

# Railtalk | Magazine xtra

Issue 94x | July 2014 | ISSN 1756 - 5030

# **Contact Us**

**Editor: David** david@railtalkmagazine.co.uk

Co Editor: Andy Patten editor@railtalkmagazine.co.uk

### Contents

Pg 2 - Welcome

Pq 3 - Pictures

Pg 54 - News and Features

Pg 66 - From the UK

Pg 76 - From the Archives

### **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.

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: Ken Abram, BVT, Brian Battersby, Mark Bearton, Steve Dennison, Dave Felton, FrontCompVids, Paul Godding, Carl Grocott, Richard Hargreaves Dave Harris, Stuart Hillis, Keith Hookham, Richard Jones, Anton Kendall, Steve Madden, Phil Martin, Mike Morant, Chris Morrison, Gerald Nicholl, Chris Perkins, Mark Pichowicz, Andy Pratt, Gary Smith, Laurence Sly, Railwaymedia, Steamsounds, and Steve Thompson.

Welcome to Railtalk Magazine Xtra, which compliments the main Railtalk magazine and features photos and news items from around the

Well what a month it has been, I started June with another visit to the Czech Republic, where I am such a big fan of their railway system.

It just works(!) and I surprised the colleagues I was travelling with time after time, as connections that were held for late running inbound services and for trains that even during engineering work turned up as planned without delay. So many things that I have been complaining of in the UK. However fast forward to the beginning of July and as I write this the 'Tour de France' is taking place and to prove me wrong train companies can work together when they want to. A great example were the trains put in place for the TdeF

and the co-operation of DRS, DB Schenker, Northern, TPE and East Coast to provide an excellent service across the north of England. Proving that when we want to, we are capable of running a really good efficient service. Just why can't it always be that way??

Our from the UK this month features the Middleton Railway, which despite being really close to where I live was my first visit there.

And although it is a fairly short line it does have much to offer and is certainly worth a visit. I have to say a big thanks to all there for making our visit most enjoyable. Anyway 'till next month and as always keep sending in the photos. If you are going on holiday please don't

forget to take the camera.

Front Cover: Bulgarian narrow gauge No. 75-005 departs Velingrad with train No. R16104, the 09:20 Dobrinshte -Septemvri on May 11th. Mark Pichowicz

This Page: On Saturdays, Crossrail Benelux often send out a container train from the Antwerpen container terminal at Berendrecht to Hasselt, on Sundays it then continues further on to Germany via Aachen-West. Here we see such a train on May 24th on it's way to Hasselt



























































