

Railtalk Magazine xtra

Welcome to the Railtalk Magazine Xtra, which compliments the main Railtalk Magazine and means that we can put even more pages together every month. As always in Xtra, we focus on life outside the UK, and once again we have some excellent shots from around the world. Our "From the UK" section this month looks at one of the last major galas of 2013 at the Great Central Railway.

Another month and another trip into Europe, as this month I went to say farewell to the 'Grumpies/Bardotkas/Class 749s' whatever you wish to call them, these Czech locos have been around for over 50 years and certainly have had a great following from both Czech and other European enthusiasts. They will be sadly missed by all I'm sure, but it is good to report that diesel haulage will continue with the taking over from the 'Grumpies' by the 'Goggles'. Not as loud I will agree, but these locos still have a certain character about them and I hope that enthusiasts will still travel to see them. From the Czech Republic, I travelled back through Austria where upon stopping off at Salzburg, I was astounded by the quality of the station refurbishment. Full credit to OBB for this, as the station and its facilities have been completely transformed.

Returning to the UK, from Austria I travelled through Germany where, certainly in the south of the country, there was sight of some deep snow and it always amazes me that the railways and roads for that matter, just accept it and get on with everyday life, something that I can never see happening in the UK.

As this is the last issue before Xmas, may I take this opportunity to say Seasons Greetings wherever you are in the world, I hope that you have enjoyed the magazine over the last 12 months as much as I have had compiling it.

David

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. This issue wouldn't be possible without: Colin Gildersleve, Steve Madden, Brian Battersby, Paul Godding, Richard Hargreaves, Pavel Kopec, Tomáš Kubovec, Martin Grill, Martin Válek, Mark Pichowicz, Richard Weber, Filip Štajner, Pavel Šturm, Bea Želtvayová, Petr Holub, Pavel Martoch, Honza Štofaňak, BVT, Ivo Rušák, Zdeněk, MirKo, Libor Hyžák, Keith Hookham, Jaroslav Charvát, Matouš Vinš, Martin Hill, Steve Dennison, Ian Leech, Anton Kendall, Laurence Sly, John Coleman, Steve Thompson, Steamsounds, Piotr Kozlowski, Derek Neesham, Roger Williams, Mark Bearton, Andy Pratt, Derek Elston, Julian Churchill, Dave Felton, Mark Bennett, Mark Enderby and Enrique Dopico.

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Submissions

Pictures, articles and news can be entered through the forum, or by email to us at:

entries@railtalk.net

Please include a detailed description and credits.

Railtalk Magazine Xtra

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Top Right: HZ Class 2062.102 and 2062.103 head north past Jadranski whilst working mixed freight train No. 60340, 16:04 Solin - Ogulin on August 26th.

Laurence Sly



Bottom Right: DB Schenker Poland/EWS Class 66 248 (No. 92 70 066 248-0) drags former CD Cargo Class 181.035 through Katowice Sosnowiec on September 26th. *Anton Kendall*



Below: CFR Class 62-0989 is seen working train No. IR10742, 16:08 Satu Mare to Buchresti Nord on the outskirts of Valea Lui Mihai, October 4th. Steve Madden



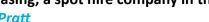








Top Right: A Union Pacific tank train waits to depart Ellis, Kansas on September 25th, the lead loco is on hire from HLCX, Helms Leasing, a spot hire company in the USA. **Andy Pratt**



Bottom Right: On September 25th, the remains of a serious accident on July 17th at Hays, Kansas, awaits the cutters torch. Fortunately there were no fatalities.

Andy Pratt

Below: A Norfolk Southern freight on the Indiana Harbor Belt Railroad line passes under the BNSF line at La Grange Road on September 28th. Andy Pratt

















Top Right: On October 1st, PCT Altmann No. 223.154 heads a rake of empty car transporters through Hamburg-Harburg after unloading at the docks.

Andy

Bottom Right: PKP Intercity Class EP07.412 is seen pausing at Poznan Staroleka on August 28th. *Brian Battersby*

Below: PKP Cargo Class EU07-1503 (No. 91 51 5 140 027-1), a derivative of the EU06 British built locomotive, hauls a container train through Katowice Sosnowiec on September 26th. Of interest is that the new container wagons can take two 40' containers each. *Anton Kendall*









Top Right: Koleje Mazowieckie Class EU47-009 is seen on the rear of a passenger service as it speeds through Warszawa Ochota on August 27th.

Brian Battersby

Bottom Right: On September 13th, Chicago Metra No. 201 leads an eastbound service towards Chicago Union Station. *Andy Pratt*



Below: RENFE Cercanías y Media Distancia EMU No. 039C is seen at Barcelona's Estacio de Franca on October 14th. *Class47*



















Right: On September 13th, a BNSF freight is seen heading through the Chicago suburbs headed by no less than 5 locos!

Andy Pratt



Below: DB Class 111.037 and 111.031 are seen ready to depart in opposite directions at Garmisch Partenkirchen on October 20th.

