



Content

Pg 2 - Welcome

Pg 4 - Pictures

Pg 53 - World News

Pg 58 - From the UK

Pg 61 - From the Archives

Submissions & Contributions

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

Photographic Contributions

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

All images ideally should be provided at a resolution of at least 2048px x 1536px at 150dpi.

Contact Us

Editor: David

david@railtalkmagazine.co.uk

Co Editor: Andy

editor@railtalkmagazine.co.uk

Content Submissions

entries@railtalk.net

Technical & Subscription Support admin@railtalk.net

Front Cover

No. 909 approaches Bayshore whilst working Caltrain No. 146 12:00 San Francisco - San Jose. *Laurence Sly*

This Page

Indian Railways WDG4D No. 70704 shunts wagons at Kudal Nagar on December 12th.

Mark Enderby

Next Page

BLS Cargo No. 475.414 is seen near Boxtel with IRP locomotive No.2105 (which was heading to Viersen in Germany) and a rake of tankcars loaded with fuel for Rümlang (CH). *Erik de Zeeuw*







Welcome

Welcome to another edition of Railtalk Xtra, the monthly magazine that predominantly features railways outside the UK.

With Spring just around the corner, I am sure that many of our readers will be firming up plans for trips overseas, just like I am. However I was shocked to see how much that the current strike action in France was affecting SNCF services. It is a real shame as I am sure that it must be affecting the tourist industry, one website that I visited even suggested not travelling in France by rail as no services could be guaranteed.

In the Ukraine this month, national railway Ukrzaliznytsia will need funding of 51·2bn hryvnia over six years to modernise its locomotive fleet, according to management board member Frantisek Bures. He said that this programme 'should always support Ukrainian rolling stock producers'. - Now here in the UK, I have always advocated that this should be the case, support your own industry and companies first. The French buy from Alstom, the Germans and Austrians buy from Siemens, the Swiss buy from Stadler etc....

News from Czech/Slovakia this month includes the info that Arriva Vlaky has signed a long-term agreement to lease five two-car Siemens Desiro Classic diesel multiple-units from Alpha Trains which are currently operated by RegioJet in Slovakia.





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

Railtalk Magazine Xtra takes no responsibility for any information provided or printed in this magazine. Best efforts are made at the point of going to publish, to effect all information is correct, however no guarantees are given or implied.

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

respective owners once permission has been granted to pass on such

information. Advertising space is limited to a first come first serve basis. Should you wish to place adverts in the magazine please make contact with the editorial team before the 3rd Friday of each month. Railtalk are not responsible for adverts and no guarantees are given to the bona fides of any advertisers.

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

HAD-PRINT
Unit 6, France Ind. Complex
Vivars Way, Canal Road
Selby, North Yorkshire
YO8 8BE
info@had-print.co.uk | 01757 600211



With Thanks

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

These issues wouldn't be possible without: Ray Anslow, Brian Battersby, Mark Bearton, Mark Bennett, Tim Blazey, Rob Boyce, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Paul Godding, Richard Hargreaves, Jim Haywood, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Jyrki Lastunen, Ken Livermore, Michael Lynam,

Peter Marsden, Phil Martin,

Denzil Morgan, Thomas Niederl,
Peter Norrell, Chris Perkins,
Mark Pichowicz, David Pollock,
Andy Pratt, Paul Quinlan,
Railwaymedia, Alan Rigby,
Bryan Roberts, Neil Scarlett,
John Sloane, Stephen Simpson,
Laurence Sly, Stewart Smith,
Steamsounds, Steve Stepney,
Mark Torkington, Gerard van Vliet and
Erik de Zeeuw.



After departing the UK rail network, public transport operating group Stagecoach has joined the ALLRAIL association of new entrants to the European rail market. It has extensive experience of the rail network, but was disqualified from three franchising competitions in a dispute about financial risk which has now gone to the High Court, and its all its rail franchises have now ended. In December the company said it had 'no intention to bid for new UK rail contracts on the current risk profile offered by the Department for Transport'. Instead it is targeting new markets, and has been shortlisted for a contract to operate Roslagsbanan commuter rail services in Stockholm for 12½ years from 2021.

And under the slogan 'lying not flying', OBB has launched its twice-weekly Wien – Brussels Nightjet overnight train on January 19th. The ceremony at Wien Hbf was attended by Austria's Minister of Climate Protection, Environment, Mobility, Innovation & Technology Leonore Gewessler as well as members of the European Parliament. 'With Nightjet, we are bringing night trains back to Europe', said ÖBB CEO Andreas Matthä. 'With this service to Brussels we have launched an eco-friendly travel option to the EU capital. In the future, we are planning to introduce more night services in Europe, together with our partners.'

As always a massive thanks for all the excellent photos, please keep sending them in, and remember if you are going on holiday, don't forget to take your camera.

David Editor



















On January 23rd, OBB 1216.023 with Eurocity train No. EC87 from München Hbf. to Venezia Santa Lucia passes the 'Antonius Chapell' which is located between Brixlegg and the halt at Münster-Wiesing. *Thomas Niederl*







The latest Taurus to receive advertising branding is Class 1116.231 which promotes the introduction of the new fast 5G mobile phone network powered by the state owned network provider A1. Also the train is a little bit special as normally it is operated by a modern Class 4744 EMU, but on January 24th it was hauled by a push/pull service to offer more seats because on this weekend in Kitzbühel very famous ski races were taking place. *Thomas Niederl*







Another Taurus in advertising livery is Class 1116.168 which promote the various apprenticeship opportunities within the whole ÖBB (The railway employs about 500 trainees every year). The engine is seen here hauling Eurocity train No. EC164 'Transalpin' from Graz Hbf to Zürich HB next to the halt at Gries im Pinzgau. On the far end of the train is one of the SBB first class panorama carriages. *Thomas Niederl*





ÖBB orders 11 new Desiro ML trains from Siemens Mobility By the end of 2021, a total of 200 ML ÖBB Cityjets will be in service Further trains will be retrofitted with ETCS to ensure highest safety standards

ÖBB (Austrian Federal Railways) is calling up eleven trains from the existing framework contract for 200 Desiro ML trains from Siemens Mobility, thereby completing the contract. When the new trains are delivered by the end of 2021, a total of 200 Desiro ML ÖBB Cityjets will be in service and substantially enhance the quality of travel for passengers. Equipped with WLAN, air conditioning, power outlets, tables for opposite seats and many other amenities, the trains offer local commuters all the comforts and conveniences that previously were only available on long-distance trains.

The first 101 Desiro ML ÖBB Cityjets have been in service in eastern Austria since 2015. The second call for 64 trainsets followed in 2016, and 24 more trains were last called up in 2019. Sabrina Soussan, CEO of Siemens Mobility, notes that "the Siemens Mobility Desiro ML combines reliability, safety and operational efficiency with great comfort and extremely satisfied passengers. Austria's rail users now have 200 good reasons for traveling in ecofriendly trains. Moreover, some of the Desiro ML ÖBB Cityjets are equipped for battery hybrid technology and can ensure emission-free, climate-friendly travel."

The eleven new Desiro ML ÖBB Cityjet trains will be built in cooperation by the Siemens Mobility plant in Krefeld and the ÖBB Technical Service GmbH in Wien Jedlersdorf and equipped with the European Train Control System (ETCS). The other Desiro ML ÖBB Cityjets in the fleet will also be equipped with ETCS by the end of 2023. The ETCS train control technology enables operators to schedule shorter headways on existing rail infrastructure.

The entry areas of the new Desiro ML ÖBB Cityjets have been further optimized to ease and flow of passengers at stations and ensure high punctuality in Vienna's S-Bahn network. The trains are barrier-free and offer passengers numerous amenities: the comfortable seats, tables at the opposing seats, power outlets, window shades, full-length luggage racks, reading lights, WLAN with the Railnet Regio on-board portal, and large monitors for passenger information provide a relaxing and convenient travel experience.