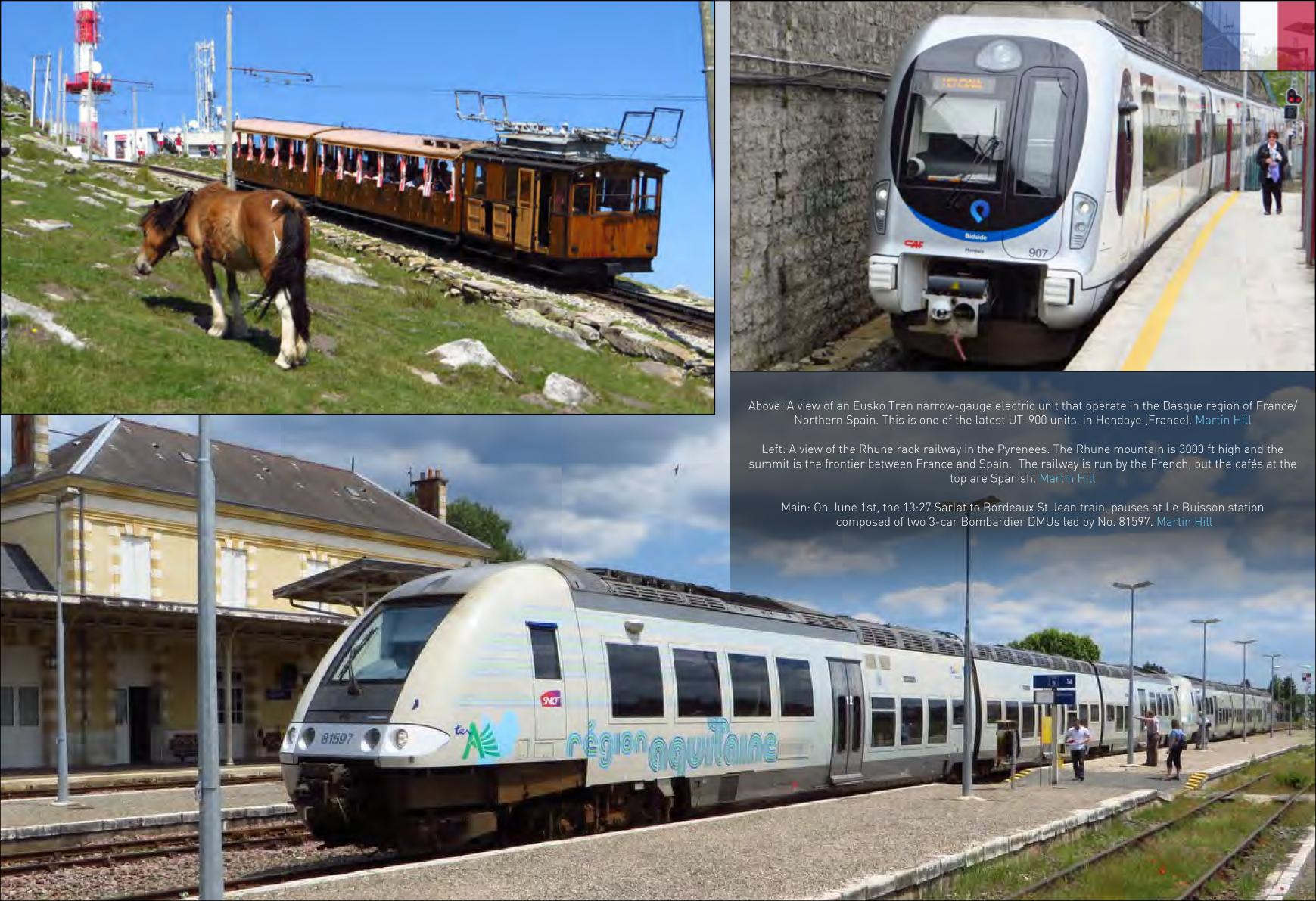




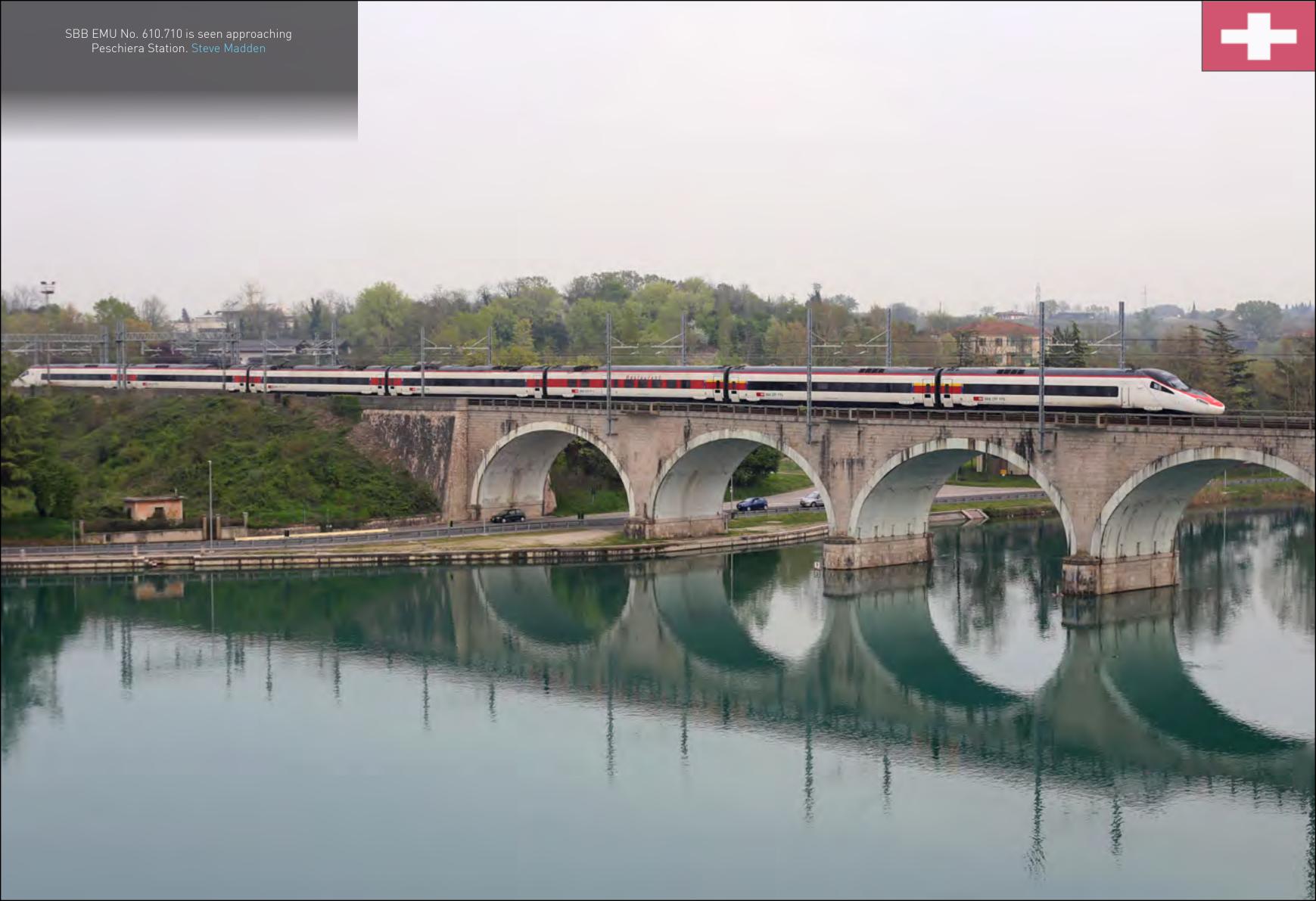






























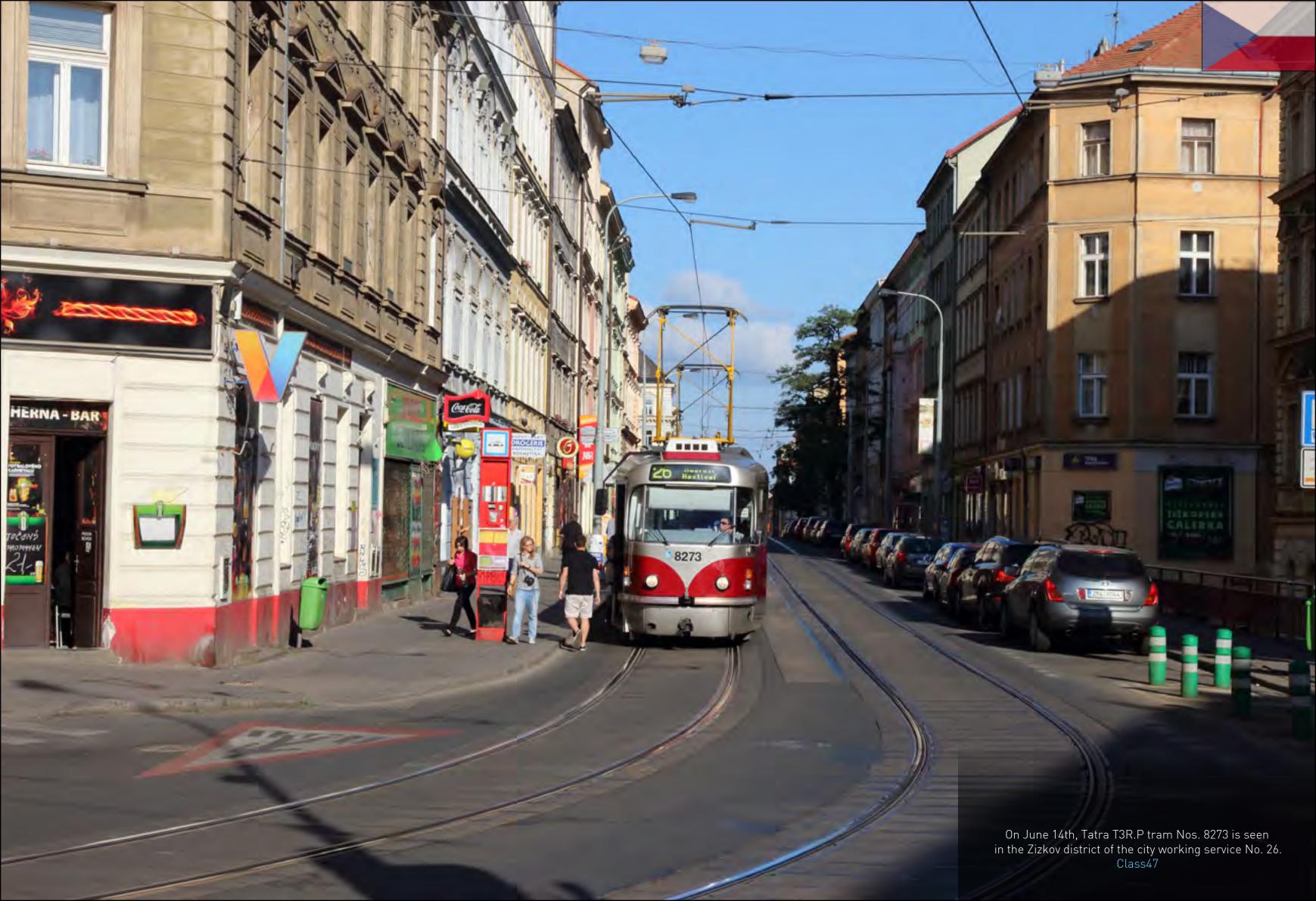














### Bombardier Unveils Its New High Comfort OMNEO Premium Train for Intercity Journeys

The premium version of the BOMBARDIER OMNEO double deck product platform A train for intercity travel at 200 km/h

Rail technology leader Bombardier Transportation has unveiled its high comfort OMNEO Premium train for intercity travel at 200 km/h. Inspired by French standards of luxury, the design and the quality of furnishing meet the expectations of both business and leisure passengers.

The spacious double-deck cars offer travellers an elegant interior design, in particular the highly comfortable, wide reclining seats with individual armrests, tablet, footrest, reading light and electric power supply. The self-regulating air conditioning system and the low noise and vibration levels contribute to a quiet atmosphere ideally suited for intercity services. Focusing on passenger comfort, the architecture of the train provides extra-wide cars of 3 m width while

storing the technical equipment on the roof to gain space and thus improve comfort in the passenger areas further. With its wide doors, the train offers level access from the platforms of every major train station. This train is equipped with a dedicated space for people with disabilities and offers a universally accessible toilet and an access ramp so passengers in wheelchairs can travel in full autonomy.

With a capacity of 400 to 475 seats, depending on the interior layout of its long version (110 m), the OMNEO Premium train operates at speeds up to 200 km/h. This Premium version benefits from the numerous advantages of a technical platform thanks to the Regio 2N version currently in the process of certification, which will be deployed widely in the French Regions. These advantages include delivery times, initial reliability and economies of scale for operation and maintenance costs.

The OMNEO product platform integrates BOMBARDIER ECO4 technologies such as the BOMBARDIER MITRAC permanent magnet motor which allow the highest level of energy efficiency.

"With the OMNEO Premium product, Bombardier goes beyond high comfort transportation and offers a new travel experience in tune with contemporary lifestyle demands," said Jean Bergé, President of Bombardier Transportation France. "As the Regio 2N, the first trains of the OMNEO product platform, start operating, the OMNEO Premium train will be a step ahead in terms of delivery times and reliability. Also, maintenance and operations costs will benefit substantially from the platform model."

### A look back at the NS 150 event, 25 years ago. Part 2

Continuing from last month, a look at the Dutch railway's NS150 event took place over a six week period 25 years ago running from the end of June 1989 until the first weekend in August. All text and photos: Mike Morant

Below: The famed line-up of NS motive power in 1989 plus 27000 'Elektra' and for British readers, note the Netherlands variant of the Class 08 shunter on the left.





