

# Railtalk — — Magazine *Xtra*

Issue 115x April 2016 ISSN 1756 - 5030

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#### **Submissions**

Should you fancy getting involved with the magazine, then please send any photographs, videos or articles, to us at the below email address:

### entries@railtalk.net

Please include a detailed description and credits of the author.

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## Walcome to another edition of Pailtalk Ytra, the

From the Editor...

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

Well we are speeding through the year and the diversity of liveries and amount of new traction appearing on the railways in Europe doesn't seem to be slowing down either. Main interests this month are the Akiem Traxx AC3 with the last mile package fitted (ie. diesel engine) and the final Bombardier E464 for Trenitalia. This remarkable loco was first produced in 1999 and now totals 717 and is Europe's biggest homogeneous regional transport fleet. However the USA also has some new interest this month with the launch of the Siemens 'Charger' diesel loco.

The one advantage of mainland Europe though is the multitude of location as to where locos can end up working. One classic illustration of this recently being an ÖBB's Class 1216 which has found a new home base in Croatia.

Thanks for all the excellent photos we've received this month, as always please keep sending them in, and remember if you are going on holiday don't forget to take your samera.

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: Brian Battersby, Mark Bearton, Mark Bennett, Keith Chapman, Derek Elston, Mark Enderby, Tim Farmer, FrontCompVids, Paul Godding, Richard Hargreaves, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Michael Lynam, Phil Martin, Peter Norrell, Chris Perkins, Mark Pichowicz, David Pollock, Andy Pratt, Railwaymedia, Neil Scarlett, Laurence Sly, Stewart Smith, Steamsounds, Steve Stepney, Mark Torkington, and Andrew Wilson.

Front Cover: On February 5th, SBB Re 4/4ii No. 11277 rounds Wattinger Kurve whilst working postal train No. 50921 from Harkingen to Cadenazzo. Laurence Sly

This Page: On February 24th, DB Class 218.487 is seen near Fischen with train No. IC2084, 09:40 Oberstdorf to Augsburg. Mark Bearton