The Desiro ML ÖBB Cityjet from Siemens Mobility scores technically with an overall length of 75 meters, a top speed of 160 km/h and the ability to rapidly accelerate. Another special feature: The eleven newly ordered trains, like the 24 Desiro ML trains ordered in March 2019, are equipped for converting to battery hybrid technology. When converted, they can also be used as emission-free alternatives on non-electrified rail lines. This will enable passengers on these routes to travel in modern, comfortable, barrier-free and environmentally friendly trains without having to change trains.





Zillertalbahn 760 mm gauge diesel locomotive No. D16 arrives at Mayrhofen with a service from Jenbach on December 26th. *Jim Haywood*





Last year, Rail Cargo Hungaria's (RCH) own locomotive fleet went further than ever before, covering a distance of 5.6 million kilometres. Investments in innovative and environmentally friendly traction are set to continue.

Rail Cargo Hungaria started its own traction services in January ten years ago: equipped with its own locomotive, its own driver and 35 wagons, the first journey to Miskolc-Rendező got underway. "Establishing our own traction services was an important step to strengthen our position as the market leader in the Hungarian freight transport segment", emphasizes Imre Kovács, Chairman of Rail Cargo Hungaria and Member of the Rail Cargo Group's Board of Directors.

Increasing traction capacity

The subsidiary's mileage already exceeded 3.2 million kilometres within the very first year. Continuous expansion of the machine park has made the distances travelled using their own traction services longer and longer. Now with a mileage of 5.6 million kilometres and a locomotive fleet consisting of 45 modern and environmentally friendly traction units, the scope of RCH's services is greater than ever before.

Innovative and environmentally friendly traction

In 2020, Rail Cargo Hungaria's wagon fleet will be extended with the addition of five Vectron

electric locomotives.
This increase in capacity means that more than 60 % of freight volumes can be brought to their destination using their own equipment. "In order to safeguard the long-term stability of our activities, further ongoing capacity development is of strategic importance", says Kovács.

Photo:© ARNOLD Balazs





Austria

Zillertalbahn driving trailer with diesel loco No. D16 at the rear forming the 10:17 service to Jenbach stands at Mayrhofen on December 26th. *Jim Haywood*







Built by MLW in Canada but instantly recognisable as part of the YDM4 family, No. 2320 awaits departure from Mymensingh with train No. 43, the Mahua Express, from Dhaka to Mohanganj on November 18th. *Mark Torkington*







Hyundai Rotem (Korea) built EMD GT18 No. 2908 arrives at a rather crowded Dhaka Biman Bandar station with an Intercity train heading out of Dhaka. This section of track is Dual Gauge catering for both Metre Gauge and Broad Gauge as the whole Bangladeshi system is split between the two. *Mark Torkington*



















The Year 2020 Will Present a High Pace for Správa železnic in Reconstructing Lines, Station Buildings and HSL Preparation

This year, Správa železnic accelerates preparation of dozens of investments. More dozens of projects will enter their implementation phase. The high-speed lines' pilot sections project and station buildings' reconstruction keep going intensely as well. More specific diagnostics and static assessment of railway bridges will be completed. Safety at railway crossings is also one of our priorities. Správa železnic expects the implementation of more than 75 investments with costs exceeding CZK 30 million. "Preparation of more important investments is successfully under way. From these, we can enumerate e.g. construction for the railway service Prague, Václav Havel Airport and Kladno project where we have already reached the stage of preparing documentation for a building permit in some cases", says Mr. Jiří Svoboda, Director General of Správa železnic and adds: "The expected modernization of Pardubice Junction or reconstruction of Vsetín Station are going to be implemented; the first investments financed from the Blending Call instrument will be launched as well".

The most important investments with expected implementation launch in 2020

The first two constructions financed from the newly outlined EU instrument designated as Blending Call which combines a contribution from the Connecting Europe Facility (CEF) and a loan from the European Investment Bank are in the phase of supplier selection. More specifically, this will concern reconstruction of line sections Velim – Poříčany and Dětmarovice – Petrovice u Karviné – state border with Poland. Construction works as such should start this spring already. In 2020, Správa železnic will put into operation 48.9 km of modernized lines and launch constructions on 106.8 km of lines. Thanks to stations' modernization, the number of railway stations, stops and passenger buildings accessible for impaired persons will increase.

Station buildings, completing access and barrier-free accessibility of railway stations:

- Passenger building reconstruction at České Budějovice
- Passenger building reconstruction at Plzeň hlavní nádraží
- Passenger building reconstruction at Beroun
- Passenger building reconstruction at Veselí nad Lužnicí
- Passenger building reconstruction at Písek
- Passenger building reconstruction at Tábor
- Extending underpasses at Praha hlavní nádraží (Prague Main Station)
- Reconstruction of platforms and ensuring barrier-free access at Roudnice nad Labem
- Ensuring barrier-free access to platform at Kolín
- Reconstruction of platforms and ensuring barrier-free access at Lovosice
- Ensuring barrier-free access to platform at Roztoky u Prahy

- Velim Poříčany, BC
- Ústí nad Orlicí Brandýs nad Orlicí original path, BC
- Dětmarovice Petrovice u K. border with Poland, BC
- Optimization of line section Mstětice (excepted) Praha-Vysočany (included)
- Line electrification including pre-electrification adaptations Brno Zastávka u Brna, 1st stage
- Reconstruction of line section Křižanov Sklené nad Oslavou
- Reconstruction Sklené nad Oslavou
- Track adaptations at Žďár nad Sázavou
- Modernization of Pardubice railway junction
- Reconstruction of station Vsetín
- Reconstruction of station Bohosudov
- Bridge reconstruction in km 41.791 of line Tábor Písek

Technological constructions:

- GSM-R Pardubice Hradec Králové Jaroměř
- GSM–R Ústí nad Labem Chomutov
- GSM-R Chomutov Cheb
- Increasing traction output of Rostoklaty traction substation
- Completing GSM-R base radio stations with redundant feeding
- ETCS Beroun Plzeň

HSL Pre-project Preparation Will Continue

Správa železnic will move further in HSL territorial and preproject preparation in 2020. The Prague – Brno – Ostrava branch feasibility studies will be completed. The procedure of updating Principles for territorial development of individual regions will continue to allow acquiring a territorial decision; elaboration of documentation for territorial decisions for the first HSL sections will be launched as well. A tender for preparing documentation for a territorial decision concerning the first section Praha-Běchovice – Poříčany is currently under way; the sections Přerov – Ostrava and Modřice – Vranovice will be added at minimum. During pre-project preparation, results of cooperation of Správa železnic with SNCF will be used in full, i.e. the so-called Manual of Správa železnic for preparing HSL projects in the stage of documentation for territorial proceedings. High-speed lines in the Czech Republic will thus be designed for speeds up to 320 kph. Cooperation of Správa železnic with DB Netz in project preparation for the cross-border tunnel at Krušné hory (Ore Mountains) will commence in full. Public orders related to implementation of this big common European project of both infrastructure managers will be tendered jointly.