Left: With no turning facilities in Utrecht and all steam locos required to face southwards for the loco parade, it was necessary to turn the odd loco when required for railtour duty, as most tours began northwards. This was done on a huge triangle, Utrecht - Woerden - Breukelen - Utrecht, and this photo is of Aurtrian kriegslok No. 52.3879 passing Marssenbroek on the third leg of its reversal.

Right: On July 31st, and with only about a week to go until the end of the event, a most unusual occurrence with two steam engines in the same location beyond the confines of Utrecht. At Zutphen, NS No. 3737 is seen slowly departing with the NS-150 Jubileumrit tour whilst the visiting SBB 2-10-0 No. 2978 is preparing to head in the direction of the works at Zwolle where its driving wheels would be re-profiled.





### A look back at the NS 150 event, 25 years ago. Part 2 continued

All text and photos: Mike Morant

Top Left: This was the only double header during the entire NS150 event. The special had originated in Cologne and was hauled as far as Emmen by DB 2-8-2 No. 41.306. The last leg, to Utrecht, utilised the SSN owned No. 41.105 of the same class. The location is close to Echteld but this vista no longer exists as the line now passes over the A15 road in the background. This was a super spot for photography because there was a permanent speed restriction just short of the bridge with a steep climb afterwards from almost a standing start. This special returned to Germany without the pilot engine.

Top Right: The 6 days per week loco parades were at the southern end of Utrecht, but the steam servicing facilities were quite a way north of the station which necessitated these sometimes spectacular cavalcades passing alongside the station. Fireless 0-4-0T leads BR No. 23, NS No. 3737, SBB No. 2978 and a CSD 4-8-2.

Bottom Left: A popular visitor on two occasions was the Belgium streamline Atlantic No. 12.004, depicted here near Meteren on the last leg of its journey from Antwerp to Utrecht.

Bottom Right: CSD Skoda built 4-8-2 No. 498.022 had the privilege of hauling the last NS150 main line special on August 3rd and is seen here at Moordrecht between Rotterdam and Gouda.









### **Alstom selected** for £250 million London Underground investment work

Alstom has been named as one of 17 companies that will be undertaking the modernisation of London Underground's high voltage electrical systems.

The suppliers have been chosen for two eight-year power upgrade 'frameworks' that run

concurrently for the

design, installation and commissioning of power networks. Once complete, the work will allow London Underground to run more services for customers more smoothly and more reliably.

The frameworks cover the design, installation and commissioning of high voltage substations, and 11kV and 22kV cable routing, and have a four-year break



### Alstom to supply the first turnkey tramway system in Qatar



Alstom, as part of a consortium, has been awarded a contract by Qatar Railways Company (QRAIL) to supply a turnkey tramway system for a 4-line tram network in Lusail, Qatar. The contract was signed in Paris, France in the presence of the Emir Sheikh Tamim Bin Hamad Al Thani, French President, François Hollande and Patrick Kron, Alstom Chairman & CEO. Alstom's share of the contract is around 750 million euros including options for 32 additional tramways.