Steamsounds













Top Right: Hupac liveried Class ES 64 U2 - 100 (182.600-7) is seen heading through Hamburg-Harburg with a loaded timber working on October 1st. *Andy*



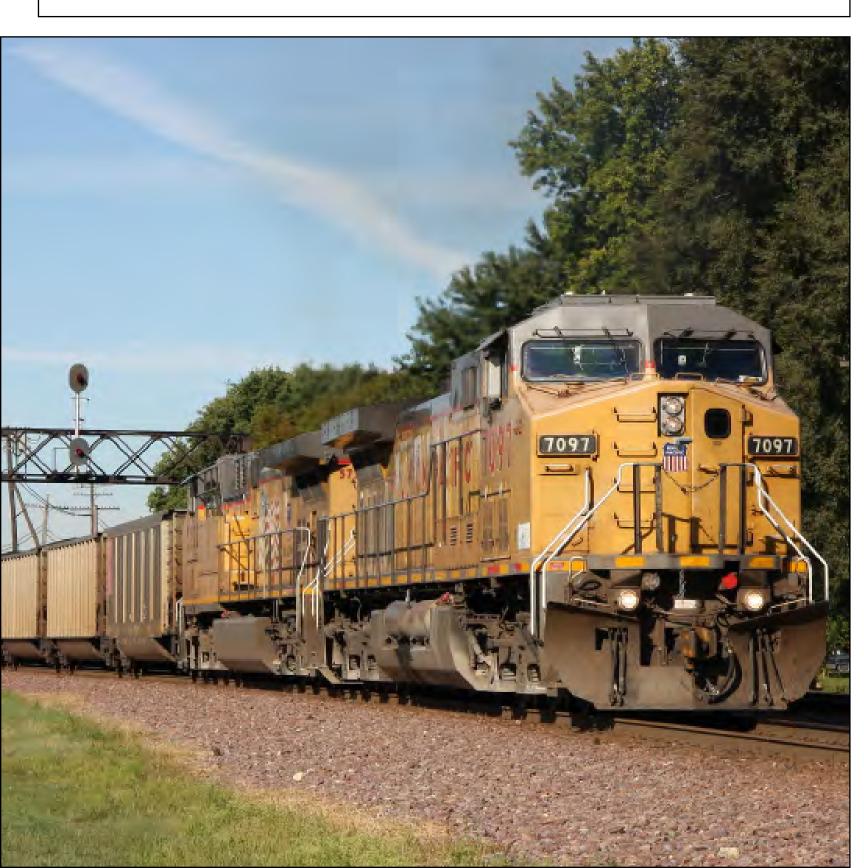
Bottom Right: SBB Re4/4 No. 11198 is seen awaiting departure, working train No. IC10788, 16:39 Chur - Zurich HB with a very welcoming driver. *Keith Hookham*



Below: A Union Pacific loaded coal train makes it's way east through Rochelle on September 14th. The diamond crossings with the BNSF are just beyond the signal gantry.



Andy Pratt









Top Right: A Union Pacific 'K' line train awaits a path over the diamonds at Rochelle alongside the Railroad park, September 14th. *Andy Pratt*



Bottom Right: Union Pacific westbound coal empties headed by Nos. 6937 and 7017 roll off the Mississippi Bridge into and Iowa at Clinton on September 14th.



Andy Pratt

Below: On September 14th, an eastbound Union Pacific manifest heads through Clinton, Iowa shortly before crossing over the Mississippi River and the State line into Illinois.



Andy Pratt













Top Right: SBB Ee3/3 No. 16410 is seen stabled at St. Gallen on June 28th. <u>Steamsounds</u>



Bottom Right: SBB Historic steam lok No. 196 is pictured upon arrival at Oensingen after working the 11:15 Balsthal - Oensingen special on November 3rd.

Keith Hookham



Below: A westbound BNSF container trains runs through Kingman Canyon, Arizona on September 22nd. *Andy Pratt*















Top Right: A BNSF train of grain cars makes it's way through Emporia, Kansas on September 26th. *Andy Pratt*



Bottom Right: Ready for winter as DB Snowblower No. 40 80 947 5 156 is seen stabled at Stralsund. *Steamsounds*



Below: JB historic lok No. 11 is seen at Kleine Scheidegg with the Eiger mountain behind before working the 546B 10:30 'Eiger Ambassador Express' special on November 2nd. *Keith Hookham*













Top Right: A line 7 tram is seen at Rondo Sródka, Poznan. *Steamsounds*

Bottom Right: Norhausen tram No. 109 is seen in Bahnhofstraße on September 17th. *Steamsounds*

Below: Wien tram No. 710 is seen approaching Wien Westbahnhof.

Steamsounds









"The Red Bulletin Taurus engine is the first in a creative and innovative marketing alliance for us. We are pleased to implement this exciting project together with the ÖBB as a strong and reliable partner," commented Franz Renkin, publishing director of Red Bull Media House Publishing GmbH, this co-operation, together with Manfred Oschounig, Managing ÖBB-Werbung GmbH, also known as

The Red Bulletin is one of the world's greatest men's magazines and reports in elaborately produced stories away from the everyday in the fields of action, sports, music, travel and lifestyle. The Active Style Men's Magazine is published in twelve countries and five languages with a circulation of 2.7 million printed or digital copies. In addition, the magazine is very successful worldwide as a magazine app.

Photo ©: Philipp Schuster
Senad Grosic with The Red Bulletin Taurus locomotive.

Chemin de fer à Vapeur des Trois Vallées

A standard gauge tourist railway in Belgium, 14 km in length, created in 1973 and operates in the Walloon Region in particular the section between Mariembourg - Treignes on line 132 (Charleroi to Vireux- Molhain in France).

It has an important collection of historical heritage railway rolling stock originating from several countries, and organizes an annual steam festival enjoyed by many enthusiasts.

Top Right: SNCB steam loco No. 29-013 is seen working a passenger service into Treignes on September 21st.

Brian Battersby

Bottom Right: DR No. 64-250, Type 131T 45.5 T, built by Henschel in Kassel in 1933, steams up in the yard at Treignes on September 21st. *Brian Battersby*

Below: CFV3V preserved SNBC steam loco No. 16-042 is seen in the museum at Treignes. Brian Battersby







Chemin de fer à Vapeur des Trois Vallées continued...