Increasing safety at railway crossings

Increasing railway operation safety and an even better safeguarding of railway crossings remains one of the main priorities also in 2020. Camera systems at 14 selected railway crossings are going to be completed by software for detecting road trespassing and their handing over to the Czech police. At the same time, Správa železnic will start preparing

implementation of camera systems with road trespassing detection at 16 more selected crossings. In the field of signalling technology, Správa železnic will continue verifying further possibilities for increasing operation safety at railway crossings. Testing operation will start also on aluminium barrier beams. More specific diagnostics and static assessment of railway bridges will be completed, especially in the programme for diagnostics and conversion of bridges with pre-stressed superstructure. However, special diagnostics and possibly static conversion will be applied to other bridges as well. In connection to ETCS implementation, Správa železnic will open a tender for completing selected special hauling vehicles by the ETCS system mobile part. Following that, ETCS construction will be implemented. In 2020, a supplier should be selected and construction of six new special hauling vehicles for catenary maintenance should be launched. Operational testing of switch points for a speed of 160 kph to a branch at Prosenice Station will also be launched. In 2020, an accelerated rate of complex repairs' implementation will continue, both on nation-wide and on regional lines. They have as objective to eliminate current speed drops and to prevent slow rides' occurrence. The most important ones are the following:

- Repair of section Přerov Chropyně
- Repair of line in section Rakovník Domoušice
- Repair of catenary in section Praha-Vršovice osobní nádraží (excluded) – Praha-Vršovice seřaďovací nádraží (Marshalling Yard - excluded) – Praha-Krč (excluded) – Praha-Radotín (excluded)
- Repair of section Petrohrad Kryry (launched in 2019)

Due to the cyclical maintenance concept approval, implementation of cyclic renewal pilot projects on Czech Rail Transit Corridor I in the section Děčín-Prostřední Žleb – Dolní Žleb – state border with Germany will be launched in 2020.

Connecting more sections to Traffic Control Centres in Prague and Přerov

Správa železnic prepares connecting more line sections to remote control from the Traffic Control Centres. In 2020, control of the Plzeň junction and the section Ústí nad Orlicí (excluded) – Lichkov will be connected to the Traffic Control Centre Prague. The section Dětmatovice (excluded) – Mosty u Jablunkova control is going to be connected to the Traffic Control Centre in Přerov. In the field of Track Condition Tables, Správa železnic will launch in February testing operation in a new format on selected lines. Normal operation launch is scheduled for the second half of this year. Planning and coordination of closure activities will continue with the last year model of negotiating closure activities while emphasizing active participation of carriers, focused especially on large extent closure activities such as Blending Call type investments as well as for preparation of the annual closure plan. Representatives of Správa železnic will be meeting passenger and freight carriers in regular quarterly intervals.





ETCS System Being Tested for Higher Speeds Between Břeclav and Vranovice

One of the objectives of running tests under way between Břeclav and Vranovice is to test the European Train Control System (ETCS) also for speeds of 200 kph. This system started serving commercial railway operation in the section Břeclav – Kolín last year. Its installation is i.a. one of the necessary conditions for a gradual speed increase on the Czech railway above the current 160 kph.

For these runs, the testing locomotive Siemens Vectron was used. It is fully equipped with the on-board ETCS system part in version of basic specifications No 2 (the so-called Baseline 2). Besides basic function tests, proper cooperation between the on-board and the fixed part of the ETCS system has also been verified. It did not show any defects and confirmed the system's full functionality even at speeds of 200 kph. "The tests' results demonstrated that after necessary modifications of the railway infrastructure, it will be possible in a relatively short time to increase maximum speed of trains in some line sections", says Mr. Jiří Svoboda, Director General of Správa železnic.

Firstly on the rail network of Správa železnic, the ETCS system was completed in a part of Czech Rail Transit Corridor I Kolín – Česká Třebová – Brno – Břeclav – state border with Austria/Slovakia. "The ETCS system allows a reliable and continual control of trains' running. The technology being used verifies if the train runs in the exactly specified section of the line. If the drive e.g. does not respect the "Stop" signal, the system will ascertain this defect and the train can stop safely", adds Mr. Svoboda.

At present, the ETCS system covers in total 255 kilometres of railway lines managed by Správa železnic; more 206 kilometres between Břeclav and Petrovice u Karviné and 108 kilometres between Přerov and Břeclav will be added this year. The system is being currently installed also on further lines, more specifically Praha Uhříněves – Votice (will be completed this year), Kralupy nad Vltavou – Prague – Kolín (completion in 2023) and Plzeň (excluded) - Cheb (completion in 2022). Project preparation is currently under way for several more sections. The national implementation plan assumes that as of 1 January 2025, no trains without an onboard part of the ETCS system will be allowed to run on corridor lines.

The necessity to introduce the unified European Train Control system is due especially to the fact that there are currently many types of train control systems in EU member states. Besides fundamentally basic differences in their construction and technical design, they also demonstrate a different level of assuring railway operation safety. However, their main

disadvantage is that trains in international transport must be equipped with various types of devices to communicate with train control systems of the states on the territory of which they are at a given moment. One common system can eliminate this unsatisfactory situation.

The ETCS system is an international train control system corresponds not only to EU legal regulations and technical specifications for interoperability but is also applied by Správa železnic in such a way to satisfy requirements of national regulations for equipping the infrastructure with the necessary safety equipment. Pursuant to legal regulations of the Czech Republic, a condition applies for investments co-financed from EU funds that in case of modernizing lines for speeds exceeding 100 kph, the obligation of their equipping with the ETCS system always arises. On lines managed by Správa železnic, ETCS Level 2 is currently being installed. It requires using data transfers by the GSM-R radio rail network which is an equivalent to the GSM mobile network with functions and modifications made for the railway. The ETCS system does not control only the movement and position of trains on relation to signal heads with the "Stop" signal but it also supervises the observance of the maximum speed allowed in the given section and the maximum speed allowed for the train. In case of its exceeding, the train controls system will interfere into the direct vehicle's control. However before starting service or emergency braking, it warns the driver first so that he has the option to decrease the vehicle's speed himself by changing the way of driving or to stop the vehicle; thus it can prevent an intervention of the system as such.

Within the ETCS system Level 2, communication between the fixed ETCS part (radio block centre) and the on-board (mobile) ETCS parts in trains is going on by means of the GSM-R network. In practice this means that the radio block centre has at its disposal information from conventional train control systems on the whole line, trains provide information on their position and based on this information, trains are given clearance for running. Information on the trains' position is ascertained within the ETCS system both from conventional systems for trains' detection and by form of the trajectory run from eurobalises which are more line components of the ETCS system located in the tracks.

Interruption of transport between China and Russia

Traffic between the Russian Federation and the People's Republic of China is temporarily suspended. Based on Government Regulation No. 140-r of January 30th, traffic at the border crossing points between the Russian Federation and the People's Republic of China has been suspended since Friday January 31st. The measure of coronavirus epidemic is a temporary nature pending.

Photo: ©CD Cargo





Czechia

Siemens Mobility and Tisséo double capacity of Toulouse's metro line A

Capacity of Toulouse metro Line A doubled by increasing train lengths from 26 to 52 meters

Siemens and Tisséo worked through 1,000 nights to complete project on time without interrupting service World premiere for a fully automated VAL metro

Tisséo Collectivités, the transport network of Toulouse, inaugurated the new "XXL" Line A in its metro system. Awarded in November 2015, the "My Line A in XXL" project aimed to double metro capacity by increasing train lengths from 26 to 52 meters with 4-car rather than 2-car trains. The new trains can now carry up to 320 passengers, increasing the daily capacity of Line A from 220,000 to 400,000 passengers. The goal is to eventually reach an operating interval of 75 seconds between each train during peak hours to reduce waiting times and improve passenger experience in France's fourth largest city.

- Capacity of Toulouse metro Line A doubled by increasing train lengths from 26 to 52 meters
- Siemens and Tisséo worked through 1,000 nights to complete project on time without interrupting service
- World premiere for a fully automated VAL metro

Tisséo Collectivités, the transport network of Toulouse, inaugurated the new "XXL" Line A in its metro system. Awarded in November 2015, the "My Line A in XXL" project aimed to double metro capacity by increasing train lengths from 26 to 52 meters with 4-car rather than 2-car trains. The new trains can now carry up to 320 passengers, increasing the daily capacity of Line A from 220,000 to 400,000 passengers. The goal is to eventually reach an operating interval of 75 seconds between each train during peak hours to reduce waiting times and improve passenger experience in France's fourth largest city.

