





Welcome

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

Another fantastic month for photos and I have to say that I'm discovering new destinations and places to visit all that time these days - mainly thanks to you the contributors. However with the winter months looming and those short days, I think I will stay at home till next year.

Some good news from Azerbaijan with Slovakian rolling stock maintenance company ŽOS Zvolen who are refurbishing five ČKD-built CME3 Co-Co diesel-electric locos which are being refurbished for Azerbaijan's national railway ADY. These locos feature in many countries in Eastern Europe, and are the Class 770/771 in Czechia.

Technology gone mad in South Korea?? as four police robots are to be deployed at Seoul and Dongdaegu stations, where they will undertake autonomous patrols, provide CCTV coverage and interact with passengers to provide safety and other information.

Whilst many companies are purchasing new pieces of kit, in Switzerland the Matterhorn Gotthard Bahn has awarded Swiss Federal Railways a SFr35.4m contract to modernise nine HGe4/4-II electric locomotives and three BDt driving trailers. The 1.9 MW metre gauge Bo-Bo locomotives equipped for rack operation

Content

- Pg 2 - Welcome
- Pg 4 - Pictures
- Pg 89 - World News
- Pg 93 - From the UK
- Pg 96 - 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

Railbuses Nos. 5081.563 and 5081.565 are seen at Weiritzgraben Viaduct, near to the Station at Erzberg. *Thomas Niederl*

This Page

On October 6th, QUBE container service No. 1311 from Sydney to Junee is seen in the Cullerin Ranges south of Goulburn behind Nos. QBX002 and QBX003. *Mark Bennett*

Next Page

ÖBB Mobilität der Zukunft liveried Class 1063.034 is seen in Wien on August 18th. *Brian Battersby*





were supplied to MGB's predecessors by BBC, ABB and SLM Winterthur in 1986-90. The refurbishment is intended to ensure a further 25 years of operation on services including the Glacier Express, car shuttles and freight and infrastructure trains.

And finally considering all the hype over Brexit and not being able to run trains through the tunnel, then Eurostar expects to launch a third daily train between London and Amsterdam in June 2019, reflecting the initial success of the route which was launched with two trains per day in April this year. A Eurostar spokesman said that the third train would be 'an interim measure' pending completion of staff training and border facilities at Amsterdam Centraal and Rotterdam. An agreement between the UK and Dutch governments for controls to be undertaken in the Netherlands, enabling passengers to have a direct journey to the UK, is expected to be finalised by the end of 2019 at the latest, Eurostar says.

and driver training.

As always 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

Terms & Conditions

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, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Paul Godding, Richard Hargreaves, 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, Andrew Wilson and Erik de Zeeuw.



Sydney Rail Service's No. 2194 container train from Goulburn to Sydney is seen pulling into Goulburn station after departing the container terminal, with hired CFCLA locos Nos. CF4412 and CF4411 on October 5th. CF4412 wears a unique livery inspired by the jockey's colours of a famous Australian racehorse called Black Caviar. The locomotive was named Black Caviar and painted in this livery to commemorate the famous horse's career.

Mark Bennett







 Australia

▶ Aurizon's P Class Nos. P2514, P2509 and P2511 skirt around the sand dunes as they climb away from the Port of Geraldton with empty ore wagons. *Colin Gildersleve*

▶ Aurizon's narrow gauge No. S3305 in a very old and tatty livery rushes past the small Western Australian town of Dandelup North with loaded ore hoppers for Kwinana. *Colin Gildersleve*

▶ A loaded Pacific National wheat train heads north through Yarra on the NSW Main South line behind Nos. 8184, 8155 and 8151 on October 5th. *Mark Bennett*







 Australia


▶ On a wet and gloomy day, Pacific National's NR16 and a class mate rush through Herne Hill with a late running intermodal from Melbourne to Perth. *Colin Gildersleve*



▶ No. S3311 in the latest Aurizon livery rounds the sharp horseshoe curve at Mundijong with loaded Bauxite wagons for Kwinana. *Colin Gildersleve*






 Austria

▶ OBB Class 1144.256 crosses the bridge over the river at Wien Praterkai on September 21st. *Paul Godding*

▶ Hungarian Gysev's Class 4744.302 arrives at Wien Meidling with a Regional Express service from Gyor to Wien Hbf. *Paul Godding*

▶ On September 21st, OBB Class 1016.029 approaches Wien Hbf with an overnight 'Nightjet' sleeper service. *Paul Godding*





Austria



The Erzberg Railway was built to transport the iron mined at Eisenerz to the steelworks in Leoben Donawitz, here the Präbichl pass had to be overcome. Due to the gradients of up to 71 per thousand, a rack railway was built, but it was not until the 1970s, with the rail buses of the series 5081 and diesel locomotives of the series 2043 could be switched to adhesion operation. All vehicles were equipped with a magnetic rail brake and a speed monitoring system.




In 1988 the railway was closed to regular rail traffic but is now operated as a heritage tourist line on summer Sundays between Vordernberg Markt and Erzberg. It is planned to reopen the line to Eisenerz which is currently closed due to mudslide damage (The damage has been repaired, but there is no authorization for passenger trains). At the end of the season of 2018 there was a special photo charter in exceptionally good weather.

Top: Railbuses Nos. 5081.563 and 5081.565 are seen next to the station at Vordernberg Markt.

Bottom Left: The charter is seen between Vordernberg Markt and the halt at Glaslbremse.

Bottom Right: Crossing Hochgraben Viaduct, near the halt at Feistawiese. *All: Thomas Niederl*



 Austria



Innsbruck IVB Bombardier Flexity tram No. 301 crosses Burgerstrasse on route 3 to Amras, September 11th. *Peter Marsden*

High up in the mountains at the Fulpmes terminus, Innsbruck IVB/STB Bombardier Flexity No. 326 awaits departure to Innsbruck Hauptbahnhof, September 12th. *Peter Marsden*

Innsbruck IVB Bombardier Flexity No. 317 pauses at the Universitat stop on route 3 to Peerhofsiedlung. *Peter Marsden*











▶ The Bulgarian State Railways (BDŽ) Class 44s were built by Skoda and look similar to the Czech Class 242s. A withdrawn example is seen in the yard at Sofia. *Brian Battersby*

▶ Tram No. 675, donated from the BVB section of the tram network of Basel, can now be found working the streets of Sofia, seen here on a line No. 8 service. *Brian Battersby*

▶ Bulgarian State Railways (BDŽ) Class 44 No. 44.179-7 is seen upon arrival at Sofia. *Brian Battersby*





Class 40 No. 40, 0534 and Class 87 034 are seen stabled with a freight working, heading towards Varna. *Brian Battersby*

No. 55.196 is seen shunting at Varna depot. *Brian Battersby*

Former DB 'Ludmilla' No. 07.001 is seen hauling a freight between Sofia and Varna. *Brian Battersby*



▶ The new order of trams in Sofia, as No. 2303 a Pesa built low floor tram, one of 20 for operator Stolichen Elektrotransport, heads through the city. *Brian Battersby*

▶ BDZ Class 52.051, a former DB V60 locomotive, built by VEB Lokomotiv und Electrotechnische Werke, shunts a rake of former East German coaches at Sofia. *Brian Battersby*

▶ Built by CKD in Czechia, tram No. 4160 now sees use in Sofia, seen here on a Line No. 22 service to Krasna polyana. *Brian Battersby*



Training for the military parade at the former military airport in Bechyně

On Sunday, October 28, a magnificent military parade, the largest in the history of the Czech Republic, was held in Prague on the occasion of the 100th anniversary of Czechoslovakia. There were about two hundred military vehicles and two thousand soldiers. Miloš Zeman, the President of the Czech Republic, attended the Military Grounds at the former military airport in Bechyně.

On Tuesday, 16 October, ČD Cargo also took part in the training, carrying a special military transport from the Hlubočky-Mariánské údolí station, which includes the military vehicles of the Přešovice unit. This military technique was loaded on eleven wagons of the Res and Smpm series and the accompanying team traveled in the passenger wagon of the Bc series.

The train was driven by a combination of electric and diesel locomotives - train locomotive 113.003, borrowed from ČD, and a pair of assisting diesel locomotives 731.011 and 014. It was perhaps the first time in the history of this unique electrified local track that three traction vehicles standing at the head of the train.

ČD Cargo was delighted that it could contribute to the success of this very important part of the 100th anniversary celebrations.

Photo: © CD Cargo



On September 17th, Regiojet's Vectron Class 193.227 waits departure time at Prague with a Slovakia bound service. *Brian Battersby*



100ries or 100 legends of Czech industry

Within the framework of the 60th International Engineering Fair, which is held in Brno these days, the organizers offer visitors a small insight into the history of Czech and Slovak science, technology and industry. The exhibition, with the indicative name 100ries, “tells” 100 stories of Czechoslovak industrial legends of the past century.

Railway is also represented at the exhibition. It is possible to see the legendary Silver Arrow train as well as the “Laminátka” - the AC electric locomotive S 489.0001. The locomotive belongs among the legends especially thanks to its fiberglass body designed by the famous Czech designer Otakar Diblík. The locomotive was lent for the exhibition by ČD Cargo.

Photo: © CD Cargo



▶ OBB Class 1116.103 heads through Breclav on September 20th with a loaded timber train heading towards Wien in Austria. *Paul Godding*



EffiShunter 600 locomotives will head to Turkey

A significant success in the Turkish market has been attributed to CZ LOKO in recent months, when it succeeded in the tender for the supply of shunting locomotives for the Isdemir steelworks. Following the signed contract, six locomotives of the EffiShunter 600 will be produced next year. They will replace obsolete machines of Soviet and Chinese construction, which are characterized by lower consumption of running masses, lower maintenance costs and higher comfort for service personnel. CZ LOKO will thus be connected to the delivery of locomotives 744.704 - L18 and 744.705 - L19, which last year was taken over by Erdemir, which, like Isdemir, belongs to the OYAK holding.