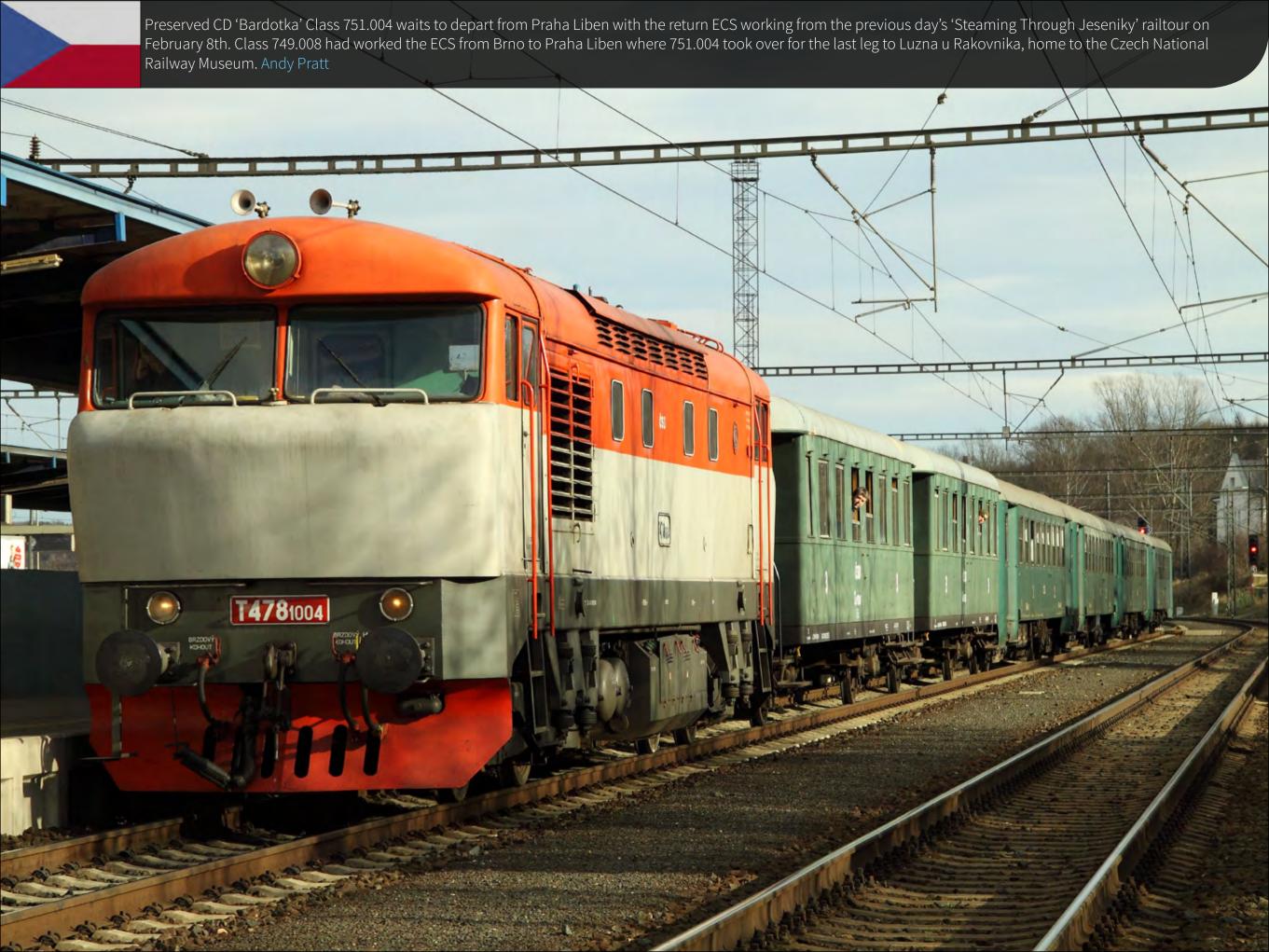














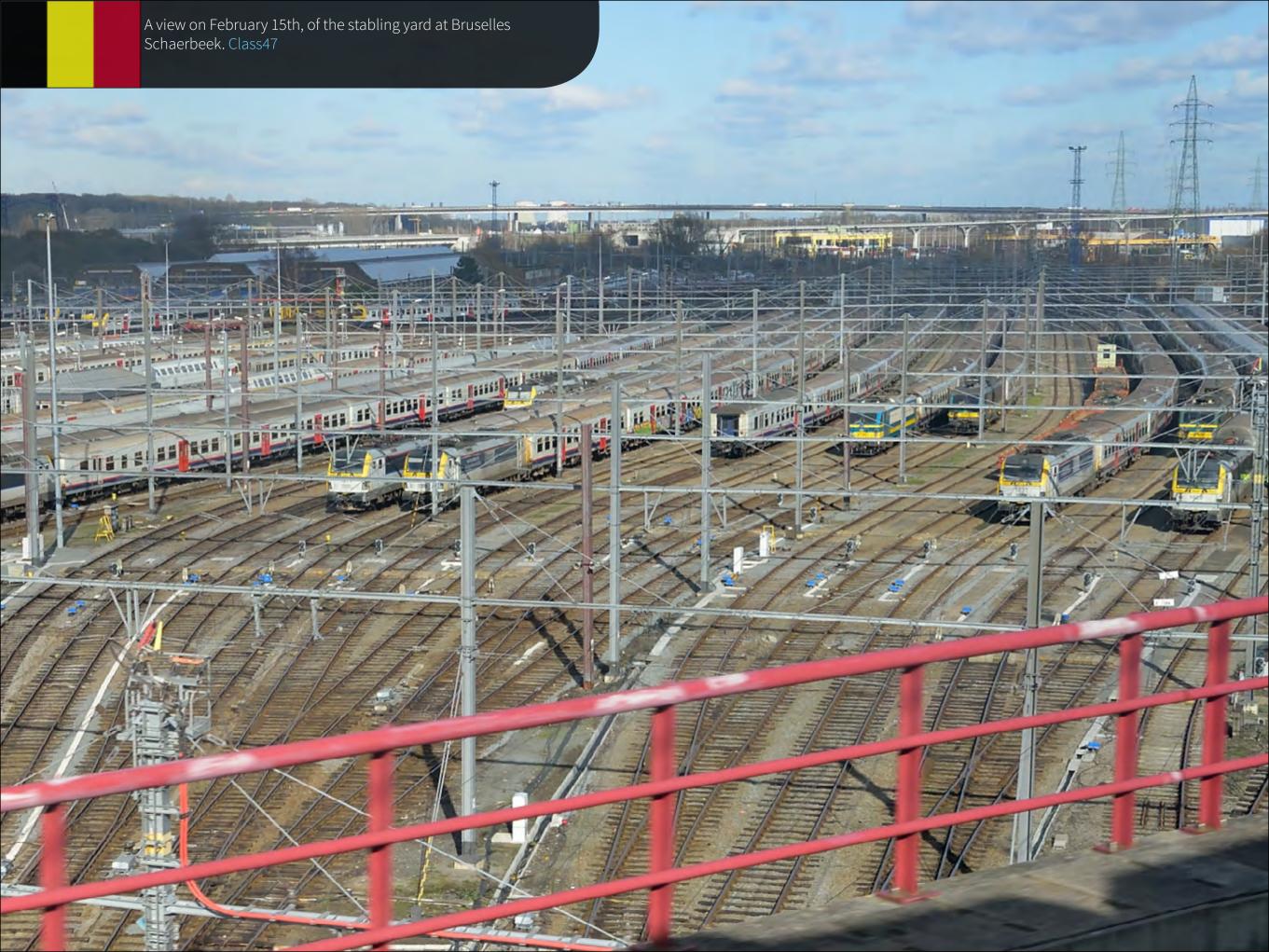












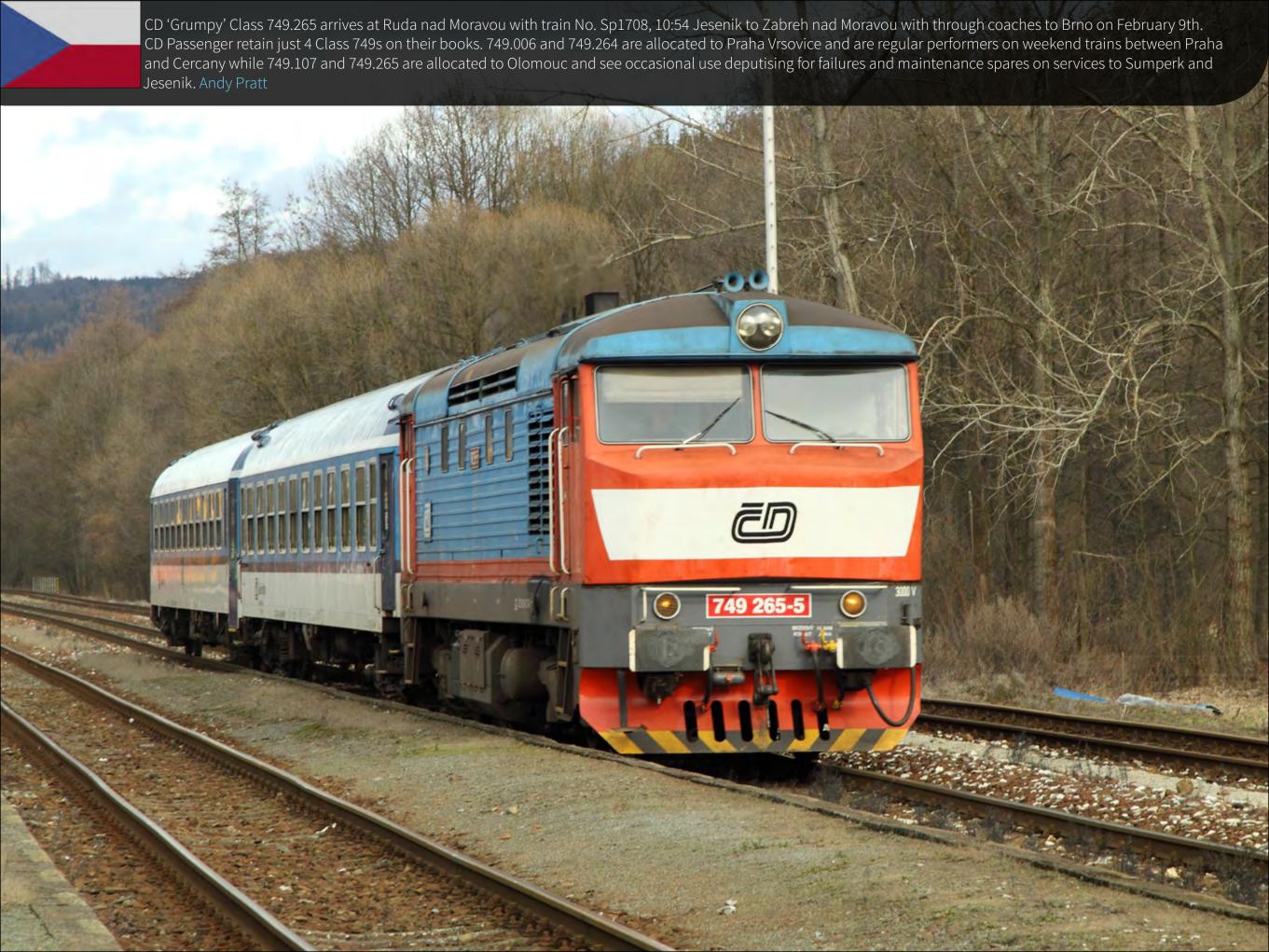




Class 750.718 departs Ruda nad Moravou in charge of the two through coaches from Brno to Jesenik, running as train No. Sp1707, 11:31 from Zabreh nad Moravou on February 9th. Andy Pratt 111111111 EL. TOPENÍ 3000V 750 718-9