Top Right: Deutsche Reichsbahn No. 50 3696-7, model 150 85.9 T built by Krupp in 1939 is seen in steam at Mariembourg on September 21st. *Brian Battersby*

Bottom Right: ELNA No. 158, a 130T locomotive Type 42 T built by Henschel in Kassel in 1940 which was initially used on the "Teutoburger Wald-Eisenbahn", then "Kaldenkirchen - Brüggen" and finally the "Goes - Borsele" Dutch tourist network, seen here paired with Transportation Corps No. 4389 as they leave Mariembourg. *Brian Battersby*

Below: Preserved locomotive 101.012 (former 2912) of the SNCB is seen inside the museum at Treignes on September 21st. *Brian Battersby*







Rhune Mountain Rack Railway

La Rhune is a mountain in the Basque Country. Take the 'Petit Train de La Rhune' and discover the breathtaking views at the summit of La Rhune (awarded 3 stars in the Michelin Green Guide). The first summit in the Pyrenees mountain range, La Rhune overlooks the Basque Country from a height of 905 metres, thus offering one of the loveliest panoramic views. Look around see the seven provinces of the Basque Country, the peaks of the Pyrenees, the outstretched beaches of the Landes region, and the Basque coastline from Biarritz to Saint-Sébastien. At the summit, enjoy the three ventas (Spanish restaurant and souvenir shop), and experience the Spanish side.

This authentic vintage rack railway train dating from 1924 takes you on a 35-minute ride at a speed of 9km per hour through the heart of wild natural settings. As you go up, you will be able to discover the specific fauna and flora of the Basque mountains. On the massif live the Pottok, a small and sturdy Basque pony that roams about freely, as well as the Manech red head sheep and the Griffon Vulture (Gyps fulvus), an emblematic bird of prey of the Pyrenees.

All Photos: Martin Hill









DB Schenker offers more connections between Oslo and Norway's Finnmark region



DB Schenker in Norway is expanding its train solution in combination with trucks connecting Oslo faster to the north of the Arctic Circle. So far, the DB Schenker North Rail Express is traveling the 1,960 kilometers to Narvik five times a week. In response to high customer demand, DB Schenker will be offering three additional trains per week as of February 1, 2014. Via a terminal stop in Kiruna, there will be a new truck connection to the Finnmark region, linking it to the rail solution.

"This should be good news for the industry as a whole and in particular for export companies in the seafood market," says Michael Holmstrøm, the CEO Schenker AS. "The connection will cut more than a day off transport times for shipments to and from the Finnmark region."

DB Schenker will be offering the new service to the northern Norwegian towns of Alta and Kirkenes via Kiruna in Sweden. It will take the trucks some nine hours to make the 450 kilometer trip to Alta, and some 13 hours to travel the 750 kilometers to Kirkenes. The DB Schenker North Rail Express travels from the Alnabru terminal in Oslo to Narvik via Sweden. It takes about 26 hours to cover the roughly 1,960 kilometer route to Narvik, making it much faster than freight by truck. The train is about 600 meters long and has a total capacity of 1,600 tons. It travels at an average speed of 75 kilometers per hour.

For the DB Schenker North Rail Express which has been running since January 2012, DB Schenker Rail purchased 28 S double well cars and 20 S carrier cars, which are especially suited to the special climatic conditions. The train is transporting around 90 percent of DB Schenker's freight destined for northern Norway, which is equivalent to approximately 12,500 truckloads per year.

Alstom delivers its 1,500th Citadis tram for the opening of the new T7 line in the Ile-de-France

On Saturday November 16th, Alstom delivered its 1,500th Citadis tram on the occasion of the launch by STIF (Ile-de-France Transport Union) and the RATP of the Ile-de-France's tram line 7. The inauguration of the new line was held in the maintenance and the storage depot in Vitry-sur-Seine in the presence of Jean-Paul Huchon, President of STIF, Pierre Mongin, President of the RATP and Jérôme Wallut, Managing Director of Alstom Transport France.

Alstom has supplied a total of 19 32-metre long trams, each able to carry about 200 passengers, equivalent to more than three buses. The trams will operate on the T7 line, 11.2 km long, which links Villejuif (Val de Marne) with Athis-Mons (Essonne) and serves 18 stations. There are plans to extend the line further between Athis-Mons and Juvisy-sur-Orge (2018). STIF ordered the trams in February 2011 as part of a contract covering the supply of 39 Citadis trams for the T7 and T8 lines (Saint-Denis to Epinay and Villetaneuse). The deal covered by the contract includes the potential for up to 70 trams.

The delivery of the 1,500th Citadis tram demonstrates the success of this tram. Since it entered service in France, back in 2000, in Montpellier and Orléans, 1,500 Citadis trams have been delivered to 33 cities in France and abroad, the most recent being Tunis, Bordeaux and Tours. Citadis trams have already carried over six billion passengers and covered over 500 million kilometres. Ten cities are