Isdemir is located on the Mediterranean coast, the name Isdemir is derived from the nearby town of Iskenderun and the words “demir”, which means iron. Together with Erdemir, they are part of the OYAK holding, one of the most important industrial groups in Turkey. Isdemir is now the largest steel plant in Turkey and plans to increase production by another 30% by 2020. This strategy puts high demands on the efficiency and reliability of logistics within the production process, including a large rail network. The railway siding serves not only to supply raw materials and expedition of finished products, but also provides a number of technological manipulations during the production itself.

“The vehicles deployed must be reliable and capable of operating under the specific conditions of the heavy industry. These include meeting the non-standard girder profile, moving small arcs or working in dusty environments under extreme climatic conditions. This specification is fully satisfied with the product range EffiShunter 600 produced by CZ LOKO, which is operated under similar conditions by, for example, Třinecké železárny,” added Jaroslav Plhák, Sales Director of

CZ LOKO.

The EffiShunter 600 locomotive is a four-axle electric transmission (AC / DC) power transmission. The energy source is the Caterpillar C18 internal combustion engine. Nominal output is approximated by a digit in the type designation, namely in this case it reaches 709 kW. In addition to Třinecké železárny, this type of application was found, for example, in Škoda, Mladá Boleslav, the Serbian company NIS (Naftna Industrija Srbije ad), and production is currently under way for ČEPRO. For CZ LOKO this is not the first success in this region. The locomotives 741,708 and 741,709, which were delivered as part of the Marmaray project, were the first to go to Turkey.

Both serve as a backup in case of an emergency in a railway tunnel under Bospore that links Europe with Asia. The current success shows that a suitably designed locomotive portfolio of CZ LOKO can succeed even in the world competition of the world’s largest locomotive manufacturers.

Photo: EffiShunter locomotive in demanding operation of Třinecké železárny. © CZ Loko



Carrying the new RegioNova livery, CD Class 814.141/914.141 stands at Mlada Boleslav alongside old liveried Class 814.080/914.080.

Paul Godding



CZ LOKO at InnoTrans signed contracts for more EffiShunters

As exceptionally successful, the Czech rolling stock manufacturer CZ LOKO has been evaluating the elapsed days of the prestigious InnoTrans, which took place in Berlin from 19 to 21 September. The company has concluded new contracts for the supply of locomotives and at the same time christened the 1000th locomotive in its modern history.

CZ LOKO closed a contract with an Italian Rail Traction Company (RTC) to complete its fleet with two EffiShunter 1000 locomotives with two options. These are the same locomotives purchased by the Italian company Mercitalia Shunting & Terminal. Their modern concepts, according to the latest TSI standards, reduce consumption, operating and maintenance costs, emissions and noise. Delivery of locomotives will take place in the second half of 2019.

RTC, specialising in freight transport, mainly via the Brenner Pass, is deployed on both track and shunting services. "It will be really challenging conditions and we are delighted that the choice was on our locomotives," said Jaroslav Plhák, Sales Director of CZ LOKO. This is not the first CZ LOKO locomotive at this carrier. They already operates D.753 series machines previously delivered.



"The basis of successful export is a competitive product, complemented by services, at an attractive price. And we have both. This makes us an increasingly powerful player on the shunting locomotive market. This was also evident at InnoTrans, where we had particular interest in the EffiShunter 1000 locomotive from the existing and potential customers," added Jaroslav Plhák.

The flagship of the EffiShunter 1000 locomotive was the main star of the exposition for CZ LOKO. Specifically, it was the 744.105 built for Italian MERCITALIA Shunting & Terminali. This machine was not chosen by accident. It was the 1000 produced vehicle in the modern history of the company. This was started in 2004 by the entry of Zeppelin's strategic partner, a CAT importer. The festive baptism of this modern displacement locomotive took place in Italy, perhaps the most popular Czech, top model and Miss Czech of 1998 Alena Šeredová.

Another dieselelectric EffiShunter 1600 was ordered by the Hungarian carrier Magyar Vasúti Áruszállító (MVÁ) at the time of the fair from CZ LOKO, operating virtually all over Europe, where it transports goods to international seaports and major container terminals. CER Hungary is another interesting client from Hungary.

Photo: ©CZ Loko

On September 21st, CD Class 242.260 calls at Brno Zidenice with a local service from Brno.
Paul Godding



PLZEŇ IS TO RECEIVE THE LATEST ŠKODA TRANSPORTATION TRAMS

Škoda Transportation will supply up to twenty-two state-of-the-art trams for Plzeň. Plzeňské městské dopravní podniky (PMDP) will receive low-floor, high-capacity ForCity Smart trams manufactured by the Plzeň-based group. The total value of the contract including an option may be over one billion CZK.

“After almost 20 years, Škoda will deliver trams to Plzeň again. The West Bohemian metropolis will become the second Czech city after Ostrava where the new generation of state-of-the-art Škoda trams will operate. Plzeň citizens can look forward to very comfortable, reliable and safe vehicles produced by the Plzeň-based group Škoda Transportation,” says Petr Brzezina, Škoda Transportation Chairman and CEO.

“We are glad that the newly purchased vehicles will contribute to increasing the comfort of our passengers. This purchase will increase the number of low-floor trams from the current 69% to 86%,” says Jiří Ptáček, Chief Transport Officer of PMDP, and he adds: “The average age of the tram fleet will be reduced by up to 8 years.”

The vehicles for Plzeň are based on the ForCity Smart tram series. “Similar vehicles are already operating in Helsinki, Finland, and we will soon deliver them to three German cities - Mannheim, Ludwigshafen and Heidelberg, as well as Tampere, Finland” says Deputy Chairman and Vice President of the Škoda Transportation Group Tomáš Ignačák. The trams will use several proven solutions, as well as some of the latest technological features. Of course, the new vehicles will be tailored to Plzeň’s requirements and specifications.

“The expansion of the fleet is also important in relation to the planned construction of a tram line in Borská pole,” says Michal Kraus, Chairman of the PMDP board, adding: “I’m sure this is a step in the right direction, and we want to develop this type of transport (railroad - tram, trolleybus) with regard to ecology and the fact that tram transport is the fastest transportation in cities.”

“In addition to up to 22 trams, the contract price also includes technical documentation and maintenance and training instructions. The vehicles will be equipped with state-of-the-art information systems, cameras and many other innovations. New vehicle interiors will also be in line with today’s trends, emphasizing functionality and simplicity. The trams will also be fully air-conditioned, which will greatly contribute to passenger comfort,” adds Brzezina.

The three-section, bi-directional, high-capacity trams will be 100% low-floor. Other benefits of the vehicles include a fully swivel chassis and low axle pressure that is doesn’t wear the top of the track. The trams also offer a technical solution suitable for both sharp turns and tricky rising of tracks in Pilsen.

The quick boarding and unboarding of passengers will allow five double-wing doors on both sides of the vehicle. ForCity Smart trams will conform to the latest European standards, including requirements for non-flammability of used materials, strength of vehicle cabins and impact resistance of the vehicle cabin. For example, the front frame of the vehicle is designed to protect the driver and the passengers in the event of a collision, while also considering other road users. The new layout of the driver’s cabin also provides a better view for the driver and more comfortable steering ergonomics.



Photo: © Skoda

CD Class 371.004 speeds through the excellent location of Praha Klanovice with a Praha - Hradec Kralove service. *Paul Godding*



 Czechia

▶ Showing the capabilities of the Huawei P20 phone camera at its best is this photo featuring ZSSK Class 361.124 at Praha hl.n. on September 22nd having just arrived with a service from Bratislava. *Brian Battersby*

▶ Class 151.008 approaches Olomouc with a Prerov to Praha service. *Paul Godding*

▶ On September 18th, and a long way from home, DB Class 189.056 is seen stabled at Breclav. *Paul Godding*





▶ CD Class 754.049 approached Vsetaty working a Tanvald to Praha service. *Class47*

▶ CD Class 362.112 catches the sun under the newly restored roof at Praha hl.n. working a service to Cheb. *Class47*



 Czechia

▶ CD Class 162.040 stands at Hradec Králové hl.n. with a Pardubice service. *Steamsounds*



▶ Standing at Praha Masarykovo surrounded by City Elefants is Class 162.053 working a service to Koln. *Steamsounds*



▶ CD Class 163.234 stands at Ústí nad Orlicí with a service for Lichkov. *Steamsounds*





CD Cargo heritage liveried Class 130.027 is seen stabled at Usti nad Orlici on September 23rd with a rake of empty car carriers. *Class47*



CD Cargo's Class 340.049 and 240.047 are pictured under repair at Ceske Budejovice on September 22nd. *Class47*

KZC's Class 749.253 (T478.1215) departs Praha hl.n. on September 23rd with a service to Rakovnik. *Class47*



 Czechia

▶ InterPanter Class 660.106 pauses at Ústí nad Orlicí with a service for Brno. *Steamsounds*



▶ Class 714.202 stands at Praha-Bubny Vltavska with train No. Sp1888, the 16:05 to Kladno. *Steamsounds*

▶ Cesky Drahý Class 163.244 stands at Hradec Králové hl.n. with a service to Choceň. *Steamsounds*





 Czechia

▶ Ceske Drahy Class 380.011 stands at Praha hl.n. working a service to Ceske Budejovice on September 22nd. *Brian Battersby*

▶ CD Cargo's Class 751.316 stands on display at the Ceske Budejovice depot open day on September 22nd. *Brian Battersby*

▶ Another loco on display at the open day was CD Cargo's Class 704.003, one of the depots resident shunters. *Brian Battersby*





 Czechia

▶ Triple Goggle power through Vsetaty as AWT Class 753.708 leads 753.705 and 753.707 with a rake of coal empties. *Class47*

▶ PKP Intercity EP09-019 stands at Praha hl.n. on September 24th with an early morning Eurocity service Krakow. *Class47*

▶ CD Cargo Class 771.137 is seen on test at Ceske Budejovice on September 22nd. Behind it is Class 742.284. *Class47*







A SNCF Transilien EMU departs St. Lazare.
John Sloane

Alstom delivers the first of the Citadis trams to Caen la Mer in France

The first of Alstom's Citadis X05 trams for the urban community of Caen la Mer arrived at the Tram Operation and Maintenance Centre at Fleury-sur-Orne on Thursday 4 October. After leaving the Alstom site of La Rochelle on Tuesday 2 October, it was officially received by the elected representatives of the community and Alstom.