The remarkable commitment of the Siemens Mobility teams and their partners enabled them to complete the project within a very demanding timeline. Every night, a team of around fifty people from Siemens Mobility and its partners worked between midnight and four in the morning to modify the system. Each night shift concluded with tests to ensure that the new system functioned properly. Day after day, Siemens Mobility met all requirements for the line's security and availability and enabled passenger service to begin at 5:15 a.m. During the summer of 2018, more than 100 people collaborated on the project.

The Siemens Val is the world's first fully automated, driverless metro on tires, and the first line entered revenue service in 1983. A flagship product of Siemens Mobility, it has been developed in Toulouse. Le Val systems have already transported more than five billion passengers worldwide and are used for twelve automated metro lines whose performances are among the best in the world

"As one of France's fastest-growing cities, Toulouse needs a transportation system that

guarantees availability and provides a great passenger experience.
Our VAL solution will help the city achieve these objectives by doubling capacity on Line A for daily commuters and visitors alike," stated Sabrina Soussan, CEO of Siemens Mobility.

Siemens Mobility
managed the overall
system integration for
the project, including
engineering, software
developments and
modifications to the Val
system (rolling stock,
automation system, track,
platform screen doors,
network, automatic
supervision and central
control station in BassoCambo).



























Stadler is to supply 14 trams of the next generation of vehicles to HEAG mobilo Darmstadt

Stadler has emerged as the winner of the HEAG mobilo GmbH tender for the delivery of 14 trams, with an option for up to 30 additional vehicles. Stadler has thereby succeeded in placing its new tram family successfully on the market for the first time within a very short time. The contract is valued at approx. 62 million euros.

HEAG mobilo, the Darmstadt tram operator, has awarded Stadler the contract for the delivery of 14 trams of the next generation of vehicles. As a result, Stadler has acquired an initial buyer for the company's newly developed tram model within a very short time. The innovative low-floor vehicles have been optimally tailored to the requirements of operators and passengers alike. With a vehicle length of 43 metres, the five-car unidirectional vehicles offer space for 284 passengers, with seats for 103 of them. The optimised passenger compartment allows unrestricted access to the seats from every vehicle door. The position of the wheelchair spaces within the multi-purpose areas is identical to that in vehicles from the current rolling stock in order to make it easier for passengers to find their way around the new trams. Large panoramic windows provide a clear view and, together with the high ceiling, create a feeling of spaciousness. The trams are fully equipped with modern CO2 air conditioning systems that work with the natural refrigerant CO2, ensuring a much better environmental performance than with conventional refrigerants.

A driver assistance system with traffic sign recognition increases vehicle transport safety. The new and innovative bogie technology helps to optimise installation space, increase passenger comfort as well as improve the maintainability and economic efficiency of the

vehicles. In addition, the new Stadler low-floor tram family enables a very high degree of flexibility and standardisation, from which HEAG mobilo will be the first customer to benefit. The new trams will start passenger service in mid-2022.



"It makes us proud to have placed our new and highly innovative tram model in Darmstadt within such a short time", says Christoph Klaes, Head of LRV Sales Stadler. Dirk Schillings, Chief Technical Officer LRV at Stadler: "We are convinced that the new low-floor vehicles will meet the high standards of innovation demanded by passengers and HEAG mobilo."

"We are very pleased by the successful outcome of the tendering process. The procurement of the 14 new ST15 trains is the largest investment in the history of HEAG mobilo. We are delighted to be obtaining one of the most modern and innovative tram models currently available on the market", says Michael Dirmeier, Managing Director of HEAG mobilo.





DB Class 218.249 hauls an engineers working through Hamburg Harburg. *Class47*





Germany

Jennary

Making light work of heavy loads



DB Cargo is a specialist when it comes to transporting heavy loads by train. The company recently completed two such projects.

Two recent construction projects have almost become household names in Germany: the Filder Tunnel on the new rail line connecting Stuttgart and Ulm, and the bridge connecting Mainz and Wiesbaden at Schierstein. Both undertakings entailed the installation of massive pre-cast concrete components manufactured by Max Bögl, a company based in the central Bavarian town of Neumarkt in der Oberpfalz. Using rail transport did away with the need for scores of truck journeys, which not only resulted in an impressively low carbon footprint, but also reduced the pressure on a road infrastructure already bursting at the seams.

At over 9 km in length, the Filder Tunnel needed some 600,000 tonnes of curved cladding for its internal walls. Each of the concrete rings used to build the tunnel weighs an impressive 93.3 tonnes and is composed of seven individual segments. DB Cargo used a six-axle flat

wagon to transport a full ring – by road, each ring would have needed three and a half trucks. A train consisting of over 20 wagons enabled DB Cargo to move 20 rings, weighing a total of 1,866 tonnes, at the same time. This was equivalent to 70 HGV journeys.

DB Cargo account manager Otto Fiedler does the maths: "Though the trains had to cover an extra 20 km, they used less than half the energy that trucks would have consumed. This cut CO2 emissions by almost 5,500 tonnes." Constructing the Filder Tunnel was a difficult undertaking, but over the course of four years, this highly efficient logistics concept formed the basis of a reliable supply system that met the needs of all the parties involved. The five supports for the bridge at Schierstein posed a challenge of a very different kind for DB Cargo. Each support was almost 30 meters long, weighed up to 100 tonnes and

required a special carriage permit before transport could begin. A train brought the supports to Wiesbaden Ost, with three wagons necessary to carry each support. "The supports' dimensions put them at the upper limit of what we could transport, so we had to close the lines to traffic in the opposite direction – something that was only possible at night. At one particular location, clearance was so tight that the train had to proceed at walking speed under the close supervision of DB Netz staff," recalls customer advisor Otto Fiedler.

If they had gone by road, the supports would have needed several special transports and permits. The roadworks dotting the motorway route would have been impossible to negotiate given the cargo's sheer size. This would have made long detours necessary, pushing costs up considerably. These are just two examples of DB Cargo's skill at organising and handling transports for ultra-heavy loads over long distances. The minimal impact in terms of the climate and environment is another compelling argument for the use of rail-based logistics, even for highly unusual freight.

BoxXpress Class 193.882 heads for the dock at Hamburg Harburg with an intermodal service. Class47



















One of Indian Railways new Vande Bharat Express 'high speed' electric units (in operation it will run at 130km/h max due to track conditions) awaits departure from New Delhi with the daily 06:00 train to Katra. The big change that these trains represent, is that it is the first European style fixed formation multiple unit in use for long distance service in India, with multiple units previously being restricted to short local commuter operations, and although there's still a long way to go, its a sad step downhill for a country where loco haulage still dominates. *Mark Torkington*





- WDM3 No. 11374 hauling the 'Deccan Odyssey' is seen at Karmali on December 8th.

 Mark Enderby
- Chittaranjan Locomotive Works WAP4 No. 22548 passes east through Kudal Nagar with a train to Trichi on December 12th. *Mark Enderby*
- Nilgiri railway steam loco No. X37397 hauls a works train at Mettuppalaiyam on December 9th. *Mark Enderby*















- Chittaranjan Locomotive Works WAP4 No. 22232 passes east through Kudal Nagar on December 12th. *Mark Enderby*
- WDM3A No. 13501 hauling a westbound local passenger service arrives at Kudal Nagar on December 12th. *Mark Enderby*









- A well loaded and decorated WDM3 No. 16853 arrives at Kodambakkum to return a charter to Egmore on December 14th. *Mark Enderby*
- EMU No. 13020 stands at Puducherry on December 13th. *Mark Enderby*
- WAP4 No. 22031 runs round its train at Puducherry on December 13th. *Mark Enderby*

















- On January 16th, an NS service is seen between Boxtel and Tilburg with two Traxx locomotives (top'n'tail) working an 'Intercity Direct' from Eindhoven to The Hague. *Erik de Zeeuw*
- R-Net No. 6350 (Stadler GTW) crosses the swing bridge over the Merwede Canal working a service from Dordrecht to Geldermalsen on January 16th. *Erik De Zeeuw*
- On January 19th, DB Class 189.067-2 and 189.038-3 commence their journey to Germany in the West Gate of Amsterdam with a 5.000 ton coal train. *Erik de Zeeuw*











After arriving with a service from Bad Bentheim, NS No. 1744 takes the empty stock to the yard for servicing on January 17th. Erik de Zeeuw







Near Willemsdorp, Railpool's Class 186.493 and 186.256, on hire to DB and with bodyside adverts for jobs at DB, double head the Prusków Shuttle from Grodzisk Mazowiecki (PL) to Combinant (Combined Terminal Antwerp) in Antwerp (B), January 13th. *Erik de Zeeuw*







Rail Experts No. 9901 departs Amsterdam Centraal station with the returning 'Alps Express' from Austria, heading to Haarlem, Leiden and end station The Hague, January 19th. *Erik de Zeeuw*













#TimetoAct was the key motto for the 25th United Nations Climate Change Conference in Madrid. Transfesa Logistics has given one of its locomotives a new look to drive this message home.