The 4-line network will cross the city covering a distance of 33 km, including 7 km underground and 37 stations. The system is expected to enter commercial service from 2018.

Alstom will provide the city of Lusail with its fully integrated tramway system including the design, manufacturing, commissioning and servicing of 35 Citadis tramways, power supply equipment (substations, catenary and APS), signalling and trackworks.

The Citadis tram for Lusail will be 32 metres long. It will offer high-end comfort to passengers, thanks to enhanced communications with passenger information and security systems both at stations and on-board. The tramways will be fully low floor to enable easier access for all passengers.

« As of today, Alstom Transport has equipped more than 25 cities with tramway turnkey solutions. Lusail tram project confirms Company's expertise in all segments of the rail market. Lusail will also benefit from the proven experience of the Citadis tramway, an emblematic product in our range. This new order in the Middle-East demonstrates the

success of our global strategy and the strong links we have with the region. » said Henri Poupart-Lafarge, Alstom Transport President

The city of Lusail, located to the north of Doha, is the first city to launch a turnkey tramway system in Qatar. Lusail will be the second tramway system deployed in the Gulf countries by Alstom with APS technology. Technical adaptations have been made on the APS solution to enable catenary-free operation in extreme temperatures.

More than 1,800 Citadis tramsets have been sold to more than 40 cities in the world and are in operation since 2000. Citadis is environmentally-friendly and is up to 98% recyclable.

Several Alstom sites will be involved in the project including Le Creusot, Ornans, Tarbes and Villeurbanne in France.

Photo: © Sensse



### **Bombardier Enters ERTMS** Level 2 High Speed Rail Control Market in Spain



Bombardier is a key player in High Speed Corridor North-North West rail signalling upgrade

Advanced BOMBARDIER INTERFLO 450 system to be delivered on the high-speed line between Venta de Baños and Burgos

### Important reference adds to Bombardier's global high speed portfolio

Rail technology leader Bombardier Transportation has added a new European Rail Traffic Management System (ERTMS) Level 2 high speed reference to its portfolio with the award of the High Speed North-North West Corridor rail signalling upgrade contract in Spain. The project which includes the lines

Valladolid – León and Venta de Baños – Burgos is being delivered by a consortium led by Alstom that includes Bombardier and Indra. The order, awarded by Spain's Administrator of Railway Infrastructure (ADIF), has a total value of approximately 339 million euro (\$459 million US), with Bombardier's share valued at approximately 144 million euro (\$195 million US).

As a major consortium partner, Bombardier will implement its globally proven radio-based INTERFLO 450 ERTMS Level 2 system for the Venta de Baños - Burgos section. The system features the latest generation BOMBARDIER EBI Com radio block centre (RBC) and EBI Link balise technology as well as the advanced EBI Lock 950 computer-based interlocking (CBI), and EBI Track train detection systems. For both sections of line, Bombardier will supply fixed communications, CCTV and GSM-R technology. The contract will be delivered in 24 months and includes 20 years maintenance and two years warranty. Peter Cedervall, President, Division Rail Control Solutions, Bombardier Transportation, said: "This new contract marks Bombardier's entry into the ERTMS Level 2 market in Spain and adds an



excellent very high-speed project reference to our global portfolio. It is a major milestone for our presence in both the Spanish market and the European Union as a whole. We look forward to implementing our technology and delivering a successful system to our key customer ADIF, together with our partners Alstom and Indra."

Bombardier is leading the delivery on the first two contracts for the signalling upgrade on the Mediterranean Corridor: for Castellbisbal-Tarragona and Almussafes-Valencia-Castellón. Bombardier's ERTMS systems are installed on over 2,300 rail vehicles and more than 21,000 km of track. The cost saving INTERFLO 450 ERTMS Level 2 solution provides the highest speeds, safety and capacity, as well as outstanding reliability and reduced implementation and operational costs. INTERFLO 450 ERTMS Level 2 systems have been operating at very high speeds up to 350 km/h in China since 2009.



### Alstom is to supply 15 Citadis Dualis tram-trains to SNCF for a total of 80 million euros



Alstom will supply 15 Citadis Dualis for the Ile-de-France region after an SNCF exercise of option on behalf of STIF. This order, which is part of the framework agreement signed in 2007 on behalf of the French regions, amounts to a total of 80 million euros. The delivery of the 15 Citadis Dualis tram-trains will begin in the summer of 2016 for an expected commercial operation from July 2017, on the Epinay-sur-Seine and Le Bourget sections of the TLN line.

Designed to meet the need for increased fluidity between the urban and suburban transport networks, the Citadis Dualis is the link between the city centre and the suburbs without passenger interchange, balancing the benefits of train and tram. With a design based on Alstom's Citadis tramway, the Dualis features the core characteristics that created its success: modularity, accessibility, reliability. Dualis is equally capable of running on both tram and regional rail networks, through adaptations concerning the power, safety and comfort. This configuration makes it a versatile mode of transport: the tram gauge allowing inner-city transport, and its train performance enabling it to transport passengers to the outskirts at nearly 100 km/h without the need to change modes of transport. Citadis Dualis contributes to sustainable mobility, by revitalising urban spaces and enhancing the architectural heritage of the city.

To date, 48 Citadis Dualis tram-trains have already been made at Alstom's Valenciennes site: 24 for the Rhône-Alpes region in commercial service in western Lyon since 2012, and 24 trains for the Pays-de-la-Loire, in commercial service on the Nantes-Clisson and Nantes-Châteaubriant lines from June 2011 and February 2014 respectively. This first contract for the Ile-de-France region will also be completed at Valenciennes.

### Sleeper carriages for Azerbaijan



Stadler Rail has received an order for 30 sleeper and dining carriages from Azerbaijan Railways. This is its first sale in Azerbaijan and a further milestone in the strategy to tap into the CIS markets. The order is worth around CHF 120 million (including a comprehensive spare parts package and personnel training). The carriages will be used on the Baku–Tbilisi–Istanbul line. They will have gauge-changing bogies to allow non-stop services between Georgia and Turkey. The order covers five different carriage types with a high-quality interior. The carriages will be built at the Stadler works in Altenrhein.