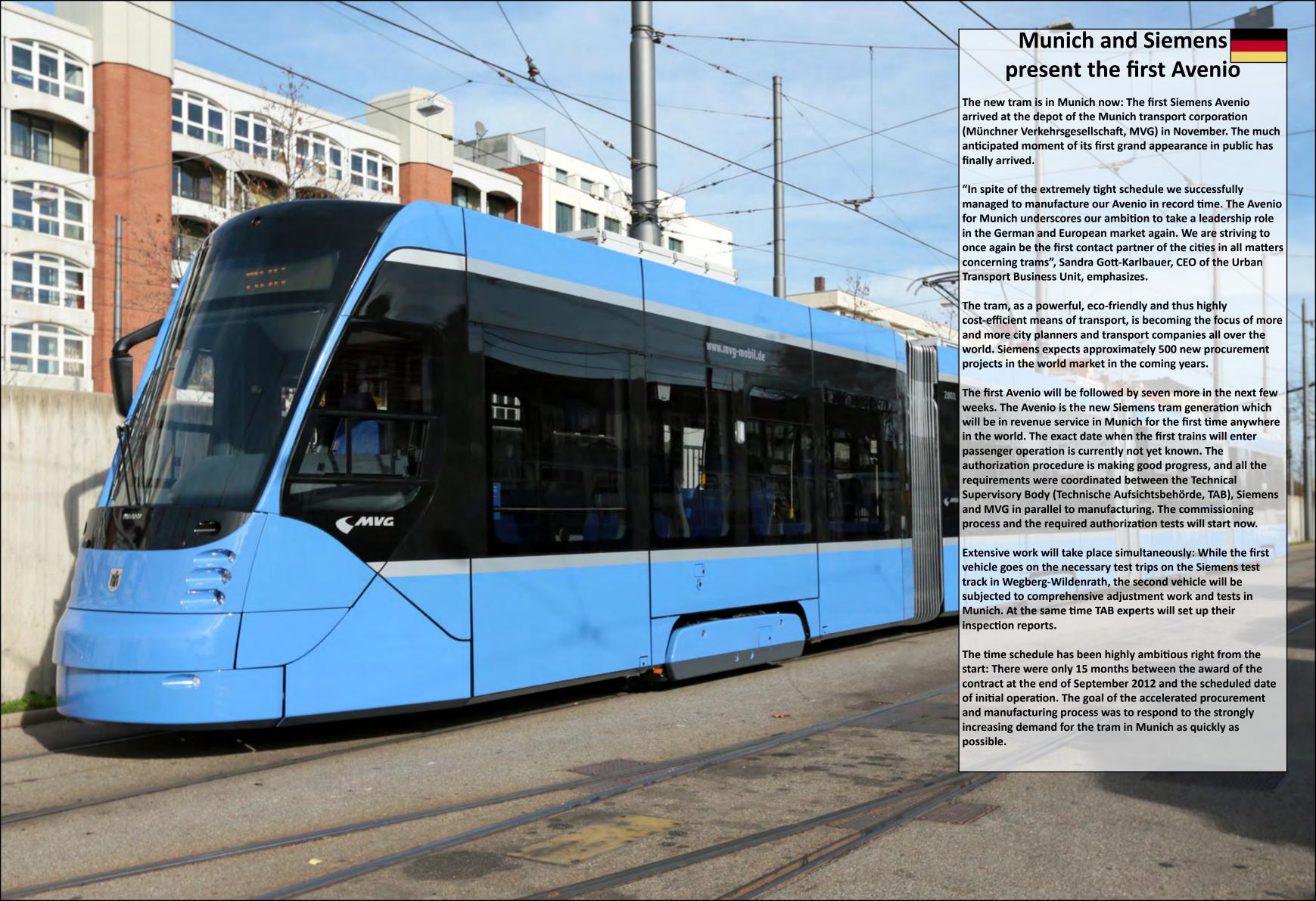
awaiting delivery of their Citadis trams, including Aubagne and Avignon in France and Dubaï and Cuenca abroad. 226 trams will be delivered in the next two years.

Citadis trams range from 22 metres in length for a Compact tram (125 passengers) to 44 metres for a high-capacity tram (319 passengers). The trams can also be coupled together to increase capacity even further. With several hundred possible configurations, Citadis trams meet the mobility needs of small towns and large cities alike. For example, Aubagne in France (with a population of less than 50,000) has chosen a Citadis tram 22 metres long, while Casablanca in Morocco (with a population of over 5 million) has chosen to couple two 32-metre trams together for a tram with a total length of 65 metres. Moreover, Citadis also allows cities the opportunity to personalise the tram's design, including external livery, interior layout and front end, making this means of transport a key element in the city's identity. So far over 50 different designs have been created.

Since it entered service, Citadis has continuously evolved to incorporate the latest technological innovations including the introduction of alternatives to overhead power lines (APS, batteries, supercapacitors). A great deal of effort has been been put in to making Citadis the most efficient, economical, and environmentally-friendly solution possible. This includes increasing the trams' maximum speed (now 80 km/h, compared with 70 previously), the integration of permanent magnet motors, an optimization of the traction system to reduce energy consumption and making the trams highly recyclable by using materials designed to protect the environment.

Since it entered service, about 5 million tonnes of CO2 emissions have been avoided. Citadis trams also contribute to the quality of life in cities, with a noise level 5 dBA lower than that generated by car traffic (i.e. nearly four times less noise).

The main tram assembly site is located in La Rochelle in France; other assembly sites are also located abroad to bring Alstom closer to the cities it serves.



The line through Homewood includes trains on the Chicago Metra 'Metra Electric' line to University Park.

Here a unit is seen approaching Flossmoor on September 28th. *Andy Pratt*



DB Schenker Rail operates for other automotive customers CO2-free

Emission-free rail transport from Frankfurt to Bavaria • Each year, about 2,000 tons of carbon dioxide avoided

DB Schenker Rail transports the vehicle components of the Bavarian car manufacturer BMW first CO2-free with the Eco Plus. With this offer, the amount of electricity needed is purchased from renewable sources of energy. Five times a week driving a 700-meter-long freight train from Frankfurt am Main to the Bavarian BMW plants in Regensburg and Landshut. "The trend toward more environmentally friendly practices is becoming increasingly important and the CO2 avoidance plays an increasingly important role in our customers. Another important customer has opted for our environmentally friendly transport solution in which no compensation of emissions takes place through certificates, but the emissions are avoided completely, "said Axel Marschall, Director of Sales at DB Schenker Rail.

With the change of the traffic on Eco Plus BMW is its CO2 emissions, compared to regular rail transport to reduce more than 2,000 tons of CO2 annually. In addition, customers such as Audi, Mondelez International, Lanxess and Vinnolit use the CO2-free transport of DB Schenker Rail. The Eco Plus helps customers to meet their CO2 targets and can be used on all German relations since 2010. The option for the CO2-free transport and energy procurement from renewable energy sources in Germany are tested by TÜV SÜD. Each client receives the saved CO2 emissions per year certificate. With ten percent of the additional revenue from the DB Eco Plus supports the construction of new plants for the production and storage of renewable energy.