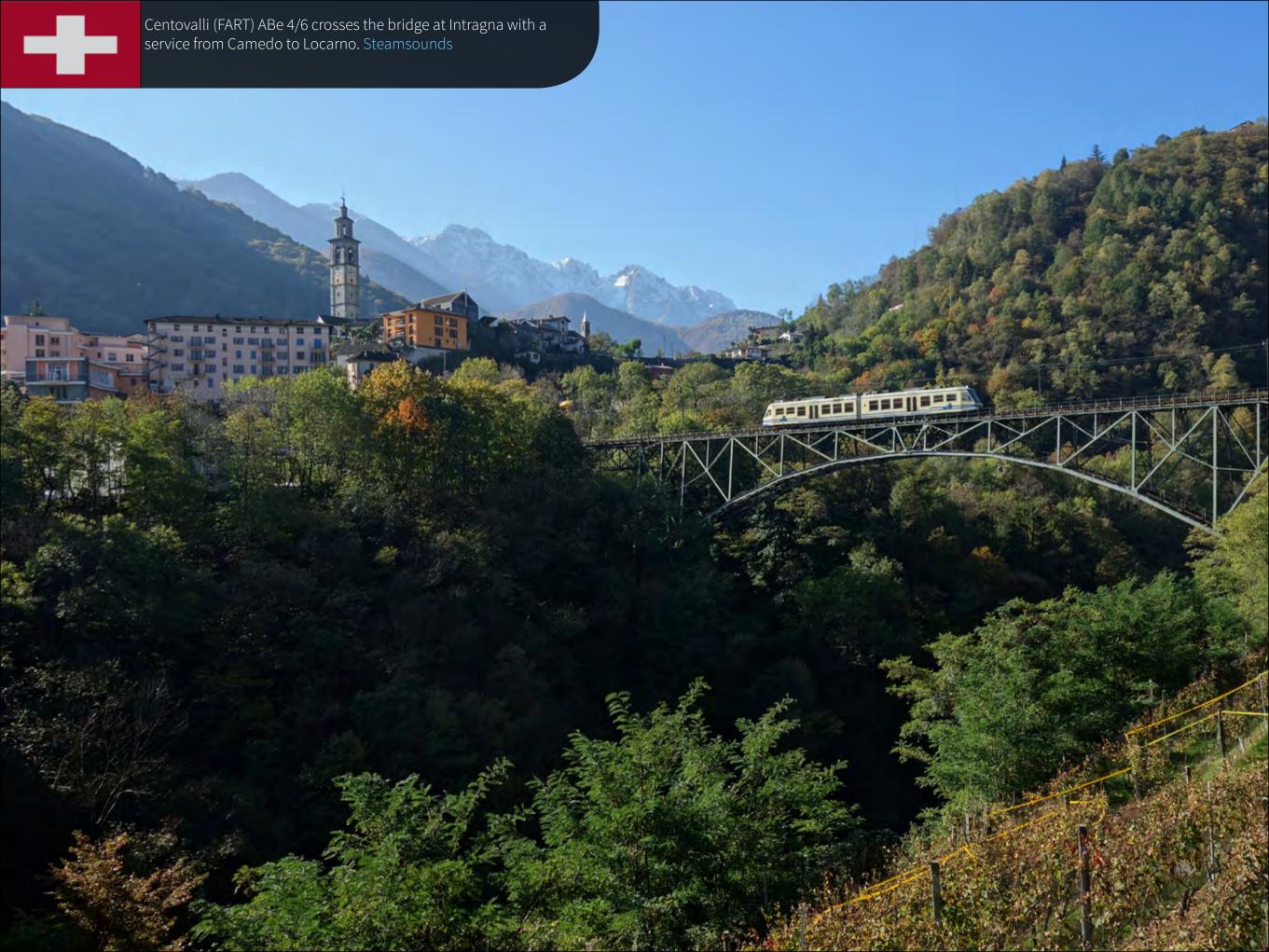


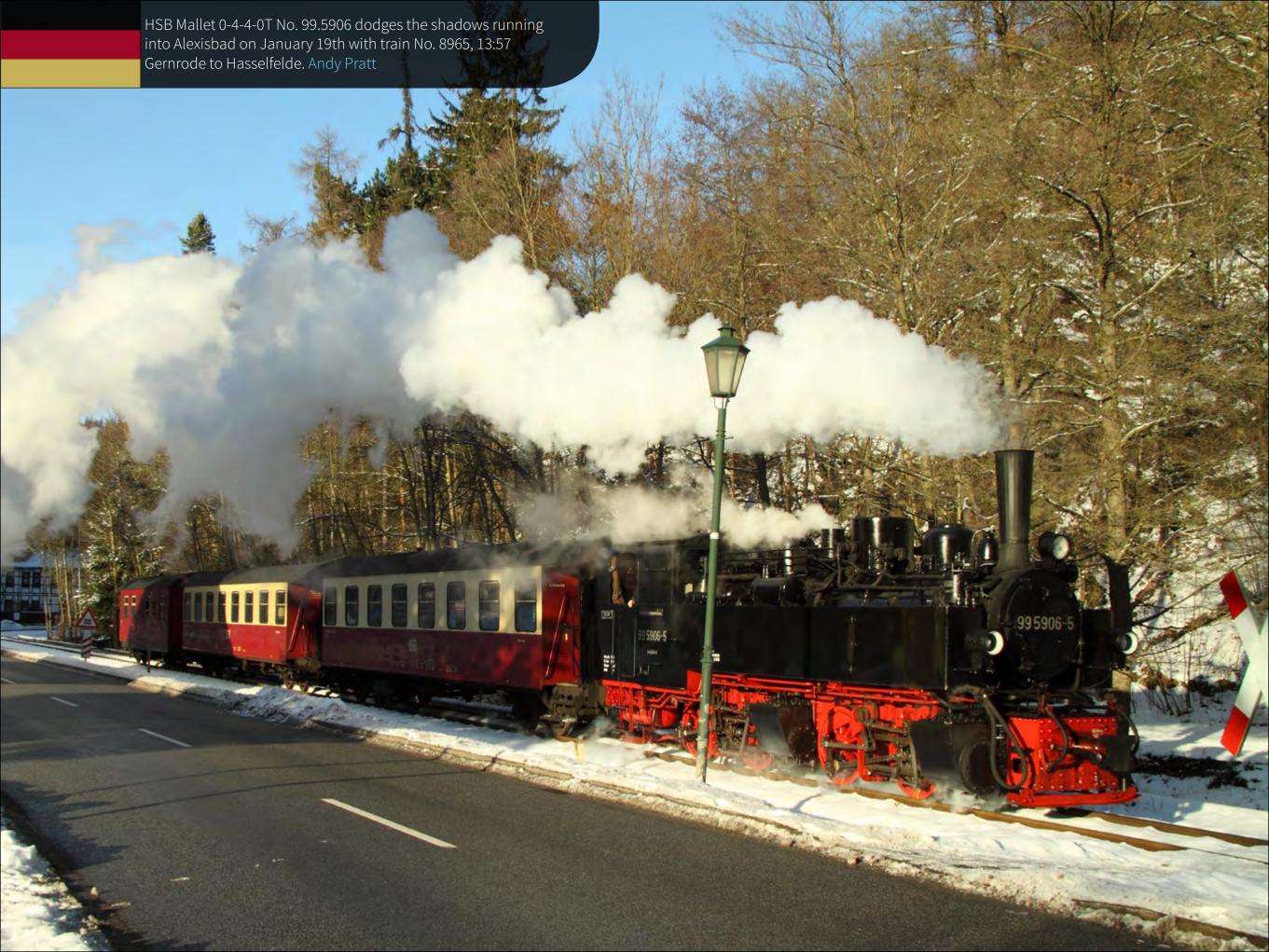


















































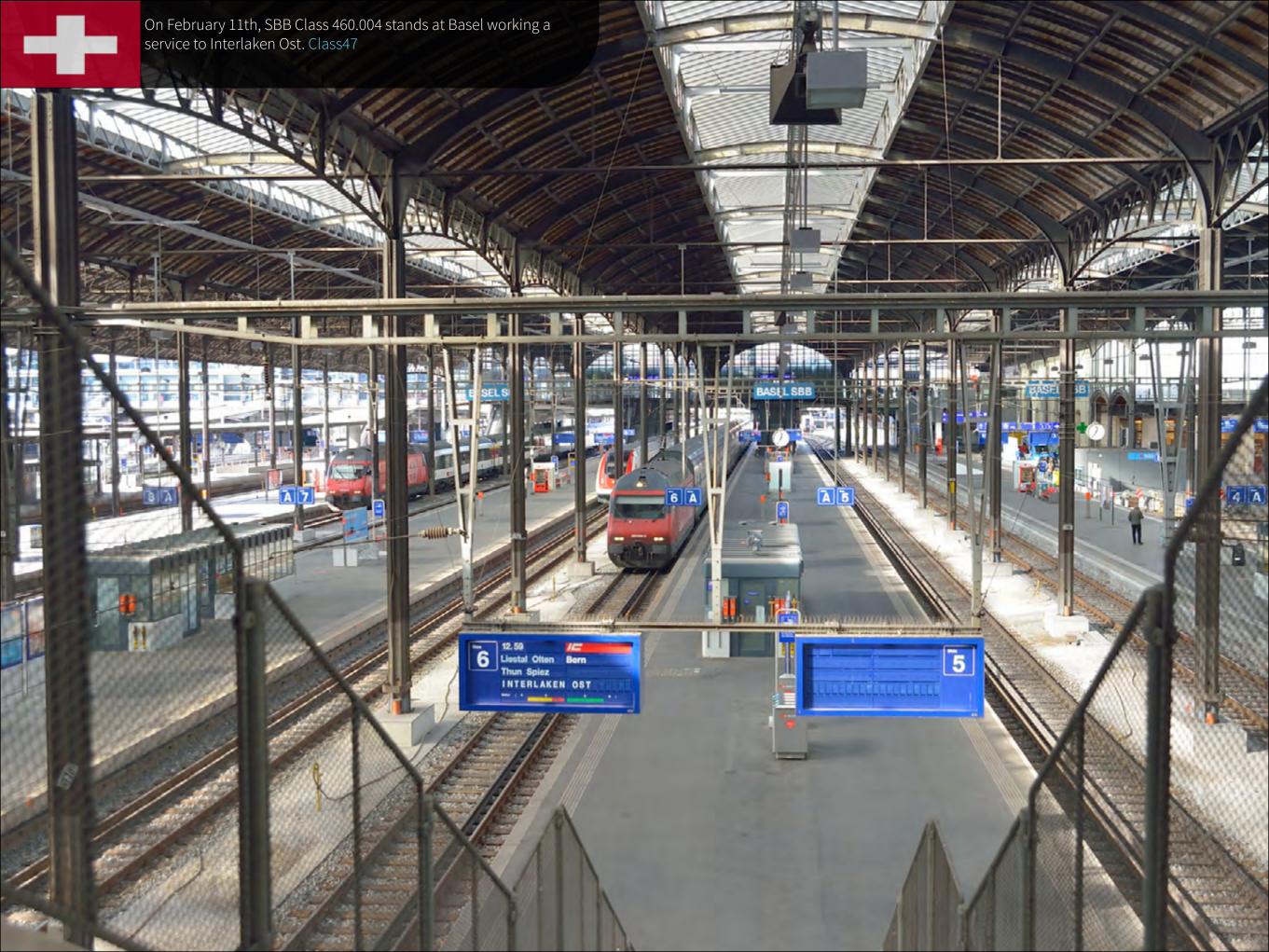




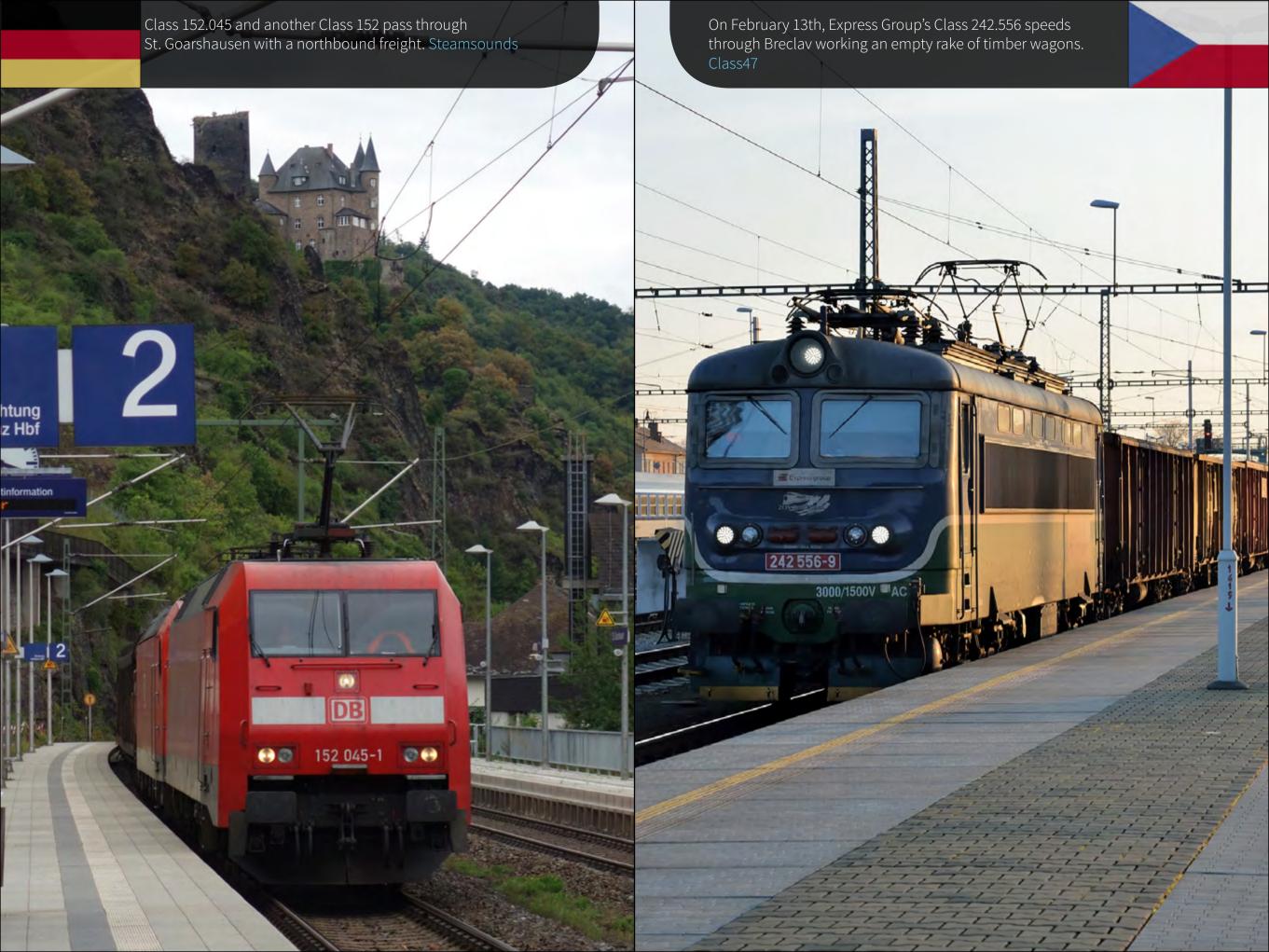




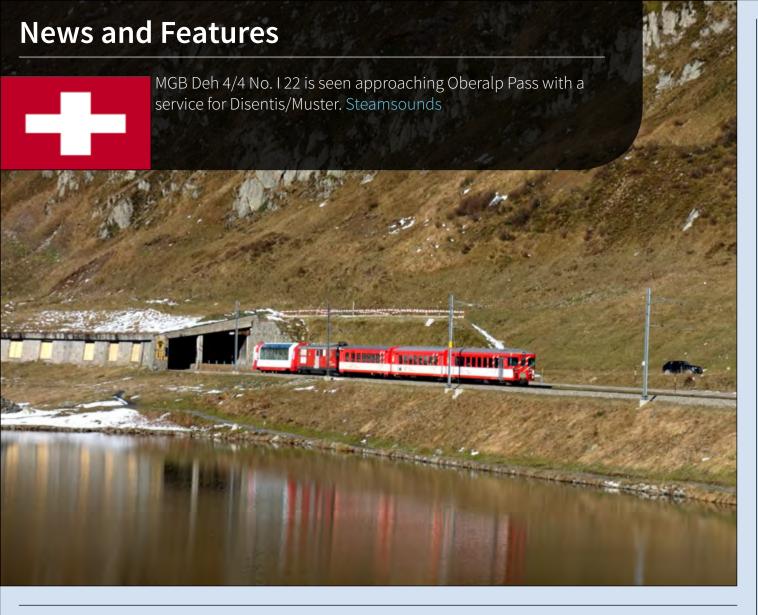














## Hector Rail takes speed record on rail in Denmark

During the night between 21 and 22 March, Hector Rail on behalf of Bane Danmark (Danish Infrastructure Authority) operated a test train with a speed of 235.8 km/h, which is a speed record for trains in Denmark.

Hector Rail was acting as operator and provided locomotives and drivers for the tests that were conducted on behalf of Bane Danmark. The tests took place at the Great Belt Bridge and the highest achieved speed was 235.8 km / h, setting a new speed record for trains in Denmark.

It is Hector Rail's ambition to constantly take the railway to new levels and this is a good example to visualise this ambition.

The locomotive used in the tests was a Siemens built 'Taurus' which is built and approved for 230 km / h. Hector Rail has seven such locomotives in its fleet.



## Travelling with the Frecciarossa 1000

The Italians love their Frecciarossa. The 'Red Arrow' has heralded a new age of exceptionally fast journeys across the country. Bombardier, in partnership with AnsaldoBreda, recently delivered the latest generation of the high speed train to Italian rail operator Trenitalia.

unrivalled speed – more than befitting the name 'Red Arrow'. This cluster of favourable points is not least due to the fact that Bombardier Transportation not only manufactures the 50 trains ordered but is also responsible for their comprehensive maintenance in partnership with AnsaldoBreda.



The Frecciarossa 1000 is even faster and even more comfortable than its predecessors. Three years ago, when Bombardier Transportation, together with its partner and its client, first presented a mock-up of the new V300ZEFIRO high speed train at the trade fair InnoTrans 2012, it could already be sensed how popular this latest generation of high speed trains would become among the passengers. And indeed, soon after putting the high-comfort, high-tech train – known as Frecciarossa 1000 in Italy – in service in June 2015, it has become a giant hit with the public.