The Citadis X05 tram for Caen la Mer is 33 metres long and equipped with 6 double doors on each side, and will be able to transport more than 210 passengers. Elegant, with passenger comfort in mind, it will benefit from 100% LED lighting with diffusers to homogenise the source of light, 6 extra-large passenger information screens and large windows covering 45% of the tram. It will also offer USB charging points, a first in France. Particularly energy-efficient, the Citadis X05 tram for the urban community of Caen la Mer will also be able to climb slopes with gradients of more than 8% and will have standardised, proven, more accessible components, providing Caen la Mer's inhabitants with reliable, readily available material and thus providing the urban community with all the guarantees for the advantageous replacement of its existing system.

management, design, assembly and testing, Ornans for the motors, Le Creusot for the bogies, Tarbes for the traction drives, Valenciennes for the interior layout, Villeurbanne for the onboard electronics, Aix en Provence for the tachometry and Saint-Ouen for the design. In total, 1,000 people will be involved at Alstom and its suppliers.

To date, more than 2,500 Citadis trams have been sold to more than 50 cities around the world, including 23 in France, with nearly 20 years of experience and over a billion kilometres travelled. The X05 version of the Citadis tram has already been ordered by Nice, Sydney and Lusail (Qatar).



Eight of Alstom's twelve sites in France are involved in the design and manufacture of the Citadis tram for Caen la Mer: La Rochelle is responsible for the project

Photo: ©ALSTOM Transport





Siemens Mobility and Thales to deliver signalling system for Grand Paris Express future metro lines

Metro Automation for Paris' future metro lines 15, 16 and 17 awarded
 The three new lines include 125 kilometers of tracks and 50 stations
 The project entails 12 phased sections and commissioning by 2030
 Most advanced signalling technology to equip 159 passenger trains and 27 work trains
 Associated maintenance services for 30 years

The Société du Grand Paris (SGP), which owns the Grand Paris Express project, awarded the Siemens Mobility and Thales consortium with the delivery of the Automated Train Control system that uses wireless Communications-Based Train Control (CBTC) technology and the Operating Control Centres for the future new lines 15, 16 and 17, which will be completed by 2030. Siemens Mobility will design and implement the most advanced generation of its CBTC fully automated technology. It will complete the integration of the entire transportation system. Thales will design and implement the Operating Control Centres (centralized supervision of train traffic, energy systems, auxiliary equipment and digital information systems), as well as trackside equipment and a secure communication network.

“Siemens Mobility is committed to providing our customers with the latest in digitalization that make infrastructure intelligent, guarantee availability, and increase value sustainably over the entire lifecycle and we are confident that the Grand Paris Express will derive these benefits from Siemens Mobility’s CBTC (Communication Based Train Control) technology. The fully automated technology will help ensure that passengers using one of Europe’s busiest metros benefit from this most intelligent system,” said Michael Peter, CEO of Siemens Mobility.

“As a leader in supervisory systems for transportation, Thales will bring all its expertise and its potential for innovation to this project, which will revolutionize

transport in the Paris region and is the only project of its kind in Europe. Our latest generation of integrated Operating Control Centres based on a state-of-the-art digital platform, combined with the cybersecurity expertise of the Thales Group, will enable operators to run metros safely and efficiently while guaranteeing the best possible passenger experience,” said Millar Crawford, Thales Executive Vice-President for Ground Transportation Systems.

The Grand Paris Express is a mass transit project of unprecedented scope and importance in France. It aims to address major transportation challenges: to enable residents of the Greater Paris area to travel more swiftly and efficiently, connect urban territories that have little access to public mass transit today and create new opportunities for economic growth in the Greater Paris area, and thus in France.

The Grand Paris Express includes the creation of four new automatic metro lines around Paris (15, 16, 17 and 18) as well as an extension and upgrade of line 14 to the north and south of Paris, to the Orly airport. The Grand Paris Express will connect to the existing mass transit network. It will serve the major business areas (airports, business centers, research centres and universities) and metropolitan areas that are currently difficult to access.

In 2030, line 15, with 75 km of track and 36 new stations, will enable passengers to reach Saint-Denis, to the north, and Villejuif, to the south, by passing through Nanterre/La Défense to the west or through Rosny and Champigny to the east. With 50 km of track and 14 new stations, lines 16 and 17 will enable passengers from Saint-Denis/Pleyel to reach the eastern points to Noisy-Champs or the north up to the Roissy Charles de Gaulle airport, while bypassing downtown Paris.

Twelve construction and commissioning phases are planned throughout the contract. The first one will be completed in 2024, and the others by 2030.

▶ SNCF BB No. 67512 stands outside the Technicentre Alsace in Strasbourg.
Brian Battersby



▶ SNCF BB No. 27350 heads through the lengthy cutting at the approach to St. Lazare.
John Sloane

Multimodal in the Pyrenees

DB Cargo Logistics officially inaugurates the Trailer Med Xpress shuttle project at the border station of Perpignan.

The border station of Perpignan between Spain and France represents a key logistics hub for DB Cargo Logistics and the company's freight connection to Saarbrücken, which spans some 1,000 km. Since March 2018, this hub has linked the Mediterranean region to Germany by rail and created an ideal framework to shift a share of road freight traffic onto environmentally friendly rail. The full train schedule of five departures in each direction every week has been operating on the route since the summer. Some 100 guests from politics and business were invited to the formal opening ceremony of the new route, which was held in late September as part of the Franco-German week in the southern French region of Occitanie.

In Saarbrücken and Perpignan, the two endpoints of the new route, lorries handle the first and last mile. Both containers and cranable mega trailers can be transported by rail on modern pocket wagons and picked up at the terminals by tractor units for onward

road travel. "Our new shuttle system is showing how rail can develop services that are highly competitive with road transport on long-distance routes," says Jürgen Wernstedt, key account manager at DB Cargo Logistics. "This direct service offers the Spanish and French border regions a direct, eco-friendly link to Germany, and offers shippers a solution to the worsening shortage of road haulage drivers."

The Trailer Med Xpress, which DB Cargo Logistics designed for its core customers in the automotive industry along with their suppliers and freight forwarders, is also extending the benefits of a high-frequency shuttle system to all other customers. Perpignan is just a short distance from the French industrial centre of Toulouse, for example, while the major Spanish city of Barcelona and its logistics centre, Zona Franca, is only some 200 kilometres away by road. Going forward, DB Cargo Logistics plans to link this shuttle to its own high-capacity rail network so as to offer its customers additional high-frequency solutions to selected destinations in Germany. This will entail competitive transit times and prices and, of course, carbon-neutral transport.



Alstom, IGE+XAO and Safran create a Centre of Excellence dedicated to rail electrical systems in Toulouse

Alstom, IGE+XAO and Safran are strengthening their collaboration by creating a Centre of Excellence in Toulouse for the engineering of onboard railway electrical systems. Located on the site of the aeronautical equipment manufacturer Safran Electrical & Power, this international Centre of Excellence will be able to accommodate up to 100 engineers. Using the packages of the software publisher IGE+XAO and relying on its technical support, the Centre of Excellence will develop the railway electrical systems of today, from design to standardisation and operational maintenance of the electrical products of Alstom's transport solutions. Its activities will also focus on innovation by developing the systems of tomorrow.

As part of the agreement signed with Alstom, IGE+XAO, publisher of software solutions for the design, simulation and manufacturing of electrical systems, is providing its expertise in terms of its software and associated services. Partners since 2011, Alstom and IGE+XAO have achieved a significant milestone with the signature of a technical and commercial contract over a 5-year period. IGE+XAO will provide its software suites dedicated to the lifecycle management of electrical systems, as well as a service offer ranging from software validation to user assistance, including training and management of the hardware platform. Similarly, Alstom and Safran are signing an agreement focusing on electrical product design. The agreement follows a partnership between the two groups announced in 2017. This new stage in the collaboration between Alstom and Safran responds to an increasing need to share best practices between the worlds of aeronautics and rail. Safran Electrical & Power, the world leader in the field of aeronautical cabling, is providing Alstom with a team of experts in the design and standardisation of electrical systems.

“With its new development methods, the Centre of Excellence will help to strengthen Alstom's skills and responsiveness in the field of onboard electrical systems, by benefiting in a collaborative environment both from the best practices of the aeronautical sector,

which is leading the way in this field, and the proximity of IGE+XAO's teams, experts in the railway electrical industry. It will be one of Alstom's assets in meeting the challenges of tomorrow's mobility,” said Thierry Best, Alstom's Director of Operations. “This Centre of Excellence will thus contribute to developing projects such as the Athens tram, the new-generation RER or the future TGV, which will benefit fully from its services.”

“The creation of this Centre of Excellence is a first for IGE+XAO. It is the culmination of, on the one hand, a fruitful partnership with two customers of reference, Alstom and Safran, and, on the other, the maturity of our PLM software suite dedicated to the design, simulation and manufacture of electrical systems. The Centre of Excellence we are creating today, in terms of its outlook and composition, is a world premiere, and our teams are proud to work in it and be counted among the actors of mobility today and tomorrow,” said Alain Di Crescenzo, Chief Executive Officer of the Group IGE+XAO.