The goal is to continue to extend Eco Plus on international relations. Currently, it is already possible to compensate for the problems caused to foreign sections CO2 emissions in combination with the product option Eco neutral. The climate has firmly anchored in their sustainable strategy DB2020 DB. The 2020 target to reduce specific CO₂ emissions by 20 per cent applies to the entire group - starting from the value 2006. The future vision is a CO₂-free rail transport in 2050.

Škoda Transportation continues to expand into the German market

Škoda Transportation has established a new subsidiary in the German city of Munich called Škoda Transportation Deutschland GmbH. Plzeň Škoda thus confirms that it intends to focus not only on the traditional Eastern, but also on the Western markets. The management of the new company has been assigned to Zdeněk Majer, who is also the vice president of business of the parent company.

"The establishment of a company in Germany is the logical result of our business activities in this challenging market. Currently we are working on several business projects there and I personally believe that after the success of the tender for the German operator Deutsche Bahn Regio, we have a great opportunity to bring more Czech vehicles onto the railways of German-speaking countries in the near future," says Tomáš Krsek, chairman of Škoda Transportation.

The aim of the German Škoda is to create a business-technical-service unit. To strengthen the commercial team, we have brought onboard Daniel Schambach (more details below in the attached CV), who will become the sales director of the new company. He will be responsible for the development of business activities of the Škoda Transportation group in the German, Austrian and Swiss markets. Another objective of the German subsidiary is to find technical experts. In the future, they will not only work on projects in Germany, but they will also enhance the research and development capabilities of the whole group. In the coming years, the team will also grow to include technicians who will be responsible for servicing the vehicles of DB Regio. That is because from December 2016, the Bavarian lines between Nuremberg, Ingolstadt and Munich will be serviced by Škoda vehicles. "The construction work on vehicles for DB has been in progress since this spring. In autumn of next year, we should have built the first prototype," says Zdeněk Majer, director of Škoda Transportation group Deutschland.

"I see several interesting business opportunities for our company on the German market today. Soon, for example, we will make several tenders for trams. Through the successful conclusion of the contract with Deutsche Bahn, we confirmed that our products are comparable to the world's best, which our success abroad this year also proves. Since its beginnings, Škoda Transportation group signed export contracts worth more than 21 billion CZK," adds Zdeněk Majer.

DB Schenker Logistics opens new terminal near Prague



DB Schenker Logistics has built a large new terminal at the new business park in Rudna, near Prague. It now houses the Corporate Offices of Schenker spol. s r.o., the DB Schenker Logistics arm in the Czech Republic.

The new mobility hub covers a total area of 90,800 square meters. It has an 8,000 square meter hall with 92 cargo doors, including six for jumbo semitrailers. Some 270 employees currently work at the 4,700 square meter administrative building. "Because the new facility is so well connected to transportation routes, it makes transshipment much faster and more effective," says Karl Nutzinger, the Member of the Board of Management at Schenker AG responsible for land transportation at DB Schenker Logistics. "We are also proud to have built a facility that is in line with state-of-the-art safety and environmental standards."

The new facility has its own bonded warehouse and special capacity for hazardous materials. It also includes an in-house photovoltaic gas station and a solar-powered system for heating water on the premises. Smart lighting systems, a particularly efficient HVAC system, and a liquefied natural gas station for CNG vehicles also make the facility sustainable.

Bombardier, Alstom and STM Unveil Montreal's AZUR Metro Carse

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The consortium composed of Bombardier Transportation and Alstom Transport, together with the Société de transport de Montréal (STM), has unveiled Montreal's new metro cars. The first nine-car train was presented to the Government of Quebec, the City of Montreal and other high-profile guests at a celebration of this important moment at Bombardier's La Pocatière plant.

The consortium is completing trials on the prototype train at the La Pocatière plant and expects to ship the cars to Montreal in early 2014, where it will begin qualification testing, with the STM, at metro facilities. The event gave guests the opportunity to tour one of the metro cars with the 600 employees looking on proudly. On behalf of the Bombardier-Alstom consortium, Raymond Bachant, President, Bombardier Transportation North America, emphasized the calibre of the partnership that has made the project a success. "Bombardier and Alstom would like to salute the professionalism, expertise and excellent collaboration provided by our partner, the Société de transport de Montréal," he said. "These advanced new metro cars will provide STM passengers with the reliable, comfortable and rapid service that a major city like Montreal deserves."

"When the metro was inaugurated over 40 years ago, the City of Montreal in a way entered the modern era. With today's new metro cars, we are clearly in the 21st century. Montrealers will be the primary beneficiaries

of a more comfortable and powerful metro, one that makes travel more enjoyable and promotes increased ridership. The metro is vital to Montreal's development. The new cars will soon be an added asset for the city, even as we await the system's extension eastward," stated Montreal Mayor Denis Coderre.

According to STM Chairman Michel Labrecque, "This has to be one of the most beautiful trains in the world. We're anxious to get it to Montreal, so we can start the testing process, which will take place over a period of approximately eight months. These cars will certainly be in service for 50 years. They will enable us to not only increase the reliability and quality of services offered to passengers, but also boost ridership in the metro, which currently stands at 900,000 trips per day."

After the ceremony, some guests headed toward the new test track at the La Pocatière plant, where Quebec Premier Pauline Marois and Montreal Mayor

Denis Coderre took the train's controls for a run at standard operating speed, commenting on the power and gentle ride of the new cars.