This should come as no surprise, as the train features a high level of comfort alongside a reputation for punctuality, safety and reliability, while travelling at

Today, passengers can travel from Naples in the south to the northern Italian city of Milan in under five hours. The first of 50 latest-generation high speed trains was put in service perfectly in time for the Expo 2015. The inaugural model is named in honour of the recently deceased Italian sprinter legend Pietro Mennea, who won the world record for the 200 metres and still holds the European record for this distance – an apt name indeed for the 'Red Arrow', which is faster than any other train in Europe.

At the moment, the train only connects major Italian cities, but links to various cities in Europe could follow in the future.



## Alstom delivers SmartLock400 to Victoria, Australia

Alstom has successfully supplied, tested and commissioned its SmartLock 400 interlocking signalling system for the Melbourne suburban network, as part of the Burke Road Level Crossing removal project which consists of removing 50 of Victorias most dangerous and congested level crossings over the next eight years. The level crossing on Burke Road caused significant disruption to the commuters of Melbourne with the boom gates down for up to 40 minutes between 7:00am-9:00am – a third of the morning peak. Removal of the level crossings and installation of SmartLock 400 deliver significant safety improvements for drivers and pedestrians and improves travel around Melbourne. This is the third SmartLock Alstom has delivered in Victoria – the first was in 2012 as part of Regional Rail Link (RRL) project for V/Line, the second for MTM in 2015 also as part of RRL project.

Smartlock 400 is the latest evolution in Alstom's Smartlock family and benefits from 30 years of worldwide return on experience. It is suited for all railway topologies with a centralised or distributed architecture and is applicable for both new and existing installations. The technology offers very high reliability and operational functionality that maximises safety and punctuality.



### METRANS IMPROVES CONNECTION TO TURKEY



Metrans, the rail subsidiary of Hamburger Hafen und Logistik AG (HHLA), is the first company to serve the Halkali terminal in Istanbul, thereby improving its connection to the strong economic region of Istanbul.