“It's through our subsidiary Safran Engineering Services that we will provide Alstom with our two-fold competence in engineering and electrical services. In recent years, our teams have been involved in the development of major programmes in aeronautics and are enthusiastic about the idea of migrating the sector's good practices to rail. Managing complexity, concurrent engineering and the global dimension of the teams and the customers are all bridges between these two sectors,” said Alain Sauret, President of Safran Electrical & Power.

Rail mobility solutions are facing a transformation of user habits and services. They must now be modular to facilitate operation, adaptable to meet local or individual characteristics, and scalable to incorporate new technologies (Wi-Fi, passenger comfort, management of passenger flows, increased safety of goods and people, new connected products, predictive maintenance...). The Centre of Excellence will thus make it possible to study the needs of passengers and operators in a pre-emptive way, while benefiting from a collaborative environment, the “Trinity LAB”, conducive to reflection on requirements in the field of mobility.

▶ SNCF BB No. 27334 is seen about to depart Mantes la Jolie yard with a service to St. Lazare.
John Sloane



DB Class 146.011 stands at Bad Schandau with a S1 service for Meisen. *Steamsounds*

DB Cargo and SNCF Fret push on rail freight transport's digitization

In 2016 DB Cargo started working on the topic of digitisation of rail freight transport in the amspire Digital Lab located close to the Frankfurt airport.

New technologies like the Internet of Things, artificial intelligence as well as predictive maintenance automate business processes and therefore enable traffics to be managed in a better way. As of today, thousands of freight wagons as well as 1,200 traction units are digitally connected.

In order to prepare the rail industry for future challenges and ensure that digital topics are used Europe-wide our partner network is further expanded permanently. A joint deed poll was signed by DB Cargo's Richard Lutz and SNCF's Guillaume Pepy on October 19th 2018 in Frankfurt. Main goal of the cooperation is the expansion of the amspire Lab's activities and the further integration of solutions to digitize and automate rail freight transport.





DB EMUs No. 1440.325 stands at Witten Hbf working a service to Dortmund Hbf whilst Class 1440.305 heads in the opposite direction.
Stearnsounds



DB Class 146.554 with an IC2 set waits for departure time at Hagen Hbf with train No. IC2440 from Dresden Hbf to Köln Hbf.
Stearnsounds

DB Class 111.127 is seen at Düsseldorf Hbf with train No. RE10415 to Dortmund Hbf.
Stearnsounds



A large station for gypsum

For almost 20 years, Knauf's main plant in Iphofen has sourced FGD gypsum, a valuable raw material, from power plants in the German states of Brandenburg, Saxony-Anhalt and Saxony. It's all transported by environmentally sustainable rail.

On 23 October, logistics partner DB Cargo delivered the 10 millionth tonne to Lower Franconia, giving cause for celebration. Premium quality gypsum: flue gas desulphurisation (or "FGD") systems at the power plant sites of Boxberg, Schwarze Pumpe, Jänschwalde, Lippendorf and Schkopau produce this valuable by-product. Knauf recognized early on how important this precious raw material was for keeping its main plant in Iphofen supplied. Air pollution control systems produce large quantities of FGD gypsum, which is chemically identical to the naturally occurring mineral. What's more, this gypsum is especially pure and thus well-suited to Knauf's gypsum-based building materials solutions, which offer advantages in terms of quality, construction performance and environmental safety.

On 23 October, a ceremony was held at the Iphofen plant to celebrate the arrival of the 10 millionth tonne. Franz Josef Pschierer, Bavaria's economics minister; Manfred Grundke, managing partner of the Knauf group; and Raimund Stüer, CSO of DB Cargo AG all pressed a button simultaneously to trigger the unloading process. "Knauf is an engine of innovation in the construction industry and one of the largest family-owned companies in Bavaria. The company has almost 2,000 employees in Iphofen and Hüttenheim alone," said State Minister Franz Josef Pschierer. "This collaboration with DB Cargo has been a success story for 20 years. The two partners show how sustainability and economic success can go hand in hand." The Bavarian building materials industry, Pschierer pointed out, accounts for some

13,000 jobs. The State of Bavaria subsidised the investment in the rail unloading terminal over 20 years ago. A novel and extremely high-performing logistics solution was needed to transport and process up to 600,000 tons of FGD gypsum annually. The solution conceived some 20 years ago by Knauf and its partner, DB Cargo, continues to pay off today. At that time, a high-performance unloading installation was set up at Knauf's plant. This required the track layout to be extended by 700 m and a 30,000-tonne gypsum storage facility to be built. At the same time, DB Cargo developed a special wagon fleet of closed bulk freight wagons. Radio-controlled wagon covers and plastic liners ensure that the gypsum can be unloaded rapidly. Seven wagons can be unloaded in Iphofen simultaneously. This means that a train of 21 wagons loaded with 1,300 tonnes of gypsum can be processed in only around a half an hour. Up to seven trains from power plant sites in eastern Germany are unloaded this way in Lower Franconia every week.

Environmentally friendly and sustainable

Knauf and DB Cargo's logistics partnership in conjunction with the power plant operators not only plays a big role in ensuring Germany's largest gypsum plant is supplied with highly valuable raw materials, but brings environmental benefits too. More than half of the gypsum used by the Iphofen plant to manufacture construction panels and plaster is delivered as FGD gypsum. This is especially sustainable and environmentally friendly, since it reduces the depletion of natural deposits. On top of that, the fact that it is delivered exclusively by rail saves over 10 million litres of diesel fuel annually compared with transport by lorry. This is partly thanks to the training DB Cargo's drivers receive in energy-conserving driving techniques.

▶ Ceske Drahy Vectron Class 193.296 calls at Bad Schandau with train No. EC170 to Berlin Hbf.
Steamsounds



 Germany

▶ MRCE Dispolok Vectron No. X4E.875 heads north through Koblenz with a rake of tanks, heading towards Koln. *Class47*

▶ RBH Class 143.173 and 143. 822 arrive light engine into Hamburg Hbf. *John Sloane*

▶ Siemens 'Taurus' Class 182.008 departs Hamburg Hbf with a service to Hamburg Altona. *John Sloane*









Expanding the flagship fleet: Deutsche Bahn orders additional ICE 4 Trains

Order for 18 7-car trainsets and 50 power cars
 Delivery to begin in summer 2021
 Power car principle provides maximum flexibility

New trains for growing number of long-distance passengers: Deutsche Bahn (DB) is expanding its fleet and has ordered an additional eighteen 7-car ICE 4 trainsets and 50 more power cars from Siemens Mobility. With these new power cars, 50 ICE 4 trainsets, previously ordered in a 12-car configuration, can be extended to 13 cars. This flexible configuration is made possible by the train's innovative traction drive technology and its completely new train control system. Delivery of the ordered 7-car trainsets is expected to begin in the summer of 2023. Delivery of the 13-car trainsets will begin after delivery of the 50 12-car trains is completed in 2021. The order has a total value of around €610 million. Bombardier Transportation will supply approximately one-third of the order.

“The ICE 4 is our absolute pride and joy. This new order shows that the power car principle we developed – a complete novelty in high-speed transport – offers Deutsche Bahn exactly the flexibility it needs to quickly respond to changing transport requirements. We can thus guarantee DB sustainable value development over the train's entire lifecycle,” said Sabrina Soussan, CEO of Siemens Mobility.

The ICE 4 was designed as a trainset with the greatest possible adaptability. Twenty-four different trainset configurations can be ordered on the basis of five car types. The prerequisite for this freely configurable design is the power car that has all key traction components and traction power units located beneath the floor. The trainsets can be configured with power cars, a service car, middle cars and two end cars, as well as a restaurant car. A 12-car ICE 4 is driven by six power cars and a 13-car train by seven power cars, and can reach a top speed of 250 km/h. The option of increasing the top speed from 250 to 265 km/h is being considered. This design concept enables DB to flexibly adapt its trains to meet varying needs for passenger capacity and route topography.

All in all, DB will now be receiving 1,511 cars with which it can configure 50 12-car, 50 13-car and 37 7-car trainsets. DB will keep the remaining two end cars in reserve. The ICE 4 train extended by one car has a length of around 374 meters and a total of 918 seats, 88 seats more than in the 12-car version. In the extended configuration, there are 205 seats in first class, 713 in second class and 22 in the restaurant car. The 12-car and 13-car trainsets will be operated in Germany, Austria and Switzerland. The shorter 7-car trains are planned for use in Germany and Austria.

▶ Weißeritztalbahn dampflokom No. 99.1793 is seen at Freital Hainsberg. *Steamsounds*



 Germany

▶ DB double-deck EMU Class 446.001 departs Frankfurt Hbf with an RE70 service to Mannheim Hbf. *Class47*



▶ Pesa Link DMU Class 632.612 stands at Lüdenscheid with a service to Dortmund, September 7th. *Stearnsounds*



▶ DB Regio Class 111.113 approaches Witten Hbf with train No. RE10422 to Aachen Hbf. *Stearnsounds*



ŠKODA TRANSPORTATION INTRODUCED A MOCK-UP OF A NEW TRAM, WITH WHICH IT SUCCEEDED IN GERMANY

The Škoda Transportation Group recently presented a mock-up tram for Rhein-Neckar-Verkehr (rnv) at a festive event in Mannheim. At least 80 trams from Škoda will be operated on routes between Mannheim, Ludwigshafen and Heidelberg in the coming years.