The STM has ordered 468 of the new-generation cars, with deliveries expected to continue until 2018. They include a series of features that will offer passengers greater comfort, a greater sense of safety, better access, and optimal performance. These features include:

- Panoramic windows and indirect lighting, for greater visual comfort
- Communicating passageways throughout the nine-car train
- Doors that are 27% larger, to ensure passenger flow
- Optimized air suspension to deliver a more cushioned ride
- 8% more passenger capacity
- State-of-the-art information and safety systems

More than 150 Canadian suppliers, some of whom are long-standing Quebec companies, are participating in the project, whose Canadian content exceeds 60%.



CZ LOKO fits AZD's measuring vehicle with ETCS

Upon completion of the CZ LOKO's unique project, the unit was taken to the test circuit in Velim.

The company's management, headed by CEO AZD Praha Ing. Zdenek Chrdle has taken into trial operation test car, which was a comprehensive modernization of the motor vehicle Class 851.026.



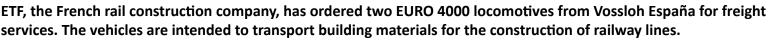
The unit will first be used to control the line of the train control system ETCS Level 2 between Cologne - Břeclav - border Austria / Slovakia.

The railcar has undergone a full structural and mechanical overhaul. There is a newly installed Caterpillar C 27 engine with a power of 630 kW. Original hydrodynamic transmission has received newly designed liquid cooling. Maximum operating speed of the vehicle has been maintained at 110 km / h Power regulation and control of the entire vehicle control system is provided by MSV electronics.

In the driving cab, there are new ergonomic control panels, as well as new safety glass with atypical rounding. A completely new interior provides an adequate working environment for technical staff including the sleeping section and vacuum toilet. For testing trackside ETCS is installed on the car complete mobile part for ETCS Level STM level, Level 0, 1 and 2 in the specification version 2.3.0d. The mobile part is supplemented by the registration module ODL (On-Board Diagnostics and Logging), which allows on-line diagnostics and off-line data logging, and STM-type LS.

It has been developed and manufactured by AZD Praha and is activated by the mobile part of ETCS in sections where there is no built trackside ETCS.

Vossloh España will deliver two EURO 4000 locomotives to ETF



These new units will be in-service before next summer; ETF will use them on their high-speed lines jobsites – on the East European high-speed line (HSL East) and the HSL Tours – Bordeaux. This stretch of railroad, between Paris and Budapest, will be the largest line of high-speed in Europe. With these new units the EURO 4000 consolidates its position in the French market with 28 vehicles sold.

The EURO 4000 by Vossloh España is the most powerful diesel-electric locomotive manufactured in Europe. It is a highly innovative vehicle that stands up due to its versatility, performance, technology and environmental compliance. The EURO 4000 can pull longer and heavier freight trains at faster speed than its competitors, which increases the operator's competitiveness and efficiency. Besides high-duty diesel-electric locomotives, Vossloh Rail Vehicles builds innovative local transport trains for a wide variety of applications; its lineup also includes extensive services and the manufacture of bogies.

ETF, a subsidiary of the group EUROVIA, is a major player in transportation infrastructure and urban development, specialized in construction and maintenance of high speed and logistic tracks.

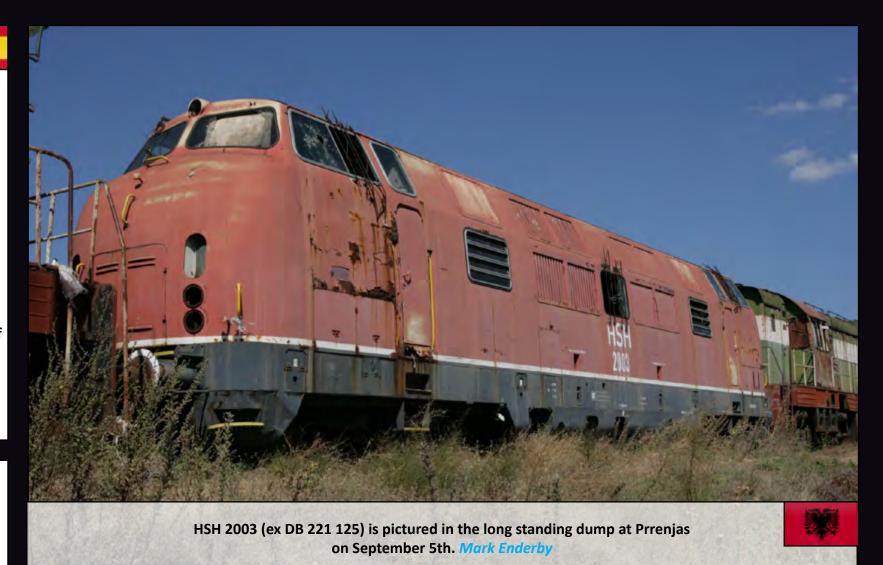
Turnkey metro line from Siemens begins operation in Gurgaon, India

Rapid MetroRail Gurgaon Limited has commenced passenger operation on the six kilometre metro line in Gurgaon, in the metropolitan area of Delhi. Siemens supplied all of the rail technology, from the trains and the electrification systems, through the installation of the service workshop and the signal technology, to the system integration. The line links Gurgaon Cyber City, a business and residential district located some 30 kilometres south of central Delhi, to the capital's metro network. The existing line will be extended by around seven kilometres to the south by the end of 2015. In summer of this year, Siemens was also awarded the contract to implement this extension as a turnkey rail system.

in India's second largest city. The line that has just been opened for revenue service is built to cope with an expected volume of approximately 30,000 passengers per hour, with each three-car train providing a maximum transport capacity of about 800 passengers. The Gurgaon metro line marks the first time that Siemens not only supplied subsystems in India, but was also responsible for the key components and their integration, including the interfaces, in the construction of a turnkey rail system. The seven aluminium metro trains supplied by Siemens run on a standard-gauge track with a maximum speed of around 80 kilometres per hour. To achieve a headway of no more than 120 seconds during peak traffic times, Siemens has installed Sicas ECC type electronic interlocking, the LZB 700 M automatic train control system with ATP (Automatic Train Protection) and ATO (Automatic Train Operations), as well as the Vicos OC 501 ATS (Automatic Train Supervision) system.