"Action for the Climate" is Goal 13 of the United Nations Development Programme (UNDP), and Transfesa Logistics has taken it to heart by calling for greater support for rail freight transport. Thanks to its environmental benefits, rail freight can help achieve a more sustainable future. A locomotive with a special new livery bearing this message will spread the word as it crisscrosses Spain on its travels.

Transfesa Logistics CEO Bernd Hullerum says, "Rail's specific energy consumption is six times lower than the figure for trucks, and its performance in terms of CO2 emissions is nine times better. All of us need to do what we can to contribute to a more sustainable world and to reduce our impact on the environment." Julián Gacimartín, the company's rail services director, adds, "Promoting intermodal transport and increasing the share of rail

freight wherever possible are issues that are more urgent than ever. Industry, infrastructure and rail operators, and the government should all work together to transfer freight from roads to rail, creating an intermodal logistics system where rail freight forms the backbone."

The World Commission on Environmental Law (IUCN) created the Global Pact for the Environment. As a founding partner, Transfesa Logistics contributes to promoting the UN's Sustainable Development Goals. It is focussing particular attention on Goal 13 due to its important implications for rail transport.

Transfesa Logistics, a joint venture between Deutsche Bahn and Spain's national rail operator Renfe, is also part of the Rail Freight Forward (RFF) campaign, which has set itself the target of increasing the volume of freight transported by train from 18% at present to 30% by 2030. According to RFF, reaching this objective would reduce CO2 emissions by 290 million tonnes this decade.



Spain

The Metro system of Seville operates an 18 km line with CAF Urbos 2 units, completely separate from other road and rail traffic, running mostly underground. Seville Municipal Transport (TUSSAM) also operate several CAF Urbos 3 trams equipped for battery operation on a short route through the historic centre. On January 6th tram No. 303 is seen near the Puerto Jerez stop. *Bryan Roberts*















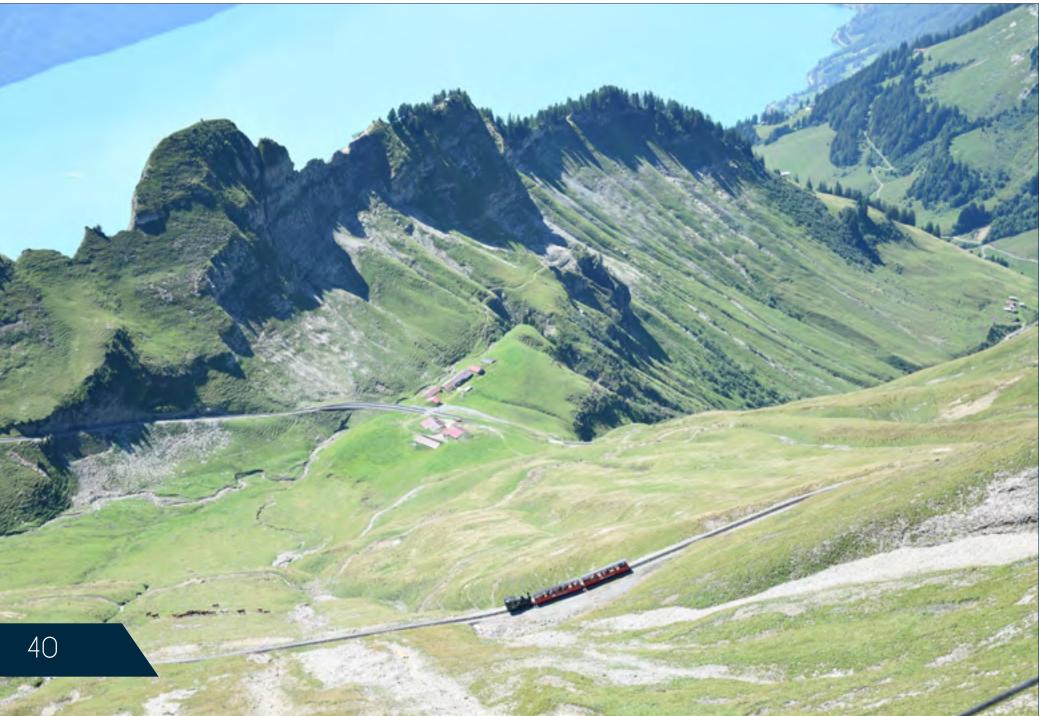




- Brienz Rothorn Bahn (BRB) No. 14 'Gemeimder Brienz' (SLM 1996) stands at Rothorn Kulm (2244m high) with Lake Brienz below.

 John Sloane
- Brienz Rothorn Bahn (BRB) Nos. 12 'Kanton Bern' (SLM 1992) and 7 (SLM 1936) await departure at Brienz. *John Sloane*
- BRB No. 7 is seen on the climb to Rothorn Kulm.

 John Sloane















































- Arizona & California Railroads SD40-2 Nos. 3999, 3997, 3998, 4001 and 4002 depart Parker with a consist for Cadiz. *Laurence Sly*
- Arizona Eastern Railroads GE B40-8 Nos. 4005 and 4012 are seen stabled at South Siding near Clifton. *Laurence Sly*
- Union Pacific SD70M No. 5119 leads SD38-2 No. 6512 GE AC4400CW-CTE No. 6570 and GE AC45CCTE No. 5330 as they approach Yuma whilst hauling an eastbound intermodal train. Laurence Sly