A mock-up tram is a life-size, multi-section model that is 16.5 meters long and weighs more than ten tons. This model is made in the final design, and the interior also includes original parts - such as seats, handles, doors, buttons, displays and touch controls. It also includes a driver's cabin, which is inspired by our ForCity Smart Jokeri model that will be used in Helsinki. The mock-up was made using plywood, Plexiglas and fibreglass.

“At a festive event, we introduced a ForCity Smart mock-up tram for our important German customer. Thanks to this unique model we can show the exterior design and interior of the vehicles not only to the transport company, but also to the public. We look forward to the public's response, which we will evaluate together with rnv; it will definitely influence the final design before we produce the trams. The contract for rnv is one of our main priorities; it is the largest export tram contract in our history,” says Petr Brzezina, Chairman and CEO of Škoda Transportation Group.

The trams will be operated in three federal states of Germany, namely Baden-Württemberg, Hessen and Rhineland-Palatinate. The tender for the trams was announced in March 2017. Important world rail vehicle manufacturers participated in the tender. The first

trams will be put into operation at the beginning of 2021. The contract also includes an option for 34 additional vehicles. The total value of the delivery including options will reach almost 10 billion CZK.

“The trams for the Rhein-Neckar-Verkehr transport company are based on the ForCity Smart vehicle family. More than 100 of these modern vehicles are in operation in Helsinki, and they will soon also be seen in the Finnish city Tampere. We are hoping for further contracts where we can apply modern technical solutions for the ForCity Smart family. The new contract for up to 40 trams for Ostrava is confirmation of this modular strategy. This is a proven and technically sophisticated product,” adds Zdeněk Majer, Vice President of Škoda Transportation Group and Chairman of Transtech Oy.

Škoda Transportation will deliver three tram lengths of the same technical design - three-section, four-section and six-section. The company will manufacture about thirty-one 30-meter trams, thirty-seven 40-meter trams and twelve 6-meter trams, which will be the longest in the world. These are bi-directional, low-floor trams with a swivel chassis and a 1000 mm gauge. The vehicles will be equipped with state-of-the-art information systems, cameras and many other innovations. The maximum operating speed of the vehicles will be 80 km/h. The trams will also offer barrier-free access for wheelchair users and baby prams.

▶ Class 111.126 with an RE4 service to Dortmund and 146.004 with an RE9 service to Siegen wait departure time at Achen Hbf. *Steamsounds*



EVEN MORE PULLING POWER FOR METRANS

On 25 October 2018, the HHLA intermodal company Metrans received its 40th multi-system locomotive from Bombardier Transportation in Prague. With it, the fully-owned rail subsidiary of Hamburger Hafen und Logistik AG (HHLA) has expanded its pool to a total of 80 locomotives, and it can now react even more quickly and flexibly to changing market requirements.

The HHLA subsidiary Metrans is investing further in the enhancement of its product quality. The company doesn't just rely on its own rail terminals, but also increasingly on its own traction fleet. This means that Metrans locomotives are pulling container trains through Europe. Metrans is thus expanding its opportunities for development and making itself an even more autonomous supplier of intermodal services. The delivery of the 40th Bombardier multi-system locomotive completes a series that began with the order of the first Bombardier locomotive in 2014.

The type TRAXX F140MS multi-system locomotives are specially designed for the different supply voltage and train protection systems – 15 kV and 25 kV alternating current and 1.5 kV and 3 kV direct current – in place across Europe, meaning they are suited for transnational European rail transport. Metrans will mainly be using the new locomotives for rail transport between the North Sea ports of Hamburg, Bremerhaven, Rotterdam and Antwerp, and the Czech Republic, Slovakia and Hungary.

The handover of the 40th TRAXX locomotive took place at the Metrans container terminal in Prague Uhřetěves, and was attended by Martin Horinek, Chief Operating Officer of Metrans, among others. He said, "Metrans's business model is based on the close dovetailing and optimisation of all processes along the transport chain between seaport and clients in the European hinterland. With more of our own locomotives, we can even better control the transport processes of Metrans. This will allow us to be even more reliable, to be more flexible in response to the requests of our customers and to offer new services."

Dominik Rohrer, project manager of locomotive construction at Bombardier Transportation underscored the advantages of the multi-system technology: "Together with Metrans

and HHLA, we have expanded the radius of operation of TRAXX locomotives to the Czech Republic, Slovakia and Hungary. On an east-west European corridor, these locomotives can thus cross an exceptional number of country borders."

Metrans is one of the leading train operators in Europe and is the market leader for container transports in seaport-hinterland traffic with Central, Eastern and South-Eastern Europe. The network of HHLA rail subsidiaries comprises 13 inland terminals in five Central and Eastern European countries. In the first six months of 2018 alone, the company carried 13,000 container trains through Europe. Until 2022, HHLA will provide Metrans with € 350 million in investment funds for new terminal facilities, locomotives and for the wagon fleet.



Photo: Handover of the 40th Bombardier multi-system locomotive to Metrans (from left): Dominik Rohrer (Project Manager of locomotive construction at Bombardier Transportation), Martin Horinek (Chief Operating Officer of Metrans), Pavel Pokorny (Chief Financial Officer of Metrans), Mike Niebling (Director Sales at Bombardier Transportation). © HHLA/Lubomír Vosáhlo

Class 250.137 is seen stabled at Leipzig on September 24th. *Class47*

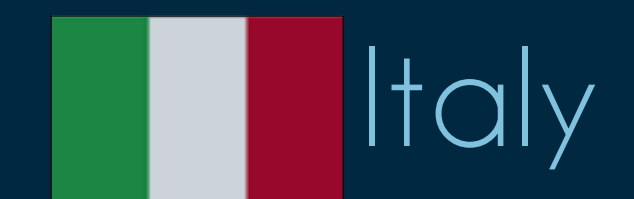












▶ 'Jazz' EMU No. ETR425.048 stands at Firenze Santa Maria Novella station on September 5th.
John Sloane

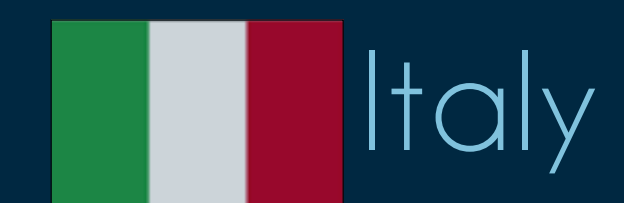


▶ Trenitalia Class E402.111 waits departure time at Genova Brignole station. *John Sloane*

▶ Mercitalia Rail No. E652.066 heads through Firenze Rifredi with a freight working on September 5th. *John Sloane*







Trenord DMU No. ALn668.1074 is seen stabled at Rovalto. *Class47*



NTV Italo unit No. 9 calls at Firenze Santa Maria Novella on September 5th with a service to Venice. *John Sloane*



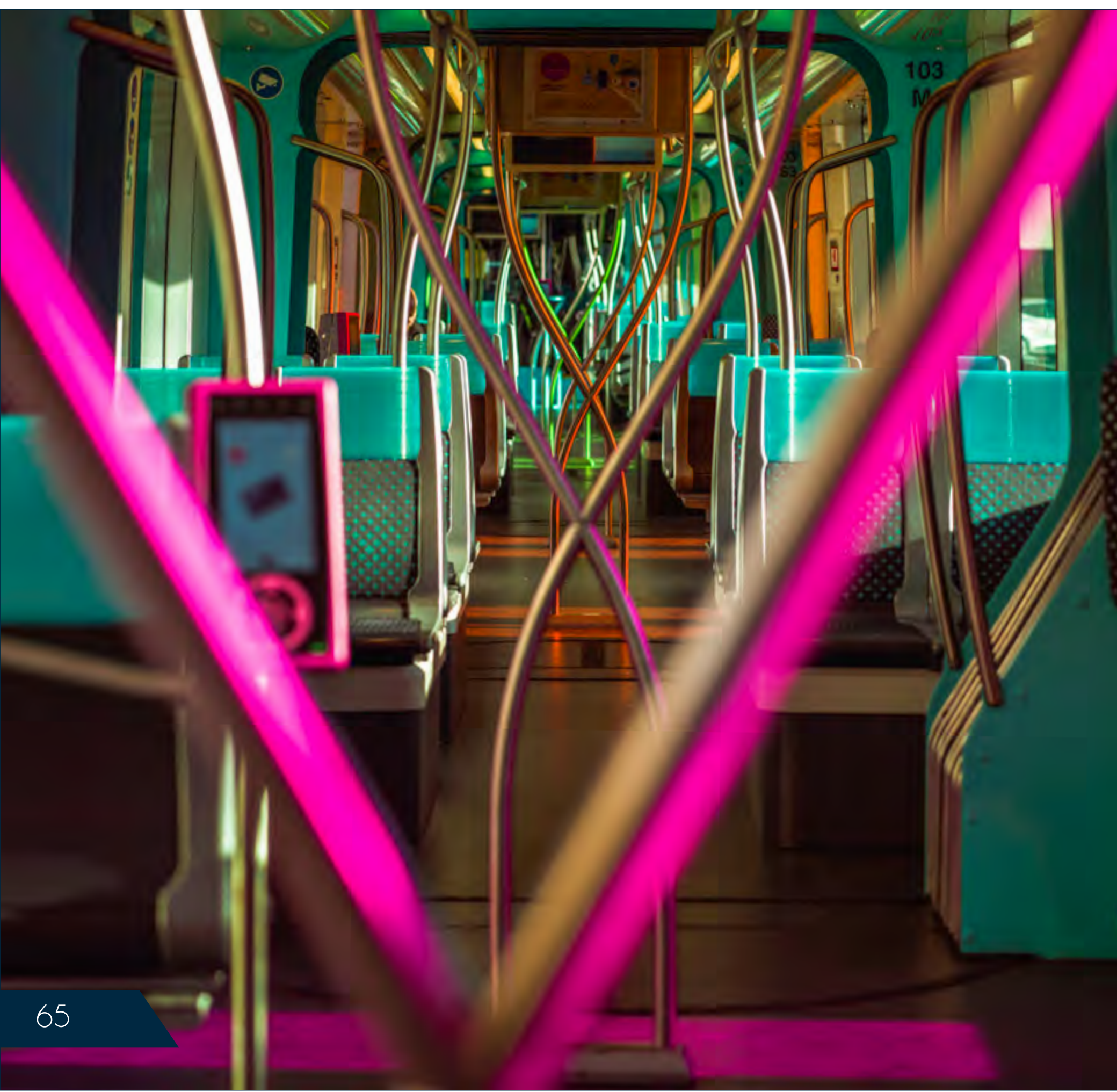
Milano tram No. 1950 is seen outside the main station working a line No. 19 service. *Class47*