To fully electrify the new line, Siemens has installed a 750 V DC traction power supply along with a third-rail system for current collection. Power is fed into the line extension and the rest of the existing line from the 66 kV grid. A medium-voltage ring supplies four substations, six metro stations and the depot with 11 kV AC.





West Europe moves on **LEGIOS** wagons

LEGIOS has signed two contracts for the supplies of cargo wagons to West Europe. One hundred of container railway wagons were ordered by Italian company GTS and almost four dozens of cistern wagons were ordered by German company On Rail.

In Louny, the company produces one hundred of platform articulated wagons series Sggmrss 90' with Czech brake DAKO, and 38 special cistern wagons Zacens 40 m3 for transporting sulphuric acid. The total volume of both contracts is almost 400 milion CZK. "From October, we will produce 20 wagons a month for GTS. The cistern production for On Rail is planned in cooperation with the plant in Horní Slavkov for May and June," stated by Radek Rybáček, General Director of LEGIOS.

While On Rail belongs amongst the traditional customers, the agreement with GTS was, according to Rybáček, under preparation for about one year, and the company reputation on Italian market was supported by successful supply of railway wagons for Ambrogio from Lombardi in 2011.

"LEGIOS is successful with promotion abroad. Our success with GTS and the confirmation of good relations with On Rail follows recent agreements on the supplies to France and Turkey," says Rybáček. GTS is a recognized European company with head office in Italian Bari, which provides its clients with container transport in Italy, France, Belgium, Netherlands, Great Britain, Ireland, and Greece. Annually it dispatches over 2 thousand cargo train sets.

LEGIOS follows the rich machinery production tradition and the repair works of the railway vehicles which commenced in Louny in 1873. Currently, this company ranks amongst the most recognized European manufacturers and the repair work providers of the railway wagons.

Its production program also includes repair works, and modernization of railway wagons and engines. LEGIOS comprises of four production plants: Louny, České Velenice, Horní Slavkov and Nymburk.

Painted in Elgin, Joliet & Eastern Railroad colours, a manifest joins the mainline at Flossmoor on September 28th. Andy Pratt

DB invested 120 million euros in new DMUs for regional transport

Order of 36 new vehicles to the Polish manufacturer PESA to 2016 in North Rhine-Westphalia.

Dr. Rüdiger Grube: "We strengthen competition in the market".

The German railway has now ordered 36 diesel multiple units with the Polish manufacturer PESA (Pojazdy Szynowe PESA Bydgoszcz Spolka Akcyjna) for regional transport network in the Sauerland. "With this investment, we are modernizing our fleet with continued consistently, we are making make the company stronger for a sustainable future while strengthening our competitive position, "said Dr. Rüdiger Grube, CEO of Deutsche Bahn AG.



The contract for the first batch of vehicles with a total of 120 million euros was signed recently in Berlin between the Deutsche Bahn subsidiary DB Regio and PESA. "DB Regio has secured the contract, with an even greater degree of flexibility to meet our customers' needs for new vehicles. So we are even better equipped to meet the increasing requirements of the

German transport market," said Euler, Director of Production track of DB Regio AG. The agreement provides for the supply of 20 two car and 16 three car LINK DMUs from the existing Framework Agreement with a total of around 450 DMUs. The engines comply with the new European emission standard III b. The trains have capacity for 100, 120 or 160 seats and depending on the engine equipment, the vehicles have a top speed of 120 or 140 kilometres per hour. Completion of the order is by 2016.

DB Regio plans to use the new units on the Dortmund - Insert Lüdenscheid - Iserlohn, Dortmund - Dortmund and Dorsten - Hagen routes.

"We are very confident that the first order will mark the beginning of a common success story of our company, "said Tomasz Zaboklicki, CEO of PESA.

PESA has approximately 3,500 employees, a specialist in the construction and modernization of rail vehicles., the manufacturer's portfolio includes diesel and electric rail cars and locomotives, and trams.

Intercity trains for Sweden

Stadler Rail has received an order from the private railway company MTR for six intercity FLIRTs. The vehicles are five-carriage trains with a top speed of 200 km/h. They are especially able to fulfil the requirements of severe winters. This technology has already proven itself in Stadler trains for the other Nordic countries. In securing the order, Stadler has succeeded for the first time in selling trains to Sweden. The order is worth around CHF 85 million and will be carried out in Switzerland. MTR will provide a long-distance service with around 15 connections per day on the route between Stockholm and Gothenburg in competition with the Swedish state railway operator. Delivery of the trains will begin in Autumn 2014. The private railway company MTR is a globally active private rail operator with its headquarters in Hong Kong. It has been active in Sweden since 2009, where it operates the Stockholm underground. The six FLIRT multiple-unit trains ordered from Stadler Rail will provide the company with exceptionally high-quality rolling stock for the main line between the country's two largest cities. The trains for MTR are an advanced development of the FLIRT with a high-quality interior for comfortable travelling across long distances.

Able to fulfil the requirements of severe winters

The trains operate with 15 kV alternating current and are equipped with the Swedish train control system ATP L 10'000. The top speed of these trains will be 200 km/h. As with all Stadler trains produced for the Nordic countries, the MTR FLIRTs will be specially equipped to deal with the harsh winter conditions in Sweden. Features include, for example, improved isolation, floor heating, double-wall intercar gangways, snow scrapers between bogies and carriage body as well as a heat recovery system. All FLIRTs produced by Stadler have an aluminium body. Stadler is the global leader in lightweight aluminium technology. This technology allows the trains to accelerate faster, thus significantly reducing energy consumption and operating costs in comparison to conventional vehicles.