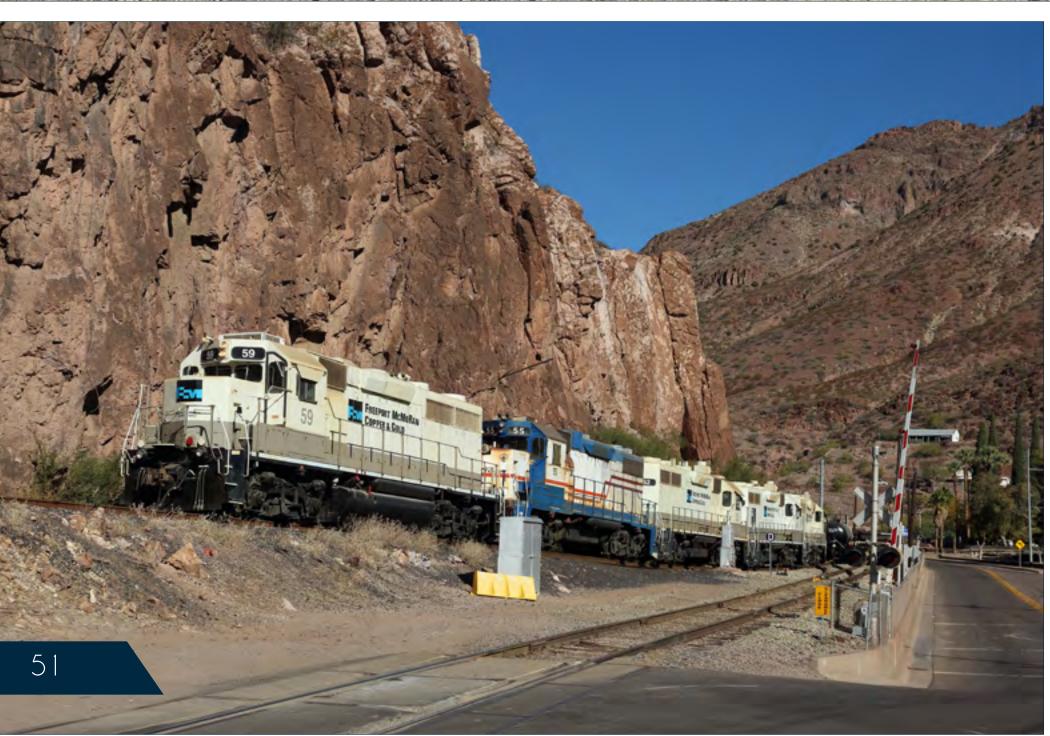






- Arizona and California Railroad EMD SD40-2 Nos. 3998, 4002, 4001 & 3999 depart Parker whilst working the service to Cadiz. Laurence Sly
 - Union Pacific C44AC No. 6737, ES44AC No. 7368 and SD70ACe No. 8373 pass Dome whilst hauling a westbound double stack container train. *Laurence Sly*
- Arizona Eastern Rail Road Nos. 59, 55, 52, 49 and 50 make a shunt move at Clifton.

 Laurence Sly













WABTEC EXPANDS SERVICES CAPABILITIES WITH ACQUISITION OF RELCO LOCOMOTIVES

Wabtec Corporation (NYSE: WAB) announced on January 8th that it has acquired RELCO Locomotives, a long-established player in the locomotive overhaul and maintenance industry. The acquisition expands Wabtec's freight services capabilities and capacity to support growth in the remanufacturing and repair business.

"This acquisition will unlock tremendous value for our customers, employees and shareholders," said Rafael Santana, Wabtec President and CEO. "The complementary combination of our portfolios will create aftermarket services growth and the development of new, innovative solutions to drive improved asset utilization and reduced operating cost for customers."

Pascal Schweitzer, Wabtec's Group President, Freight Global Services Organization, added: "This marks an exciting day for Wabtec's services business and will further strengthen our portfolio. By leveraging Wabtec's robust remote monitoring and diagnostics and predictive maintenance capabilities, as well as our focus on lean continuous improvement, we will build upon RELCO's deep product offering, track record of service quality and engineering creativity for locomotive modernizations. We are excited at the long-term opportunities before us and are pleased to welcome Mark Bachman and the RELCO team to the Wabtec family."

"The combination of our teams is an excellent fit," said Mark Bachman, Chief Operating Officer of RELCO. "Our combined companies share a common culture and values rooted in innovation, collaboration, inclusiveness and continuous improvement. Together, we will expand our reach, strengthen our market capabilities and better serve the rail industry."



World News



Stadler wins first maintenance contract in the United States

Dallas Area Rapid Transit (DART) awarded Stadler US Inc. a maintenance contract to maintain both the FLIRT vehicles and the Equipment Maintenance Facility (EMF) for a 15-year service period.

This is in addition to the contract previously awarded in June 2019, to build the FLIRT vehicles and design the EMF facility. The vehicles and EMF are to operate DART's Cotton Belt Regional Rail Silver Line Project. For Stadler, this is the first maintenance contract in the United States.

The DART Board of Directors approved a 112 million US dollar contract to Stadler, which includes vehicle maintenance over a 15-year service period of the previously awarded eight DMU FLIRT vehicles, as well as EMF maintenance services, and two options to modify the vehicles to add luggage racks, bicycle stands, and wheel skirts. With the maintenance contract for these vehicles and

the EMF, Stadler enters the Maintenance Services sector in the US for the first time.

This is the last piece of an overall package to provide turnkey vehicles and maintenance services to DART. DART had the foresight to include the vehicles, the design of the EMF in Irving, TX and now maintenance services together in one contract, to ensure that each piece is fully integrated and costs are adjusted to provide the most value to DART. The vehicles and EMF are to operate DART's Cotton Belt Regional Rail Silver Line Project.



«Stadler has been a trusted partner and advisor as we develop the future 26-mile DART Silver Line project», said Tim McKay, DART EVP, Growth/ Regional Development. «Stadler and DART share a focus on innovation and quality that ensures our customers will have a safe and dependable ride.»

Martin Ritter, CEO of Stadler US, said, «This is an important step for the future of Stadler in the US. Not only are we looking forward to continuing this partnership with DART, but we are also confident that we can provide cutting-edge technology, paired with excellent service to DART's customers together.» Jürg Gygax, Executive Vice President Division Service, said, «Stadler is looking forward to this 15-year partnership with DART and will ensure the highest availability from day 1.

For the Stadler maintenance division this is a very important milestone, to win this contract in the United States. We see this as an excellent base for future growth in the US.»

ŠKODA TRANSPORTATION SIGNS A CONTRACT FOR THE SUPPLY OF METRO TRAINS FOR WARSAW

On January 30th Škoda Transportation ceremonially signed a purchase contract in Warsaw for the supply of up to 45 six-car metro trains for the Polish capital. The total value of the contract may be almost 8 billion crowns.

"I am pleased that our victory in one of the largest tenders in Europe has been confirmed. We've waited for the result for over two years. We have succeeded in strengthening our position in the important Polish market, where we also supplied trams for Wrocław or traction equipment for trolleybuses and trams for Lublin and Krakow," says Chairman of the Board and President of the Škoda Transportation group, Petr Brzezina, adding: "In designing the trains we paid great attention to the comfort features, which will make traveling even more comfortable. In Warsaw they can look forward to a sufficient number of comfortable seats and a modern, clear external and internal audiovisual information

The basic delivery will contain 37 metro trains, with an option for a further eight trains.

Great emphasis was placed on the safety and comfort of passengers and operators in the development and design of the metro trains. The trains are designed according to EN and UIC standards and meet the latest technical knowledge and requirements in the field of fire safety as well. The trains ensure safe operation with minimal operating costs. Škoda Transportation cooperates with Czech and Polish universities and engineering offices on the development of modern metro trains.

"The new six-car trains for Warsaw can hold up to 1,500 passengers. Their maximum speed will be 90 km/h. The interior is designed to create a pleasant environment for passengers. The materials used are resistant to normal wear and tear and are easy to clean. The



system, and both front cars will be equipped with space for disabled people, with a room for a stroller and a bicycle in each car."

Škoda Transportation won the tender over competitors from the world's largest manufacturers of rail vehicles. The contract also includes spare parts supply, a simulator, extended warranty and training.

vehicles will naturally meet the latest safety standards and will also be equipped with a camera system with recording," adds Zdeněk Majer, Member of the Board of Directors and Senior Vice President of Sales of the Škoda Transportation group.



Stadler wins tender for supply and maintenance of 42 METRO trains in Newcastle upon Tyne

Nexus has announced that it will award Stadler the contract to deliver 42 METRO trains. The trains will be used on the Tyne and Wear Metro network in the North East of England. Stadler will also be responsible for the maintenance of the entire fleet for up to 35 years and the construction of a new maintenance depot. The objection period began with the notification to the unsuccessful bidders that Stadler had been awarded the contract.

The transport authority, Nexus based in Newcastle upon Tyne, UK, intends to sign a contract with Stadler for the delivery of 42 METRO trains, including an option for more trains. Stadler will also receive the contract for the comprehensive maintenance of the Tyne and Wear Metro fleet for up to 35 years.

The value of the contract for the supply of the vehicles, the construction of a new depot and maintenance is around £700 million. Tyne and Wear's metro network serves Newcastle upon Tyne, Gateshead, South Tyneside, North Tyneside and Sunderland in Tyne and Wear in the North East of England.