 Luxembourg



▶ Luxembourg CAF Luxtram No. 109 enters its temporary terminus of Stareplaz Etolie on September 26th. *Peter Marsden*

▶ The late afternoon autumnal sun shows off the unique colours of the CAF Luxtrams. *Peter Marsden*

▶ The colourful interior of the CAF Luxtram. *Peter Marsden*



 Luxembourg



On September 26th, Luxembourg CAF Luxtram No. 109 has just dropped the pantograph at Rout Breck - Pafendall stop, and will continue to Stareplaz Etoile using the power in its super-capacitors. *Peter Marsden*

Luxembourg CAF Luxtram 106 passes the Novotel Hotel near the Philharmonie - Mudam stop, September 26th. *Peter Marsden*



 Netherlands



▶ An intermodal service headed by SBB Traxx Class 189 No. ES 64 F4 108 in 'Alpezhamer' livery, departs Tilburg passing Zwartfenseweg on October 13th. *Stephen Simpson*

▶ A NS Traxx hauled intercity service with Class E186.121 leading heads past the crossing at Zwartfenseweg on October 13th, heading to Tilburg. *Stephen Simpson*

▶ A NS Flirt - Sprintr unit on a service to a park and ride location at Lage Zwaluwe, speeds past Zwartfenseweg, Tilburg on October 13th. *Stephen Simpson*



 Netherlands

DB Schenker's brand new Siemens Vectron Class 193.345 departs Kijfhoek Yard on October 5th. *Erik de Zeeuw*

DB Schenker No. 6515 and two freight wagons passes the vertical liftbridge over the River Oude Maas in Dordrecht on October 5th. *Erik de Zeeuw*

On September 29th, 'Foundation Romeo' heads under the famous cube houses in Rotterdam whilst on a tour with tram No. 515 and trailer. *Erik de Zeeuw*













Portugal



Vila Nova de Gaia is just south of Porto on the Porto to Lisbon main line. Hiding in the sidings are several steam locos destined for a museum, but have remained here for several years.

The numbers are:
CFP No. 282 4-6-0
CFP No. 294 4-6-0
CFP No. 072 2-6-4T
CFP No. 0190 2-8-4T
CFP No. 0184 2-8-4T
CFP No. 701 2-8-0

Of interest is that No. 282 is the world's last inside cylinder 4-6-0. These delightful 5'6" gauge Edwardian locomotives worked the Douro Valley line from Oporto to the Spanish border. *Martin Miller*





Russia



▶ Nos. P36-0120 and SU213-58 arrive at Atkarsk hauling the Caucasian VI railtour on October 2nd. *Mark Enderby*



▶ Manufactured by Demihovsky engineering plant, EMU No. ED9MK-0095 stands at Atkarsk on October 2nd. *Mark Enderby*

▶ Nos. P36-0120 and SU213-58 pass Mshanka on the Caucasian VI railtour, October 1st. *Mark Enderby*



▶ No. VL80-2234 arrives at Krasnodor on October 9th hauling a rake of tanks. The initials VL are those of Vladimir Lenin, after whom the class is named. *Mark Enderby*



▶ A pair of ChME3s are seen under repair in Tikhoretsk works on October 9th. *Mark Enderby*



▶ Novocherkassk electric locomotive plant built No. EP1M-479 arrives at Volograd on October 11th. *Mark Enderby*





 Russia

On September 29th, a view of Leningradskaya Station, Moscow. *Mark Enderby*



Russian Railways No. EP20-033 stands at Gryazi Voronezhskie on October 12th. Fairly new on the Russian rail scene, the locomotives were designed by Tekhnologii Relsovogo Transporta (TRTrans), a joint venture between Transmashholding and Alstom. *Mark Enderby*

CKD built, No. ChME-3103 pictured on a trip freight, October 10th. *Mark Enderby*









Stadler secures tailor-made contract in Slovakia

Stadler is to deliver five rack-and-pinion / adhesion traction GTW-type multiple units and a multifunctional rack-and-pinion / adhesion traction locomotive for the Slovakian rail company ŽSSK (Železničná spoločnosť Slovensko, a.s., Bratislava, Slovakia). The vehicles will be rolled out in 2022 on the rack-and-pinion and adhesion traction network for TEŽ's metre-gauge electric mountain trains in the High Tatras, the smallest high-mountain region in the world.

"We're thrilled to have won this tender, and look forward to supplying TEŽ with our latest generation of reliable, safe, and comfortable GTW vehicles. The rail operator and passengers will benefit from the modern vehicles to the same extent. We are particularly proud that with this order we are able to build on the joint, successful history with the customer ŽSSK in the High Tatras", said Peter Jenelten, Executive Vice President Stadler Rail Group, during the signing of the contract in Štrba, Slovakia.

Comfortable, universal vehicles

The passenger vehicles ordered by TEŽ are the latest generation GTW-type low-floor units, specially adapted for combined rack-and-pinion and adhesion traction operation. Universal vehicles of this type are already operating successfully in France and Switzerland. The five new multiple units each offer 91 seats and 2 wheelchair spaces as well as multifunctional zones for bicycles and pushchairs. They are equipped with Wi-Fi, air-conditioning and a modern passenger information system as well as a video system and passenger counting facilities. The low-floor design allows passengers to board and alight easily on the same level. The multifunctional locomotive has an electric drive and a diesel engine, which meets EURO-IIIIB emissions standards. It can be used on adhesion traction and rack-and-pinion tracks. In winter, a snow blower can be fitted onto the locomotive to clear snow from the TEŽ tracks. The driver's cabs are air-conditioned. The vehicle can also be operated remotely by radio transmission. Similar working vehicles are already being used on mountain routes in Switzerland and Spain.





▶ SBB Stadler Flirt Class 523.015 approaches Cully with a S2 service to Villeneuve on September 25th. *Peter Marsden*

▶ SBB Stadler DOSTO Class 511.101 runs non stop through Cully on a Regional Express service to Geneva, September 25th. *Peter Marsden*





▶ RhB Ge 4/4III No. 652 arrives at Davos-Wiesen with a service for Filisur. *Steamsounds*



▶ Ge 6/6II No. 704 with a southbound freight is seen crossing the Landwasser Viadukt. *Steamsounds*

▶ A descending Pilatusbahn train approaches Alpnachstadt. The track on the left leads to the maintenance depot. *Steamsounds*



 Ukraine



▶ Nos. 2M62.1051A and 2M62.1114B wait at Ivano Frankivsk whilst working local trains. Whilst 2M62.1051A is top and tailing the stock with its other half (1051B), 2M62.1114A is with 2 passenger coaches, one of which has been modified to include a driving cab so is effectively working as a DMU operation. *Mark Torkington*

▶ TEP70.0164 awaits departure from Hrebinka with train No. 148 from Kiev to Odessa (the long way around). *Mark Torkington*

▶ No. Tu2.263 waits time at Bershad with its daily evening train from Haivoron to Rudnytsia, whilst passing Tu2.179 on a thrice weekly opposing working- the passing of trains is very rare on the ex USSR narrow gauge systems and this is certainly the only one in Ukraine!. *Mark Torkington*



Alstom begins shipping Coradia Polyvalent regional trains for Senegal

Alstom is beginning shipment of the 15 Coradia Polyvalent trains destined for Senegal from Alstom's site in Reichshoffen, France. This milestone follows successful completion of production, all on-site tests and validation by customer APIX.

The first train, which is being transported to the port of Le Havre in France for loading aboard the "Grande Angola", is expected to arrive at the port of Dakar on 12 November. Bogies and cars will be reassembled at the rolling stock maintenance site at Colobane depot, located three kilometres from Dakar, before beginning static and dynamic tests.

"The departure of the Coradia trains for Dakar is the crowning achievement of the tests conducted at Reichshoffen. It bears witness to the commitment of all Alstom teams to meeting our customers' needs and expectations. We are proud to contribute to this important mobility project that will place Dakar among the first African cities to acquire such technology," said Raphael Bernardelli, MD North & Central Africa.

"We highly appreciate the on-time in-full delivery of Alstom. We are therefore delighted with the respect of the delivery schedule, especially for the trains, complying with the planning as previously decided by His Excellency Mr. Macky SALL, President of the Republic of Senegal. The ambition of His Excellency Mr. Macky SALL is to provide Senegal with a state-of-the-art transportation solution through the Regional Express Train," said Mr Mountaga SY, Managing Director of APIX.

Alstom's Coradia Polyvalent trains are part of the Regional Express Train Project (TER), a flagship element of the Plan for an Emerging Senegal policy framework. The 15 trains will help satisfy the increasing need for mobility in Dakar and will run on a new line connecting the centre of the city

to the new Blaise Diagne International Airport. They will serve 14 stations over 55 km, which they will cover in 45 minutes. The number of daily passengers is expected to be up to 115,000.