Since the beginning of the year, Metrans has been covering the route between its own hub terminal in Dunajska Streda, Slovakia, and the Halkali terminal in Istanbul, three times a week. It is the first rail company to do so. The Halkali terminal is within the city of Istanbul, making it a considerably more conventient option than the terminal in Cerkezkoy, which Metrans had previously called at. Initial figures show that by using the Istanbul-Halkali terminal, Metrans can offer its customers significantly shorter transit times.

Peter Kiss, Managing Director of Metrans Danubia a.s., on serving the Halkali terminal: "By including Halkali in our network, we are strengthening the connection to the economic metropolis of Istanbul. Halkali is also the central hub between Central and Eastern Europe and the Asian part of Turkey. This enables us to further improve our services for customers who have cargo going to and from the Asian part of Turkey. We guarantee our customers transit times of 4.5 days. That means a day gained for exports, and two days for imports into Turkey." According to preliminary, as yet unaudited figures, HHLA's railway companies transported approximately 1.0 million standard containers (TEU) in 2015.

This represents an increase in the transport volume of more than five percent on the previous year's strong figure.

Photo: Block train of HHLA subsidiary Metrans. ©HHLA

#### Alstom to supply 52 Coradia Lint regional trains to Abellio

Alstom will supply 52 regional trains Coradia Lint 41 to Abellio for a total amount of around €170 million. This is the largest order ever placed for Coradia Lint 41 by a single customer. Coradia Lint regional trains are designed, manufactured and commissioned at Alstom's biggest site worldwide in Salzgitter (Germany). The trains will enter into commercial service in December 2018 on the non-electrified lines of Saxony-Anhalt, connecting the capital of the state, Magdeburg, to cities of Wolfsburg and Stendal in the North, Erfurt and Halle in the South and Goslar in the West.

"The Public Transport Authority of Saxony-Anhalt, NASA, set a high level of quality requirements for these new built trains. Alstom is very pleased to provide passengers with a modern, state-of-the art regional train, designed in Germany. Abellio is a long-term partner of Alstom and already operates Coradia Lint trains.

We are proud to be able to pursue this cooperation", said Didier Pfleger, Vice President for Germany & Austria at Alstom.

"With these new trains we are operating 13 lines in total. We will offer the same quality which our customers in the Saale-Thuringia-Südharz network may already experience. In addition to the modern technical equipment, each of our trains will also be staffed with a customer service agent." adds Dirk Ballerstein, managing director of Abellio Rail Central Germany.

Coradia Lint 41 is a low-consumption diesel multiple unit (DMU) that can reach a maximum operating speed of 140 km/h with high acceleration rate. The 2-unit trains ordered by Abellio have a total capacity of 230 passengers. They feature convenient, spacious seat layout with tables for lap-tops at most of every fixed seat. The first class area is fitted with

carpet and individual reading lights. An innovative lighting concept has been implemented throughout the train, with direct illumination of steps, glass walls and luggage racks to make the journey

friendlier. The trains are also equipped with Wi-Fi, entertainment and passenger information system with monitors for static and dynamic information, as well as video surveillance guaranteeing a high level of passenger safety. Ticket machines will also be available on-board.

The vehicles ordered by Abellio offer accessibility,

including to people with restricted mobility, thanks to accessible entrances from standard platform heights, space for wheelchairs and barrier-free toilet. The trains are also equipped with sufficient storage for up to 9 bicycles with electric socket to charge e-bikes.

Coradia Lint belongs to Alstom's Coradia range of modular trains which benefit from over 30 years' experience and proven technical solutions. More than 2,200 Coradia trains have been sold and 1,900 are currently circulating in Denmark, France, Germany, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and Canada.









## Alstom starts the construction of a new train manufacturing site in South Africa to build 580 trains

Alstom, through its local South African joint venture company Gibela, has reached a major milestone by starting the construction of its new manufacturing site to build 580 suburban trains for the Passenger Rail Agency of South Africa (PRASA). The ceremony took place on 4 March 2016, in the town of Dunnotar, close to Johannesburg, in the presence of the South African Minister of Transport, Minister Dipuo Peters, the executive Mayor of the local Ekurhuleni Metropolitan Municipality, Mr. Mondli Gungubeleand other dignitaries, Mr. Henri Poupart-Lafarge, Alstom Chairman and CEO and Mr. Marc Granger, Gibela Chief Executive Officer. The completion of the 60,000m2 site, which will be built in phases, is expected to take 18 months. It will deliver 3,480 coaches over the next 10 years, with the very first South African-manufactured train to be completed by the end of 2017.

Around 1,500 people will be employed at the manufacturing, assembly and testing facilities. The site will include an academic training centre, large workshops, office buildings, as well as a test track and test facility required for the new trains. "After successfully delivering the first two X'Trapolis Mega commuter trains on time, Alstom is pleased to have reached another key milestone for this significant project. This new factory will be a catalyst for the revitalisation of the rail industry in South Africa through local manufacturing, high local supply level, employment creation and skills development. Alstom is proud to be involved in this new era of rail in the country", said Henri Poupart-Lafarge.

Alstom has been present in South Africa for many years and was awarded around €4 billion PRASA contract in October 2013, the largest contract in the history of the company. The contract also includes 19-year service agreement.



### Alstom to supply 4 Prima H3 locomotives to DAL in Germany

Alstom has been awarded a contract to supply four Prima H3 hybrid locomotives and four other refurbished locomotives to DAL Deutsche Anlagen-Leasing GmbH & Co. KG. (DAL). Alstom will also provide full service for all locomotives for a period of eight years. The locomotives are scheduled to be delivered from Alstom's site in Stendal, Germany, in the second half of 2016.

DAL is going to lease all eight locomotives to Chemion Logistik GmbH, a subsidiary

of Currenta GmbH & Co. OHG, until 2024. The vehicles are to be used in the CHEMPARK facilities in Leverkusen, Dormagen and Krefeld-Uerdingen.

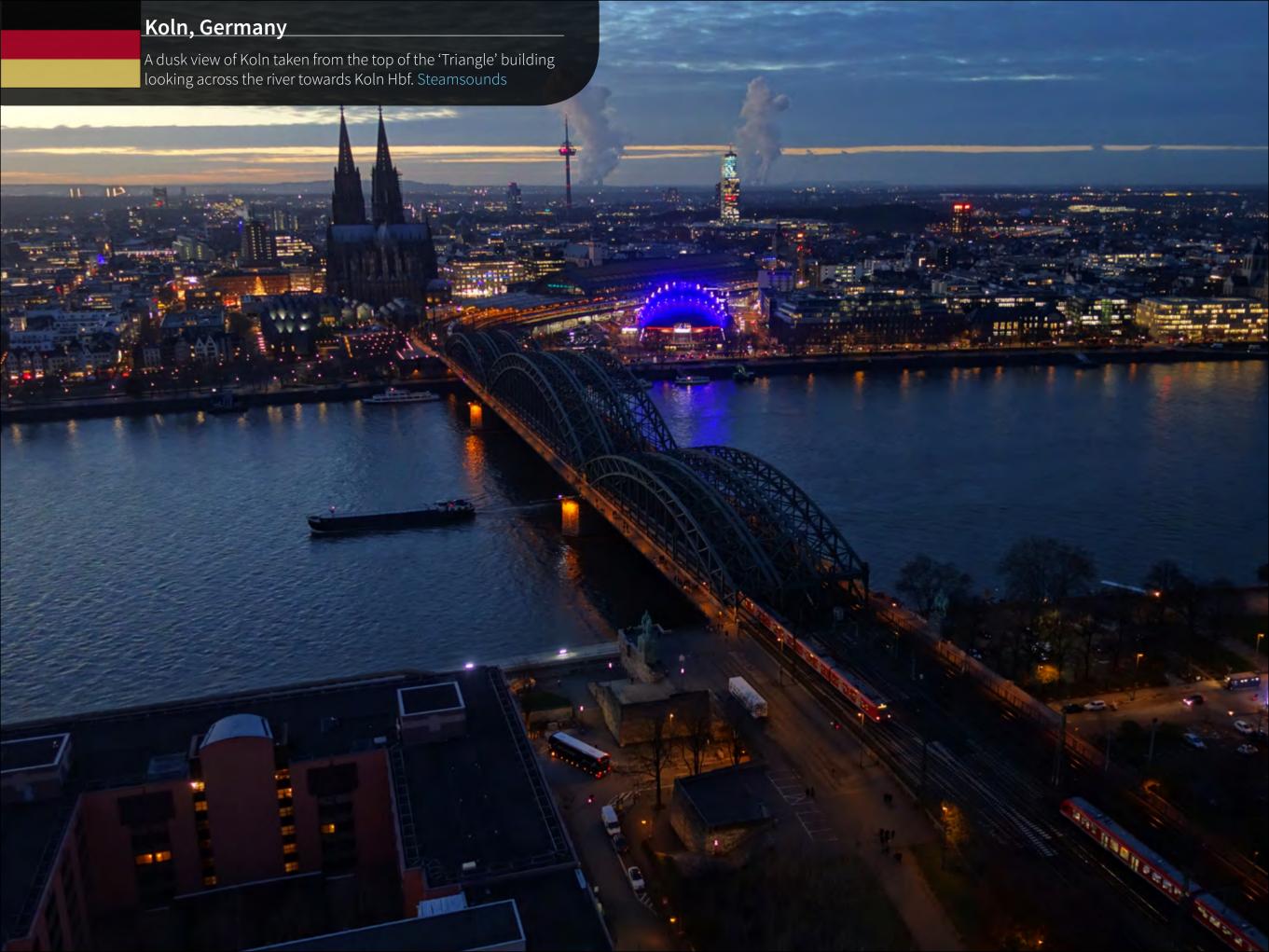
"Our environmentally friendly shunting locomotives are based on a modern technology; they can be flexibly used, especially due to their