World News

CZ LOKO continues to modernize American locomotives for Estonian Operail.

The Estonian freight carrier Operail will receive another six packages from the Czech company CZ LOKO for the comprehensive modernization of American C30 locomotives to the C30-M series. Representatives of both companies agreed on this in Tallinn.

"It is an appreciation of our work to date and positive experience with the operation of delivered locomotives, especially the prototype C30-M 1564. Ten Operail locos operate in heavy industry in the Dne-propetrovsk region in Ukraine, where on average they each drive on a heavy shift of 150 kilometers a day," says Lubomir Dlabik, business team leader. All modernization packages will be delivered by the 1st quarter of 2021 and will be produced by the CZ LOKO facility in Jihlava.

Complete upgrade packages, ie all assemblies above the level of the main frame, include, for example, alternator engine blocks, cabs, bonnets, cooling, brake systems and steering blocks. In the Operail workshops in Tapa, the original locomotive engine is removed, the chassis is remanufactured, the main frame is modified, the final assembly is carried out and the 'new' vehicle is reliveried. Everything is supervised by CZ LOKO technicians.

The 'new' six-axle diesel-electric locomotive C30-M is the successor of the original American locomotive C30 from General Electric. It is designed for heavy shunting or line service on 1520 mm gauge lines and sidings. It is powered by a CAT 3512C engine with a power of 1,550 kW. The design is compared to the original type of hood, with a tower cabin, improving the driver's outlook.

While Estonia, along with Lithuania and Latvia, represent a traditional market for CZ LOKO, to which the company has already delivered over 130 locomotives, it is gradually building up its position in nearby Finland. Last November, the private carrier Fenniarail Oy ordered the sixth EffiShunter 1600, which it will acquire in 2020. The contract also includes an option for another six locomotives. "There is a real interest in our EffiShunter. They are of a high technical standard and will withstand the most demanding Nordic conditions," added L'ubomír Dlábik. The locomotives also run into Russian transition stations.



World News



maintenance programmes.

€755 million deal to refurbish and maintain Avanti West Coast Pendolinos

Deal will see the creation of 100 jobs

Programme is the UK's biggest ever train upgrade

Seven-year contract will see fleet maintained by the train's manufacturer, Alstom

Britain's most iconic train fleet is to undergo a major refurbishment that will create scores of high-skilled engineering jobs and secure hundreds more roles throughout the UK. In a boost to the manufacturing sector, all 56 electric Pendolino trains deployed on the West Coast Mainline will be overhauled in a seven-year deal worth approximately €755 million (£642 million) signed between the route's new operator, Avanti West Coast, and Alstom which built the fleet.[1]

As well as covering a €150 million (£127 million) upgrade programme of the Pendolinos, which is believed to be the biggest train upgrade programme ever undertaken in the UK, the deal will see Alstom maintain them until 2026 alongside a new train fleet recently ordered from Hitachi. The first of the revolutionary tilting Pendolino trains entered service on the London to Glasgow route in January 2003. The overhaul will focus on onboard facilities, with passengers benefitting from more comfortable seating, improvements to the shop, revamped toilets, better lighting, new interiors, and the installation of at-seat chargers and improved Wi-Fi throughout. Performance will also be improved through new

The deal will create 100 high-skilled roles, mostly based at Alstom's Transport and Technology Centre in Widnes, with hundreds more existing engineering jobs secured at key depots in Glasgow, Liverpool, Manchester, Oxley and Wembley.

Liverpool City Region Metro Mayor, Steve Rotheram, said: "In the Liverpool City Region, we're trying to create a fair and inclusive economy where local people benefit from investment. The Combined Authority have provided £3.4m in funding to help Alstom open their ground breaking facility in Halton. I'm really pleased that – because of this brand new facility – local people will benefit through jobs and apprenticeships for years to come through projects like this." Managing Director of Avanti West Coast, Phil Whittingham, said: "The Pendolino is an iconic passenger train and we're delighted to be giving it a new lease of life. This deal will improve the experience of passengers and ensure the fleet can continue to serve communities up and down the west coast route in the years ahead."

Nick Crossfield, Managing Director, Alstom UK & Ireland added: "Alstom are proud to have been trusted by First Trenitalia to maintain the Avanti West Coast fleet and upgrade the Pendolino trains. Over the last 15 years these trains have revolutionised travel for passengers, with faster and more frequent services. Passengers can now look forward to a new chapter in this story with Avanti West Coast, and with this contract in place, Alstom can look forward to investing even more in high quality jobs and apprenticeships as we deliver these improvements."

Alan Lowe, CFO of Angel Trains which leases the fleet to Avanti West Coast, said: "The refurbishment of the Avanti West Coast fleet will dramatically improve passenger experience and create highly-skilled jobs in local communities, so we're delighted to be supporting First Trenitalia and Alstom as this exciting project commences. Angel Trains is committed to investing in the modernisation of UK Rail and this transformative project will ensure that Pendolino trains reflect the evolving needs of today's passengers and continue to be an iconic part of our railways."

[1] Booked in the third quarter (Q3) of the 2019/2020 fiscal year.



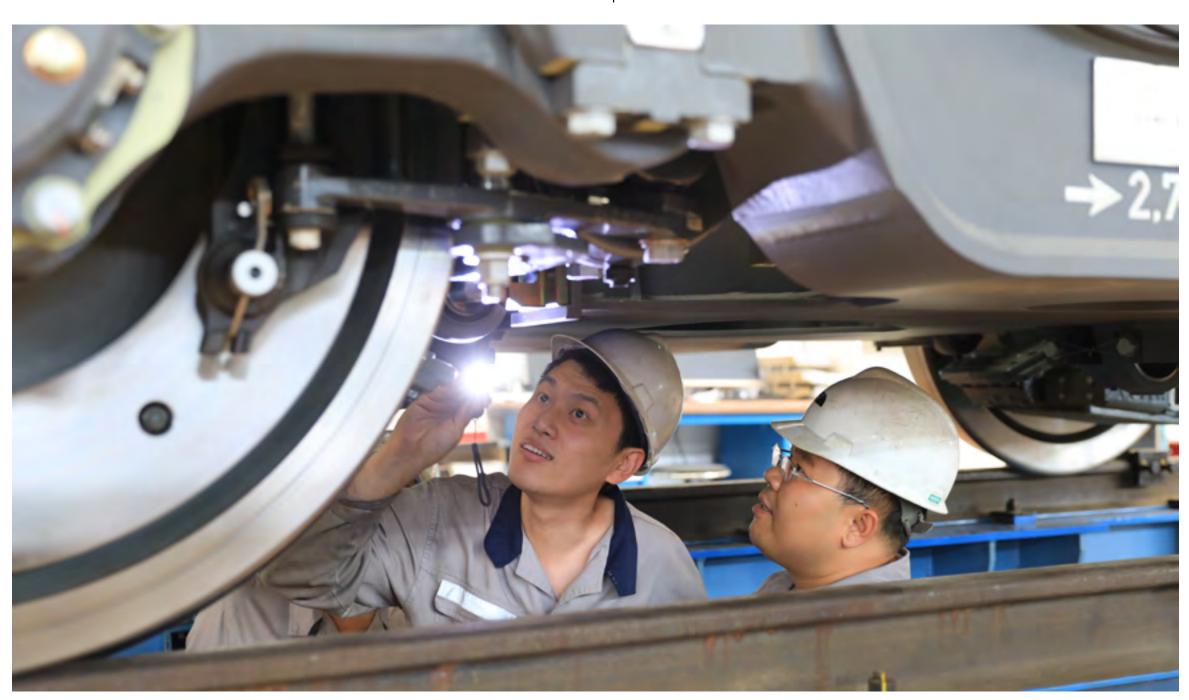


Bombardier's joint venture to provide maintenance service for 656 high-speed train cars in China

Global mobility solution provider Bombardier Transportation announced today that its Chinese joint venture, Bombardier Sifang (Qingdao) Transportation Ltd. (BST), has been awarded a contract with China State Railway Group Co., Ltd. (CHINA RAILWAY) to provide maintenance service for 656 high-speed train cars (71 trains), which BST manufactured for China's evolving high-speed rail network. The total contract is valued at approximately 2.45 Billion CNY (\$357 million US, 321 million euro).