The Coradia Polyvalent for Senegal is a mainline dual-mode train (diesel and electric-25kV) capable of running at speeds of 160 km/h. With a total length of 72 metres, the train has four cars and offers a maximum capacity of 531 passengers distributed through first and second class. Alstom and its suppliers have mobilised more than 4,000 people for the manufacture of Coradia Polyvalent trains intended to Senegal. Alstom's site in Reichshoffen leads the manufacturing and validation of the trains. Five other sites in France are involved in the project: Saint-Ouen for the design, Le Creusot for the bogies, Ornans for the motors and alternators, Tarbes for the traction system and Villeurbanne for the on-board IT systems and passenger information.

Coradia Polyvalent, already adopted by SNCF and the French regions as well as by SNTF in Algeria, belongs to Alstom's Coradia range of modular trains, which benefits from over 30 years of expertise and proven technical solutions. More than 2,800 Coradia trains have been sold so far and around 2,300 are currently in service.



INTENSIFIED RELATIONS TO LITHUANIAN RAILWAYS

The Port of Hamburg and Metrans Group are intensifying their links with Lithuanian Railways and will focus on "Rail Baltica". Axel Mattern, Joint CEO of Port of Hamburg Marketing, and Egidijus Lazauskas, Deputy Director-General and Director Freight Traffic for Lithuanian Railways, have signed a Memorandum of Understanding in Vilnius to strengthen cooperation on the routes to and from the Port of Hamburg. In addition, Hamburger Hafen und Logistik AG - HHLA's intermodal subsidiary Metrans, and Lithuanian Railways signed a Letter of Intent to promote and improve cross-border freight flows.

Seaborne freight transport between the Port of Hamburg and Lithuania set a fresh record last year, with around 128,000 standard containers setting a fresh record and producing a 7.8 percent upswing on the previous year. However, rail also plays a big part in freight services between Hamburg and Lithuania. The partners in the new cooperation attach special importance to implementation of the Rail Baltica and East-West Transport Corridor infrastructure development projects. Rail Baltica is a rail link planned to run from Warsaw via Kaunas and Riga to Tallinn – with a ferry or tunnel connection to Helsinki. EU member states Poland, Lithuania, Latvia, Estonia and Finland are involved.

Only in June this year, HHLA acquired the largest Estonian container/multi-functional terminal, Transiidikeskuse AS in Muuga, near Tallinn. Against this background, HHLA's Metrans subsidiary is especially interested in the Rail Baltica rail corridor for boosting links between its new Baltic terminal in Estonia and the Metrans network.

Rail Baltica will be built using the normal 1,435 mm gauge customary in Western Europe rather than the Russian broad gauge of 1,520 mm; it will extend at least 950 kms. Lithuanian Railways transports freight along tracks with both gauges. Freight traffic is mainly with Byelorussia, Russia, Ukraine, Latvia, Poland, Kazakhstan, China, Turkey, Germany, Scandinavia and Italy.

HHLA's subsidiary Metrans and Lithuanian Railways will be stepping up cooperation in future at operational level. Metrans Group owns and operates 14 transshipment terminals in the main regions of Europe. Joint intermodal projects will aim to boost the efficiency of rail freight services.

Metrans CEO Peter Kiss: "Through this cooperation with Lithuanian Railways, we aim to further expand our European intermodal network and promote the link between Lithuanian handling facilities and our own. Especially in Eastern regions with broad-gauge networks, we see great potential still. Here the focus of our activities is on opening up new transport corridors and expansion of rail transport between China and Europe."





After more than 175,320 hours, the anniversary is here

When it was introduced, DB Cargo's Customer Service was a one-of-a-kind innovation in Europe and an early pioneer of Digitalisation 2.0. Customer Service is now celebrating its 20th anniversary. Its employees can look back on an impressive track record, and there is an exciting future in store, too. The Customer Service unit in Duisburg is available to help business partners 24 hours a day, 365 days a year. That adds up to 8,760 hours a year (8,784 hours in leap years), meaning the unit has logged upwards of 175,320 service hours over the past two decades.

DB Cargo went digital for its customers in July 1998, providing them for the first time with a one-stop electronic service — from dispatching to transport monitoring and billing. Processes that are now commonplace, such as order to cash or order-driven production, were brand new at the time. Today, DB Cargo

is equipping its freight wagons with GPS and other sensors, spurring the further digitalization of its in-house business. A total of roughly 1,100 employees work at the Duisburg site for the "KSZ", as the Customer Service unit is referred to internally. This city was deliberately chosen in the 1990s for its proximity to heavy industry customers in the Ruhr District. "That dovetailed perfectly with Duisburg's logistics plan to provide future opportunities and new hope in response to structural change", said Duisburg's Mayor, Sören Link, at the anniversary celebration.

Close to customers

So far, Customer Service has served as a central interface between customers, Sales and Production — that is, the transshipment of goods and national and international transport services. It thus comes as no surprise that Duisburg

offers some 20 vacancies every year to those wishing to receive vocational training in freight forwarding and logistics services. Helmut Pohl, the chair of the works council for Customer Service, has worked at Duisburg right from the beginning. At the anniversary, he recalled the constant changes put in place over the last 20 years. "We always overcame the challenges," said Pohl. Manager Iris Hilb also stressed the significant role employees have to play in customer support. As she put it, they are the driving force behind the success Customer Service has enjoyed to date.

Roland Bosch, CEO of DB Cargo, thanked the employees and invited them to play a driving role in Digitalization 4.0 just as they had with Digitalization 2.0 at the inception of Customer Service. This approach will allow DB Cargo to leverage this market opportunity and become a digital pioneer once again, said Bosch, adding, "The journey continues."



Alstom's Gibela joint-venture opens Africa's largest train manufacturing facility in Dunnottar, South Africa

On October 25th, the Alstom-led Gibela joint-venture inaugurated the largest and most advanced centre for train manufacturing in Africa – the first of its kind on the continent. In front of more than 300 people, the facility was officially opened by Mr. Cyril Ramaphosa, President of South Africa. Also present to celebrate this historic opening were Dr Blade Nzimande, the South African Minister of Transport, David Makhura, Premier of the Gauteng Province, Sibusiso Sithole, CEO of PRASA, Thierry Darthout, CEO of Gibela, Didier Pflieger, Alstom Senior Vice President for Middle East and Africa, and Xavier Boisgontier, Alstom Managing Director Southern Africa, along with Gibela's partners Ubumbano Rail and New Africa Rail.

This manufacturing plant will be responsible for the creation of a new, modern fleet of 580 six-car X'Trapolis Mega commuter trains to be built over the next 10 years for the Passenger Rail Agency of South Africa (PRASA). The 53,000-square-metre site in Dunnottar, east of Johannesburg (Ekurhuleni) took 22 months and 2.5 million hours to complete. Its manufacturing workshops are designed in a modular format to enable lean manufacturing processes which will, at peak production, produce 62 trains per year. The first entirely locally produced South African train is expected to roll out of the factory at the end of 2018.

The world-class manufacturing facility and its equipment feature the latest innovations, allowing the advanced manufacturing processes necessary for the assembly of at least 10,000 parts and the linkage of 250 industrial activities. The plant boasts a bespoke training centre supporting the continued transfer of new rail-related skills to Gibela's employees and suppliers. A 1.2-kilometre test track for the dynamic testing of the new trains and an office complex

complete this modern train production hub. Over 700 local Gibela employees will be ready to achieve

maximum manufacturing capacity at the end of 2020. "It's an honour to have Mr. Ramaphosa officially open our plant. We are all immensely proud of what we've achieved and are committed to delivering trains to the Passenger Rail Agency of South Africa. These are trains that will, first and foremost, improve the lives of South Africans. This factory is a major boost to the rail industry in the country, as South Africa will now be able to produce state-of-the-art trains locally and will become the Alstom centre of excellence for railway in Africa. This will have a positive impact not only for South African commuters, but also for the country's economy as a whole," said Didier Pflieger, Alstom Senior Vice President for Middle East and Africa.

Even from the early stages of construction, the plant has delivered benefits in terms of employment and new skills for nearby communities. To meet its local content commitment of at least 65% of contract value, Gibela has so far on-boarded 71 South African suppliers for materials, parts and services. More than 4,700 South African jobs are being supported by the company's activities. Alstom has been present

in South Africa for many years and is committed to building and developing sustainable rail transportation through its

South African joint venture companies Gibela and Alstom Ubunye.

In 2013, Gibela secured the PRASA (Passenger Rail Agency of South Africa) contract to build 600, state-of-the-art, X'Trapolis mega commuter trains as well as the 19-year contract for maintenance, technical support and spare parts. The first 20 trains were manufactured in Alstom's facility in Brazil.





Eurostar welcomes 'Pepper': the first robot in the UK travel industry

Eurostar, the high-speed rail operator connecting the UK with mainland Europe, has welcomed Pepper the robot to its London St Pancras team. In a first for the UK travel industry, the interactive humanoid robot offers customers, particularly families and children, a fun new way to find out about their journey before departure and entertains younger travellers.

Pepper, designed by SoftBank Robotics, is the first robot with the ability to recognise principal human emotions and adapt her own behaviour accordingly. Eurostar has recruited Pepper to entertain and help customers, and in partnership with Robots of London she can respond to questions or even pose for a selfie on request.

Located in the departure lounge at London St. Pancras, Pepper will interact with passengers using an inbuilt tablet, where travellers will find an interactive station map, information about the on board experience, as well as a wealth of destination tips for Paris, Brussels, Lille and Amsterdam.

Perrine Allain, Head of Digital at Eurostar, said: "We are always looking for new ways to innovate, and explore technologies that can help enhance the overall customer experience. Pepper offers a fun way for customers to find out more about their journey and destination, and we look

forward to hearing the feedback from our customers so that we can continue to improve their experience."

The addition of Pepper is one of a range of technological innovations that Eurostar has committed to in order to enhance the customer experience. Later this month, the business is launching Alexa skill, with passengers able to link Alexa to their Eurostar account to track their travel plans and find out the lowest available fare to Paris.

