Java on March 31st 1994. *John Sloane*



From the Archives

A pair of 1920's Class 626 Bo-Bo-Bo locomotives stand outside the shed at Bologna San Donato on August 27th 1989. *John Sloane*

Italy



From the Archives

A very lively No.SGS.2504 storms past a small village with the 10:25 from Wazirabad to Sialkot on February 14th 1980. *John Sloane*

Pakistan



From the Archives

No. 83-173 leads 83-052 into Sargan on the revived Mokra Gora line on May 29th 2007.
John Sloane

Serbia 



From the Archives

BLS No. 502 is an ex SBB loco and is seen departing Spiez with an evening train destined for Interlaken on August 28th 2019. *John Sloane*

Switzerland