Alstom unveils first Citadis Compact tram

On November 14th, Alstom unveiled the first Citadis Compact tram on its manufacturing site at La Rochelle in France, in the presence of Daniel Fontaine Vice President of the Pays d'Aubagne et de l'Etoile Metropolitan region and Mayor of Aubagne, along with Ségolène Royal, Regional President of Poitou-Charentes, Jérôme Wallut, Managing Director of Alstom Transport France, and the contemporary artist Hervé Di Rosa.

The Pays d'Aubagne et de l'Etoile region is the first to have opted for the Citadis Compact, in the framework of the launch of its tramline network. The contract, signed in October 2011, was for a definitive order of eight trams, with an option on 5 to 10 additional units.

The colourful livery of the **Citadis Compact for** Aubagne has been conceived by Hervé Di Rosa in collaboration with the Design & Styling department of Alstom. The tramset presented is currently undergoing static and dynamic testing on the Alstom site at La Rochelle. The seven other trams are currently being produced and the first deliveries will occur in early 2014.

Citadis Compact has been developed by Alstom
Transport to meet the needs of mobility in intermediate-sized cities. It benefits from Alstom's expertise in tram technology. Between 22 m (72') and 24 m (79') in length, Citadis Compact can

accommodate some 130 passengers. With its large windows, air-conditioning and real-time information system, it offers passengers comfort and security.

Equipped with the new Ixège bogie from Alstom, featuring dual suspension and permanent-magnet motors, Citadis Compact is characterised by its reliability and high-performance, and enables cost savings with regard to energy consumption and maintenance.

Citadis Compact features wide circulation corridor to facilitate mobility aboard the tram. It also features double-doors at the front and at the back reducing stop time.

"We espouse the right to mobility through offering free public transport and creating accessible, safe and efficient modes of transport," explains Daniel Fontaine, Vice President of the Metropolitan Region of du Pays d'Aubagne et de l'Etoile.

He adds"It was then only natural that the livery of the tram – a symbol of modernity and quality of life – should be the combined product of the imagination of a great artist – thank-you, Hervé Di Rosa! – and the creativity of the children of Aubagne".



Citadis benefits from Alstom's return on experience from the over 1,700 Citadis trams sold to 43 cities worldwide. They have carried around 6 billion passengers and covered over 500 million km (310 million miles).

Citadis Compact tram on the Alstom manufacturing site at La Rochelle in France.

Photo ©: Alstom Transport / Hervé Di Rosa

T669.1054 is seen at Vlora on the afternoon of September 10th, awaiting the next day's departure back north. The driver was snoozing in his cab! *Mark Enderby*





consortium awarded bidding process for new rolling stock in Santiago de Chile

The new cars will be fitted out with HVAC, automatic driving equipment, passenger information system, train interior surveillance cameras and increased security, amongst other innovations, placing the two new lines amongst the most modern in the world.

The awarding of the international tender for the supply and maintenance of trains and automatic driving system to the Spanish-Canadian consortium CAF-THALES has been made public.

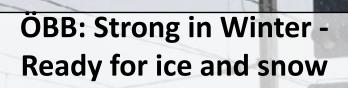
Further to a process which ran for approximately 15 months, the proposal from CAF-THALES won the tender for the supply of 185 new cars with HVAC (115 for Line 3 and 70 for Line 6), the CBTC automatic driving system and rolling stock maintenance.

The bid CAF-THALES presented considered supplies for a value of US\$ 336,450,115 plus UF 511,206. Maintenance and spare parts, amounting to US\$ 19,101,905 and UF 1,650,177, is added to this. The resulting total value of the contract is equivalent to US\$ 451,861.220.

One of the stand out features of the winning technical bid is the energy efficiency involved in transporting more passengers with reduced energy consumption. To this regard, the new cars will feature a 260 passenger capacity, greater than the current trains already running on the network.

The 185 new cars will be fitted out with HVAC, automatic driving system, passenger information system, train interior surveillance cameras and increased security, amongst other innovations, positioning the two new lines amongst the most cutting-edge in the world.

The project for these new lines is the most relevant in the history of the Metro and one of the greatest national infrastructure milestones to date, integrating over one million potential network users, via 28 new stations.



Ready for winter: ÖBB have their technical winter equipment activated and are thus equipped for ice, frost and snow. ÖBB invests around 40 million euros in the winter to keep services going. In case of snow, up to 5,000 employees working in shifts, especially in the track and turnout area and on the platforms, are on standby so that passengers arriving on the train can safely and reliably get to the office or home. The ÖBB winter service operates across provinces and the teams will be used where needed.

Preventive work happens long before the beginning of the winter season, as testing includes the dedication of the snow removal equipment and the switch heaters. In exposed sections snow fences have been erected and controlled avalanche protective structures put in place. Around 120 technicians ensure that the facilities are in good working condition.

Winter maintenance is often "hand work"

Especially in the urban area, such as the Vienna S-Bahn, ÖBB feature's point heating of very high quality, as well as on the main tracks of the core routes. Although the tracks are mostly cleared using snow plows, snow blowers and snow brushes, however activities such as removing snow from switches, de-icing of bridges and tunnels, shovelling up of platforms or cleaning up the ruts at railway crossings takes place manually.

Point heating can melt snow and ice

In Austria, around 11,000 points are equipped with switch heaters - from around 15,000 points in total. When snow and ice threaten to paralyse important crossovers, switch heaters automatically become active and cause the snow to melt in the turnout area. In addition during adverse weather conditions with wind and bitterly cold temperatures, the Dispatcher also has the ability to induce the so-called "drifting snow" button for a set period of a "continuous heating" so turnouts remain free of snow and ice.

Photo ©: ÖBB / Zenger



