low-consumption and powerful hybrid drive. For large companies in particular, the reduction of pollutant emissions is of great importance," says Didier Pfleger, Alstom Vice President Germany & Austria.

"We have been convinced by the economic model, and here in particular by the good life cycle cost of the Prima H3 locomotive." says Andreas Geue, managing director of DAL. "Apart from the ecological and economic aspects, for us the technical parameters of the Prima H3 were essential. We expect the hybrid locomotive to contribute to the smooth shunting operations on our sites" adds Uwe Menzen, managing director Chemion.

In comparison with conventional shunting locomotives, the Prima H3 with its hybrid drive produces up to 50% less CO2, while other pollutant emissions (Nitrogen dioxide) are cut by up to 70%. Noise emissions have also been significantly reduced. The 350 kW diesel generator meets the requirements of exhaust gas standard stage IIIB and has been designed with future exhaust gas standards in mind. Depending on its use, the shunting locomotive will spend between 50% and 75% of its service time in battery mode. This makes it possible to achieve zero-emission rail transport in urban areas or production halls. The locomotive reaches maximum speeds of 100 km/h and can therefore easily be integrated in main line traffic.



HSB 1931 built 2-10-2T No. 99-222 passes Goethe Weg on January 20th in typical Brockenbahn conditions on it's way to the summit with train No. 8925, 10:25 from Wernigerode. Andy Pratt





## Siemens provides trains and automatic train control system for new metro line in Sofia

Metropolitan EAD, the metro operator of Sofia, Bulgaria, commissioned a consortium consisting of Siemens and the Polish train manufacturer Newag for equipping the new metro line 3 in the capital of Bulgaria. The order is worth around 140 million euros and comprises the delivery of 20 Inspiro type metro trains and the Trainguard MT automatic train protection system, using wireless CBTC technology (communications-based train control) to achieve automatic operation. An option for ten more trains and the related automation system is also part of the contract. The line is planned to be put into operation in 2019.

"Sofia marks another European capital that has decided in favour of mass transit vehicles and train automation equipment from Siemens. The inner-city transportation services in particular have to cater to everincreasing demand. For this purpose, we have developed a rolling stock and trackside



equipment that combine high transport capacities with low operating costs," said Jochen Eickholt, CEO of the Siemens Mobility Division. The Bulgarian capital is bursting at the seams under an increased individual transport. The inner-city transportation networks need to meet these increasing requirements. Relief in this situation is expected above all from the underground projects that are currently being implemented. One project involves the construction of a new metro line, which the capital decided in 2011. This new third line will create an east-west link that will run 18 kilometres mostly under the city and also at ground level outside the central parts and will serve 18 stations. The financing of the project is ensured at 70 percent by the European Union (EU) under the Operational Program "Transport and Transport Infrastructure" and 30 percent are locally co-financed.

This order now relates the first phase of this construction project for the first eight kilometres with eight stations. The scope of supply of the consortium comprises the automatic, CBTC-based train control system (onboard and wayside), the Trackguard interlocking, the automatic train supervision system Controlguide OCS, the voice radio and data transmission system, the Supervisory Control and Data Acquisition (Scada) system, the wayside digital communication network, and half-height platform screen doors for the stations. When completed, the metro system with its three lines will form a triangle underneath the centre of Sofia so that passengers will only have to change once to get to a station on one of the other lines. The Inspiro car bodies will be produced at Siemens' plant in Vienna, Austria, while the bogies will come from the Siemens' plant in Graz. Final assembly, factory train testing, and static commissioning of the trains will take place at Newag's plant in Nowy Sacz, Poland.

#### **Heavy loads to Lahr**

As part of the construction of a new warehouse for Zalando, DB Cargo is transporting a large number of precast concrete parts up to 36 metres in length across Germany without overloading the road traffic network in the slightest.

Since the beginning of this year, DB Cargo has been transporting precast concrete parts from Paderborn to the rail freight depot in Offenburg for the construction of a new main warehouse for internet retailer Zalando in Lahr in the Black Forest. The project developer is the property company Goodman; the prime contractor is Bremer AG, a construction company based in Paderborn. It is in that city that the precast concrete parts are produced, among them girders, foundations, pillars, ceiling and wall panels, and holding beams up to 36 metres in length. "Very detailed plans are needed to execute this kind of heavy cargo transport operation," explains Angela Westfahl, Key Account Manager for Bremer AG at DB Cargo. "Our loading advisors and logistics experts work closely with the customer to make this possible."

Bremer AG in Paderborn has its own sidings and the construction site in Lahr is located only a few kilometres from the destination station in Offenburg. This means the bulky freight can be transported across Germany almost exclusively by rail, thereby avoiding cumbersome heavy goods transport operations on the busy motorways between East Westphalia and southwestern Germany. The rail transport operations also reduce CO2 emissions significantly and represent an environmentally friendly mode of transport. Wagon groups of four to six wagons a day deliver the precast concrete parts to Lahr for the warehouse construction project. The total transport volume is 40,000 tonnes.

The building should be completed and ready for Zalando in November 2016. "With the transportation of the concrete parts used in the construction of the building we are integrated into the process logistics, so adherence to delivery schedules is vital," says Angela Westfahl. DB Cargo is currently delivering excavated soil to Lahr for the building's foundations. The soil comes from the construction site at Stuttgart's main railway station, which is being upgraded as part of the "Stuttgart 21" transport project.

## Alstom delivers the third rebuilt rail car to Rocky Mountaineer

Alstom and Canadian customer Rocky Mountaineer celebrated on 18 March 2016 the delivery of the third rebuilt luxury rail car at Alstom's Mare Island facility in California. Alstom has already modernized and delivered two cars and will soon deliver a fourth.

In 2016, Rocky Mountaineer confirmed that Alstom would rebuild two additional cars for its SilverLeaf Service fleet, bringing the total number of rebuilt cars, after project completion, to six.

Rocky Mountaineer operates a luxury tourist train service that operates in the Pacific Northwest and Western Canada, showcasing the wild beauty of Canada's west and the majestic Rocky mountains. It has grown over the past 26 years to become the largest privately owned luxury tourist train company in the world. In 2014, Rocky Mountaineer launched a rebuild strategy to increase the capacity of its SilverLeaf Service fleet by

converting its former RedLeaf Service cars into single level coaches, thereby extending the lifespan of its rail cars, and increasing passenger comfort and services.

Alstom's scope of work includes a complete overhaul and conversion of the cars, including concept and design, interior and industrial design engineering, mechanical, electrical, and rail testing, as well as commissioning. Rebuilding and modernizing the cars extends their lifetimes by at least 10 years. In addition, by refurbishing, rebuilding and replacing interior and exterior rail car components, Rocky Mountaineer is adding more than 300 additional seats to its SilverLeaf Service capacity. The newly rebuilt cars also have new systems (heating, ventilation, air conditioning) to increase guest comfort, as well as new flat and curved windows that give guests a 167% larger viewing area than before.

The work is being performed at Alstom's western service centre located on Mare Island, California.