Peter Spuhler, owner and CEO of Stadler Rail Group, is delighted about the order from Azerbaijan: "This order means we have gained a foothold in another CIS market. The development of new products and tapping into new markets are very important to us. This is the only way to ensure our Swiss plants will be working to capacity in the medium term." The European debt crisis, which started in late 2010, has meant a fall in orders received by Stadler Rail from the traditional Western European markets. In reaction to this, one of the company's various strategic objectives is to tap into new markets in the CIS. The order for Aeroexpress double-decker multiple-unit trains to connect Moscow city centre with three major airports was an important milestone in 2013.



#### Changing gauges from east to west

Thanks to specialist gauge-changing bogies, the carriages can be used both in the CIS (broad-gauge: 1,520 mm) and on European standard tracks (1,435 mm). The plan is to set up a gauge-changing system in the Georgian town of Akhalkalaki near the Turkish border to allow efficient use of the trains on the international Baku-Tbilisi-Kars-Istanbul line. The bogies are fitted with RAFIL/DBAG type V gauge-changing wheelsets, which are compatible with other gauge-changing systems along the CIS borders. This means the same systems can be used. The carriages comply with the European clearance profile in accordance with UIC. In addition to the trains, which are to be supplied between mid-2016 and mid-2017, the contract also includes a comprehensive spare parts package and training for train and maintenance personnel. There is also an option for an additional 70 sleeper carriages

#### High degree of travel comfort

Azerbaijan Railways will use the 30 carriages to form sets of 10-carriage trains. The order comprises 27 sleeper carriages and 3 dining carriages. The sleeper carriages include 3 first-class carriages (16 beds, each compartment has its own wet room with toilet and shower), 18 second-class carriages (34 beds, one toilet, one shower), 3 first-/second-class carriages (20 beds, wet rooms in first-class compartments and family compartments) and 3 special carriages (with a more spacious compartment for those with restricted mobility, four second-class compartments with 16 beds and a compartment for the train manager). The three dining carriages have 28 seats each. This means a 10-carriage train will normally have 257 beds. Each carriage has vacuum toilets with a sealed system and an emergency power supply with generator to allow 24-hour operation. All carriages are fully air-conditioned with a redundant air-conditioning system.



### **ISTANBUL METRO AWARDED to CAF**



The Istanbul Metro has awarded Mitsubishi Corporation and CAF (car builder) a new project to supply Metro Cars to this city. Negotiations extended for several months but were concluded recently with the signing of the Contract.

The contract price is 119m euros and comprises delivery of 21 trains made of 6 cars each (126 cars in total) which will run in Driverless mode on the UU Line of the city's metro network.

With a population of more than 12 million, the city of Istanbul inaugurated the first metropolitan transit system line in 2000. Indeed, in year 2009 this Operator awarded CAF the supply of 30 Metro Units which are able to carry up to 1300 passengers. These cars were meant for the Kadikoy-Kartal line which had been recently inaugurated on the Asian side of the city.

In addition to these contracts, CAF has developed other projects in this country which are worth mentioning: supply of 12 High Speed Units for the line that links Ankara and Istanbul, the two main Turkish cities; supply of 14 Trams for the coastal town of Antalya in late 2009; and supply of 33 Suburban Units for the city of Izmir, which were delivered in 2010.

This new project adds to CAF's three contracts signed to date in Turkey, for a total turnover in excess of 600m euros. Besides, CAF's operations in this country cover virtually all types of products required by railway operators, reinforcing a fully comprehensive and competitive range of products.

### Bombardier Signs Framework Agreement with Railpool for 65 TRAXX Locomotives and Upgrade of Existing Fleet

Total potential contract value of up to approximately 250 million euro Delivery of locomotives with bigger radius scheduled for 2015 and 2016

Rail technology leader Bombardier Transportation and the leasing company Railpool have signed a framework agreement for the delivery of 65 BOMBARDIER TRAXX locomotives, with a first call-off of 35 locomotives and an option of up to 30 additional locomotives. The total potential contract value is up to 250 million euro (340 million US). The value of the call-off based on the list price is approximately 135 million euro (184 million US).

This contract extends the operating range of the TRAXX locomotives: The MS locomotive will operate on the new East-West corridor linking Poland with the Netherlands. The AC locomotive will operate not only in Germany, Switzerland and Austria but also in Hungary and Romania and will be newly equipped with ETCS (European Train

Control System) and Last Mile functionality. The last mile feature, an additional diesel-electric engine plus battery, enables AC locomotives to operate even in non-electrified areas such as terminals, stations or ports – changing locomotives for the non-electrified last mile is now a thing of the past.

"With this contract we continue our successful partnership with Bombardier and are able to offer our customers the proven TRAXX locomotives concept. Furthermore, we are developing with Bombardier new corridors and are upgrading our existing fleet with new safety systems, to follow our customers' demands as a reliable partner for the future", said Torsten Lehnert, CEO at Railpool. "These innovative locomotives will facilitate rail operation on new, international corridors. They also allow for a much longer range and for more flexibility in operation than ever before," added Ulrich Jochem, President Locomotives, Bombardier Transportation.

The locomotives are designed for speeds of up to 160 km/h. Bombardier will assemble the locomotives in Kassel, Germany, carbodies at its Wroclaw site in Poland and bogies in Siegen, Germany. Propulsion and controls as well as ATP (Automatic Train Protection) equipment will be manufactured at Bombardier's sites in Mannheim and Hennigsdorf, Germany, and Västeras, Sweden. The locomotives are powered by BOMBARDIER MITRAC traction converters offering unmatched reliability. The sophisticated MITRAC control system offers safe and energy efficient traction power for sustainable mobility. MITRAC equipment drives more than 3,000 locomotives globally.



### Alstom unveils its new main-line train, the Coradia Liner V200

On June 11th, Alstom introduced the Coradia Liner V200, its latest, innovative main-line train, at the European Mobility Exhibition for Public Transport at the Parc des Expositions in Paris.

Designed to renew the pleasure of travelling on major European lines as well as to replace the Intercity rolling stock currently being used on French "Main lines", the Coradia Liner is a concentration of the technology created during of over 30 years' experience in high-speed rail.

Electric or dual-mode (electric and thermal), equipped with ERTMS technology and consistent with European standards, the Coradia Liner can run on all conventional rail networks. It can reach speeds of 200 km/h and accommodate up to 900 passengers.



The Coradia Liner meets operators' needs in terms of performance and maintainability whilst offering travellers an unparalleled level of service and comfort. It is designed to be accessible to all thanks to the platform-height double doors and its low floor. The Coradia Liner is 100% consistent with STI PMR4 standards.