Pepper will be located at St. Pancras International for the rest of this year, with plans to re-locate to one of the high-speed rail operators other locations in 2019. For more information visit www.eurostar.com



ŠKODA TRANSTECH SELLS HELSINKI ARTIC PRE-SERIES TRAMS TO GERMAN SCHÖNEICHE AND RECEIVES HOMOLOGATION

The subsidiary of Škoda Transportation Group, Finnish company Škoda Transtech, has sold two Artic pre-series vehicles to German Schöneicher-Rüdersdorfer Strassenbahn GmbH (SRS).

The unique deal was finalized recently in Schöneiche bei Berlin surrounded by representatives of both companies. The Škoda ForCity Smart Artic vehicles are also operating for the first time in passenger traffic after receiving homologation in Germany. These are the first Škoda trams that received homologation in Germany.

The sale of two ForCity Smart Artic pre-series vehicles was established in cooperation with Helsinki City Transport (HKL) and thanks to the support of Voith Digital Solutions Austria GmbH & Co KG following a two-month trial period.

"I am happy that in addition to Chemnitz and Rhein-Neckar-Verkehr, Schöneiche is the third city where trams from Škoda Transportation will be in operation. This is Škoda's first tram to receive homologation in Germany according to BoStrab. I would like to thank the teams of Škoda Transtech and Schöneiche's SRS for their efforts and this achievement", adds Zdeněk Majer, Vice president of Škoda Transportation Group and Chairman of Škoda Transtech.

"We are very happy on behalf of the customers of SRS in Schöneiche to hand over this modern, comfortable and silent Smart Artic tram to be part of their everyday life" adds Lasse Orre, Managing Director of Škoda Transtech.

The ForCity Smart Artic Helsinki tram is based on an original idea of Helsinki City Transport (HKL) and has been developed in collaboration between HKL and Škoda Transtech, which is a Finnish subsidiary of the Škoda Transportation Group. Two pre-series ForCity Smart Artic trams were delivered to Helsinki for testing in 2013. Since 2016 the series vehicles have been delivered to Helsinki every three weeks. There are currently 55 trams in passenger traffic. HKL has purchased a total of 70 of these ForCity Smart Artic trams.





ŠKODA TRANSTECH – THE NEW NAME OF FINNISH COMPANY TRANSTECH

The subsidiary of Škoda Transportation Group, Finnish company Transtech, has changed its name to Škoda Transtech. The name change of the only Scandinavian manufacturer of rolling stock follows the full acquisition by the Škoda Transportation Group in May 2018.

Finnish company Transtech was founded in 1985. In 2015 Transtech became a member of Škoda Transportation Group. Today Škoda Transtech is a leading European rolling stock manufacturer of low-floor trams and double deck coaches as well as an important contract manufacturer of demanding engineering workshop products.

“The long-term intention of the Škoda Transportation Group is to consolidate its position on the Western European markets. This is also the intention of the new owner, the international investment PPF Group, under whose leadership we have succeeded in finalizing the acquisition of the Finnish company Transtech this year,” say Petr Brzezina, Chairman of the Board and CEO of Škoda Transportation Group.

The Škoda Transtech’s headquarter is located in Oulu and production site is in Otanmäki. The

company’s sales office as well as maintenance services are located in Helsinki. Currently Škoda Transtech is supplying trams to the Finnish metropolis of Helsinki, the city of Tampere and coaches for Finnish Railways. Škoda Transtech will also participate in supplying of modern trams for German transport company Rhein-Neckar-Verkehr (rnv). These trams will operate on routes in and around Mannheim, Ludwigshafen and Heidelberg.

“In less than three years we have managed to successfully restructure and stabilize Transtech. We have received new orders and currently we are delivering trams from Transtech to Helsinki and Tampere. We also supply new cars for Finnish Railways. During this period, we have also increased the number of employees from 500 to 650. The company’s annual sales reached more than 115 million EUR. Škoda Transtech became a significant player within the Škoda Transportation Group and opened for us more business opportunities on the Western markets. Our task now is to continue the process of integration of Škoda Transtech into the Škoda Transportation Group,” adds Zdeněk Majer, Vice president of Škoda Transportation Group and Chairman of Škoda Transtech.



World News



Round trip to Sweden

Effective immediately, DB Cargo’s direct service from Cologne to Malmö and back again will link the key economic centres of the Rhineland and the Ruhr District with the Malmö area.

It takes the new train less than 20 hours to travel from Germany to Sweden. For customers, that means the transport time is cut in half. DB Cargo is establishing the new service following the overwhelmingly positive response from its customers to the Malmö–Cologne service that started back at the end of 2017. Among other freight, this connection transports steel products produced by the SSAB and Outokumpu Groups from Sweden to the Ruhr. The direct service recently established in the opposite direction has made round trips possible. In addition to the direct connection with a competitive transit time, the integration into DB Cargo’s single wagonload network is a crucial advantage for customers. The network links together all of Europe’s major economic centres.

The new connection benefits the steel, paper and consumer goods industries in particular. However, the train is open to potential customers from different industries, as well. “For consignors from the Benelux states, transferring freight to the new service in Gremberg or Wanne-Eickel also substantially shortens transit times,” adds Andreas Morawietz, central capacity utilization manager in the Single Wagon Offer Management Team. DB Cargo is the only freight operating company to provide direct single wagonload connections between Cologne

and Malmö. Intermodal load units can also be carried.

Better wagon availability due to shorter journey times

“Trains are a real alternative to lorries and inland waterways,” says Katja Janschersky, Head of Rail Services Sweden. “With services running every weekday and fixed journey times, customers especially in the economic centres of Malmö, the Rhineland and the Ruhr District can plan more easily and enjoy competitive terms.” Now, the round trip is letting customers unlock the full potential of this connection. For instance, the regular, high-frequency departures sharply curtail the time cargo spends languishing in storage. In addition, wagon turnaround times are reduced, improving wagon availability. DB Cargo, in turn, can be flexible and scale up its operations to respond to its customers’ requirements. From an environmental standpoint, shifting traffic onto the rail network also reduces the environmental footprint of customers’ supply chains. DB Cargo is constantly developing its network in line with the wishes of its customers and is already working on additional direct train connections.

Checklist

Four reasons why new and existing customers are benefiting from this direct service:

- Shorter journey times
- High departure frequency
- High wagon efficiency
- Reduced carbon emissions



Bombardier’s joint venture wins contract to build 120 new high-speed train cars

Rail technology leader Bombardier Transportation has announced that its Chinese joint venture, Bombardier Sifang (Qingdao) Transportation Ltd. (BST), has been awarded a contract, at the end of September, with China Railway Corp. (CRC) to supply 120 CR400AF new Chinese standard high-speed train cars for China’s evolving high-speed rail network.

The 120 cars will be configured into five 8-car trainsets and five 16-car trainsets with an operating speed of 350 km/h. The total contract is valued at approximately 2.2 billion CNY (\$324 million US, 280 million euro). Bombardier Transportation owns 50% of the shares in BST, which is consolidated by Bombardier Transportation’s partner CRRC Sifang Co., Ltd. Jianwei Zhang, President, Bombardier Transportation China, said, “We are very proud to be qualified, through the joint venture BST, to supply the new generation of high-speed railway CR400. In China, high-speed trains have changed people’s life dramatically, it helps to close the distance between villages and cities, bridge the gaps between rural and urbans, and speed up the economic growth. CRC is one of Bombardier’s most important customers and also our long term strategic partner. We are confident to deliver high-quality products and work more closely with CRC to further contribute to the Chinese economy.”

BST won this contract to build five 8-car trainsets and five 16-car CR400AF high-speed trains with first delivery in October, and all the delivery by the end of this year. The delivery within three months reflects the confidence the customer has in BST’s high efficiency and competitiveness. That also demonstrates why BST was awarded its first new generation of high-speed train order.

Bombardier Transportation in China is the full solution provider across the entire value chain. From vehicles and propulsion to services and design, Bombardier Transportation in China has six joint ventures, seven wholly foreign-owned enterprises, and more than 7,000 employees. Together, the joint ventures have delivered more than 3,500 railway passenger cars, 580 electric locomotives and over 2,000 metro cars, Monorail, APM (Automated People Mover), and trams to China’s growing urban mass transit markets. Through its joint ventures, Bombardier also provides propulsion and signalling systems to third party metro car builders for use in more than 30 Chinese cities.



From the UK

Class 50 Golden Jubilee

In October to celebrate the Golden Jubilee of the Class 50s a never-to-be-repeated event celebrating 50 years of the popular Class 50 diesel-electric locomotives took place at the Severn Valley Railway. There were many visiting locos for the event, here are just a few of the workings.

▶ On October 4th, pioneer of the Class No. D400 heads light engine out of Kidderminster station.
Richard Hargreaves

▶ Class 50 007 'Hercules', running here as 50 006 'Neptune', passes the Engine House, heading to Kidderminster.
Richard Hargreaves

▶ Class 50 017 'Royal Oak' in Network SouthEast livery, stands in the sunshine at Kidderminster.
Richard Hargreaves







From the UK

Class 50 Golden Jubilee



▶ Class 50 017 and 50 026 stand on the blocks at Kidderminster, showing different variants of Network SouthEast livery. *Richard Hargreaves*

▶ Causing some confusion with several people, Class 50 049 has been renumbered and renamed on one side as long cut up Class 50 011 'Centurion'. The loco is seen here departing Kidderminster. *Richard Hargreaves*

▶ Class 50 033 was magnificently resurrected for the gala, all credit to the hard work of the Class 50 guys at the Severn Valley. The loco is seen here arriving at Kidderminster with a local service from Bewdley. *Richard Hargreaves*