All the maintenance will be completed by the end of 2020. In February last year, BST was awarded a maintenance contract for 560 cars and has successfully delivered the service. The award of this new maintenance contract further illustrates both customer's trust in BST and BST's full capacity to deliver integrated solutions to our customers' specific needs in the high-speed train sector.

Bombardier Transportation in China is the full solution provider across the entire value chain. From vehicles



Bombardier Transportation owns 50 per cent of BST shares, which is consolidated by Bombardier Transportation's partner CRRC Sifang Rolling Stock Co., Ltd.

Jianwei Zhang, President, Bombardier Transportation China, said, "We are very honoured to be awarded this maintenance service contract at the beginning of this year. Our team's skills and experience across the portfolio will ensure we deliver a high-quality maintenance service. In China, we bring together integrated designing, manufacturing and maintenance service expertise to support our customers' strategic goals, and we look forward to contributing further to the development of China's railway industry."

BST won this contract to provide maintenance service for 656 cars, which includes CRH1A-A, CRH1A, CRH1B, CRH1E and CRH380D, in total 71 trains, for 56 different levels of maintenance.

and propulsion to services and design, Bombardier Transportation in China has seven joint ventures, six wholly foreign-owned enterprises, and more than 8,000 employees. Together, the joint ventures have delivered 4,500 railway passenger cars, 580 electric locomotives and over 2,500 metro cars, Monorail, APM, and trams to China's growing rail transit markets. It is a major signalling supplier for the Chinese high-speed network and through its joint ventures, propulsion equipment and signalling systems are utilized in a total of 30 Chinese cities.



Stadler issues provisional key figures for the financial year 2019

According to unaudited key figures, Stadler is on track to achieve a record order intake of over 5 billion Swiss francs and a record order backlog. In the Division Service in particular, expectations in terms of incoming orders were greatly surpassed. Over the past few years, Stadler has invested in new technologies which it has now been able to bring to market much sooner than expected. These technologies include digitisation projects, new drive technologies powered by battery and hydrogen, as well as a completely newly designed tram model. Revenue, EBIT and EBIT margin remain below expectations as a result of these investments in new products (including sales costs), extra costs for individual orders, particularly in connection with the East Anglia project, and staff expansion, as well as distortions from NOK and SEK exchange rates. The medium-term financial objectives have been confirmed. Stadler once again registered a record order intake of over 5 billion Swiss francs in the financial year 2019. At the same time, the order backlog also reached a new record high. The year 2019 was marked by spectacular growth not only in terms of incoming orders, but also in other areas. In December seven new vehicle fleets were made available for regular passenger operations (including the high-speed Giruno train for SBB), and a total of 444 deliveries took place over the course of the year. This was up 80 percent on the previous year. In the financial year 2019 Stadler achieved growth in revenue of over 60 percent compared to the previous year, generating revenue of 3.2 billion Swiss francs (prior year: 2 billion Swiss francs). However, due to postponements in projects (primarily East Anglia), revenue in the reporting period was lower than expected, which also weighed on the result. EBIT margin of 6 percent

Stadler also succeeded in increasing its operating result (EBIT). However, the EBIT margin was around 6 percent, lower than in the previous year, and failed to meet expectations. Postponements and extra costs for individual orders, particularly with regard to the East Anglia project, had a major impact on the result. As a result of the record order intake, EBIT was also affected by higher than expected sales expenses. In the same way, exchange rate movements, particularly between the Swiss franc and the Norwegian krone and Swedish krona, had a negative effect on the operating result. Last year, Stadler's headcount rose by 2,000 employees across the group (average FTEs), which represents an increase of around 25 percent. Introductory training of new employees in particular led to extra expenses for several orders. In 2019 Stadler made significant investments in digitisation, in new vehicle concepts and in the latest technologies, including the new battery-powered FLIRT vehicle. 55 units of this model were ordered last year by Schleswig-Holstein's local transport association (NAH.SH), where Stadler successfully submitted a bid and triumphed over the international competition in a tender for green technologies. Stadler is supplying a completely newly designed tram model of the latest generation for Darmstadt. The first order for a hydrogen-powered multiple unit FLIRT H2 has been placed in November 2019 by the San Bernardino County Transportation Authority in southern California. For the current financial year, Stadler is again expecting doubledigit growth in revenue. Higher investments and extra costs will continue to impact margins in the current year. The medium-term financial targets have been confirmed. Based on the current assessment, the Board of Directors intends to propose dividend payments of CHF 120 million (CHF 1.20 per share) to the Annual General Meeting. The final, complete and audited financial figures for the financial year 2019 will be published on 5 March 2020.



World News

Stadler delivers 21 additional KISS trains to Hungarian Railways

Hungarian state owned passenger operator MÁV-START and Stadler have signed the contract for 21 additional KISS electrical multiple unit trains. The contract is valued at approx. 313 million euros. The two parties signed a framework agreement back in April 2017 for a total number of 40 double-deckers. With this third order MÁV-START has exercised its right and utilized the total amount of the contract.

With a framework agreement about the delivery of up to 40 KISS double-deck trains back in 2017 MÁV-START gained the right to procure new trains flexibly. The first contract was signed in August 2017 for eleven units, the second order for additional eight trains was concluded in December 2018. The last contract has come into force today. According to the delivery schedule of the contract, the 40th unit, which is the last train of the third batch, has to be delivered by the end of 2022.

The 155.88 meter long, 2.8 meter wide and 4.6 meter high multiple units will consist of six coaches. 600 passengers find comfortable seats, that is 50% more passengers compared to a single-decker unit with the same length. The trains will be equipped with four toilets, one of them accessible for persons with reduced mobility, while in the multifunctional areas there will be plenty of space for four wheelchairs, as well as twelve bicycles or five strollers.

The new vehicles, which have been designed according to the latest safety standards, will be equipped with EVM and ETCS Level 2 train control systems, making them able to run at a top speed of 160 km/h on the modernized railway lines of Hungary. Passenger comfort will be enhanced by the exceptionally smooth running, a state-of-the-art passenger information system, a spacious and bright interior, cutting edge air conditioning and free WIFI.





World News





Great Central Railway

The first major preserved railway gala of 2020 was held at the GCR in Leicestershire in mid January. Always a good spectacle and this year was no exception with about 10 steam locos working and plenty of freight action to entertain as well as the usual abundance of passenger trains. This year's event was very well attended, heres a look at some of what was working.

- BR Standard Class 2MT No. 78018 and Ivatt Class 2MT No. 46521 are seen simmering in Swithland Sidings waiting departure time with a mineral freight. *Class47*
- GWR Hall Class No. 4953 'Pitchford Hall' is seen upon arrival at Leicester North, running round its train. *Richard Hargreaves*
- Visiting the line for the gala, LNER K1 No. 62005 heads through Rothley with a rake of Vanfits, Vanwides, and a Conflat. *Richard Hargreaves*















From the UK

Great Central Railway

- The beautifully restored North Eastern Railway railbus No. 3170 heads out of Rothley on January 25th with a service to Loughborough. *Richard Hargreaves*
- Fowler Class 3F 'Jinty' No. 47406 arrives at Loughborough with a freight from Swithland sidings. *Class47*
- GWR Modified Hall No. 6990 'WItherslack Hall' storms towards Quorn and Woodhouse on January 25th with a goods train to Swithland sidings. *Class47*