Particularly suitable for longer trips, it offers unprecedented comfort with its reclining seats equipped with electrical sockets and reading lights, and its service areas – children's play area, restaurant/bar & hospitality areas. Particular attention has been paid to acoustic comfort. To improve the fluidity of movement on-board, the hospitality and travel areas are spacious, with wide corridors.

Also designed for operators, the Coradia Liner has a distributed traction system, over the entire train, providing outstanding acceleration and braking, allowing greater coverage of the national territory without increasing travel time. Being lighter, its consumption is 30% less than that of the current Corail and has become the national and European eco-mobility train. Its architecture makes for easy maintenance.

The Coradia Liner V200 design is based on the modular Coradia trains, with the ensuing benefits of over 30 years of operational experience in Europe: more than 3,000 Coradia are currently operating and have travelled more than 4 billion km in Germany (Coradia Lint and Continental), Denmark, Spain, France (Coradia Polyvalent and Coradia Duplex ZTER - 200Km/h), Italy (Coradia Meridian), Luxembourg (Coradia Duplex, the Netherlands (Coradia Lint), Portugal (Tagus Coradia DD) and Sweden (Coradia Duplex X40 - 200km/h).

Six of the eleven Alstom sites in France have participated in the Coradia Liner project: Reichshoffen for the design and assembly, Ornans for the motors, Le Creusot for the bogies, Tarbes for the traction chains, Villeurbanne for the on-board computer system and Saint-Ouen for the design. This project has contributed to the perpetuation of more than 4000 jobs both within Alstom and across the French rail sector



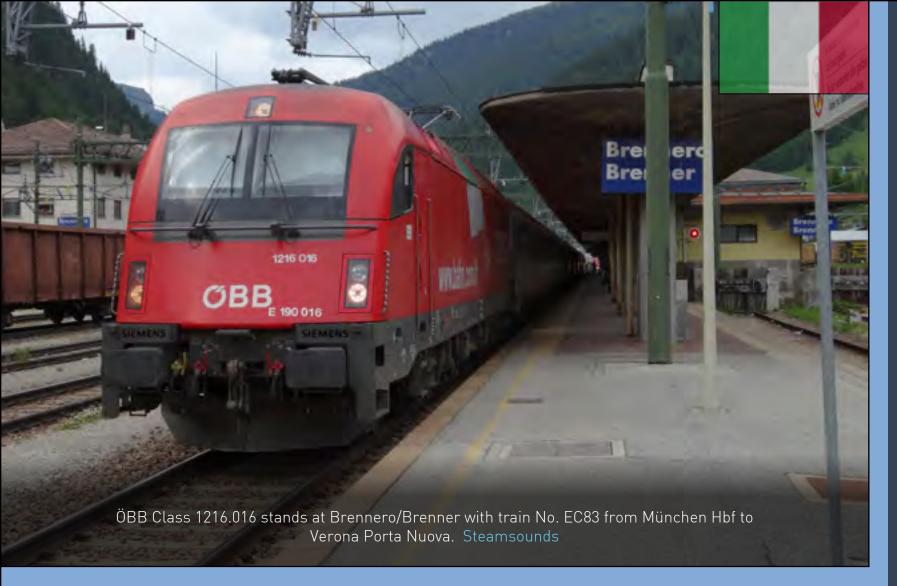
### CAF WINS EUSKOTREN'S CONTRACT TO MANUFACTURE 28 NEW TRAINS



Euskotren has awarded CAF with the manufacture of 28 new units for 150m euros expected to run on Line 3 of Bilbao Metro. This line is currently being built and will contribute to Euskotren's current modernization process with the replacement of the oldest Units of Series 200 and 300.

The New Units will feature cutting-edge technological innovations in the railway industry as regards technology, reliability, sustainability and ergonomics, coupled with a design similar to Series 900 which embodies state-of-the-art design.

The New Units are scheduled for delivery to Euskotren from 2015 to 2020, with the first units being ready for operation in late 2016, when Metro Line 3 is expected to start revenue service between the town of Etxebarri and the Matiko District in Bilbao.



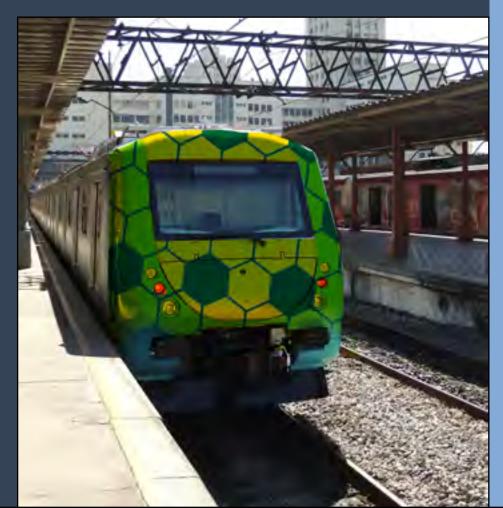
### Sixth train manufactured by Alstom to SuperVia starts operation



In mid June, the sixth train manufactured by Alstom for SuperVia started operating. The news, this time, is that the train has a sticker with green and yellow soccer ball, in commemoration of the World Cup.

The new train, as the other trains included in this project, has innovative design, air conditioning, internal passage between cars, a system that does not allow the opening of doors during the trips, an internal camera circuit and LED panels.

This month, the company also delivered the seventh train which may start operating in July, and started the tests for the next ones. By September of 2014, 80 new cars will be delivered.



### 38 FLIRT trains in operation in Estonia: Number of passengers increased by 45%

Stadler Rail Group has successfully delivered the last FLIRT train out of the fleet of 38 units to Estonian railway operator Elron. The two companies signed the delivery and leasing contracts in 2010, and managed to close the project successfully with an early delivery of altogether 240 train-days. Stadler and Elron managed to close the project within the agreed deadlines. With this procurement Elron changed its whole passenger train fleet, and the improved service quality has already led to an average 45% increase in the number of passengers in Estonia. Elron (at that time Elektriraudtee) issued the public procurement back in 2009 separately for the purchase of 18 electric (EMU) and 20 diesel (DMU) multiple units. The procurement ended successfully with the victory of Stadler, the contracts were signed in August 2010. Elron ordered altogether 12 three-car and 6 four-car EMUs, as well as 6 two-car, 8 three-car and 6 four-car DMUs from Stadler, which is the largest passenger train fleet acquired in the history of independent Estonia.