"Alstom is pleased to deliver two more cars to Rocky Mountaineer, demonstrating the company's ability to



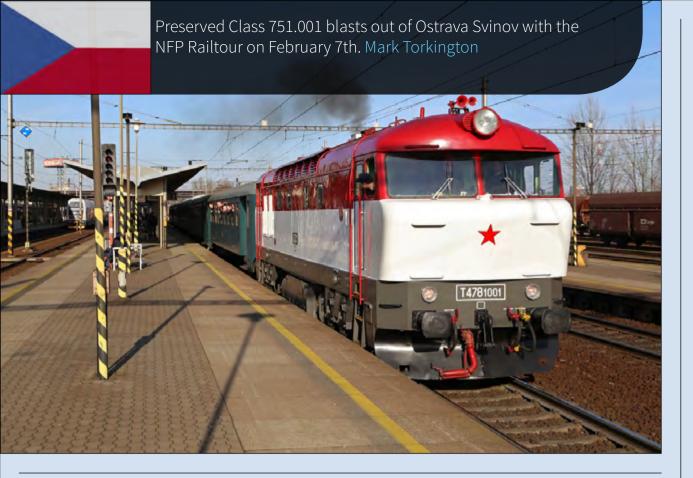
understand customers' needs and develop tailored solutions," said Bernd Burgstahler, Alstom Managing Director, Services, North America. "These additional rebuilt cars will allow Rocky Mountaineer to add capacity to its service and offer their guests a luxurious train experience."

Alstom has been a service provider for more than 25 years and has been awarded over 100 maintenance projects and more than 80 modernisation contracts around the world.

Photo: 

Alstom







## Alstom obtains ECM certification for maintaining locomotives

Alstom has obtained, for its locomotive maintenance activities at Belfort, the certification "Entity in Charge of Maintenance" (ECM). With this certification, issued for 5 years by CERTIFER on the basis of European Regulation UE/445/2011, Alstom has become the first private French locomotive maintenance provider to be certified in all 4 domains: supervision, development, fleet management and execution.

This European certification will become compulsory by 2018 for every entity in charge of maintaining passenger trains. Notably, the regulation aims to harmonise the requirements to be met by maintenance entities across the entire European Union and in all the member countries of the OTIF.

Obtaining this certification, two years before the legal deadline, recognises Alstom's expertise and performance across the entire spectrum of maintenance operations. It represents a guarantee of trust for its customers, guaranteeing the excellence, quality and security of its activities and will enable Alstom to leverage its knowhow with its international customers, notably those operating on freight corridors.



# Alstom to supply 6 additional Coradia Meridian trains for Trentino region in Italy

Alstom will supply 6 additional Coradia Meridian regional trains to Trenitalia, for Trentino Region. This order is part of a frame contract signed with Trenitalia in 2012. The delivery will start at the end of 2016. Coradia Meridian for Trentino is a 6 car-train EMU type (Electric Multiple Unit), and can run at a maximum speed of 160 km/h with a capacity of around



300 seats. Its concentrated traction system with two motor bogies, optimises the electrical braking capability of the train allowing energy consumption and brake wear to be reduced. With a 95% rate of recyclability, the train is environmentally friendly.

Coradia Meridian regional train meets all new standards in terms of comfort, safety and accessibility. Its low-floor facilitates access to passengers, especially those with reduced mobility. Each door is equipped with integrated bridging plates to fill the gap between the train and the platform. For passengers' comfort and safety, the train is equipped with on-board video-surveillance system as well as display screens visible from all parts of the train, audio information, Braille signs, sockets for mobile phones and laptops, and space dedicated to luggage. Bike storage space will go from 8 to 20 bicycles, which is an important step towards a better integration of transport, moving towards achieving sustainable mobility.

"We are proud of this renewed confidence of Trenitalia and thank the Trentino region for this new order. 10 Italian regions, from Trentino to Sicily, have already chosen our train to improve the experience of their passengers. Coradia Meridian is a made in Italy train, and benefits from Alstom's experience in regional transportation." said Pierre Louis Bertina, Managing Director of Alstom in Italy.

To date, more than 100 Coradia Meridian regional trains are in circulation in Italy. These trains, which improve the quality and comfort of travellers, are already operational in Piedmont, Lombardy, Tuscany, Umbria, Lazio (version Airport), Marche, Abruzzo and will soon enter into service in Campania, Trentino and Sicily. The trains are designed and manufactured in Alstom sites of Savigliano (CN), Sesto San Giovanni (MI) and Bologna.



## Alstom signed a contract for the extension of Cairo Metro Line 1

Alstom has signed a contract with the National Authority for Tunnels (NAT) for the extension of Cairo Metro Line 1 from the El-Marg to New El-Marg station. Alstom's share of the contract is worth €12 million.

The project will include the construction of 1.2 km of double tracks and one new station (New El-Marg) that will have to be connected to the main line and to the control centre of Line 1. The extension will allow NAT to provide a more efficient service in the area of El Marg, which is carrying more and more passengers every day. Alstom's scope of work for this project includes the design, supply and installation of power supply, signalling and telecommunications equipment. Works will not interrupt the operation of the line and will last 24 months.

On December 2015 Alstom had already been awarded by NAT a contract to provide a signalling system to equip the new maintenance depot of the same Line 1 which is the backbone of the Greater Cairo underground metro network and has a ridership of 2 million passengers per day.

Alstom is present in Egypt with 220 employees and has been a partner of the country for more than 30 years, implementing different solutions from trains to infrastructure and from signalling to services. The Company's involvement in Cairo metro dates back to the early 80's.





#### Eurostar reports stable passenger numbers and successful introduction of new e320 trains

Whilst the business saw a sharp drop in passenger numbers in the aftermath of the Paris terrorist attacks in November, trading has started to pick up over the first two months of the year and forward bookings for the summer are looking positive.

Throughout 2015, the strength of sterling impacted sales revenues. At constant exchange rates, sales revenues for 2015 were flat year-on-year whereas at actual rates sales revenues reduced by 5% (£821m 2015: £867m 2014). Underlying operating profit for the year was £34.0m (2014: £55.0m) with the year-on-year reduction due to adverse currency movements and costs relating to disruptions in 2015. Nicolas Petrovic, Chief Executive of Eurostar, said: "After a challenging end to 2015, trading is picking up and the outlook for the summer is positive. With our new state-of-the-art trains and highly competitive fares to a range of destinations, we expect this trend to gather momentum over the coming months."

#### New trains boast innovative onboard entertainment and wifi

Following the introduction of eight e320 trains on the London-Paris route, passengers can

enjoy a complete transformation of their travel experience as Eurostar unveils its new on-board entertainment service and wifi connectivity. By connecting their mobile phone or tablet to the free on-board wifi, customers can unlock more than 300 hours of popular TV shows and movies ranging from the much acclaimed Sherlock series to the King's Speech. With news, games, a special children's zone and a live moving location map, the system sets a new benchmark for on-board entertainment in short haul travel.

Nicolas Petrovic continued: "The successful introduction of our new fleet marks an important milestone for the business as it transforms the travel experience for our customers. Our e320 trains bring the ultimate in style and comfort alongside the latest in on-board digital connectivity for both business and leisure travellers."

Carrying 900 passengers as opposed to 750 on the original Eurostar trains, the e320 trains boost capacity by 20%. Equipped with interiors created by world-renowned Italian car designers, Pininfarina, the e320 brings a whole range of exciting new features including ergonomically designed reclining seats in all classes of service and digital screens featuring up-to-date journey information in each carriage.

With increased seat capacity on the e320, Eurostar is now offering its most competitive fares ever. The combination of a lead-in price of £29/€39 one way to Paris/Brussels/Lille and fares from £37 to hundreds of destinations across France, Holland and Belgium, makes Eurostar the fastest, easiest and cheapest way to travel between the UK and mainland Europe.

Almost 100ft long, ex-South African Railways Class GO 4-8-2+2-8-4 Garratt Locomotive No. 2575 built by Henschel & Son stands in the sunshine at the Railway Museum in George in the Western Cape, South Africa. The museum is well-worth a visit for anyone travelling the 'Garden Route'. There is a collection of locomotives and rolling stock as well as a large model railway and a number of vintage cars. John Johnson





## Right on track: Stadler wins contract in the Netherlands worth EUR 125 million

Stadler has been awarded the contract to manufacture 16 FLIRT3 electric multiple-unit (EMU) trains for the operators Syntus by and Keolis in the Netherlands. The trains will operate on the Zwolle–Kampen and Zwolle–Enschede lines, with services scheduled to begin in December 2017.

The contract is worth approximately EUR 125 million and includes delivery of the trains and maintenance for 15 years. The 16 electric FLIRT3 trains are split into nine three-carriage and seven four-carriage multiple-unit trains, and have a maximum speed of 160 kilometres per hour. All FLIRT3 vehicles sold comply with the new 2014 TSI standards, meaning they are state of the art in terms of noise-pollution levels, energy efficiency and access for persons with reduced

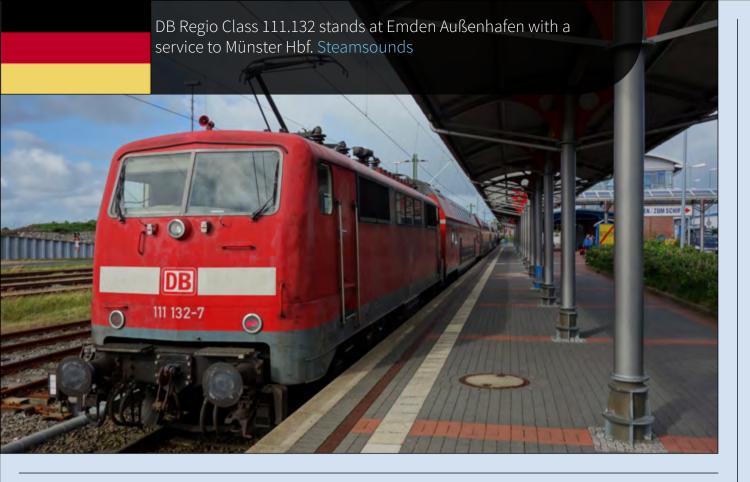
mobility. The first trains will be delivered in June 2017 to allow type tests to be completed. Once again, the fact that the vehicles are able to be manufactured so quickly – thanks to the

unique modular construction of the FLIRT3 series – played a crucial role in Stadler being awarded the contract. The 16 new trains will be produced in Switzerland.

Orders received over the last 18 months have already included 58 FLIRT trains for NS Reizigers and six two-carriage FLIRT trains for Abellio. After receiving this third contract



from Holland with a quick turnaround, Stadler has decided to open a service centre in the Netherlands. The exact location is currently being evaluated and will form part of the service organisation in the Netherlands.





## Stadler wins first contract to supply trains for unattended train operations system in Scotland

Stadler, working in a consortium with Ansaldo STS, won the tender to provide 17 underground trains for the Glasgow Subway (Strathclyde Partnership for Transport, SPT). The contract includes additional technical service support and provision of spare parts. The first trains will enter into commercial operation in 2020. The total order volume amounts to approximately GBP 200 million. Stadler will supply 17 state-of-the-art trains as part of a complete system. The proportionate value for Stadler amounts to around GBP 92 million, which is roughly CHF 133 million. The trains are 39 metres in length and are designed to reach a maximum speed of 58 km/h. The carriages are equipped with 116 seats and 12 tip-up seats and provide additional standing room for 204 people. The entire interior has a uniform floor height and there are six large entrance doors on each side, making the trains particularly passenger-friendly. The windows at both ends of the trains are a unique addition to the carriage design. Platform screen doors (PSDs) will be installed in order to ensure safe operation. The Glasgow Subway is the third-oldest subway system in the world after London and Budapest. The tunnels were built during the reign of Queen Victoria and have a diameter of only 3.4 m and a track gauge of 1220 mm (4 feet). The Glasgow Subway is being comprehensively modernised and will switch over to unattended train operations (UTO). A transitional phase will start in early 2020, during which the first vehicles supplied by Stadler will begin operation together with vehicles from the old fleet. This project is a major milestone for Stadler: it is the first time that Stadler's rolling stock will be part of an unattended train operations system.



# Bombardier to Provide an Additional 60 TWINDEXX Vario Double-Deck Coaches to Israel Railways

Bombardier Transportation announced that it will provide an additional 60 BOMBARDIER TWINDEXX Vario double-deck coaches to Israel Railways (ISR). This call-off order is part of a framework agreement signed in October 2010 and is valued at approximately 106 million euro (\$120 million US).

Yossi Daskal, Chief Country Representative and Head of Sales Israel, Bombardier Transportation, said, "We are proud to continue strengthening our local footprint. Bombardier's story in Israel continues to be a success due to high performance and the excellent relationship Bombardier has built with ISR over the last decades. We are delighted to be part of ISR's rail network electrification and modernization by providing high quality, sustainable solutions."



As the Israeli public transportation market continues to grow, demand for additional capacity and more frequent service is increasing. In response, the government has planned over 7 billion euro in investments to upgrade its railway networks, opening up opportunities for a variety of mobility solutions. These additional double-deck trains, hauled by the new TRAXX AC electric locomotives ordered in 2015, will represent great strides in helping alleviate congestion in the nation. To further reduce reliance on private cars, Israel is also developing light rail vehicle and monorail systems for several lines. Deliveries for this call-off order are expected to take place between March 2017 and July 2018.

Photo: © Bombardier

### Alstom to supply 28 Coradia Lint regional trains for Augsburg

Alstom has been awarded a contract worth over €115 million from Transdev GmbH (TD) to supply 28 diesel Coradia Lint trains which are to be operated on the Augsburg diesel network in Germany. Transdev GmbH, Germany's biggest private operator of busses and trains, has been awarded recently by the free state of Bavaria a contract to run the Augsburg-Landsberg, Augsburg-Füssen and Munich-Füssen network. The modern and comfortable vehicles are scheduled to enter into commercial service around Augsburg for the Transdev-subsidiary Bayerische Regiobahn GmbH from December 2018 onwards.

"We are pleased that our long-term customer Transdev has chosen us again. There already is a large number of our trains running in the Augsburg diesel network 2. The positive feedback shows us that the comfort in our trains is very well appreciated by the passengers", says Didier Pfleger, Alstom Vice President Germany & Austria.

The regional trains, which are to be built at Alstom's site in Salzgitter, Germany, can each transport between 225 and 485 passengers and can run at a maximum service speed of up to 140 km/h. The high flexibility on the configuration of the fleet guarantees an optimum use for the operator.

"For the expansion of our rail traffic around Augsburg starting in December 2018, we want to stick to the modern, passenger friendly and reliable trains from Alstom", says Christian Schreyer, chairman of the management board of Transdev GmbH. "They have proven themselves



already with different Transdev businesses in the past."

The barrier-free access for a quick passenger flow, the spacious multi-purpose areas for wheelchairs, bicycles and prams as well as the universal toilet for

disabled people and the large number of luggage racks are optimized for the passenger comfort. The Coradia Lint is provided with a 1st class area and with a dynamic passenger information system, which fully informs the passengers in real time via monitors before and during their journey. Video monitoring guarantees safety for both the passenger and the train crew.

The trains will meet the new standard for interoperability of locomotives and passenger trains.



#### AVG orders 25 new vehicles from Stadler Rail Valencia and Vossloh Kiepe

German railway operator Albtal-Verkehrs-Gesellschaft (AVG) has ordered a further 25 light rail vehicles of the type 'Citylink NET 2012' from the consortium Stadler Rail Valencia and Vossloh Kiepe. This order is an option of the contract signed in 2011, consisting of 25 vehicles and two options for an altogether total of 50 additional units. A year ago, a first extension of 25 vehicles was executed and now another 25 have been ordered. A total of 75 units will be delivered to Karlsruhe.

The Citylink vehicles supplied by the consortium have been in commercial service since October 2014. The complete first batch has been supplied to Karlsruhe and deliveries of the new contract will begin in autumn.

The Citylink NET 2012 is a low floor LRV, certified according to BOStrab to circulate on Karlsruhe's tram network, and also with the EBO approval to circulate in regional lines, managed by AVG between Hochstetten and Bad Herrenalb (line S1) and Ittersbach (line S11). The same vehicle connects the areas surrounding Karlsruhe with its inner city.

These vehicles from the Citylink platform, designed by Stadler's Rail Engineering

department in Valencia, have been adapted to particularities of Karlsruhe's network. The extremely lightweight structure, responds to the high security requirements optimizing safety. The driver's cab is designed to allow a great visibility. The compact pivoting bogies are equipped with pneumatic secondary



suspension which provides a comfortable and smooth ride.

Stadler Rail Valencia, besides designing the vehicle, produces the bogies, bodyshells and assemblies the light rail vehicles. Vossloh Kiepe delivers the traction equipment, air conditioning, train control system and the surveillance and passenger information system.

This new order strengthens Stadler Rail Valencia's leading position in Europe in the design and manufacture of tram-trains.























An NS Posttrein EMU stands at Utrecht Centraal Station in 1983. 35 were built by Verkspoor NV in 1965/6 and withdrawn between 1995 - 2008. Keith Chapman



NS Class 1300 electric loco No. 1307 in Berlin blue livery is photographed working a passenger train in 1983. Based on the SNCF Class CC7100, 16 were built by Alsthom between 1952 and 1956 and withdrawn by 2000. Keith Chapman