### Operational experiences

Elron put the first electric unit in July 2013 and the first diesel train in January 2014 into operation. With this project the company changed its whole rolling stock, by which the average age of the fleet is close to zero. Since the launch of the service, the new trains have altogether run 1.200.000 kilometres on the Estonian railway network, and provided a service of approximately 5 million trips for passengers. The trains have proved to be reliable, as availability of the units is constantly around 99.5 percent. The outstanding service of Elron has been proven by the constantly growing number of passengers, which have increased by 60 percent on the electric lines, and 15 percent on the diesel lines, totalling to an average of 50 percent. The financial status of Elron improves not only due to the growing number of passengers, but also the decreasing operational costs.

Due to the weight loss of the trains the charges for the railway network access decreased for Elron too. In case of the diesel units, the more efficient use of energy guarantees around 30% fuel savings, while the electric units bring also significant savings by feeding the braking energy back to the power grid. All these saving enabled Elron to raise the service frequency by 56%, and at the same time maintaining the previous cost levels.

#### About the FLIRT

The electric and diesel FLIRT trains designed for Elron with their 3500 mm wide carbodies are among the widest passenger trains in the European Union. Elron's DMUs are the first diesel FLIRTs produced in the history of Stadler, and are one of the first diesel trains in Europe where supercapacitors are used for the sake of increased acceleration and greater energy savings. The broad gauge (1520 mm) trains have been designed and manufactured to easily endure the harsh weather conditions typical in Estonia, which expertise Stadler gained through its earlier deliveries to Finland and Norway. Due to the lightweight aluminium structure and the modern energy saving system, the new trains also mean a great cost-saving for the operator.

The electric trains have a top speed of 160 km/h, coupled with an accelerating ability of 1.2 m/s which is a remarkable value in this train segment. The diesel trains also have outstanding accelerating abilities of 0.85m/s2 with a top speed of 160 km/h as well. The high top speed and the admirable accelerating make the drivers capable to catch up even significant leeways between two stops. The driver's cabin received an ergonomic and modern design, which significantly improves the current working conditions of the drivers, and thanks to modern control system, the safe control of the trains is possible with a staff of only one person.





### A new railjet connection between Graz, Vienna and Prague.

On June 6th, ÖBB and the Czech railway (CD) presented the blue railjet at Vienna Central Station and at Wien Prater. OBB Facebook fans had the exclusive opportunity to visit the new train.

As of December 14th, ÖBB and CD will offer a new railjet connection between Austria and the Czech Republic. The cities of Graz, Wr. Neustadt, Vienna, Brno and Prague are then connected in a two-hour clock face timetable with this premium train. This gives the two biggest cities in Austria and the Czech Republic comfortable direct connection with shorter travel time - this will shorten the journey between Vienna and Prague in December by about 38 minutes to 4h 11min.

"The new railjet connection to Prague is the most important international long distance transport project for the coming year for ÖBB. Where we use the railjet, we recorded passenger growth. This success story we want to continue with Czech Railways, "said Birgit Wagner, member of the executive board of ÖBB-passenger AG.

As early as June 15th, two blue CD railjets are operating the EuroCity connection between Wr. Neustadt, Wien Meidling, Brno and Prague. Passengers of the EuroCity trains Nos. 72, 73, 74 and 75 between Vienna and Prague therefore benefit already from a summer of comfort in railjets.

### The same service in CD railjets

Purchased by CD and produced by Siemens, railjets have seven cars the same as ÖBB railjets. CD railjets will offer the same comfort, ÖBB customers from railjet are used to. All railjets are equipped with on-board restaurants. Each car of the railjet is equipped with a clear overview passenger information system. Modern screens inform about the current travel speed, the driving history via digital maps, the current location and the respective distance to the destination. An electronic reservation display makes it easy to find the seats.



# Alstom and Russian Railways sign an agreement to develop infrastructure projects

Henri Poupart-Lafarge, President of Alstom Transport, and Sergey Pavlov, General Director of Russian Railways (RZD) signed a MoU (Memorandum of Understanding) to conduct railway projects on the international market using their joint expertise.

The MoU includes cooperation in the field of technical consulting services, management of infrastructure projects, design of modern infrastructure facilities, quality assurance and quality control of construction works, exchange of know how and cutting edge technologies.

"The unique expertise of RZD International in the construction and service of railway infrastructure in different geological and climatic conditions, coupled with Alstom's cutting edge infrastructure design and technologies, will allow us to bring the best of global practices to our customers worldwide," said Henri Poupart-Lafarge.

RZD International is currently carrying out a major project for the modernization of railway infrastructure in Serbia, and is targeting the infrastructure market in South and Central America, Africa and Southeast Asia.

### Stadler targets new markets

Stadler Rail received orders to the value of CHF 2.6 billion in 2013, which was back at previous years' levels after a dip in 2012 (CHF 0.7 billion). However, the gaps from the previous year could not be filled completely. This means the Swiss plants' workload is still insufficient as of mid-2015. The SBB order for the NEAT trains (CHF 980 million), which is currently blocked because of competitor objections, would help improve workload in the medium term. Full order books from the years 2008 to 2010 helped to achieve a turnover of CHF 2.5 billion in 2013. Stadler is now targeting new markets and new sectors because of the European debt crisis and shifts in the values of currencies. Some initial success has been achieved. A series of important orders from Central and Eastern Europe have been placed.

Stadler Rail reacted quickly to the European debt crisis by adapting its strategy in 2011. It was time to broach the "long-distance traffic with up to 250 km/h" and "underground" sectors. The company has now succeeded in doing both. Two years ago, Stadler Rail won its first underground order for Berlin, and it received a first order for up to 250 km/h a month ago. Its objective of tapping into new markets in the CIS and Arab world was also defined. The order from Russian rail operator Aeroexpress for 25 KISS double-decker multiple-unit trains (worth EUR 380 million) was an important milestone for the company in 2013. These trains will operate on the commuter railway lines running between Moscow city centre and the three airports.

### Growth in Central and Eastern Europe

The Aeroexpress trains will largely be built in the new Stadler factory in Minsk. Various components are produced in Switzerland. While the first four trains are currently being built in Altenrhein, production of the fifth train has already begun in Minsk, where the company has completed work on the construction of a high-performance, state-of-the-art factory. This location is ideal to tap into the markets in the CIS. The customs union between Russia, Belarus and Kazakhstan means that these markets can be served from Minsk without customs restrictions.

Further important contracts from Central Europe were won in 2013 and early 2014. In August, Stadler Rail, working in a consortium with Polish rail vehicle manufacturer Newag, won an international invitation to tender from Polish State Railways PKP Intercity for 20 long-distance trains. The contract relates to eight-carriage FLIRT3 trains with a high-quality interior to allow comfortable long-distance travel. Based on the FLIRT, which has sold over 960 units over the past 10 years, Stadler has developed the next generation, FLIRT3. This latest range of trains is made up of various modular sub-ranges.

Hungarian State Railways MÁV and the Austrian-Hungarian

private railway company GySEV ordered 48 FLIRTs. This takes the number of Stadler FLIRTs in Hungary to over 100. The fact that MÁV ordered another



42 trains after having 60 in service for several years is just one of many new orders evidencing high levels of customer satisfaction.

Serbian Railways ZS ordered 21 FLIRT3 trains for commuter rail services in the Belgrade region. The order is being financed by the European Bank for Reconstruction and Development (EBRD) in London.

An order for 30 sleeper and dining carriages was received from Azerbaijan Railways. This is another milestone in terms of tapping into the CIS markets. The carriages will be used on the Baku–Tbilisi–Istanbul line.

#### On-time deliveries

Last year, Stadler once again successfully delivered around 250 high-quality trains and trams on schedule. The company is thus underlining its claim to be one of the world leaders in terms of punctuality, vehicle reliability and innovation. The biggest success story comes from Norway. Stadler Rail delivered its 50th FLIRT multiple-unit train to Norwegian State Railways (NSB) in January 2014, right on schedule. All trains were accepted successfully and on time. The approval process by the Norwegian authorities was completed without any problems. In 2008, NSB ordered 50 of these 200 km/h FLIRTs (24 intercity FLIRTs and 26 trains for the Oslo commuter railway system) from Stadler, and the first train left the halls in Bussnang just 24 months later. This is a potentially record-breaking achievement for a completely new design of vehicle. NSB has since ordered a further 20 trains, which Stadler is currently in the process of constructing.

#### Reinforcing the service business

In early 2014, Stadler also reinforced its growing service sector. Maintenance work has been consolidated in a new subsidiary company. Last year, thanks to new contracts signed in Switzerland, Poland and Sweden and the takeover of the Voith subsidiary Voith Rail Services in the Netherlands, the company succeeded in further expanding its service sector. As an example, Stadler Rail has received a contract from BLS for spare parts management for the new MUTZ double-decker multiple-unit trains (KISS type). This involves Stadler taking over the storage and delivery of all spare parts for the customer.

As well as maintaining a range of fleets, Stadler Rail also offers comprehensive services and revisions, ranging from minor service work by mobile teams on sub-systems or vehicles to major conversions or extensive repairs to vehicles severely damaged in accidents. The company still sees real potential in this sector. The Stadler service company currently has sites in Switzerland, Hungary, Algeria, Austria, Italy, Poland, Sweden and the Netherlands.

# Bombardier Wins Fleet Maintenance Contract with Virgin Trains for West Coast Franchise

Contract builds on successful relationship with Virgin to extend maintenance of Voyager fleet operating on West Coast to March 2019

In addition to its renowned new-build train manufacturing factory based in Derby,
Bombardier Transportation has around 1,600 service employees

based at 23 customer locations and sites around the UK. They are involved in supporting train operators across the country in delivering maintenance and upgrades which ensure optimum reliability, efficiency, and longevity for their fleets.

Peter Broadley, Commercial Operations Director, Virgin Trains, said: "We are delighted to be extending



Rail technology leader Bombardier Transportation has signed a contract with Virgin Trains to extend the provision of maintenance of its Super Voyager fleet operating on the UK's West Coast main line to March 2019. The contract is valued at approximately £103 million GBP (129 million euro, \$175 million US).

Following the decision by the Department for Transport in the UK to extend the agreement with Virgin Trains for their operation of the West Coast franchise, Bombardier has signed a contract with Virgin to provide the ongoing maintenance of its Voyager fleet until 2019.

The 20 Bombardier Super Voyager trains form an integral part of Virgin's West Coast fleet. Bombardier currently maintains the fleet from its dedicated Central Rivers depot in Burton on Trent, Staffordshire, which employs approximately 340 people, as well as other outstations across the network. Under the train service agreement signed with Virgin, Bombardier supports the fleet on a 24 hours per day, 365 days per year basis.

our partnership with Bombardier, enabling the continuation of many years of successful fleet performance. Clean, reliable and comfortable trains are crucial to delivering the amazing experience our customers expect and Bombardier are critical suppliers in delivering this. We look forward to working with Bombardier to continue to grow passenger numbers and customer satisfaction over the coming years on the West Coast."

Des McKeon, Commercial Director UK, Bombardier Transportation, added: "The further extension of this key contract endorses yet again the strong relationship that we have built with our customer, Virgin Trains. By the end of this extension we will have been successfully maintaining their trains for nearly 20 years, delivering excellent performance of the Voyager fleet on the prestigious West Coast route."



## DB Schenker Rail expands transport services to Turkey

In June 2014, DB Schenker Rail expanded its transport services to Turkey, a growth market, and now offers a new traffic connection between Cologne, Germany and Cerkezköy in Turkey. The train connection will start off with one round trip per week and is planned to increase to three per week by the end of the year if required. The trains, which are equipped with special double pocket wagons for the transport of semi-trailers, take five to six days per trip. DB Schenker Rail began offering rail services from Germany southbound towards Turkey with its Bosporus Shuttle in September 2013.

The new transport connection has been set up for the Turkish freight forwarder Ulusoy Logistics, which transferred its existing traffic from road to rail. Prior to the switch, the transport connection was operated via ferry and truck between Western Europe and Turkey.

"Our new rail product is the first rail connection that is able to transport semi-trailers directly to their destination in Turkey, 40 kilometres outside of Istanbul.

Up to now, this procedure was only possible with containers by rail", commented Andreas Schulz, Head of the Intermodal Industry Sector at DB Schenker Rail.

The transport services are provided internally by DB Schenker Rail's national companies in Germany, Hungary, Romania and Bulgaria. In Austria, DB Schenker Rail has a partnership with Lokomotion and works together with the Turkish national rail company, TCDD, in Turkey. "With our national companies, we already have a strong DB Schenker Rail presence in south east Europe today.

Looking at Turkey's position as a growth market, this is a clear advantage that we want to continue to develop in the future", said Hans-Georg Werner, Head of Region East in the DB Schenker Rail Management Board.

Besides the transport handling via rail, DB Schenker also offers terminal and agency services in Germany and Turkey. In addition, a simplified customs procedure is used to significantly reduce the layover time at the Turkish border.

























